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610-929-3601

December 4, 2017

VIA HAND DELIVERY

Rosemary Chiavetta, Secretary Pennsylvania Public Utility Commission Commonwealth Keystone Building 400 North Street, 2nd Floor Harrisburg, PA 17120

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Dear Secretary Chiavetta:

Enclosed for filing is the Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company (collectively, the "Companies") for Approval of Their Default Service Programs and accompanying Direct Testimony and Exhibits. In addition, enclosed please find a CD containing the filing in PDF format.

The Companies respectfully request that notice of this filing and a deadline for intervention be published in the December 16, 2017 issue of the *Pennsylvania Bulletin*.

Copies have been served on the parties in the manner indicated, as shown on the attached Certificate of Service.

Please feel free to contact me if you have any questions.

Sincerely,

Tori L. Giesler

Enclosures

c: As Per Certificate of Service

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

JOINT PETITION OF METROPOLITAN

EDISON COMPANY, PENNSYLVANIA : DOCKET NOS.

ELECTRIC COMPANY, PENNSYLVANIA : POWER COMPANY AND WEST PENN :

POWER COMPANY FOR APPROVAL OF :

THEIR DEFAULT SERVICE PROGRAMS

CERTIFICATE OF SERVICE

I hereby certify and affirm that I have this day served a copy of the Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for Approval of Their Default Service Programs on the following persons in the matter specified in accordance with the requirements of 52 Pa. Code § 1.54:

VIA FIRST CLASS MAIL (Hard Copy and CD)

Tanya J. McCloskey John Evans

Acting Consumer Advocate

Office of Small Business Advocate

Office of Consumer Advocate

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Richard Kanaskie Charis Mincavage

Director Susan East Bruce
Bureau of Investigation & Enforcement Vasiliki Karandrikas

Pennsylvania Public Utility Commission McNees, Wallace & Nurick, LLC

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and WPPII

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VIA FIRST CLASS MAIL ELECTRIC GENERATION SUPPLIERS (CD only)

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Achieve Energy Solutions, LLC 4550 Lena Drive Mechanicsburg, PA 17055

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AEP Energy Inc. 225 West Wacker Drive, Suite 700 Chicago, IL 60606

Affinity Energy Management, LLC 220 Cherry Blossom Place Hockessin, DE 19707

Aggressive Energy, LLC 78 Rapelye Street Brooklyn, NY 11231

Agway Energy Services, LLC P.O. Box 4819 Syracuse, NY 13221-4819

Alpha Gas & Electric, LLC 971 Route 45, Suite 202 Pomona, NY 10970

Alternative Esco, LLC 3510 Butler Street Pittsburgh, PA 15201

Ambit Northeast, LLC d/b/a Ambit Energy 1801 North Lamar Street, Suite 600 Dallas, TX 75202

Amerex Brokers, LLC 1 Sugar Creek Center Blvd, Suite 700 Sugar Land, TX 77478 Acclaim Energy Advisors Two Riverway, Suite 800 Houston, TX 77056

ADL High Voltage, Inc. P.O. Box 1569 Keller, TX 76244

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Affiliated Power Purchasers International, LLC 2013 Northwood Drive, Suite 1 Salisbury, MD 21801

Agera Energy LLC 555 Pleasantville Road, Suite 107-S Briarcliff Manor, NY 10510

AGR Group Nevada LLC 6275 South Pearl Street Las Vegas, NV 89120

Allegheny Energy Supply Co., LLC 341 White Pond Drive Akron, OH 44320

Amerigreen Energy, Inc. 1650 Manheim Pike, Suite 201 Lancaster, PA 17601

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America Approved Commercial, LLC 13451 McGregor Blvd, Unit 29 Fort Myers, FL 33919

American Power & Gas of Pennsylvania, LLC 10601 Belcher Road South Seminole, FL 33777

AOBA Alliance, Inc 1025 Connecticut Avenue, NW, Suite 1005 Washington, DC 20036

APN Starfirst, LP 45 Commerce Drive Wyomissing, PA 19610

ARM Energy Management, LLC 300 Weyman Road, Suite 480 Pittsburgh, PA 15236

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AvidXchange, Inc. 1210 AvidXchange Lane Charlotte, NC 28206

Astral Energy LLC 580 Sylvan Avenue, Suite 2J Englewood Cliffs, NJ 07632

Avalon Energy Services, LLC P.O. Box 220 Galena, MD 20814

Bargain Energy, LLC 4203 Montrose Boulevard, Suite 110 Houston, TX 77006

Better Cost Control d/b/a Ardor Energy 2274 Washington Street Newton, MA 02462

BidURenergy 4455 Genesee Street, Building 6 Buffalo, NY 14225

Black Diamond Energy Consultants, Inc. 246 South Oak Street
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AP Gas & Electric (PA), LLC d/b/a APG&E 6161 Savoy Drive, Suite 500 Houston, TX 77036

Applied Energy Partners, LLC 40 Lloyd Avenue, Suite 205 Malvern, PA 19355

ArcelorMittal USA, LLC 3300 Dickey Road East Chicago, IN 46312

Avion Energy Group 1475 Buford Drive, Suite 403-186 Lawrenceville, GA 30043

Atlantic Energy MD, LLC, d/b/a Atlantic Energy 4709 30th Street, Suite 401 Long Island City, NY 11101

Axiom Retail Energy, LLC d/b/a SearchForEnergy, LL 4203 Montrose Blvd, Suite 650 Houston, TX 77006

Berkshire Energy Partners, LLC 9 Berkshire Road Landenberg, PA 19350

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Capital Energy PA LLC 470 Olde Worthington Road, Suite 140 Westerville, OH 43082

Charity+Power, Inc. 2801 Belden Drive Los Angeles, CA 90068

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Comverge, Inc. 415 McFarlan Road, Suite 201 Kennett Square, PA 19348

Concord Engineering Group, Inc. 520 South Burnt Mill Road Voorhees, NJ 08043

ConocoPhillips Company 600 N. Dairy-Ashford Drive, Suite CH-1012D Houston, TX 77079

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Constellation NewEnergy, Inc. 100 Constellation Way, Suite 600C Baltimore, MD 21202

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CQI Associates, LLC 10729-B Birmingham Way Woodstock, MD 21063

Customer Acquisition Specialists of America, Inc. 1315 Cleveland Street Clearwater, FL 33755

Delta Energy Services LLC 5555 Perimeter Drive Dublin, OH 43017

Destination Energy, LLC 309 N. Oak Street Roanoke, TX 76262

Direct Energy Business Marketing LLC 1001 Liberty Avenue, Suite 1200 Pittsburgh, PA 15222 Community Energy, Inc. 201 King of Prussia Road Radnor, PA 19087

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Constellation Energy Services, Inc. 20 North Wacker Drive, Suite 2100 Chicago, IL 60606

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Current Choice, Inc. 46 Munroe Road Lexington, MA 02421

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Discount Power, Inc. 6 Armstrong Road Shelton, CT 06484

Direct Energy 985 Berkshire Boulevard Wyomissing, PA 19609

Diversegy, LLC 520 Broad Street Newark, NJ 07102

Edge Insight, Inc. 3 Park Plaza Wyomissing, PA 19610

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ENGIE Retail, LLC d/b/a Think Energy 1990 Post Oak Boulevard, Suite 1900 Houston, TX 77056 Energy Choice Solutions LLC d/b/a EnergyWize LLC 15455 Dallas Parkway, Suite 1400 Addison, TX 75001

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ENGIE Resources, LLC 1990 Post Oak Boulevard, Suite 1900 Houston, TX 77056

Entrust Energy East, Inc. 1301 McKinney, Suite 1200 Houston, TX 77010 Everyday Energy, LLC d/b/a Energy Rewards 535 Connecticut Avenue, 6th Floor Norwalk, CT 06854

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Freepoint Energy Solutions, LLC 58 Commerce Road Stamford, CT 06902

Gateway Energy Services Corporation 12 Greenway Plaza, Suite 205 Houston, TX 77046

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Goldstar Energy Group, Inc. 5429 Harding Hwy, Bldg. 500 Mays Landing, NJ 08330

Great American Power, LLC 2959 Cherokee Street, Suite 202 Kennesaw, GA 30144

HealthTrust Purchasing Group, LP 155 Franklin Road, Suite 400 Brentwood, TN 37027

Gulf Stream Energy Consultants, LLC 1225 South Myrtle Avenue Clearwater, FL 33756 Evolution Energy Partners, LLC 102 Pickering Way, Suite 508 Exton, PA 19341

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Front Line Power Solutions, LLC 150 Grand Street White Plains, NY 10601

Greencrown Energy, LLC 229 Main Street Belleville, NJ 07109

Grid Energy, LLC d/b/a Distributed Grid 557 North 5th Street Philadelphia, PA 19123

Global Vision Energy, LLC 1738 Creekview Drive Fogelsville, PA 18051

Good Energy, L.P. 232 Madison Avenue, 3rd Floor New York, NY 10016

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Groundswell of PA 1156 15th Street, NW, Suite 840 Washington, DC 20005

H.P. Technologies, Inc. 33648 St. Francis Drive Avon, OH 44011

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HIKO Energy, LLC 12 College Road Monsey, NY 10952

Hudson Energy Services, LLC 6345 Dixie Road, Suite 200 Mississauga, ON L5T 2E6

IDT Energy, Inc. 550 Broad Street Newark, NJ 07102

Independence Energy Group, LLC d/b/a Cirro Energy 3711 Market Street, Suite 1000 Philadelphia, PA 19104

Insight Energy, LLC 11207 Rosewood Leawood, KS 66211

Inspire Energy Holdings, LLC 30 South 15th Street, Suite 1400 Philadelphia, PA 19120

Intelligen Resources, LP 403 Koldin Drive Aledo, TX 76008

Ioway Energy, LLC 9300 W. 110th St., Suite 235 Overland Park, KS 66210

J.J. Jasmahn, Ltd d/b/a Jasmahn Energy 7107 Azalea Dallas, TX 75230

Kevin J. Cobb & Associates d/b/a Quest Energy Solutions 203 Southbridge Street Auburn, MA 01501 Health Resource Network, Inc. d/b/a HRNEnergy 201 Columbia Turnpike, Suite D Florham Park, NJ 07932

Hovey Energy, LLC 400 North Lincoln Avenue, 2nd Floor Chicago, IL 60618

I.C. Thomasson Associates, Inc. 2950 Kraft Drive, Suite 500 Nashville, TN 37204

Incite Energy, LLC 20 East Greenway Plaza, Suite 400 Houston, TX 77046

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Integrity Comm. of OH, LLC d/b/a Integrity Energy 3711 Grant Avenue Cleveland, OH 44105

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Lincoln Energy Group, LLC 414 North Orleans Street Chicago, IL 60654-4498

LifeEnergy, LLC 2000 West Loop South, Suite 2010 Houston, TX 77027

Lower Electric, LLC 1307 Shermer Road Northbrook, IL 60062

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MC Squared Energy Services, LLC 175 W. Jackson Blvd, Suite 240 Chicago, IL 60604

KWH Savings, LLC 5693 W. Howard Street Niles, IL 60714

Lakepoint Energy, LLC 140 Grant Street, Suite 300 White Plains, NY 10601

Liberty Power Holdings 1901 West Cypress Creek Road, Suite 600 Fort Lauderdale, FL 33309

Linde Energy Services, Inc. 1 Greenwich Street, Suite 200 Stewartsville, NJ 08886

Mid Atlantic Energy Services, LLC 30 North Scott Street Carbondale, PA 18407

Live Energy, Inc. 1124 Glade Road, Suite 140 Collegeville, TX 76034

Lower Watt, LLC 12 North Crest Place Lakewood, NJ 08701

M&L Service Providers LLC 134 Leonard Street Lakewood, NJ 08701

Manhattan Energy, LLC 223 Wall Street, Suite 138 Huntington, NY 11743

Mariellen Donohue d/b/a Avalon Energy Consultants 401 North Wawaset Road West Chester, PA 19382

Maryland Energy Advisors, LLC d/b/a PointClickSwitch 509 S. Exeter Street, Suite 500 Baltimore, MD 21202

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Mondre Energy, Inc. 1800 John F. Kennedy Boulevard, Suite 1504 Philadelphia, PA 19103

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National Utility Service, Inc. 1 Maynard Drive Park Ridge, NJ 07656-1879

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National Choice Energy, LLC 4775 Durango Drive, Suite 105 Las Vegas, NV 89147

National Utilities Refund, LLC d/b/a National Energy 6216 Vista Terrace Orefield, PA 18069

New America Power LLC 41 University Drive, Suite 400 Newtown, PA 18940 Mint Energy, LLC One Rounder Way, Suite 220 Burlington, MA 01803

Mobilenet Inc. d/b/a Smith Energy Group 1119 Sandstone Road Greensburg, PA 15601

MP2 Energy NE, LLC 21 Waterway Avenue, Suite 500 The Woodlands, TX 77380

Muirfield Energy, Inc. 425 Metro Place North, Suite 550 Dublin, OH 43017

My Energy Option, LLC 2 Penn Center West, Suite 328 Pittsburgh, PA 15276

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Natures Current, LLC 6918 State Road Philadelphia, PA 19135

Nania Energy Incorporated 4200 Cantera Drive, Suite 219 Warrenville, IL 60555

National Gas & Electric, LLC 12140 Wickchester Lane, Suite 100 Houston, TX 77079

Nationwide New Energy Mngmnt Group, LLC P.O. Box 3077 McKinney, TX 75070

New River Group, LLC d/b/a Scioto Energy 4041 N. High Street 202 Columbus, OH 43214 NextEra Energy Services Pennsylvania, LLC 20455 State Hwy 249, Suite 200 Houston, TX 77070

Noresco, LLC 510 Thornall Street, Suite 170 Edison, NJ 08837

Nittany Energy, LLC 321 North Front Street Philipsburg, PA 16866

Northeast Energy Advisors, LLC 10900 Perry Highway #210 Pittsburgh, PA 15090

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Oxford Energy Services, LLC 1 Oxford Center 301 Grant Street, Suite 4500 Pittsburgh, PA 15219

Papillon Productions, LLC d/b/a Electricity Club 43 Mistflower Pl The Woodlands, TX 77381

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Platinum Advertising II, LLC 300 South Duncan Avenue, Suite 191 Clearwater, FL 33755 NAUP Brokerage, LLC 5851 Legacy Circle, 6th Floor Plano, TX 75024

North American Power and Gas, LLC 20 Glover Avenue Norwalk, CT 06850

North Shore Energy Consulting, LLC 7160 Chagrin Road, Suite 100 Chagrin Falls, OH 44023

Patriot Energy Group, Inc. 1 Rounder Way, Suite 200 Burlington, MA 01803

On-Demand Energy, LP 500 Cherrington Parkway, Suite 400 Moon Township, PA 15108

Optimum Group LLC d/b/a Optimum Energy Solutions 34 Ellis Ct. Morganville, NJ 07751

Options Consulting Services 7300 International Drive Holland, OH 43528

Palmco Power PA, LLC 8751 18th Avenue Brooklyn, NY 11214

Paragon Advisors, LLC 781 Boston Post Road Box 332 Madison, CT 06443

Pennsylvania Grain Processing, LLC P.O. Box 290 Zeeland, MI 49464

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Power Target LLC 211 Black Angus Court Millersville, MD 21108

Premier Power Solutions, LLC 107 Breckenridge Street Grove City, PA 16127

Priority Power Management, LLC 310 West Wall Street, Suite 500 Midland, TX 79701

Progressive Energy Group, LLC 2112 West Galena Boulevard, Suite 8210 Aurora, IL 60506

Prospect Resources, Inc. 8170 McCormick Boulevard, Suite 107 Skokie, IL 60076

Prudential Energy Services Corporation 2400 Augusta Drive, Suite 352 Houston, TX 77057

Provident Energy Consulting, LLC 55 State Road – 1st Floor Media, PA 19063

Quick Energy Solutions, LLC 1975 84th Street, D8 Brooklyn, NY 11214

Rapid Power Management, LLC 19111 N. Dallas Pkwy, Suite 125 Dallas, TX 75287

Reliable Power Alternatives Corporation 100 Gordon City Plaza, Suite 410 Garden City, NY 11530

Rescom Energy, LLC 770 North Lasalle Street, Suite 600 Chicago, IL 60654 Power Management Co., LLC 1600 Moseley Road, Suite 100 Victor, NY 14564

Premier Energy Group, LLC 1275 Bound Brook Road, Suite 6 Middlesex, NJ 08846

Premiere Marketing LLC d/b/a Premiere Energy Auction 75 Lane Road, Suite 203 Fairfield, NJ 07004

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Prospect Energy, LLC 222 Prospect Street Pittsburgh, PA 15211

Pro-Star Energy Services LLC 1021 Main Street, Suite 1575 Houston, TX 77002

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Public Power, LLC 535 Connecticut Avenue, 6th Floor Norwalk, CT 06854

Regional Resources Energy Group, LLC P.O. Box 597 Voorhees, NJ 08043

Reflective Energy Solutions, LLC Two Greenwich Office Park, Suite 300 Greenwich, CT 06831

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Residents Energy 550 Broad Street, 17th Floor Newark, NJ 07102 Resource Energy Systems, LLC 4 High Ridge Park, Suite 202 Stamford, CT 06905

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RJT Energy Consultants, LLC 116 Washington Avenue North Haven, CT 06473

Royal Energy, Inc. 2326 North 62nd Street Kansas City, KS 66104

RPA Energy, Inc. 111 John Street, Suite 520 New York, NY 10038

Sable Power & Gas LLC 10801 Hammerly Blvd, Suite 122 Houston, TX 77043

Satori Enterprises, LLC d/b/a Satori Energy 550 W. Jackson Blvd, Suite 777 Chicago, IL 60661

Search Energy LLC 1760 Hamilton Drive Bloomfield Hills, MI 48302

SFE Energy 100 Milverton Drive, Suite 608 Mississauga, Ontario, Canada L5R 4H1

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Source Power & Gas, LLC 2150 Town Square Pl, Suite 390 Sugar Land, TX 77479

South Jersey Energy Company 575 Lexington Avenue New York, NY 10022 Respond Power, LLC 100 Dutch Hill Road Orangeburg, NY 10962

Richards' Energy Group, Inc. 781 South Chiques Road Manheim, PA 17545

Rosenthal Energy Advisors, Inc. 6244 Preston Creek Drive Dallas, TX 75240

Rushmore Energy, LLC 54 Sugar Creek Center Blvd, Suite 200 Sugar Land, TX 77478

School Power, Inc. 315 Faller Road, Box 686 Dalton, PA 18414

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Secure Energy Solutions, LLC 515 Shaker Road East Longmeadow, MA 01028

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SmartEnergy Holdings, LLC 106 Maplewood Drive Hazelton, PA 18202

SourceOne, Inc. (DE) d/b/a SourceOne Energy, Inc. 132 Canal Street Boston, MA 02114

South Shore Trading and Distributors, Inc. 2937 West Estes Avenue Chicago, IL 60645

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BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

DOCKET NOS.

JOINT PETITION OF METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY AND WEST PENN POWER COMPANY FOR APPROVAL OF THEIR DEFAULT SERVICE PROGRAMS

> JOINT PETITION OF METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY AND WEST

> > PENN POWER COMPANY

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Counsel for Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company

Dated: December 4, 2017

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

JOINT PETITION OF METROPOLITAN

EDISON COMPANY, PENNSYLVANIA

: DOCKET NOS.

ELECTRIC COMPANY, PENNSYLVANIA

POWER COMPANY AND WEST PENN
POWER COMPANY FOR APPROVAL OF

POWER COMPANY FOR APPROVAL OF

THEIR DEFAULT SERVICE PROGRAMS

JOINT PETITION OF METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY AND WEST PENN POWER COMPANY

Pursuant to Pennsylvania's Electricity Generation Customer Choice and Competition Act, 66 Pa.C.S. § 2801, et seq. (the "Competition Act"), as amended by Act 129 of 2008 ("Act 129"), 1 the default service regulations of the Pennsylvania Public Utility Commission ("Commission") at 52 Pa. Code §§ 54.181-54.190 ("Regulations"), and the Commission's Policy Statement on default service at 52 Pa. Code §§ 69.1801-1817 ("Policy Statement"), Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company ("Penelec"), Pennsylvania Power Company ("Penn Power") and West Penn Power Company ("West Penn") (each individually a "Company" and collectively, the "Companies") hereby petition the Commission for approval of their Default Service Programs (the "Program(s)") as set forth herein. The Companies file this Joint Petition in accordance with their responsibilities as default service providers to establish the terms and conditions under which they will procure default service supplies, provide default service to non-shopping customers, satisfy requirements imposed by the Alternative Energy Portfolio Standards

Act 129 amended several sections of the Public Utility Code. However, as used in this Joint Petition, "Act 129" will refer to the amendments made by Act 129 to 66 Pa.C.S. § 2807(e), unless specifically stated otherwise.

Act ("AEPS Act")² and recover all associated costs on a full and current basis for the period from June 1, 2019 through May 31, 2023.

Consistent with the Competition Act, Regulations, Policy Statement and AEPS Act, the Companies' Programs include a prudent mix of long-term, short-term and spot market generation supplies that are designed to produce the least cost to customers over time, and are structured to satisfy their obligation to furnish adequate and reliable service to default service customers. Accordingly, the Companies respectfully request that the Commission enter an order: (1) granting this Joint Petition; (2) approving the Companies' proposed Programs, including each procurement plan, implementation plan, and contingency plan, as well as related bidder rules, supplier master agreement ("SMA"), credit documents, and other associated agreements for default service supply from June 1, 2019 through May 31, 2023; (3) approving the Companies' proposed rate design and tariffs for default generation service, including recovery of all of the Companies' costs associated with the provision of default service; (4) approving continuation of the Companies' existing Customer Referral Programs ("CRP") from June 1, 2019 through May 31, 2023, including the previously-approved cost recovery methodology³; (5) approving CRA International, Inc. d/b/a Charles River Associates ("CRA") as the independent third-party evaluator for the Companies' default supply procurements and The Brattle Group as the independent third-party evaluator for the Companies' solar photovoltaic alternative energy credit ("SPAEC") procurements; (6) finding that neither the Companies nor their affiliates have withheld from the market any generation supply in a manner that violates federal law; (7) finding that the Programs include prudent steps necessary to negotiate favorable generation supply contracts; (8) finding that the Programs include prudent

² 73 P.S. §§ 1648.1-1648.8 and related provisions of 66 Pa.C.S §§ 2813-2814.

³ See Docket Nos. P-2011-2273650 (Met-Ed), P-2011-2273668 (Penelec), P-2011-2273669 (Penn Power), and P-2011-2273670 (West Penn Power) (collectively, the "DSP II Proceeding"); Docket Nos. P-2013-2391368 (Met-Ed), P-2013-2391372 (Penelec), P-2013-2391375 (Penn Power), and P-2013-2391378 (West Penn) (collectively, the "DSP III Proceeding"); Docket Nos. P-2015-2511333 (Met-Ed), P-2015-2511351 (Penelec), P-2015-2511355 (Penn Power), and P-2015-2511356 (West Penn) (collectively, the "DSP IV Proceeding").

steps necessary to obtain least-cost generation supply on a long-term, short-term and spot market basis; (9) granting a waiver of the rate design provisions of 52 Pa. Code § 54.187 and transmission-related price-to-compare provisions at 52 Pa. Code §§ 54.182 and 54.187, to the extent necessary; (10) approving the Companies' proposed SMA as an affiliated interest agreement under 66 Pa.C.S. § 2102; (11) approving Penelec's ability to transfer, at market, alternative energy credits ("AECs") acquired from non-utility generators ("NUGs") to the other Companies as proper affiliated transactions; (12) approving the Companies' proposed retail market enhancement rate mechanism; and (13) approving the continuation of the Companies' clawback charges related to their purchase of receivables ("POR") programs.

I. INTRODUCTION AND OVERVIEW

- 1. Met-Ed is a wholly owned subsidiary of FirstEnergy Corp. that provides service to approximately 560,000 electric utility customers in eastern Pennsylvania. Penelec is a wholly owned subsidiary of FirstEnergy Corp. that provides service to approximately 590,000 electric utility customers in central and western Pennsylvania. Penn Power is a wholly owned subsidiary of the Ohio Edison Company, which, in turn, is a wholly owned subsidiary of FirstEnergy Corp. Penn Power provides service to approximately 160,000 electric utility customers in western Pennsylvania. West Penn is a wholly owned subsidiary of FirstEnergy Corp. West Penn provides service to approximately 720,000 electric utility customers in western Pennsylvania.
- 2. Each Company is an electric distribution company ("EDC") as defined in the Competition Act and is the electric generation default service provider within its service territory for retail customers who do not choose an alternative electric generation supplier ("EGS") or whose EGS fails to provide service.

- 3. The Competition Act became effective on January 1, 1997, and, among other things, it restructured the electric utility industry in Pennsylvania by deregulating the generation of electricity, creating the framework for retail customers to choose alternative suppliers of generation, and establishing caps on unbundled rates that EDCs could charge during the transition to competition.
- 4. Section 2806(d) of the Competition Act, 66 Pa.C.S. § 2806(d), required EDCs to file restructuring plans for Commission approval that, in relevant part, "unbundled" (functionally disaggregated) their rates into distribution, transmission and generation components. Each of the Companies filed restructuring plans which, subject to certain modifications, were approved by the Commission.⁴
- 5. Following the transition to competition, the Companies retained the obligation to serve as the default service providers for their retail customers. The Companies' current Commission-approved default service programs began on June 1, 2017.⁵
- 6. As part of the DSP IV Settlement, the Companies agreed to hold a stakeholder collaborative in October 2017 to discuss: (a) the currently-approved default service procurement plan and current market conditions; (b) the establishment of a bypassable retail market enhancement rate mechanism; (c) the scope of shopping available to customers enrolled in the Companies' customer assistance programs ("CAPs"); (d) the continuation of the purchase of receivables ("POR") clawback charge; and (e) any changes to customer classes. Further, the Companies were required to make a Commission filing, including but not limited to a new default

⁴ See Docket Nos. R-00974008 and R-00974009 (Met-Ed and Penelec) (Order entered October 20, 1998); Docket No. R-00974149 (Penn Power) (Orders entered July 22, 1998 and September 17, 1999); Docket No. R-00973981 (West Penn) (Order entered November 19, 1998).

⁵ DSP IV Proceeding, Docket Nos. P-2015-2511333, et seg. (Order entered May 19, 2016).

⁶ DSP IV Proceeding, Docket Nos. P-2015-2511333, et seq., pp. 5-22 (Joint Petition for Settlement dated April 1, 2016).

service petition, with regard to certain of the collaborative topics in a docketed proceeding by January 31, 2018.⁷

- 7. Consistent with the foregoing settlement obligation, the Companies are filing the instant Joint Petition for approval of their Default Service Programs ("Joint Petition"). The term for the proposed Programs is June 1, 2019 through May 31, 2023.8 Of the DSP IV collaborative topics, the Companies are proposing the establishment of a bypassable retail market enhancement rate mechanism, the continuation of their POR clawback charges, and the adoption of formal tariff changes related to adjustments to be made to their customer class definitions in order to expand the provision of hourly-priced default service. At this time, the Companies are proposing no modifications to CAP shopping for their customers.
- 8. Section 54.185(a) of the Commission's regulations provide that a default service provider should file a default service program with the Commission no later than twelve months before its current default service program will expire. In order to have sufficient time to undertake the competitive procurement process to obtain default generation supplies for service on and after June 1, 2019, the Companies must have final approved, unappealable default service programs in

⁷ *Id*.

⁸ Consistent with recent Commission precedent approving default service programs with four-year terms, the Companies are proposing a four-year term for their default service programs. See, e.g., Petition of PECO Energy Company for Approval of its Default Service Program for the Period from June 1, 2017 Through May 31, 2021 (DSP IV), Docket No. P-2016-2534980 (Opinion and Order entered December 8, 2016); Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2017 Through May 31, 2021, Docket No. P-2016-2526627 (Opinion and Order entered October 27, 2016); Petition of Duquesne Light Company for Approval of a Default Service Plan for the Period June 1, 2016 to May 31, 2021, Docket No. P-2016-2543140 (Order entered December 22, 2016). A four-year default service program term promotes more default service portfolio options, as well as conserves the resources associated with frequent default service filings. In light of this trend towards four-year default service programs, it is appropriate to no longer rely on prior Commission guidance in favor of two-year programs. See, e.g., Investigation of Pennsylvania's Retail Electricity Market: Recommendations Regarding Upcoming Default Service Plans, Docket No. I-2011-2237952, p. 11 (Final Order entered December 16, 2011).

place by approximately September 1, 2018. Accordingly, the Companies are filing this Joint Petition to obtain approval by that date.⁹

- 9. This Joint Petition sets forth the Program for each of the Companies and, as such, identifies and describes the Companies' procurement plans, implementation plans, contingency plans, the design of rates to recover all reasonable costs on a full and current basis, and any changes proposed as a result of the DSP IV collaborative process.
- 10. This Joint Petition also incorporates the proposed standard default service SMA; auction rules; requests for proposal ("RFP") rules; associated form agreements; proposed tariff changes; along with the following direct testimony supporting various components of the Programs:
 - Met-Ed/Penelec/Penn Power/West Penn Statement No. 1, Direct Testimony of
 Kimberlie L. Bortz (DSP IV Settlement Commitments, Customer Notice, Plan
 Term, Rate Design and Cost Recovery, Customer Referral Program, Purchase of
 Receivables Clawback Program, Bypassable Retail Market Enhancement Rate,
 Related Tariff Matters).
 - Met-Ed/Penelec/Penn Power/West Penn Statement No. 2, Direct Testimony of
 James H. Catanach (Product Definitions, Procurement Process and Schedule,
 Default Service Supplier Master Agreement, Alternative Energy Portfolio
 Standards Act Requirements, Contingency Plans).
 - Met-Ed/Penelec/Penn Power/West Penn Statement No. 3, Direct Testimony of James D. Reitzes (Analysis of Default Service Supply Plans).

⁹ See 66 Pa.C.S. § 2807(e)(3.6) (providing that the Commission shall issue a final order approving or disapproving a proposed default service program within nine months of filing).

11. As explained in the Joint Petition and supporting testimony, the Companies are proposing limited changes to their existing, Commission-approved default service programs.

II. DEFAULT SERVICE PROCUREMENT PLAN

A. Default Service Products

- energy-related products for all default service customers through a competitive procurement process. For procurement purposes, non-shopping load will be segregated into residential, commercial and industrial customer classes. Each customer class will have its own product specifications, as described below. The load of each class will be divided into tranches, with each tranche constituting a fixed percentage of each of the Company's non-shopping load. As discussed further below, the Companies are proposing to move those non-shopping customers served on Rates GS-Medium (for Met-Ed and Penelec), Rate GM (for Penn Power) and Schedule 30 (for West Penn) with a demand of 100 kW or higher from the commercial class default service pricing model under the Companies' Price to Compare Default Service ("PTC") Riders to hourly priced default service as part of the industrial class under the Companies' Hourly Pricing Default Service ("HP") Riders, consistent with their commitment in the DSP IV Settlement and the Commission's recommendation in its End State Order as part of its Investigation of Pennsylvania's Retail Electric Market. 10
- 13. Winning bidders in the competitive procurement process must fulfill all obligations imposed on a load serving entity ("LSE") by PJM Interconnection, LLC ("PJM") and, as LSEs, will be required to: (i) provide energy, capacity and transmission service (including Network

¹⁰ Investigation of Pennsylvania's Retail Electricity Market: End State of Default Service, Docket No. I-2011-2237952, p. 29 (Final Order dated February 14, 2013).

Integration Transmission Service ("NITS"), subject to specific exclusions)¹¹; (ii) pay all ancillary service costs and PJM administrative expenses; and (iii) provide any other services and pay any other fees as required by PJM of an LSE. Default service suppliers in the Met-Ed, Penelec and Penn Power service territories will also be responsible for meeting 100% of the non-solar Tier I and Tier II AEPS Act requirements. Met-Ed, Penelec and Penn Power will procure all necessary solar photovoltaic requirements on behalf of default service suppliers and EGSs that serve load in their respective service areas. In the West Penn service territory, default service suppliers will be responsible for all Tier I and Tier II AEPS Act requirements (including solar photovoltaic requirements) less any Tier I AECs or SPAECs that are allocated to the suppliers from existing long-term purchases made by West Penn. Each of these winning bidder obligations is consistent with existing supplier obligations under the Companies' current default service programs.

14. Additionally, each winning supplier will be required to schedule delivery to the PJM load zone that corresponds to the Company with which it has contracted for the sale of power, as follows: "METED_RESID_AGG" for Met-Ed products, "PENELEC_RESID_AGG" for Pennelec products, "Penn Power_RESID_AGG" for Penn Power products, and "APS_RESID_AGG" for West Penn products. All load zones are located within the control area for which PJM is the regional transmission organization ("RTO"). Winning suppliers must be

As explained in Section III.C., *infra*, the Companies will continue to assume responsibility for Regional Transmission Expansion Plan charges ("RTEP"), Expansion Cost Recovery Charges ("ECRC"), Reliability Must Run/generation deactivation charges ("RMR") associated with generating plants for which specific RMR charges begin after July 24, 2014, historical out of market tie line, generation and retail customer meter adjustments; unaccounted for energy ("UFE"); or any Federal Energy Regulatory Commission ("FERC")-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009 (collectively referred to as "non-market based charges," or "NMB charges"). These NMB charges will be assumed by the Companies for both default service suppliers and EGSs that serve load in the Companies' service areas, the costs for which will be recovered from customers in a competitively-neutral manner under the Companies' non-bypassable Default Service Support ("DSS") Riders.

members of PJM and must comply with all regulations, business rules, scheduling protocols and all other aspects of doing business within PJM.

Residential Class

15. Each residential class tranche includes a 95% fixed-priced product, the price for which will be established through the Companies' descending-price clock auction process. A tranche is a fixed percentage of each Company's default service load corresponding to approximately 50 megawatts ("MW"), although the actual load served will vary based on many factors, including customer migration to EGSs. Residential products will have staggered 12 and 24-month terms. The remaining 5% of the residential product is a real-time hourly load locational marginal price ("LMP") for the Delivery Point plus a fixed adder of \$20.00 per megawatt hour ("MWh") to cover the costs of other supply components associated with serving the contracted load, including capacity, ancillary services, AEPS compliance, and other costs.

Commercial Class

16. Each commercial class tranche features a 100% fixed-priced product, served in approximately 50 MW tranches to be bid out through the Companies' descending-price clock auction process. Commercial products will have staggered 3-month, 12-month and 24-month terms. Commercial customers with demand less than 100 kilowatts ("kW") are eligible for this product.

Industrial Class

17. The industrial class product is an hourly-priced service ("HPS") based upon the PJM real-time zonal hourly market price. Suppliers will bid for the right to serve a portion of the HPS load for 12-month terms (commencing on June 1 in 2019, 2020, 2021, and 2022). Each tranche will be approximately 100 MW, although the actual load served will vary based on many

factors, including customer migration to EGSs. Winning suppliers will be paid the winning price bid in the hourly-priced auction, the hourly PJM real-time zonal LMP, and an additional fixed adder of \$4/MWh to capture the estimated costs of other supply components, including capacity, ancillary services, NITS, AEPS compliance, and other costs.

18. As part of the DSP IV Settlement, the Companies agreed to lower the hourly default service pricing threshold from 400 kW to 100 kW beginning June 1, 2019, when the Companies expect to have billing-capable smart meters installed in their service territories. The Companies are developing an outreach and educational communication plan to inform shopping and default service customers with demand between 100 kW and 400 kW of their movement from the PTC Rider, which includes a fixed-price product, to the HP Rider, which includes an hourly spot product.

B. Procurement Schedule and Method

- 19. The Companies propose a procurement plan for all customer classes using eighteen separate procurement dates occurring in October/November¹² 2018, 2019, 2020, 2021, and 2022; January 2019, 2020, 2021, 2022, and 2023; April 2019, 2020, 2021, and 2022; and June 2019, 2020, 2021, and 2022.
- 20. The Companies propose to procure the previously-described full-requirements default service products through simultaneous, multiple-round, descending-price clock auctions similar to those used, and being used, by the Companies under their current default service programs. The proposed auction process allows suppliers to efficiently switch between the different products being procured by Met-Ed, Penelec, Penn Power and West Penn. Potential

¹² The Companies will conduct each fall auction at some point after October 20 and before November 20 to allow participants in the fall auction to have access to any applicable proposed formula NITS rates filed in October for the upcoming calendar year before the auction occurs.

suppliers will have to meet certain credit and financial criteria in order to participate in the auction. Winning bids will be chosen from pre-qualified participants solely on the basis of price (i.e., the low-price bidders will be the procurement winners, subject to load cap restrictions). Bidding proceeds in rounds. In a round, the procurement manager announces a price for each product. Participants in the procurement then make bids for the number of tranches that they are willing to supply for each of the specified products at the announced prices. If the number of tranches supplied by all suppliers is greater than the number of tranches needed for a product at a particular price, the price for that product is reduced in the next round. In that round, suppliers are given an opportunity to bid again and are permitted to switch their bids from one product to another, if applicable.

- 21. The format described above is characterized as a "descending clock" auction because prices "tick down" as rounds progress, starting at an initial price and being reduced until the number of tranches that all bidders are willing to supply is just enough to match the load to be supplied.
- 22. The "descending clock" procurement process has many benefits. Its multi-product design allows all products to be procured in a single auction, which provides a cost-effective, economically efficient means to obtain multiple products while also allowing for instantaneous market-based pricing. Suppliers receive feedback from the results of each round. Because pricing is transparent, some suppliers will withdraw, and the least-cost suppliers will prevail. The Companies have successfully employed the descending clock auction to obtain default supplies under their current default service programs, and the Commission is familiar with the process and the results it obtains.

23. The Companies propose to maintain their current load cap, which restricts the amount of supply any one bidder can win in an auction, of 75%.

C. Supplier Master Agreement

- 24. In this proceeding, the Companies are proposing to continue the use of their current Commission-approved SMA for their default service programs, with only limited modifications.
- 25. As described in the testimony of Mr. Catanach, the proposed SMA differs from the Companies' current Commission-approved SMA in only two limited ways: (1) modifications were made to reflect the expansion of the industrial class to include customers with demand of 100 kW and above consistent with the proposed class revisions discussed in paragraph 12, *infra*; and (2) cleanup modifications were made regarding assignment of new PJM billing line items that have been established since the Companies' DSP IV proceeding.

D. AEPS Act Requirements

Non-Solar Photovoltaic Requirements

- 26. In accordance with Section 54.185(e)(1) of the Regulations, the Companies propose to satisfy most of their AEPS Act requirements as part of the solicitation of a default service supply. Specifically, winning suppliers of full-requirements default service products in the Met-Ed, Penelec and Penn Power service territories will be responsible for meeting all non-solar Tier I and Tier II requirements. Winning suppliers in West Penn's service territory will be responsible for those same requirements less any Tier I AECs that are allocated to the suppliers on a load ratio basis from existing long-term purchases made by West Penn.
- 27. Penelec will have the added flexibility to make market-priced sales of excess AECs acquired under existing Commission-approved NUG contracts for use in meeting the Companies' AEPs requirements.

Solar Photovoltaic Requirements

- 28. Met-Ed, Penelec and Penn Power will conduct two RFPs to solicit bids for the provision of a fixed number of SPAECs based on each Company's most recent distribution load forecasts. The amount selected for procurement is expected to meet approximately 100% of the solar photovoltaic AEPS requirements of all EGSs and default service suppliers, after taking into account previous SPAEC purchases.
- 29. The proposed RFP process is consistent with the procurement process being used by Met-Ed, Penelec and Penn Power under their current Commission-approved default service plans. Prospective bidders will be invited to participate in a two-part RFP process. First, they become "qualified" bidders after submitting contact and credit information, making specified representations, and agreeing to specified conditions. Qualified bidders will be able to make binding offers in the second part of the process, which also requires that they post appropriate financial guarantees and agree to additional conditions designed to foster the competitiveness of the procurement process.
- 30. In the West Penn service territory, default service suppliers will be responsible for all solar photovoltaic requirements less any SPAECs that are allocated to the suppliers on a load ratio basis from existing long-term purchases made by West Penn.

E. Independent Evaluators

31. Consistent with the Regulations' requirements and the Policy Statement's recommendation, the Companies have retained CRA to be the independent third-party evaluator for their default service procurements. CRA has extensive expertise in the operation of competitive wholesale energy markets and is serving as the independent third-party evaluator for the Companies' current Commission-approved default service programs.

- 32. The Companies have selected The Brattle Group to serve as the independent third-party evaluator for the procurement of SPAECs. The Brattle Group has considerable expertise in competitive energy matters and has been involved in several RFP design and management processes, including the procurement of electric power and renewable energy supplies under long-term contracts. The Brattle Group has served as the independent evaluator in past SPAEC procurements held by the Companies.
- 33. The auction and RFP rules that guide the bid solicitation process are designed to comply with the Commission's codes of conduct and to ensure that bidder qualification requirements are fair and nondiscriminatory.¹³

F. Requirements Of PJM

34. As required by Section 54.185(e)(4) of the Regulations, the Companies' Programs are consistent with the legal and technical requirements of PJM pertaining to the generation, sale and transmission of electricity. The Companies' proposed SMA requires suppliers to maintain specific qualifications under applicable PJM agreements and rules. Before suppliers may participate in the bid process, they will have to demonstrate that they can fulfill the technical and regulatory requirements of the SMA, including becoming an LSE, as defined under PJM's rules.

G. Contingency Plan

35. The Companies propose to continue utilizing the contingency plans in their current Commission-approved default service plans, which address the following three possible scenarios: (i) an individual solicitation is not fully subscribed; (ii) the Commission rejects the bid results from a solicitation; or (iii) a winning supplier defaults prior to the start of the delivery period or at any time during the delivery period.

¹³ See 52 Pa. Code § 54.186(b)(6)(ii) and (c)(2).

- 36. For full-requirements, load-following products, if a scheduled solicitation is not fully subscribed following the initial proposed procurement or if the Commission rejects the bid results from a solicitation, the Companies will rebid the unfilled tranches from that solicitation in the next scheduled procurement for which there is sufficient calendar time to include the tranches. For any unfilled tranches still remaining, the Companies will purchase the necessary physical supply through PJM-administered markets. The Companies will not enter into hedging transactions to attempt to mitigate the associated price or volume risks to serve such unfilled tranches. The Companies propose to secure any AEPS Act compliance requirements for unfilled tranches at market prices.
- 37. If a winning bidder defaults prior to the start of, or during, the delivery period, the Companies will offer the unfilled tranches to the other qualified bidders who participated in the most recent solicitation of full-requirements, load-following products. The Companies may enter into an agreement with the qualified bidder(s) offering the best terms for the unfilled tranches resulting from the default, provided the prices offered by such bidder(s) are consistent with the original prices at which the unfilled tranches were procured, giving due consideration to changes in market conditions from the time when the original tranches were procured. If the Companies are not able to enter into such agreement and at least thirty calendar days remain prior to the start of the delivery period, the Companies will seek to bid the defaulted tranches in a separate supplemental competitive solicitation. If insufficient time exists to conduct an additional competitive solicitation, or if the supplemental solicitation is unsuccessful, the Companies will supply the tranches by purchasing power in the PJM-administered markets in the same manner described in the preceding paragraph.
- 38. If a SPAEC solicitation held by Met-Ed, Penelec, or Penn Power is not fully subscribed, the Commission rejects the bid results from a solicitation, or a winning supplier

defaults before or during the delivery period, the Companies will conduct short-term procurements at market prices to ensure compliance with solar photovoltaic AEPS requirements until such time as the Commission approves an alternative mechanism.

III. RATE DESIGN AND COST RECOVERY

A. Price To Compare Default Service Rate Rider

- 39. The Companies currently recover the cost of default service for the residential and commercial customer classes through their PTC Riders. Modifications are proposed to the PTC Riders to accommodate those commercial and industrial class modifications discussed in paragraph 12, *infra*.
- 40. The Companies also propose to modify their PTC Riders to include a non-bypassable retail market enhancement rate mechanism ("PTC Adder"). The purpose of the PTC Adder is to incentivize shopping among residential customers, only approximately 30% of whom are currently shopping for electricity. The PTC Adder will not apply to commercial or industrial customers, which generally shop in larger numbers and are more aware of their generation purchasing options, and therefore, do not require additional incentive to shop for electricity.
- 41. The PTC Riders will continue to adjust rates quarterly, with rate change filings to be made the latter of forty-five days prior to the effective date or seven days after the last supply auction.

B. Hourly Pricing Default Service Rider

42. The Companies currently recover the cost of default service for larger commercial and industrial customers through their HP Riders. The HP Riders will apply to commercial and industrial customers with demand 100 kW and above.

43. The HP Riders will continue to adjust rates quarterly, with rate change filings to be made the latter of forty-five days prior to the effective date or seven days after the last supply auction.

C. Default Service Support Rider

- 44. The Companies are proposing to modify their DSS Riders to allow for the refunding of 95% of the revenue collected through the PTC Adder to all residential customers, ¹⁴ as well as to expand the definition of NMB charges as explained in paragraph 45.
- 45. The Companies will continue to assume responsibility for NMB Charges for both default service suppliers and EGSs that serve load in the Companies' service areas and recover the costs from customers under the DSS Riders. The Companies are proposing to expand the NMB Charges component to include any Federal Energy Regulatory Commission-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.
- 46. Consistent with the Companies' existing tariffs, the Companies are proposing to continue a flat per-kWh rate design for the residential and commercial customer classes and a demand-based rate design for the industrial customer class. The demand for the industrial customer class will continue to be the single coincident peak kW Network Service Peak Load, as calculated by the Companies in accordance with PJM rules and requirements.
- 47. The Companies respectfully request a waiver, if necessary, of the Regulations (specifically with regard to the inclusion of transmission costs in the price to compare addressed at 52 Pa. Code §§ 54.182 and 54.187) so that they may recover the NMB Charges through the non-bypassable DSS Riders rather than the price-to-compare.

¹⁴ The Companies propose to retain 5% of the revenue collected through the PTC Adder to recover expenses associated with administering the PTC Adder.

D. Solar Photovoltaic Requirements Charge Rider

48. Met-Ed, Penelec, and Penn Power currently have a Solar Photovoltaic Requirements Charge Rider ("SPVRC Rider") that applies to all delivery service customers and are not proposing any changes to the SPVRC Rider in this proceeding.

E. Time-Of-Use Rates

49. The Companies currently offer optional Time-of-Use ("TOU") pricing rates through their Rider K, Residential TOU Default Service Riders, which have no expiration date. The Companies propose to continue these Riders without modification under their Programs.

F. Reconciliation

50. As described in the testimony of Ms. Bortz, the PTC Riders, HP Riders, and SPVRC Riders currently include "E" factor reconciliation mechanisms. The Companies are not proposing any changes to those reconciliation mechanisms.

IV. CUSTOMER REFERRAL PROGRAM

- 51. Each Company currently has a CRP for residential and small commercial customers and proposes to continue offering the CRP from June 1, 2019 to May 31, 2023.
- 52. Consistent with the current CRP and the Companies' existing tariffs, the Companies propose to continue to recover CRP costs through an EGS participant fee not to exceed \$30 per enrolled customer with any remaining program costs recovered, on a non-bypassable basis, through the Companies' applicable DSS Riders.

V. PURCHASE OF RECEIVABLES

53. Consistent with the Commission's Policy Statement at 52 Pa. Code § 69.1814, each of the Companies agreed to provide, and the Commission approved, POR programs for residential

and small commercial accounts served by EGSs.¹⁵ Under each of the Companies' existing POR programs, accounts receivable are purchased from participating EGSs at a zero discount rate (meaning the Companies pay the face value of the account receivable regardless of what they are actually able to collect from customers), which eliminates the risk to EGSs of uncollectible accounts expense associated with serving residential and small commercial customers.

A. Purchase of Receivables Clawback Charge

54. As part of the DSP IV Settlement, the Commission approved a pilot POR clawback charge for each of the Companies, which was designed to collect a portion of uncollectible accounts expense from EGSs; specifically, those EGSs whose pricing practices are driving significantly higher write-offs than their peers. During DSP IV, an annual clawback charge was assessed to certain EGSs who met the following criteria. First, the EGS's average percentage of write-offs as a percentage of revenue exceeded 200% of the average percentage of total supplier write-offs as a percentage of revenue as calculated separately for Met-Ed, Penelec, Penn Power and West Penn for the twelve-month period ending August 31. Second, of those EGSs identified based on the first criterion, the clawback charge was applied to EGSs whose average price charged over the same twelve-month period exceeded 150% of the average PTC for the operating company for that period. The clawback charge represents the difference between the EGS's actual write-offs and their write-off amount calculated at 200% of the average EGS percentage of write-offs per operating company.

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¹⁵ See, Joint Petition of Metropolitan Edison Company and Pennsylvania Electric Company for Approval of Their Default Service Programs, Docket Nos. P-2009-2093053 and P-2009-2093054 (Opinion and Order approving settlement entered November 6, 2009) (Met-Ed and Penelec); Petition of Pennsylvania Power Company for Approval of its Default Service Programs, Docket No. P-2010-2157862 (Opinion and Order approving settlement entered November 17, 2010) (Penn Power); DSP III Proceeding (Opinion and Order approving settlement entered July 24, 2014) (revising West Penn).

55. The clawback charge was successful in decreasing the amount of write-offs from the first year to the second year of DSP IV. In an effort to further discourage pricing practices that create disproportionately higher write-offs to the detriment of the Companies and their customers, the Companies propose to continue the clawback charge as a permanent part of its POR program.

VI. AFFILIATE RELATIONS

- between affiliated parties shall be subject to Commission review and approval under Chapter 21 of the Public Utility Code, the Companies request that the Commission approve the *pro forma* SMA as an affiliated interest agreement pursuant to 66 Pa.C.S. § 2102. The Regulations and Policy Statement permit affiliates of default service providers to participate in competitive procurements for default service supplies. Consequently, it is possible that the Companies' affiliate, FirstEnergy Solutions Corp. ("FES"), may participate in one or more of the Companies' proposed procurements. In the event FES is a winning bidder, it will need to execute the SMA in the same timeframe as any other supplier. As a result, advance approval of the *pro forma* SMA, which accompanies this Joint Petition and the Companies' direct testimony, as an affiliated interest agreement is necessary. The Commission granted similar approvals of the Companies' existing SMAs as part of the approval of their existing default service programs.
- 57. Section 2807(e)(3.7)(III) of the Public Utility Code requires the Commission, when approving default service programs, to find that "[n]either the default service provider nor its affiliated interest has withheld from the market any generation supply in a manner that violates Federal law." The Companies do not own generation and, pursuant to the Commission's Competitive Safeguards¹⁶ and the FERC's Standards of Conduct,¹⁷ the Companies' supplier

¹⁶ 52 Pa. Code §§ 54.121, et seq.

^{17 18} C.F.R. §§ 358.1, et seq.

affiliate, FES, does not discuss generation or market-related issues with Met-Ed, Penelec, Penn Power or West Penn. Moreover, the Companies are not aware of any determination by any court or regulatory agency of competent jurisdiction that FES has withheld generation supply from the wholesale market in violation of federal law.

58. Pursuant to 66 Pa.C.S. § 2102(a), no agreement between a utility and an affiliated interest is valid without prior approval by the Commission. Through this Petition, Penelec is requesting to transfer AECs acquired through its NUG agreements in order to meet all of the Companies' AEPS requirements. The Companies request the Commission's approval of Penelec's transfer of AECs to the other Companies as proper affiliated transactions pursuant to Chapter 21 of the Public Utility Code.

VII. NOTICE

- 59. In accordance with Sections 54.185 and 54.188 of the Regulations, the Companies will provide notice of this filing in several ways:
 - Within thirty days of filing this Joint Petition, each of the Companies will provide public notice of the filing by publishing a notice in the major newspapers serving their respective service areas. The notice will contain information about the Companies' tariff filings, their proposed competitive solicitations of generation resources, how the Companies' Programs may affect customers, where the filings are available for public inspection, how comments or complaints can be filed, and how customers can participate in this proceeding.
 - The Companies' Joint Petition and their direct testimony and accompanying
 exhibits will be made available for inspection at Met-Ed's principal office in
 Reading, Penelec's principal office in Erie, Penn Power's office in Clark, and West

Penn's principal office in Greensburg. This material will also be posted to the Companies' public internet domain, where it will be available electronically for public inspection.

- The Companies will provide additional public notice by means of a press release to inform customers of the filing.
- The Companies have also served copies of this Joint Petition and direct testimony and accompanying exhibits on the Office of Consumer Advocate, Office of Small Business Advocate, the Commission's Bureau of Investigation and Enforcement, PJM, Met-Ed Industrial Users Group, Penelec Industrial Customer Alliance, Penn Power Users Group, West Penn Power Industrial Intervenors, the Retail Electric Supplier Association, the Pennsylvania State University, the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania, and all EGSs registered to provide service in their respective service territories.
- The Companies will provide additional notice as directed by the Commission.
- 60. The Companies believe these communication efforts will provide potential interested parties with ample notice as well as an opportunity to participate in the Commission's proceeding addressing the Companies' Programs.

VIII. PROPOSED SCHEDULE

61. Pursuant to § 2807(e)(3.6) of the Public Utility Code, the Commission will have nine months from the date of this filing to issue a final order. In accordance with that timeline, the Companies suggest the following schedule for this proceeding:

Joint Petition Filing

December 11, 2017

Publication in the Pennsylvania Bulletin

December 23, 2017

Pre-Hearing Conference January 4, 2018 Other Parties' Direct Testimony February 2, 2018 March 1, 2018 Rebuttal Testimony Surrebuttal Testimony March 15, 2018 Oral Rejoinder and Hearings March 27-28, 2018 Main Briefs April 20, 2018 Reply Briefs May 1, 2018 Recommended Decision June 1, 2018 June 21, 2018 **Exceptions** July 2, 2018 Reply Exceptions

Commission Order September 11, 2018

IX. REQUEST FOR WAIVERS

62. To the extent necessary, the Companies request: (1) a waiver of 52 Pa. Code § 54.187(h)-(j) in order to use their proposed residential, commercial and industrial customer class definitions, which the Commission has previously approved; and (2) a waiver of the Commission's requirements at 52 Pa. Code §§ 54.182 and 54.187 with regard to including certain transmission-related costs in the price-to-compare so that they may recover the NMB Charges through the non-bypassable DSS Riders rather than the price-to-compare as previously explained.

X. PUBLIC INTEREST CONSIDERATIONS

63. The Companies' proposed Programs are in the public interest for all of the reasons previously explained and for the following reasons: (1) the Programs will utilize a competitive and transparent bid solicitation process; (2) the Programs will utilize fair and nondiscriminatory bidder qualification requirements; (3) an independent third party evaluator will be utilized for all procurements; (4) the Programs are consistent with the legal and technical requirements established by PJM and align with its planning year; (5) the Programs provide for compliance with AEPS requirements; (6) the Programs have protocols to ensure that the Companies' supplier

affiliates do not receive an advantage in the solicitation and evaluation of competitive bids; (7) the Programs provide for hourly or quarterly adjustments of the default service rate components, as applicable; (8) the Programs include viable contingency plans; (9) the Programs ensure that the price-to-compare is designed to recover all default service costs; (10) the Programs have a procurement schedule that diversifies the times when procurements occur; (11) the Programs utilize a prudent mix of long-term, short-term and spot market generation supply to yield the least cost to customers over time; and (12) the Companies are providing ample notice of their proposed Programs to interested parties.

XI. CONCLUSION

Pursuant to the requirements of 66 Pa.C.S. § 2807(e)(3.7), the Companies request that the Commission enter an order: (1) granting this Joint Petition; (2) approving the Companies' proposed Programs, including each procurement plan, implementation plan, and contingency plan, as well as related bidder rules, SMA, credit documents, and other associated agreements for default service supply from June 1, 2019 through May 31, 2023; (3) approving the Companies' proposed rate design and tariffs for default generation service, including recovery of all of the Companies' costs associated with the provision of default service; (4) approving continuation of the Companies' existing Customer Referral Programs and associated cost recovery; (5) approving CRA as the independent third-party evaluator for the Companies' default supply procurements and The Brattle Group as the independent third-party evaluator for the Companies' solar photovoltaic alternative energy credit procurements; (6) finding that neither the Companies nor their affiliates have withheld from the market any generation supply in a manner that violates federal law; (7) finding that the Programs include prudent steps necessary to negotiate favorable generation supply contracts; (8) finding that the Programs include prudent steps necessary to obtain least-cost generation supply on a long-term, short-term and spot market basis; (9) granting a waiver of the

rate design provisions of 52 Pa. Code § 54.187 and transmission-related price-to-compare

provisions at 52 Pa. Code §§ 54.182 and 54.187, to the extent necessary; (10) approving the

Companies' proposed SMAs as affiliated interest agreements under 66 Pa.C.S. § 2102; approving

Penelec's ability to transfer, at market value, alternative energy credits, acquired from NUGs

amongst the Companies as proper affiliated transactions; (12) approving the Companies' proposed

retail market enhancement rate mechanism; and (13) approving the continuation of the Companies'

clawback charges within their supplier tariffs.

Respectfully submitted,

Tori L. Giesler (Pa. No. 207742)

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Counsel for Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania

Power Company and West Penn Power

Company

Dated: December 4, 2017

25

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

METROPOLITAN EDISON COMPANY
Docket No. P-2017
PENNSYLVANIA ELECTRIC COMPANY
Docket No. P-2017
PENNSYLVANIA POWER COMPANY
Docket No. P-2017
WEST PENN POWER COMPANY
Docket No. P-2017

DEFAULT SERVICE PROGRAMS June 1, 2019 to May 31, 2023

Direct Testimony Of-Kimberlie L. Bortz

List of Topics Addressed
Settlement Commitments from DSP IV
Customer Notice
Plan Term
Rate Design and Cost Recovery
Customer Referral Program
Purchase of Receivables Clawback Charge
Bypassable Retail Market Enhancement Rate Mechanism
Other Related Matters

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1	DIRECT TESTIMONY
2	OF
3	KIMBERLIE L. BORTZ

4 I. INTRODUCTION AND BACKGROUND

- 5 Q Please state your name and business address.
- A. My name is Kimberlie L. Bortz, and my business address is 2800 Pottsville Pike, Reading,
 PA 19605.
- 8 Q. By whom are you employed and in what capacity?
- 9 I am employed by FirstEnergy Service Company as a Rates Advisor - Rates and Regulatory A. 10 Affairs - Pennsylvania. The Pennsylvania Rates Department provides regulatory support 11 for FirstEnergy Corp.'s ("FirstEnergy") Pennsylvania regulated distribution companies, 12 including Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company 13 ("Penelec"), Pennsylvania Power Company ("Penn Power") and West Penn Power 14 Company ("West Penn") (individually, a "Company" and in any combination, the 15 "Companies"). I am responsible to the Director - Rates and Regulatory Affairs -16 Pennsylvania for the development, coordination, preparation and presentation of the 17 Companies' accounting and financial data in their rate-related matters before the 18 Pennsylvania Public Utility Commission ("Commission") and New York State Public 19 Service Commission. Also, I am responsible for tariff interpretation, tariff filings, and the design and development of retail electric rates. 20

21 **Q.** What is your educational background?

A. I have a Bachelor of Science degree in Accounting from the University of Maryland, and
I am a Certified Public Accountant in Pennsylvania. I have over twenty-four years of

- 1 experience with FirstEnergy. My educational background and work experience are more
- 2 fully described in Appendix A to this statement.

3 Q. On whose behalf are you testifying in this proceeding?

- 4 A. I am testifying on behalf of Met-Ed, Penelec, Penn Power and West Penn. My testimony
- 5 equally applies to all of the Companies, unless otherwise stated.

6 Q. What is the purpose of your direct testimony?

- 7 A. My testimony will describe the following elements of the Default Service Programs
- 8 ("DSPs") that are the subject of this proceeding: (i) settlement commitments of the last
- 9 default service proceeding at Docket Nos. P-2015-2511333, P-2015-2511351, P-2015-
- 10 2511355, and P-2015-2511356 ("DSP IV"); (ii) customer notice; (iii) plan term; (iv) the
- proposed rate design and cost recovery plans; (v) the Customer Referral Program ("CRP");
- (vi) the purchase of receivables ("POR") clawback charge; (vii) the bypassable retail
- market enhancement rate mechanism; and (viii) other related matters.

14 Q. Have you prepared any exhibits to accompany your testimony?

- 15 A. Yes. Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-1 through KLB-32 were
- prepared by me or under my supervision and are described in detail later in my testimony.

17 II. SETTLEMENT COMMITMENTS

- 18 Q. In the Joint Petition for Settlement of Default Service Programs ("DSP IV
- 19 Settlement") which the Commission approved in the Companies' DSP IV proceeding,
- 20 the Companies made various commitments. Are the Companies in compliance with
- 21 those provisions?
- A. Yes, they are.

1	Q.	Please describe each of the DSP IV Settlement commitments and explain how the
2		Companies are complying with the provisions.

3 A. The commitments and the Companies' compliance actions are as follows:

- 1. The Companies agreed to convene multiple stakeholder collaboratives with the parties to the DSP IV Settlement to explore the establishment of a bypassable retail market enhancement rate mechanism and the scope of shopping available to customers participating in the Companies' customer assistance programs ("CAPs").
 - The Companies held stakeholder collaboratives with the parties to the DSP IV Settlement to discuss these topics on September 13, 2016; November 30, 2016; May 25, 2017; and October 4, 2017. While no consensus was reached on these topics among the collaborative participants, the Companies are proposing a bypassable retail market enhancement rate mechanism as part of this proceeding. This mechanism will be described in detail later in my testimony. The Companies are not proposing any modifications to the scope of CAP shopping in this proceeding.
 - 2. The Companies agreed to lower the hourly pricing threshold from 400 kW to 100 kW effective June 1, 2019 for any Company where smart meters will be used for hourly pricing billing purposes.
 - The Companies represent that in compliance with their Revised Smart Meter Deployment Plan, they are collectively on schedule to permit lowering the hourly pricing threshold to 100 kW by June 1, 2019. As such, any customer with demand equal to or greater than 100

kW that is currently part of the Commercial class for default service purposes would receive default service through the Hourly Pricing Default Service ("HP") Rider.¹

- 3. The Companies agreed to host an informational meeting with the parties to the DSP IV Settlement to discuss the calculation of non-market based ("NMB") charges under the Companies' Default Service Support ("DSS") Riders including any adjustments to the timing and estimation of NMB charges to reduce potential reconciliation charges. The informational meeting was held on November 30, 2016. Despite these discussions, no proposed adjustments to the timing or estimation of the NMB charges were identified by the participants.
- 4. The Companies also agreed to enhance the transparency of the Network Integration Transmission Services ("NITS") rates and charges by providing notice to electric generation suppliers ("EGSs") and potential default service providers of any public, docketed Federal Energy Regulatory Commission ("FERC") filings that modify the NITS rate for any transmission company providing service to one of the Companies and to add a page to their Supplier Support website titled "NITS Rate Information."

As such, the Companies are actively providing notice to EGSs and potential default service providers of any public filings which would modify the NITS rate affecting any of the Companies via: emails through their Supplier Support communications process; updating Frequently Asked Questions on their DSP auction website; and posting NITS rates in a

¹ As required by the DSP IV Settlement, the Companies provided updates to the parties regarding their ability to lower the hourly pricing threshold on October 3, 2016, April 3, 2017 and October 2, 2017.

prominent table on both the Supplier Support and DSP auction websites. This information is refreshed as updates become publicly available.

- 5. The DSP-IV Settlement also required the Companies to modify the CRP scripts for the program administrator and the Companies' customer service representatives ("CSRs"). The scripts for the program administrator and the Companies' CSRs were modified to comply with the script language prescribed within the DSP IV Settlement effective May 15 and May 26, 2017, respectively. Also as a result of the DSP IV Settlement, the Companies reconvened their supplier workshops in order to provide a collaborative forum to discuss CRP operational enhancements that could be implemented as part of the CRP by both the Companies and EGS participants. The Companies hosted a supplier workshop on December 8, 2016 to discuss CRP enhancements, and hosted an informational session on CRP on August 10, 2017.
- 6. Finally, consistent with the DSP IV Settlement, the Companies implemented as a two-year pilot a POR clawback charge for the twelve-month periods ended August 31, 2016 and August 31, 2017 for EGSs whose write-offs as a percentage of revenues are 200% higher than their peers and whose average price per kilowatt hour ("kWh") is greater than 150% of the average price to compare for the operating company in which the EGS is serving customers. The results of the pilot are reviewed later in my testimony, where I also discuss the Companies' proposal to continue the clawback charge as part of this proceeding.

2 (a) the current procurement plan and market conditions; (b) a bypassable retail
3 market enhancement rate mechanism; (c) the scope of CAP shopping; (d)

What were the results of the stakeholder collaborative in October 2017 that discussed:

- 4 continuation of the POR clawback charge; and (e) any proposed changes to customer
- 5 classes as a result of lowering the hourly pricing threshold?

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Q.

- 6 A. No consensus was reached amongst the parties to the collaborative on any of the topics 7 listed. However, pursuant to the DSP IV Settlement, the Companies agreed to make a 8 filing with the Commission regarding the bypassable retail market rate mechanism, the 9 scope of CAP shopping, any proposed continuation of the POR clawback charge, and 10 proposed changes to customer classes no later than January 31, 2018. The DSP IV 11 Settlement also provided that the Companies may make a filing regarding their current 12 procurement plan if the Companies find it necessary to do so following the October 2017 collaborative. 13
- Q. Given that no consensus was reached on the topics discussed at the collaborative, what are the Companies proposing with regard to the filings required by the DSP IV Settlement?
- A. Lowering the hourly pricing threshold is a significant change for both customers and default service providers and requires the Companies to: adjust the eligible default service load for the commercial and industrial classes; revise the Companies' tariff definitions, rate schedules and riders; and develop and roll out a comprehensive communication plan to ensure customers are informed and educated on the new hourly pricing threshold. The Companies believe it is in the best interest of their customers to ensure clarity on this and the other collaborative topics. As such, given the number of items to be proposed and the

direct nexus several of them have to the Companies' portfolio timing and products, the Companies are filing new DSPs for the period beginning June 1, 2019.

III. CUSTOMER NOTICE

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Q. Please describe how the Companies will provide notice to customers of this DSP filing.

Pursuant to 52 Pa. Code § 54.188(e)(1), the Companies must provide all customers with notice of the filing of their DSPs in a manner similar to that described in 52 Pa. Code § 53.68. Accordingly, within thirty days of filing the Joint Petition seeking approval of their DSPs, each of the Companies will provide public notice of the filing by publishing a notice in the major newspapers serving their respective service areas. The notice will contain information about the Companies' filings; the Companies' proposed competitive solicitations of generation resources; how the Companies' plans may affect customers; where the filings are being made available for public inspection; how comments or complaints can be filed; and how customers can participate in these proceedings. The Companies' Joint Petition, direct testimony and exhibits are being made available for inspection at Met-Ed's principal office in Reading, Penelec's principal office in Erie, Penn Power's office in Clark, and West Penn's principal office in Greensburg. Additionally, this material will be posted to the Companies' public internet domain, where it will be available electronically for public inspection. Finally, the Companies are providing additional public notice by means of a press release.

In accordance with 52 Pa. Code § 54.185(c), the Companies are also serving copies of the Joint Petition, direct testimony and exhibits on the Pennsylvania Office of Consumer Advocate ("OCA"), the Pennsylvania Office of Small Business Advocate ("OSBA"), the Commission's Bureau of Investigation and Enforcement ("BI&E"), PJM Interconnection

L.L.C. ("PJM"), and all EGSs registered to provide service in the Companies' service territories. As a courtesy, the Companies are also serving copies of the Joint Petition, direct testimony and exhibits on: the Met-Ed Industrial Users Group, the Penelec Industrial Customer Alliance, the Penn Power Users Group, and the West Penn Power Industrial Interveners; the Pennsylvania State University; the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania; and the Retail Energy Supply Association.

A.

Q. Please describe the proposed customer notices that will be provided for any default service rate changes.

The Companies will continue to submit tariff supplements on a quarterly basis to recover the costs reasonably incurred in acquiring electricity at market prices the later of: forty-five days prior to the effective date of each change in their default service rate; seven days after the last supply auction; or more frequently. The tariff supplements will be accompanied by the calculations that translate procurement plan results into retail rates. Written notice of the submission of these tariff supplements will be provided to the OCA, OSBA, BI&E, and other parties included on the service list for this proceeding. The tariff supplements will be posted on the Companies' public internet domain when they are filed with the Commission. In addition, the Companies will continue to post the filed price-to-compare rates for the residential and commercial classes on the Commission's website at www.papowerswitch.com. Also, within one business day of the effective date of the revised price-to-compare for the residential and commercial customer classes, the revised price-to-compare will be posted on the Companies' public internet site.

Consistent with the Companies' current practice, as approved in their current DSPs, customers will be provided notice, via bill message, that new default service rates will take effect for each upcoming default service quarter. The notices will enable customers to analyze how the new rates will affect their bills and provide an opportunity for customers to seek competitive alternatives from EGSs.

6 IV. PLAN TERM

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7 Q. What is the program term for the Companies' current DSP?

- A. The Companies' current DSP is a four-year term with the contract lengths, product percentages and procurement lead times during the initial two-year period (June 1, 2017 through May 31, 2019) replicated for the remaining two years (June 1, 2019 through May 31, 2021). The DSP IV Settlement permits the Companies to file a new DSP following the October collaborative for changes to the procurement and implementation plans, which includes a reduction of the current plan term to two years.
- 14 Q. What term are the Companies proposing for this new DSP?
- 15 A. The Companies are proposing a firm four-year term for the forty-eight months spanning

 16 June 1, 2019 through May 31, 2023.

17 Q. What are the benefits of a four-year DSP term?

18 A. The Companies believe a firm four-year term provides certainty for customers and EGSs
19 regarding the terms of the DSP, administrative efficiencies, and cost savings for customers
20 as a result of the Companies not filing a new plan every two years.

V. RATE DESIGN AND COST RECOVERY

- 2 Q. Are the Companies proposing any changes to their existing retail customer
- 3 classifications residential, commercial and industrial?
- 4 A. The Companies will continue to procure default service supplies separately for each of the
- 5 three retail customer classes. However, the hourly pricing threshold that is currently set at
- 6 400 kW is being reduced to 100 kW. Pursuant to the DSP IV Settlement, the Companies
- agreed to lower the hourly pricing threshold by June 1, 2019 where smart meters will be
- 8 used for hourly pricing billing.

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- 9 The Companies will define within their respective Rates GS-Medium (for Met-Ed and
- Penelec), Rate GM (for Penn Power), and Schedule 30 (for West Penn) which customers
- will receive default service under the Price to Compare Default Service Rate ("PTC") Rider
- or the HP Rider with a delineation of "PTC" or "HP". For example, Met-Ed Rate Schedule
- GS-Medium (PTC) will include customers with a kW demand less than 100 kW, which
- will be considered part of the commercial class. By contrast, Met-Ed Rate Schedule GS-
- Medium (HP) will include customers with a kW demand equal to or greater than 100 kW,
- which will be included in the industrial class.

17 Q. Why is this change in the hourly pricing threshold necessary?

- 18 A. First, as stated previously, this is a commitment made by the Companies that was set forth
- in the DSP IV Settlement. Second, the Commission's End State Order related to the Retail
- 20 Market Investigation established the following recommended structure for hourly pricing:
- As to the proposed delineation point of above 100 kW of demand, the Commission
- acknowledges that the more compelling point of delineation is whether the
- customer has an interval meter, as no EDC suggested any difficulty creating a subclass for default service. Therefore, at this time, the Commission continues to
- support the threshold of 100 kW for purposes of determining medium and large
- C&I customers, but expects EDCs to offer hourly LMP products only to the

customers above that demand level who have interval meters. We expect the EDCs to continue adding medium C&I customers to the hourly LMP product as interval meters are deployed.²

In the Commission's End State Final Order, it was recognized that each electric distribution company ("EDC") should have flexibility in implementing the recommended 100 kW threshold. While the Commission identified this threshold as the ultimate goal, there was an acknowledgment that there are impediments, such as lack of access to hourly usage data, that must first be overcome. Specifically, the Commission held that it is appropriate to provide customers with demand equal to or greater than 100 kW an hourly-priced product once they have an interval meter installed. Because the Companies' Smart Meter Deployment Plan states that smart meters that read interval data will be fully operational by June 1, 2019 and the Companies remain on track with their implementation schedule as of the date of this filing, the Companies are proposing to lower the hourly pricing threshold to 100 kW simultaneous to when smart meters are fully operational and able to read interval data for billing purposes.

Q. How will the Companies communicate this change in the hourly pricing threshold to customers directly affected by the change?

A. The Companies are developing an outreach and educational communication plan to inform shopping and default service customers with demand between 100kW and 400kW of the changes in eligibility for default service in the commercial class through the PTC Rider as compared to default service as part of the industrial class through the HP Rider. Pursuant to the DSP IV Settlement, the communication plan will be circulated to the parties to the

² Investigation of Pennsylvania's Retail Electricity Market: End State of Default Service, Docket No. I-2011-2237952, p. 29 (Final Order dated February 14, 2013).

- DSP IV Settlement for comment at least nine months prior to the effective date of the new hourly pricing threshold, or by September 1, 2018. Additionally, the Companies have committed to notifying customers at least six months before the effective date of the change, or by December 1, 2018.
- 5 Q. Which rate schedules will be affected by this change in the hourly pricing threshold?
- A. Met-Ed and Penelec rate schedule GS-Medium, Penn Power GM, Penn Power GS-Large,
 and West Penn Schedule 30 are affected by the change.
- Q. Are you sponsoring exhibits that show the proposed revisions to the Companies'
 tariffs necessary to implement this change in the hourly pricing threshold?
- 10 Yes. Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-1 through KLB-5 reflect A. 11 changes to the tariff definitions in each of the Companies' tariffs; Met-Ed/Penelec/Penn 12 Power/West Penn Exhibits KLB-6 and KLB-7 show revisions to each of Met-Ed and 13 Penelec's Rate GS-Medium; Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-8 14 indicates Penn Power Rate GM modifications; Met-Ed/Penelec/Penn Power/West Penn 15 Exhibit KLB-9 presents the changes to West Penn Schedule 30; Met-Ed/Penelec/Penn 16 Power/West Penn Exhibit KLB-10 shows the changes to Penn Power Rate GS-Large; Met-17 Ed/Penelec/Penn Power/West Penn Exhibits KLB-11 through KLB-14 show the changes 18 to the Companies' PTC Riders; and Met-Ed/Penelec/Penn Power/West Penn Exhibits 19 KLB-15 through KLB-19 present the modifications to the Companies' HP Riders.
- Q. Please further describe the revisions to the Default Service Charges in each of the affected rate schedules.
- A. The following language will be inserted into the Default Service Charges section of each of the affected rate schedules, using Met-Ed Rate GS-Medium as an example:

1 2 3 4		DEFAULT SERVICE CHARGES: For Rate Schedule GS-Medium (PTC) Customers receiving Default Service from the Company, Rider H – Price to Compare Default Service Rate Rider, Commercial Customer Class rate applies unless the Customer elects to receive Default Service
5 6 7		from the Company under Rider I – Hourly Pricing Default Service Rider. For Rate Schedule GS-Medium (HP) Customers receiving Default Service from the Company, the Hourly Pricing Default Service Rider rates apply.
8 9 10		DETERMINATION OF RATE SCHEDULE GS-MEDIUM (PTC) AND GS-MEDIUM (HP) Rate Schedule GS-Medium (PTC): Customers receiving service under this Rate Schedule with a kW demand less than 100 kW.
11 12 13 14		Rate Schedule GS-Medium (HP): Customers receiving service under this Rate Schedule with a kW demand equal to or greater than 100 kW.
15	Q.	How will the Companies determine which rider a customer will be served under for
16		default service?
17	A.	The Companies will conduct a review each year of the measured demand for the period
18		April 1 of the preceding year to March 31 of the current year for all customers. Based on
19		that review, if the actual measured demand in any of the twelve months is less than 100
20		kW, then to the extent that customer chooses not to shop, the customer shall receive default
21		service under the provisions of the PTC Rider. Otherwise, the Customer will receive
22		default service under the provisions of the HP Rider. The results of this review will become
23		effective June 1 of every year and the customer will remain on the designated rider for a
24		twelve-month period, or until they elect to shop with an EGS.
25	Q.	How will the reconciliation rate component of the PTC Rider and HP Rider be
26		affected by customers migrating to hourly pricing?
27	A.	The reconciliation rate component for each of these riders will include a one-time
28		adjustment for the pro-rated portion of the reconciliation balance based on kWh sales
29		associated with customers migrating from the PTC Rider to the HP Rider as of June 1,
30		2019.

1	Q.	Please further	describe	the	tariff	revisions	to	the	PTC	Rider	and	HP	Rider
2		reconciliation ra	ate compo	nent	•								

- A. An additional bullet will be added to the PTC Rider and HP Rider reconciliation rate components as follows, using Met-Ed Rate GS-Medium in this example text:
- 5 PTC Rider DS_{Exp2} and HP Rider $DSHP_{Exp2}$:

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Any reconciliation balance associated with GS-Medium customers with demand equal to or greater than 100 kW migrating from the Price to Compare Default Service Rate Rider to the Hourly Pricing Default Service Rider as of June 1, 2019.

Q. Are there any other rate schedules that will be affected by the 100 kW delineation threshold for hourly pricing?

Yes. Customers on Penn Power Rate GS-Large are currently being served under the PTC Rider for default service. In the Companies' 2014 base rate cases, this rate schedule was created and comprised of certain Rate GS-Small and Rate GS-Medium customers who had registered demand of 400 kW or greater in anticipation of transitioning these customers to hourly pricing in the next available default service proceeding. Since that time, the Company has continued to provide default service to these customers under the PTC Rider. These customers now have the proper metering in place and the hourly pricing delineation point within the rate schedule has been clearly defined at 100 kW. Therefore, it makes sense to move Penn Power Rate GS Large customers to the HP Rider at this time. Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-10 provides the changes to the Default Service Charges section of Penn Power Rate GS-Large to accomplish this migration.

1	Q.	Are the Companies proposing any other changes to the design of the default service
2		rates for each of the customer classes?
3	A.	No. The default service rates for the Companies' residential and commercial customer
4		classes continue to consist of a single flat per kWh energy charge, which changes quarterly.
5		For the Companies' industrial customer classes, default service rates are based upon the
6		PJM real-time hourly Locational Marginal Price for the Companies' respective PJM-
7		designated delivery zone, plus associated costs incurred to provide hourly-priced service,
8		such as capacity, ancillary services, PJM administrative expenses and costs to comply with
9		Alternative Energy Portfolio Standards ("AEPS") requirements.
10	Q.	What costs would the Companies recover under the default service rates they are
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11		proposing in this case?
12	A.	The default service rates would continue to recover: (1) generation costs, certain
	A.	
12	A.	The default service rates would continue to recover: (1) generation costs, certain
12 13	A.	The default service rates would continue to recover: (1) generation costs, certain transmission costs, ancillary service costs, and AEPS compliance costs, as described by
12 13 14	A.	The default service rates would continue to recover: (1) generation costs, certain transmission costs, ancillary service costs, and AEPS compliance costs, as described by Mr. Catanach in Met-Ed/Penelec/Penn Power/West Penn Statement No. 2; (2) supply
12 13 14 15	A.	The default service rates would continue to recover: (1) generation costs, certain transmission costs, ancillary service costs, and AEPS compliance costs, as described by Mr. Catanach in Met-Ed/Penelec/Penn Power/West Penn Statement No. 2; (2) supply management and administrative costs, as permitted by 52 Pa. Code § 69.1808; (3)
12 13 14 15 16	A.	The default service rates would continue to recover: (1) generation costs, certain transmission costs, ancillary service costs, and AEPS compliance costs, as described by Mr. Catanach in Met-Ed/Penelec/Penn Power/West Penn Statement No. 2; (2) supply management and administrative costs, as permitted by 52 Pa. Code § 69.1808; (3) applicable taxes; and (4) a proposed bypassable retail market enhancement rate mechanism
12 13 14 15 16 17	A.	The default service rates would continue to recover: (1) generation costs, certain transmission costs, ancillary service costs, and AEPS compliance costs, as described by Mr. Catanach in Met-Ed/Penelec/Penn Power/West Penn Statement No. 2; (2) supply management and administrative costs, as permitted by 52 Pa. Code § 69.1808; (3) applicable taxes; and (4) a proposed bypassable retail market enhancement rate mechanism which will be discussed later in my testimony.

1	Q.	How are default service rates charged to the Companies' residential and commercial
2		default service customers?
3	A.	The default service rates of each of the Companies' residential and commercial customer
4		classes are charged through the PTC Rider as part of each of the Companies' tariffs, which
5		sets forth rates for default service that are then incorporated into and referenced by the
6		applicable rate schedules.
7	Q.	Except for lowering the hourly pricing threshold to 100 kW, are the Companies
8		proposing any other changes to their PTC Riders?
9	A.	Yes. As described later in my testimony the Companies are proposing a bypassable retail
10		market enhancement rate mechanism that will be added to the residential PTC rate
11		calculation.
12	Q.	Do you believe the design of the PTC Rider rates for the residential and commercial
13		customer classes is consistent with the Commission's default service regulations and
14		the Public Utility Code?
15	A.	Yes. The Commission's regulations at Section 54.187(d) state that default service rates
16		may not use a declining block structure. For the residential class, the Public Utility Code

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at Section 2807(e)(7) and the regulations at Section 54.187(i) provide that rates shall

change no more frequently than on a quarterly basis. Consistent with these requirements,

the Companies' proposed PTC Rider rates for the residential and commercial customers

employ a flat per kWh rate design, with rates that will continue to change quarterly.

1 Q. How are default service rates charged to non-shopping customers that are part of the 2 Companies' industrial class? 3 The industrial customer class default service rates of each of the Companies are charged A. 4 through the HP Riders as part of each of the Companies' tariffs. 5 Q. Except for lowering the hourly pricing threshold to 100 kW, are the Companies 6 proposing any other changes to their HP Riders? 7 A. No. The Companies are not proposing to change the design or components of their HP 8 Riders as part of their proposed DSPs. 9 Q. Do you believe the design of the rates set forth in the HP Riders is consistent with the 10 **Commission's default service regulations?** 11 A. Yes. For the reasons I previously explained, the hourly-priced service offered under the 12 HP Riders is consistent with Commission precedent, the Commission's regulations at 52 13 Pa. Code § 54.187(i) and (j), other applicable provisions of those regulations, and the 14 Commission's prior approval of the Companies' customer class definitions and service 15 offerings. 16 Q. What are the DSS Riders and what costs will be recovered through these riders under this DSP? 17 18 Each of the Companies has a DSS Rider in its respective tariff, which recovers various A.

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categories of costs on a non-bypassable basis. All Companies' DSS Riders recover four

categories of costs: (1) the uncollectible accounts expense incurred through the provision

of default service and on behalf of EGSs through the POR programs for residential and

small commercial customers; (2) retail enhancement costs for the CRP; (3) customer

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education costs; and (4) NMB Charges.³ In addition to these four categories, Met-Ed's 2 DSS Rider recovers Non-Utility Generation costs through May 31, 2018 and Penn Power's DSS Rider may also recover any FERC-approved Midcontinent Independent System 3 Operator ("MISO") Transmission Expansion Plan costs, PJM Integration fees, and MISO 4 5 exit fees associated with Penn Power's move from MISO to PJM.

Q. Are the Companies proposing any changes to the DSS Riders?

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Yes. The Companies are proposing to add to the DSS Riders a credit refunding the A. revenues collected through the bypassable retail market enhancement rate being proposed in this proceeding to be charged to non-shopping residential customers through the PTC Riders. The Companies are also proposing to expand the NMB Charges component to include any Federal Energy Regulatory Commission ("FERC")-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009. These proposed revisions to the DSS Riders are reflected in Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-20 through KLB-24.

Will the Solar Photovoltaic Requirements Charge ("SPVRC") Riders remain in place Q. for the upcoming default service term?

17 Yes. Met-Ed, Penelec, and Penn Power are not proposing any changes to their SPVRC A. 18 Riders and will continue to recover costs attributable to complying with solar AEPS 19 requirements through Rider N, the non-bypassable SPVRC Rider that applies to all delivery

³ NMB Charges currently include FERC approved costs for: (i) PJM Regional Transmission Expansion Plan ("RTEP") charges; (ii) PJM Expansion Cost Recovery charges ("ECRCs"); (iii) PJM charges for Reliability Must Run ("RMR") generating unit declarations and charges associated with plants deactivated on or after July 24, 2014; (iv) historical tie line, generation, and retail customer meter adjustments; (v) unaccounted for energy ("UFE"); and (vi) any other FERCapproved PJM charges billed by PJM that will not be reconciled through the PTC and/or HP Riders and as approved for recovery under the DSS Riders by the Commission. The Companies are proposing to expand the NMB Charges component of the DSS Riders as part of this filing as more fully described in this testimony.

- 1 service customers for those Companies. West Penn does not have an SPVRC Rider and is
- 2 not proposing one as part of its DSP.

3 Q. Are any other tariff revisions being proposed as part of this filing?

- 4 A. Yes. In addition to the revisions required to the DSS Riders, the Companies' Supplier
- 5 Tariffs must be revised to clarify responsibility for any FERC-approved reallocation of
- 6 PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.
- 7 Those changes are reflected in Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-25
- 8 through KLB-28.

9 VI. <u>CUSTOMER REFERRAL PROGRAM</u>

- 10 Q. Are the Companies proposing to continue the CRP as part of their DSPs?
- 11 A. Yes. The Companies propose to continue the CRP as part of this proceeding through May
- 12 31, 2023, the end date of the proposed DSP term.
- 13 Q. Are the Companies proposing any modifications to the CRP?
- 14 A. Yes. One minor modification is being made to extend the date of the Customer Referral
- Program Agreement ("CRP Agreement") between the Companies and participating EGSs
- through May 31, 2023. Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-29 reflects
- this change.

18 **Q.** What is the CRP Agreement?

- 19 A. The CRP Agreement is the contract established between the Company and qualified EGSs
- 20 that wish to participate in the CRP. The CRP Agreement outlines the terms and conditions
- 21 to which a supplier must agree and meet in order to qualify to serve load through the CRP.

VII. PURCHASE OF RECEIVABLES PROGRAM CLAWBACK CHARGE

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- 2 Q. Please describe the POR program included in the Companies' Supplier Tariffs.
- 3 Consistent with the Commission's Policy Statement at 52 Pa. Code § 69.1814, each of the A. 4 Companies agreed to provide, and the Commission approved, POR programs for residential and small commercial accounts served by EGSs.⁴ 5 Under each of the 6 Companies' existing POR programs, accounts receivable are purchased from participating 7 EGSs at a zero discount rate (meaning the Companies pay the face value of the account 8 receivable regardless of what they are actually able to collect from customers), which 9 eliminates the risk to EGSs of uncollectible accounts expense associated with serving 10 residential and small commercial customers. As such, the POR program offers a significant benefit to participating EGSs. 11
- 12 Q. How do the Companies recover uncollectible accounts expense associated with their POR programs?
- A. Adjusted allowances for uncollectible accounts expense were approved in the Companies'
 most recent base rate cases which split uncollectibles into a portion attributable to base
 distribution rates and a separate portion attributable to default service and POR rates, with
 the default service/POR-related portion recovered through the Companies' DSS Riders.

⁴ See, Joint Petition of Metropolitan Edison Company and Pennsylvania Electric Company for Approval of Their Default Service Programs, Docket Nos. P-2009-2093053 and P-2009-2093054 (Opinion and Order approving settlement entered November 6, 2009) (Met-Ed and Penelec); Petition of Pennsylvania Power Company for Approval of its Default Service Programs, Docket No. P-2010-2157862 (Opinion and Order approving settlement entered November 17, 2010) (Penn Power); Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company for Approval of Their Default Service Programs, Docket Nos. P-2013-2391368, et al. (Opinion and Order approving settlement entered July 24, 2014) (revising West Penn).

- The default service/POR-related portion of uncollectible accounts expense for each Company is incurred, in part, as a result of the Companies' POR programs.
- Q. Explain the purpose of the POR clawback charge as it relates to the default
 service/POR-related portion of uncollectible accounts expense.
- 5 A. The clawback charge, as approved in the DSP IV Settlement, was designed to collect a
 6 portion of uncollectible accounts expense from EGSs; specifically, those EGSs whose
 7 practices are driving significantly higher write-offs as a product of the types of offers they
 8 make to customers. Because collection is not an issue EGSs must concern themselves with,
 9 the Companies believe that those EGSs with a higher percentage of write-offs are unfairly
 10 burdening the Companies and their customers, through their pricing practices, with
 11 disproportionately higher write-offs than their peers.

12 Q. Please describe the POR clawback charge calculation.

A.

The clawback charge calculation is a two-prong test. The first prong identifies those participating EGSs whose average percentage of write-offs as a percentage of revenues over a twelve-month period exceeds 200% of the average percentage of total EGS write-offs as a percentage of revenues per operating company. The second prong of the test identifies, of those EGSs identified in the first prong of the test, EGSs whose average price charged over the same twelve-month period exceeds 150% of the operating company average PTC for the period. For those EGSs identified by both prongs of the test, the annual clawback charge assessed is the difference between that EGS's actual write-offs and their actual write-off amount calculated at 200% of the average EGS percentage of write-offs per operating company. The charge recovers the amount of EGS write-offs over 200% of the operating company average and is billed to the EGS annually.

Q. What do the Companies do with the amounts collected from EGSs?

A.

A. A Company retains the amount charged to EGSs if that Company's actual uncollectible accounts expense is higher than the amount of uncollectible expense in base rates plus the amount included in the DSS Riders for the twelve-month period ended August 31 of each year. Alternatively, a Company will refund the EGS charge to customers through a reduction to their respective DSS Rider if that Company's actual uncollectible expense is less than the amount of uncollectible expense recovered in base rates and the DSS Rider.

Q. A reconciliation of uncollectible accounts expense is prohibited under provisions of

Section 1408 of the Public Utility Code, 66 P.S. § 1408. Is that what you are doing?

No. Section 1408 eliminates the possibility of a full reconciliation of all revenues and expenses associated with uncollectible accounts expense. The clawback charge is a supplemental means of cost recovery which relieves customers of having to pay for the uncollectible accounts expense driven by excessive EGS pricing proposals. The uncollectible accounts expense billing procedure and mechanism is clearly not a reconciliation of any type and is thus permissible under the Public Utility Code.

Also, the uncollectible accounts expense cost recovery provides customers with the benefits of any collections obtained from EGSs by passing back a portion of those collections under certain circumstances. In this way, the Companies will collect uncollectible accounts obligations through the three sources of cost recovery available: (1) base distribution rates; (2) DSS Rider rates; and (3) POR clawback billings, if applicable. This provision is designed to serve as a customer protection from EGSs driving uncollectible accounts expense to unreasonable levels.

Q. What were the results of the POR clawback charge over the two-year pilot period and what did the Companies do with the amounts collected?

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3 A. The charge for the twelve months ended August 31, 2016 was assessed to three EGSs for 4 a total of \$573,603.23. For this twelve-month period, the Companies' actual uncollectible 5 expense was significantly higher than the amount of uncollectible expense recovered in 6 base rates plus the DSS Riders. Therefore, each Company retained the amount collected 7 to reduce the Company's uncollectible expense. The charge for the twelve months ended 8 August 31, 2017 was invoiced to four EGSs for a total of \$254,008.15. Actual uncollectible 9 expense for this twelve-month period was less than the total uncollectible expense 10 recovered in base rates plus the DSS Riders for Met-Ed, Penelec and West Penn. 11 Therefore, the clawback charge will be refunded to customers, once collected from the 12 assessed EGSs, through a new component of the DSS Riders to be effective on June 1, 13 2018. Penn Power's actual uncollectible expense is higher than the amount of uncollectible 14 expense recovered in rates. Thus, Penn Power will retain the clawback charge of \$604.13. 15 Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-30 provides the clawback charge 16 calculation for each year of the pilot and the uncollectible expense analysis that determined 17 whether the Companies would retain or refund the charge collected from EGSs.

Q. Are the Companies proposing to continue the POR clawback charge?

19 A. Yes. This charge reduces the Companies' (and thereby, customers') exposure to
20 unreasonable EGS-driven uncollectible accounts expense by providing a fresh source of
21 cost recovery from the EGSs benefiting from the PORs, while at the same time
22 incentivizing EGSs to consider the results of their pricing programs on a customer's ability
23 to pay. In turn, the revenues generated by this mechanism accrue to customers over time

- by reducing uncollectible accounts expense that would otherwise have to be collected in the Companies' retail rates. The charge has been effective in achieving the Companies'
- 3 goal of reducing the uncollectibles borne by not only the Companies but by their customers.
- 4 Q. Are the Companies proposing any changes to the POR clawback charge calculation?
- 5 A. No. The Companies believe the charge is effective as currently designed.
- Q. Please explain the customer classes that participate in the POR in light of the
 customer class modifications being proposed with this filing.
- A. The Companies currently identify customers within the residential and commercial classes
 as participants in the POR program. GS-Medium customers with the (PTC) designation
 on the rate code will continue to be part of the POR program. However, because the
 industrial customers do not participate, the customers on the following rate schedule
 designations will no longer be included in the POR program: Met-Ed GS-Medium (HP);
 Penelec GS-Medium (HP); Penn Power GM (HP), GS-Large; and West Penn Schedule
 30 (HP).

15 VIII. BYPASSABLE RETAIL MARKET ENHANCEMENT RATE MECHANISM

- Q. Are the Companies proposing the establishment of a bypassable retail market enhancement rate mechanism?
- A. Yes. Although unanimous agreement on this topic was not achieved through the collaboratives, the Companies are proposing a retail market enhancement rate mechanism as part of this proceeding. The Companies are proposing this mechanism in order to incent residential retail shopping.

1 Q. What is a bypassable retail market enhancement rate mechanism?

A. A bypassable retail market enhancement rate mechanism ("PTC Adder") is a surcharge added to the utilities' default service rate with the purpose of incentivizing non-shopping customers to participate in the retail market.

5 Q. Will the PTC Adder apply to all customer classes?

A. No. The Companies propose the PTC Adder be applicable only to the residential customer class, as this class has the lowest level of customer shopping. On average, only about 30% of the Companies' residential customers are shopping. By contrast, commercial and industrial customers are shopping in significantly greater proportion and are generally more aware of their electricity purchasing options. Therefore, it does not appear that commercial and industrial customers require additional incentive to shop for electricity.

12 Q. What do the Companies intend to do with the revenues collected from this PTC

13 Adder?

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A. 95% of the revenues collected will be returned to all customers – shopping and non – through the Companies' nonbypassable DSS Riders. The Companies propose to retain 5% of the revenue collected through the PTC Adder to the PTC Rider to recover expenses associated with administering the PTC Adder. As such, the mechanism is designed to be revenue neutral to the Companies.

Q. How did the Companies calculate the amount of the PTC Adder?

20 A. The PTC Adder is based on the \$30 Customer Referral Program Charge ("CRP Charge")
21 to EGSs for each customer enrolled by the EGS under the CRP. The \$30 CRP Charge is

⁵ As of October 25, 2017, the following percentages of residential customers are shopping: Met-Ed, 33.8%; Penelec, 29.2%; Penn Power, 26.7%; and West Penn, 27.01%.

divided by an assumed EGS customer retention period of twenty-four months. This results in a charge of \$1.25 per residential default service customer per month. The CRP Charge of \$30 has been in place since August 1, 2013; therefore, it appears reasonable to use this amount as a proxy for the retail market enhancement rate mechanism. The \$1.25 per month charge is then divided by the average residential usage for the four Companies to arrive at a per kWh charge which will be a component of the PTC Rider rate calculation. This charge will remain constant for the four-year DSP term.

8 Q. How did the Companies determine that twenty-four months was an appropriate customer retention period?

A. The CRP term is twelve months, so the Companies are assuming that customers are staying with an EGS on average for twenty-four months. However, the Companies have no direct knowledge of the EGS actual average retention period as this information is considered proprietary EGS information and the Companies have no access to data from which to make a more informed calculation.

15 Q. What is the impact of the PTC Adder on the PTC Rider rates?

A. The calculation of the proposed PTC Adder is shown in Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-31. When the Companies divided the monthly CRP charge per customer of \$1.25 by the Companies' average monthly residential usage of 869 kWh for the twelve-month period ended August 31, 2017, the calculation resulted in a PTC Adder of \$0.00144 per kWh for the June 1, 2019 through May 31, 2023 DSP term.

1 Q. What is the impact of the PTC Adder on the Companies' DSS Rider rates?

- 2 A. The DSS Rider rates to be effective on June 1, 2020 will include the refund of 95% of the
- 3 PTC Adder collected from residential default service customers in the PTC Rider between
- 4 June 1, 2019 and March 31, 2020. The refund will occur on a lag to ensure the DSS Rider
- is correctly refunding 95% of the actual PTC Adder revenue collected from customers.
- Thereafter, the DSS Rider rate effective annually on June 1 will continue to include the
- 7 refund until 95% of all funds collected are returned to customers.

8 Q. Are there any tariff changes required for the inclusion of the PTC Adder?

- 9 A. Yes. Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-11 through KLB-14 reflect
- the revisions to the Companies' bypassable PTC Riders to incorporate the proposed PTC
- Adder. Met-Ed/Penelec/Penn Power/West Penn Exhibits KLB-20 through KLB-23 show
- the changes to the Companies' non-bypassable DSS Riders necessary for refunding 95%
- of the revenue collected through the PTC Adder back to all residential customers.

14 IX. OTHER RELATED MATTERS

- 15 Q. Do the Companies have any generation contracts to provide retail customers with
- service in their respective service territories?
- 17 A. No, they do not.
- 18 Q. Do the Companies have time-of-use rates available for residential customers, as
- required by Act 129?
- 20 A. Yes. As approved by the Commission in the Companies' previous default service
- proceedings (for Penn Power and West Penn) and recent base rate cases (for Met-Ed and
- Penelec), each Companies' tariff now includes a Rider K, Time-of-Use Default Service

- Rider, which offers residential customers time-of-use rates. The Companies are not
- 2 proposing any changes to those Riders as part of their DSPs.
- 3 Q. What is the proposed effective date of the tariff changes described in your testimony?
- 4 A. Changes to the Companies' retail tariff are proposed to become effective on June 1, 2019,
- 5 which is the start of the delivery period for the proposed default service term.
- 6 Q. Are there administrative or general expenses associated with the proposed DSP that
- 7 the Companies intend to recover in their PTC and HP Riders?
- 8 A. Yes. Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-32 lists the estimated expenses
- by category for the proposed DSP. The total estimated expenses were allocated to each
- 10 Company using forecasted kWh for the March 2017 to February 2018 period. Each
- 11 Company's estimated expenses were then allocated by customer class using the kWh for
- the same period to determine the estimated amount to be recovered in the PTC and HP
- Riders.
- 14 X. CONCLUSION
- 15 Q. Does this complete your direct testimony?
- 16 A. Yes, it does.

Met-Ed/Penelec/Penn Power/West Penn Power Statement No. 1

Witness: K.L. Bortz Appendix A Page 1 of 2

Appendix A Resume: Education and Experience of Kimberlie L. Bortz

Education:

Bachelor of Science Degree in Accounting - University of Maryland

Professional Certification:

Certified Public Accountant - Pennsylvania

Experience:

1989 – 1992	Senior Accountant - Deloitte & Touche
1992 – 1994	Senior Auditor - GPU Service Corporation
1994 – 1996	Financial Analyst - Metropolitan Edison Company
1996 – 1997	Sales and Marketing Team Lead - GPU Energy
1997 – 1999	Accounting Team Lead - GPU Advanced Resources
1999 - 2001	Comptroller - GPU Advanced Resources
2001 - 2004	Manager, Met-Ed Region Business Services - FirstEnergy Service
	Company
2004 - 2007	Manager, Customer Service Business Services - FirstEnergy Service
	Company
2007 - 2012	Director, PA Business Services - FirstEnergy Service Company
2012 - 2014	Accounting Lead, Financial Transformation Project - FirstEnergy
	Service Company
2014 - Present	Rates Advisor, Pennsylvania Rates and Regulatory Affairs -
	FirstEnergy Service Company

Witness: K.L. Bortz Appendix A Page 2 of 2

Prepared and presented testimony in the following rate-related cases:

PA P.U.C. Cases:

Docket Nos.	Case Name
R-2014-2428745	Metropolitan Edison Company – General Base Rate Filing
R-2014-2428743	Pennsylvania Electric Company – General Base Rate Filing
R-2014-2428744	Pennsylvania Power Company – General Base Rate Filing
R-2014-2428742	West Penn Power Company – General Base Rate Filing
P-2015-2511333	Joint Petition of Metropolitan Edison Company, Pennsylvania Electric
	Company, Pennsylvania Power Company and West Penn Power Company
	for Approval of their Default Service Programs
P-2015-2511351	Joint Petition of Metropolitan Edison Company, Pennsylvania Electric
	Company, Pennsylvania Power Company and West Penn Power Company
	for Approval of their Default Service Programs
P-2015-2511355	Joint Petition of Metropolitan Edison Company, Pennsylvania Electric
	Company, Pennsylvania Power Company and West Penn Power Company
	for Approval of their Default Service Programs
P-2015-2511356	Joint Petition of Metropolitan Edison Company, Pennsylvania Electric
	Company, Pennsylvania Power Company and West Penn Power Company
	for Approval of their Default Service Programs

Assisted in development and preparation in the following proceedings:

PA P.U.C. Cases:

Docket Nos.	Case Name
R-2016-2537349 R-2016-2537352 R-2016-2537355 R-2016-2537359	Metropolitan Edison Company – General Base Rate Filing Pennsylvania Electric Company – General Base Rate Filing Pennsylvania Power Company – General Base Rate Filing West Penn Power Company – General Base Rate Filing

NY P.S.C. Cases

Case Nos. Case Name

Case 17-E-0685 Waverly Base Rate Filing

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-1 Page 1 of 3

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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Combined Billing - The aggregation of the billing determinants of two or more meters of the same Customer at the same location for billing purposes.

Commercial Customer Class - Rate Schedules GS-Small, GS-Medium (PTC), MS, Borderline Service, Street Lighting Service, Ornamental Street Lighting Service, LED Street Lighting Service, and Outdoor Area Lighting Service.

Commission - The Pennsylvania Public Utility Commission or any lawful successor thereto.

Community Association - A formal organization (including unit owners' associations) of persons, whether incorporated or unincorporated, having rights in a residential development; such organizations having been formed to provide services (including, but not limited to, street lighting services) to the residential development where such services are not provided by a municipality.

Company - Metropolitan Edison Company.

Competitive Energy Supply - The unbundled energy, capacity, market based transmission and ancillary services provided by an Electric Generation Supplier pursuant to the Customer Choice and Competition Act.

Connected Load - The sum of the horsepower, kilowatts or kilovolt ampere ratings of all the devices located on a Customer's premises that are connected to the Company's electric system, or which can be connected simultaneously by the insertion of fuses or by the closing of a switch. The manufacturer's nameplate rating may be used to determine the input rating of a particular device. In the absence of such manufacturer's rating, or whenever a Company test indicates improper rating of a device, the rating shall be determined on the basis of the kilovolt-amperes required for its operation.

Consolidated Billing - The issuance of a bill to the Customer by the Company that includes Delivery Service Charges and the charges imposed upon the Customer by an Electric Generation Supplier with whom the Customer has contracted for Competitive Energy Supply.

Contract Demand - The capacity required for operation of an Applicant's/Customer's equipment, as stated in any application or contract for service.

Contractor Costs - The amounts paid by the Company for work performed by a contractor retained by the Company.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-1 Page 2 of 3

METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX)
	Revised Page 16
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Electric Generation Supplier (EGS) - EGS shall have the meaning as set forth in the Customer Choice and Competition Act.

Energy Charge - A charge based upon kilowatt-hours of use.

Energy Efficiency and Conservation Charge - A reconcilable, non-by-passable charge applied to each Billing Unit during a billing month to Delivery Service Customers, with the exception of those served under Borderline Service, pursuant to the terms of the Phase II Energy Efficiency and Conservation Rider.

FERC - The Federal Energy Regulatory Commission

Generating Facility - Any equipment and/or facility that is electrically interconnected to the Company and is (i) capable of generating electrical energy for delivery into the PJM control area and (ii) is located on a single site within the Company's service territory. A single site with multiple generating units, each owned by a single entity, shall constitute one Generating Facility. The Company shall have the sole and exclusive right to determine if any particular equipment qualifies as a Generating Facility if the operating characteristics and/or circumstances relating to such equipment are different than described in this definition.

Hertz - A unit of frequency, equal to one cycle per second.

Horsepower (HP) - Unit of mechanical power representing rate of consumption of power and equivalent to 746 watts. As used herein, horsepower is computed as the equivalent of 750 watts.

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Hourly Pricing Service Charges - For Customers served under Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP, TP, as well as GS-Small and GS-Medium <u>(PTC)</u> Customers that elect this rate, the charges representing the Company's costs for providing energy, capacity, including the cost of complying with non-solar AEPS, transmission, and ancillary services for Default Service Customers.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-1 Page 3 of 3

METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 17 Superseding Revised Page 17
GENERAL RULES AN	D REGULATIONS
Definition of Terms (continued)	
Individualized Contract - Shall have the mean	ning ascribed to it in Rule 14.
Industrial Customer Class - Rate Schedules C	
Kilovar (KVAR) - 1,000 volt-amperes reactive	e.
Kilovolt-ampere (KVA) - 1.000 volt-amperes.	

Kilowatt-hour (**KWH or kWh**) - 1,000 watts for one (1) hour.

Kilowatt (KW or kW) - 1,000 watts.

Line Extension - The extension of the Company's distribution system from the nearest suitable and available Distribution Line to the Service Line which will provide service to the Customer.

Monthly Minimum Charge - A charge designed to recover the costs the Company incurs in billing a Customer's account and providing other services.

Net Station Power - The quantity of electrical energy and/or capacity actually provided by the Company to the Generating Facility for Station Power during an applicable period after crediting the amount, if any, of electric energy during the applicable period (i) produced by the Generating Facility and delivered into the PJM control area or (ii) as permitted under "Station Power Energy Netting" as described in the applicable Rate Schedule.

Network Integration Transmission Service - Network Integration Transmission Service as set forth in the PJM Open Access Transmission Tariff and any direct Transmission Owner charged expense.

Network Service Peak Load (kW NSPL) - A Customer's one (1) coincident peak kW Network Service Peak Load in effect from time to time, as calculated by the Company in accordance with PJM rules and requirements.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-2 Page 1 of 3

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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Combined Billing - The aggregation of the billing determinants of two or more meters of the same Customer at the same location for billing purposes.

Commercial Customer Class – Rate Schedules GS-Small, GS-Medium (PTC), H, Borderline Service, High Pressure Sodium Vapor Street Lighting Service, Municipal Street Lighting Service, LED Street Lighting Service, and Outdoor Area Lighting Service.

Commission - The Pennsylvania Public Utility Commission or any lawful successor thereto.

Community Association - A formal organization (including unit owners' associations) of persons, whether incorporated or unincorporated, having rights in a residential development; such organizations having been formed to provide services (including, but not limited to, street lighting services) to the residential development where such services are not provided by a municipality.

Company – Pennsylvania Electric Company.

Competitive Energy Supply – The unbundled energy, capacity, market based transmission and ancillary services provided by an Electric Generation Supplier pursuant to the Customer Choice and Competition Act.

Connected Load - The sum of the horsepower, kilowatts or kilovolt ampere ratings of all the devices located on a Customer's premises that are connected to the Company's electric system, or which can be connected simultaneously by the insertion of fuses or by the closing of a switch. The manufacturer's nameplate rating may be used to determine the input rating of a particular device. In the absence of such manufacturer's rating, or whenever a Company test indicates improper rating of a device, the rating shall be determined on the basis of the kilovolt-amperes required for its operation.

Consolidated Billing –The issuance of a bill to the Customer by the Company that includes Delivery Service Charges and the charges imposed upon the Customer by an Electric Generation Supplier with whom the Customer has contracted for Competitive Energy Supply.

Contract Demand - The capacity required for operation of an Applicant's/Customer's equipment, as stated in any application or contract for service.

Contractor Costs - The amounts paid by the Company for work performed by a contractor retained by the Company.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-2 Page 2 of 3

PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX)
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Electric Generation Supplier (EGS) - EGS shall have the meaning as set forth in the Customer Choice and Competition Act.

Energy Charge – A charge based upon kilowatt-hours of use.

Energy Efficiency and Conservation Charge – A reconcilable, non-by-passable charge applied to each Billing Unit during a billing month to Delivery Service Customers, with the exception of those served under Borderline Service, pursuant to the terms of the Phase III Energy Efficiency and Conservation Rider.

FERC – The Federal Energy Regulatory Commission

Generating Facility - Any equipment and/or facility that is electrically interconnected to the Company and is (i) capable of generating electrical energy for delivery into the PJM control area and (ii) is located on a single site within the Company's service territory. A single site with multiple generating units, each owned by a single entity, shall constitute one Generating Facility. The Company shall have the sole and exclusive right to determine if any particular equipment qualifies as a Generating Facility if the operating characteristics and/or circumstances relating to such equipment are different than described in this definition.

Hertz – A unit of frequency, equal to one cycle per second.

Horsepower (HP) – Unit of mechanical power representing rate of consumption of power and equivalent to 746 watts. As used herein, horsepower is computed as the equivalent of 750 watts.

(C)

Hourly Pricing Service Charges – For Customers served under Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP, LP, as well as GS-Small and GS-Medium (<u>PTC</u>) Customers that elect this rate, the charges representing the Company's costs for providing energy, capacity, including the cost of complying with non-solar AEPS, transmission, and ancillary services for Default Service Customers.

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Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-2 Page 3 of 3

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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.	C. No. 81 (Supp. XX)
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Individualized Contract – Shall have the meaning ascribed to it in Rule 14.

Industrial Customer Class – Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP and LP.

Kilovar (**KVAR**) - 1,000 volt-amperes reactive.

Kilovolt-ampere (**KVA**) - 1,000 volt-amperes.

Kilowatt (KW or kW) - 1,000 watts.

Kilowatt-hour (KWH or kWh) - 1,000 watts for one (1) hour.

Line Extension - The extension of the Company's distribution system from the nearest suitable and available Distribution Line to the Service Line which will provide service to the Customer.

Monthly Minimum Charge – A charge designed to recover the costs the Company incurs in billing a Customer's account and providing other services.

Net Station Power - The quantity of electrical energy and/or capacity actually provided by the Company to the Generating Facility for Station Power during an applicable period after crediting the amount, if any, of electric energy during the applicable period (i) produced by the Generating Facility and delivered into the PJM control area or (ii) as permitted under "Station Power Energy Netting" as described in the applicable Rate Schedule.

Network Integration Transmission Service – Network Integration Transmission Service as set forth in the PJM Open Access Transmission Tariff and any direct Transmission Owner charged expense.

Network Service Peak Load (kW NSPL) – A Customer's one (1) coincident peak kW Network Service Peak Load in effect from time to time, as calculated by the Company in accordance with PJM rules and requirements.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-3 Page 1 of 3

Electric Pa. P.	U.C. No. 36 (Supp. XX)
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Combined Billing – The aggregation of the billing determinants of two or more meters of	
the same Customer at the same location for billing purposes.	
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Commercial Customer Class – Rate Schedules GS (excluding GS Special Rule GSDS), PNP, GM (PTC), GS-Large, PLS, SV, SVD, SM, and LED.

Commission – The Pennsylvania Public Utility Commission or any lawful successor thereto.

Community Association – A formal organization (including unit owners' associations) of persons, whether incorporated or unincorporated, having rights in a residential development; such organizations having been formed to provide services (including, but not limited to, street lighting services) to the residential development where such services are not provided by a municipality.

Company – Pennsylvania Power Company.

Competitive Energy Supply – The unbundled energy, capacity, market based transmission and ancillary services provided by an Electric Generation Supplier pursuant to the Customer Choice and Competition Act.

Connected Load – The sum of the horsepower, kilowatts or kilovolt ampere ratings of all the devices located on a Customer's premises that are connected to the Company's electric system, or which can be connected simultaneously by the insertion of fuses or by the closing of a switch. The manufacturer's nameplate rating may be used to determine the input rating of a particular device. In the absence of such manufacturer's rating, or whenever a Company test indicates improper rating of a device, the rating shall be determined on the basis of the kilovolt-amperes required for its operation.

Consolidated Billing – The issuance of a bill to the Customer by the Company that includes Delivery Service Charges and the charges imposed upon the Customer by an Electric Generation Supplier with whom the Customer has contracted for Competitive Energy Supply.

Contract Demand – The capacity required for operation of an Applicant's/Customer's equipment, as stated in any application or contract for service.

Contractor Costs – The amounts paid by the Company for work performed by a contractor retained by the Company.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-3 Page 2 of 3

PENNSYLVANIA I	POWER	COMPANY	

Electric Pa. P.U.C. No. 36 (Supp. XX)

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Superseding ___ Revised Page 15

GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Electric Generation Supplier (EGS) – EGS shall have the meaning as set forth in the Customer Choice and Competition Act.

Energy Charge – A charge based upon kilowatt-hours of use.

Energy Efficiency and Conservation Charge – A reconcilable, non-by-passable charge applied to each Billing Unit during a billing month to Delivery Service Customers, pursuant to the terms of the Phase III Energy Efficiency and Conservation Rider.

FERC – The Federal Energy Regulatory Commission.

Generating Facility – Any equipment and/or facility that is electrically interconnected to the Company and is (i) capable of generating electrical energy for delivery into the PJM control area and (ii) is located on a single site within the Company's service territory. A single site with multiple generating units, each owned by a single entity, shall constitute one Generating Facility. The Company shall have the sole and exclusive right to determine if any particular equipment qualifies as a Generating Facility if the operating characteristics and/or circumstances relating to such equipment are different than described in this definition.

Hertz – A unit of frequency, equal to one cycle per second.

Horsepower (**HP**) – Unit of mechanical power representing rate of consumption of power and equivalent to 746 watts. As used herein, horsepower is computed as the equivalent of 750 watts.

(C)

Hourly Pricing Service Charges – For Customers served under Rate Schedules <u>GM (HP)</u>, <u>GS-Large</u>, GP, GT, GS-Special Rule GSDS, GS-Small (on a voluntary basis), <u>and GM (PTC)</u> GS-Medium (on a voluntary basis), <u>and GS-Large</u> (on a voluntary basis). Customers that elect this rate, the charges representing the Company's costs for providing energy, capacity, including the cost of complying with non-solar AEPS, transmission, and ancillary services for Default Service Customers.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-3 Page 3 of 3

PENNSYLVANIA POWER COMPANY	Electric Pa. P.U.C. No. 36 (Supp. XX)
	Revised Page 16
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Individualized Contract – Shall have the meaning ascribed to it in Rule 14.

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Industrial Customer Class – Rate Schedules <u>GM (HP), GS-Large, GP, GT</u> and Special Rule GSDS.

Kilovar (**KVAR**) – 1,000 volt-amperes reactive.

Kilovolt-ampere (**KVA**) – 1,000 volt-amperes.

Kilowatt (**KW or kW**) -1,000 watts.

Kilowatt-hour (KWH or kWh) -1,000 watts for one (1) hour.

Line Extension – The extension of the Company's distribution system from the nearest suitable and available Distribution Line to the Service Line which will provide service to the Customer.

Monthly Minimum Charge – A charge designed to recover the costs the Company incurs in billing a Customer's account and providing other services.

Net Station Power – The quantity of electrical energy and/or capacity actually provided by the Company to the Generating Facility for Station Power during an applicable period after crediting the amount, if any, of electric energy during the applicable period (i) produced by the Generating Facility and delivered into the PJM control area or (ii) as permitted under "Station Power Energy Netting" as described in the applicable Rate Schedule.

Network Integration Transmission Service – Network Integration Transmission Service as set forth in the PJM Open Access Transmission Tariff and any direct Transmission Owner charged expense.

Network Service Peak Load (kW NSPL) – A Customer's one (1) coincident peak kW Network Service Peak Load in effect from time to time, as calculated by the Company in accordance with PJM rules and requirements.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-4 Page 1 of 3

WEST PENN POWER COM	IPA	$\mathbf{N}\mathbf{Y}$
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Electric Pa. P. V	J.C. No. 40 (Supp. XX)
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GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Combined Billing – The aggregation of the billing determinants of two or more meters of the same Customer at the same location for billing purposes.

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Commercial Customer Class – Rate Schedules 20, 30 (PTC), 51, 52, 53, 54, 55, 56, 57, 58, 59, 71, and 72. The Commercial Customer Class does not include the Rate Schedule 20 special provision for Volunteer Fire Company, Non-Profit Ambulance Service, Non-Profit Rescue Squad and Non-Profit Senior Citizen Center.

Commission – The Pennsylvania Public Utility Commission or any lawful successor thereto.

Community Association – A formal organization (including unit owners' associations) of persons, whether incorporated or unincorporated, having rights in a residential development; such organizations having been formed to provide services (including, but not limited to, street lighting services) to the residential development where such services are not provided by a municipality.

Company – West Penn Power Company.

Competitive Energy Supply – The unbundled energy, capacity, market based transmission and ancillary services provided by an Electric Generation Supplier pursuant to the Customer Choice and Competition Act.

Connected Load – The sum of the horsepower, kilowatts or kilovolt ampere ratings of all the devices located on a Customer's premises that are connected to the Company's electric system, or which can be connected simultaneously by the insertion of fuses or by the closing of a switch. The manufacturer's nameplate rating may be used to determine the input rating of a particular device. In the absence of such manufacturer's rating, or whenever a Company test indicates improper rating of a device, the rating shall be determined on the basis of the kilovolt-amperes required for its operation.

Consolidated Billing – The issuance of a bill to the Customer by the Company that includes Delivery Service Charges and the charges imposed upon the Customer by an Electric Generation Supplier with whom the Customer has contracted for Competitive Energy Supply.

Contract Demand – The capacity required for operation of an Applicant's/Customer's equipment, as stated in any application or contract for service.

Contractor Costs – The amounts paid by the Company for work performed by a contractor retained by the Company.

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Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-4 Page 2 of 3

WEST PENN POWER COM	IPA	$\mathbf{N}\mathbf{Y}$
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Electric Pa. P.U	J.C. No. 40 (Supp. XX)
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Superseding	Revised Page 20

GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Electric Generation Supplier (EGS) – EGS shall have the meaning as set forth in the Customer Choice and Competition Act.

Energy Charge – A charge based upon kilowatt-hours of use.

Energy Efficiency and Conservation Charge – A reconcilable, non-by-passable charge applied to each Billing Unit during a billing month to Delivery Service Customers, pursuant to the terms of the Rider F - Phase III Energy Efficiency and Conservation Rider.

FERC – The Federal Energy Regulatory Commission.

Generating Facility – Any equipment and/or facility that is electrically interconnected to the Company and is (i) capable of generating electrical energy for delivery into the PJM control area and (ii) is located on a single site within the Company's service territory. A single site with multiple generating units, each owned by a single entity, shall constitute one Generating Facility. The Company shall have the sole and exclusive right to determine if any particular equipment qualifies as a Generating Facility if the operating characteristics and/or circumstances relating to such equipment are different than described in this definition.

Hertz – A unit of frequency, equal to one cycle per second.

Horsepower (HP) – Unit of mechanical power representing rate of consumption of power and equivalent to 746 watts. As used herein, horsepower is computed as the equivalent of 750 watts.

Hourly Pricing Service Charges – Rate Schedules <u>30 (HP),</u> 35, 40, 44, 46 and Tariff No. 38 (PSU) as well as 20 and 30 (PTC) on a voluntary basis.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-4 Page 3 of 3

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Electric Pa. P.U.C. No. 40 (Supp. XX)

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Superseding ___ Revised Page 21

GENERAL RULES AND REGULATIONS

Definition of Terms (continued)

Individualized Contract – Shall have the meaning ascribed to it in Rule 14.

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Industrial Customer Class – Rate Schedules <u>30 (HP),</u> 35, 40, 44, 46, and Tariff No. 38 (PSU).

Kilovar (**KVAR**) – 1,000 volt-amperes reactive.

Kilovolt-ampere (**KVA**) – 1,000 volt-amperes.

Kilowatt (KW or kW) - 1,000 watts.

Kilowatt-hour (KWH or kWh) -1,000 watts for one (1) hour.

Line Extension – The extension of the Company's distribution system from the nearest suitable and available Distribution Line to the Service Line which will provide service to the Customer.

Monthly Minimum Charge – A charge designed to recover the costs the Company incurs in billing a Customer's account and providing other services.

Net Station Power – The quantity of electrical energy and/or capacity actually provided by the Company to the Generating Facility for Station Power during an applicable period after crediting the amount, if any, of electric energy during the applicable period (i) produced by the Generating Facility and delivered into the PJM control area or (ii) as permitted under "Station Power Energy Netting" as described in the applicable Rate Schedule.

Network Integration Transmission Service – Network Integration Transmission Service as set forth in the PJM Open Access Transmission Tariff and any direct Transmission Owner charged expense.

Network Service Peak Load (kW NSPL) – A Customer's one (1) coincident peak kW Network Service Peak Load in effect from time to time, as calculated by the Company in accordance with PJM rules and requirements.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-5 Page 1 of 1

WEST	PENN	POWER	COMPA	ΛNY

Electric-Pa. P. U. C. No. 38 (Supp. XX)

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DEFINITIONS (continued)

"FERC": The Federal Energy Regulatory Commission

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- "Industrial Customer Class": Tariff No. 38 and Tariff No. 40 Rate Schedules 30 (HP), 35, 40, 44 and 46.
 - "Kilovolt-ampere (KVA)": 1,000 volt-amperes
- "Measured Demand": The measured demand for any month shall be the average of the weekly demands established during the calendar weeks ending within the billing month.
- "Network Service Peak Load (kW NSPL)" A Customer's one (1) coincident peak kW Network Service Peak Load in effect from time to time, as calculated by the Company in accordance with PJM rules and requirements.
- "Non-Market Based Services Transmission Charge": PJM Regional Transmission Enhancement Plan charges, PJM Expansion Cost Recovery, as well as any other FERC-approved PJM transmission charges that will not be reconciled through the Company's Hourly Pricing Default Service Rider.
- "Pennsylvania Gross Receipts Tax": References to the Pennsylvania gross receipts tax or Pennsylvania gross receipts tax rate, or provisions that incorporate the same shall include the Revenue Neutral Reconciliation enacted by the Customer Choice and Competition Act.
 - "PJM": PJM Interconnection, L.L.C. or any successor organization/entity thereto.
- "Revenue": Revenue when used with guarantee, guarantee of Revenue, Revenue guarantee or financing means the Revenue derived only from the Variable Distribution Charge or Distribution Charges that vary with billing determinants.
- "Service": Any regulated supply of electricity by the Company, or provision to supply electricity, or any work or material furnished, or any obligation performed by the Company under its Rules and Regulations or Rate Schedules. Regulated charges for Service are published in this Tariff, including Distribution Charges, Default Service charges, surcharges, and riders. Charges for Service exclude Default Service charges when Customer receives Competitive Energy Supply.
- "Week": A seven day period commencing on Sunday at 0000 through Saturday 2400 midnight.
- "Weekly Demand": The maximum simultaneous fifteen-minute kilovolt-ampere demand but not less than 50 percent of the highest weekly demand of the month.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-6 Page 1 of 5

METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp)
	Revised Page 66
	SupersedingRevised Page 66

RATE SCHEDULES

RATE GS-MEDIUM GENERAL SERVICE SECONDARY RATE – DEMAND METERED

AVAILABILITY:

Available to non-Residential Customers that use electric service through a single delivery location for lighting, heating and/or power service up to 400 kW demand. Secondary voltage shall be supplied to Customers at a single transformer location when load does not require transformer capacity in excess of 2,500 KVA. Upon a Customer's request, the Company may, at its option, provide transformers having a capacity of greater than 2,500 KVA.

New Customers requiring transformer capacity in excess 2,500 KVA and existing Customers whose load increases such that a transformer change is required (over 2,500 KVA) shall be required to take untransformed service.

If an existing Customer's total consumption is less than 1,500 KWH per month for twelve (12) consecutive months, the Customer may no longer be eligible for service under this Rate Schedule GS-Medium. Based upon the Company's then estimate of the Customer's usage, the Customer shall be placed on Rate Schedule GS-Small or such other Rate Schedule for which such Customer most qualifies.

If an existing Customer's billing demand is equal to or greater than 400 kW for two (2) consecutive months in the most recent twelve-month period, the Customer may no longer be eligible for service under this Rate Schedule GS-Medium, and shall be placed on Rate Schedule GS-Large or such other Rate Schedule for which such Customer most qualifies.

All of the following general monthly charges are applicable to Delivery Service Customers:

GENERAL MONTHLY CHARGES:

Distribution Charge

\$24.07 per month for single phase (Customer Charge), or \$43.03 per month for three phase (Customer Charge), plus Demand \$5.11 per kW for all billing kW \$0.20 for each rkVA of Reactive Billing Demand for three phase

ssued:	Effective:	June 1	, 2019	9
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Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-6

1.200 2.00	Page 2 of 5
METROPOLITAN EDISON COMPANY	Electric-Pa. P.U.C. No. 52 (Supp) Revised Page 67 Superseding Revised Page 67
RATE SCHEI	DULES
Rate GS-Medium (continued)	
RIDERS	
Bills rendered under this schedule are subjec	et to the following applicable Rider Charges:
Rider A – Tax Adjustment Surcharge Rider F – Phase III Energy Efficiency and Rider G – Smart Meter Technologies Cha Rider J – Default Service Support Charge Rider N – Solar Photovoltaic Requiremen Rider P – Non-Utility Generation Charge Rider R – Distribution System Improvement	arge ats Charge

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-6 Page 3 of 5

Effective: June 1, 2019

METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp) Revised Page 68 Superseding Revised Page 68
RATE SCHE	EDULES
Rate GS-Medium (continued)	
DEFAULT SERVICE CHARGES:	
For <u>Rate Schedule GS-Medium (PTC)</u> Cust Company, Rider H – Price to Compare Default Se Class rate applies unless the Customer elects to recunder Rider I – Hourly Pricing Default Service Rider Service Rider rates apply.	rvice Rate Rider, Commercial Customer ceive Default Service from the Company der. For Rate Schedule GS-Medium (HP) mpany, Rider I - Hourly Pricing Default
DETERMINATION OF RATE SCHEDULE GS-	(C) MEDIUM (PTC) AND GS-MEDIUM (HP):
Rate Schedule GS-Medium (PTC): Customers reca kW Demand less than 100 kW. Rate Schedule GS-Medium (HP): Customers recekW Demand equal to or greater than 100 kW.	
The Customer's demand used for the deter customer should be billed under if receiving Defautermined as follows: Effective June 1st of each the period April 1st of the preceding year to March Based on that review, if the measured demand in a the Customer shall receive Default Service under the Default Service Rate Rider. Otherwise, the Customer shall receive Default Service under the Default Service Rate Rider. Otherwise, the Customer State Provisions of Rider I – Hourly Pricing Default Service Rate Rider.	year, a review of the measured demand for a 31 st of the current year will be conducted. In the provisions of Rider H – Price to Compare mer will receive Default Service under the
DETERMINATION OF BILLING DEMAND:	
The Company shall install suitable demand integrated demand when (i) the connected load between more, or (ii) the Company estimates that a demand established. The Company may install a demand to	d greater than five (5) kilowatts will be
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METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp)
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RATE SCHEDULES

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A determination of connected load or estimated demand may be made by the Company at any time and shall be made when the Customer's total consumption exceeds 1,500 kWh per month for two (2) consecutive months in the most recent twelve-month period.

A Customer's demand shall be measured by indicating or recording instruments. Demands shall be integrated over 15-minute intervals. The billing demand in the current month shall be the greatest of: (i) the maximum measured demand established in the month during On-Peak Hours, as stated herein, (ii) forty percent (40%) of the maximum measured demand established in the month during off-peak hours, or (iii) contract demand, or (iv) fifty percent (50%) of the highest billing demand established during the preceding eleven (11) months. The on-peak and off-peak hour provisions of this definition are only applicable for those customers who have installations of Time-of-Use demand meters.

Pending the installation of a demand meter, customer's demand shall be a formula demand determined by dividing the kilowatt-hour consumption by 200.

REACTIVE BILLING DEMAND:

For installations metered with reactive energy metering, the reactive billing demand in rkVA for the month shall be determined by multiplying the Billing Demand by the ratio of the measured lagging reactive kilovoltamperes hours to the measured kWh by the following formula: rkVA = Billing Demand X (measured lagging reactive kilovoltampere hours \div rate measured kWh). For all other installations, the Reactive Billing Demand shall be the integrated reactive demand occurring coincident with the Billing Demand.

PAYMENT TERMS:

As per Rule 11, Payment of Bills.

TERM OF CONTRACT:

Each Customer shall be required to enter into a Delivery Service contract with the Company for a minimum one (1) year term. If the Delivery Service contract is terminated by the Customer prior to its expiration, the Minimum Charge provisions of this Rate Schedule shall apply. If the Customer's capacity or service requirements increase, the Company, in its sole and exclusive judgement, may at any time require the Customer to enter into a new Delivery Service contract.

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METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp) Revised Page 69 Superseding Revised Page 69	
RATE SCHE	DULES	
Rate GS-Medium (continued)		

MINIMUM CHARGE:

No bill shall be rendered by the Company for less than,

\$24.07 per month for single phase, or \$43.03 per month for three phase, plus

The demand charges at current rate levels times the Billing Demand, plus any distribution energy charges, and any charges stated in or calculated by any applicable Rider.

COMBINED BILLING: THIS PROVISION HAS BEEN RESTRICTED TO PRESENT LOCATIONS SINCE SEPTEMBER 18, 1978. Only one standard single phase metered service and one standard three-phase metered service, each in excess of five (5) kW measured demand for each service, shall be supplied at one contract location, and when so supplied the energy and demand registrations of the separate meters shall be determined separately and may be added for billing purposes when the use of capacity on each service will remain in excess of five (5) kW for each month of the contract year.

Each separate and non-contiguous point of delivery or service installation shall be considered a contract location and shall be metered and billed under a separate service contract.

SERVICE AT PRIMARY VOLTAGE: Customers served at Primary Voltage shall have the option to be billed under this Rate GS-Medium for any of the following conditions:

- 1. A Customer with an estimated maximum demand of 1,000 kW or less, and requiring Primary Service at a voltage less than the nearest available Primary Voltage System.
- 2. Customer's maximum billing demand does not exceed 100 kW for more than two (2) consecutive months in any 12-month period and service is supplied through a Customer-owned transformer at the nearest available Primary Voltage System.

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service. Motors and equipment served under this rate schedule shall have electrical characteristics so as not to interfere with service supplied to other customers of the Company.

Issued:	Effective:	June 1	, 2019

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RATE SCHEDULES

RATE GS-MEDIUM GENERAL SERVICE SECONDARY RATE – DEMAND METERED

AVAILABILITY:

Available to non-Residential Customers with demand meters that use electric service through a single delivery location for lighting, heating and/or power service up to 400 kW demand. Secondary voltage shall be supplied to Customers at a single transformer location when load does not require transformer capacity in excess of 2,500 KVA. Upon a Customer's request, the Company may, at its option, provide transformers having a capacity of greater than 2,500 KVA.

New Customers requiring transformer capacity in excess 2,500 KVA and existing Customers whose load increases such that a transformer change is required (over 2,500 KVA) shall be required to take untransformed service.

If an existing Customer's total consumption is less than 1,500 KWH per month for twelve (12) consecutive months, the Customer may no longer be eligible for service under this Rate Schedule GS-Medium. Based upon the Company's then estimate of the Customer's usage, the Customer shall be placed on Rate Schedule GS-Small or such other Rate Schedule for which such Customer most qualifies.

If an existing Customer's billing demand is equal to or greater than 400 kW for two (2) consecutive months in the most recent twelve-month period, then the Customer may no longer be eligible for service under this Rate Schedule GS-Medium, and shall be placed on Rate Schedule GS-Large or such other Rate Schedule for which such Customer most qualifies.

All of the following general monthly charges are applicable to Delivery Service Customers:

GENERAL MONTHLY CHARGES:

Distribution Charge

\$19.58 per month for single phase (Customer Charge), or \$39.38 per month for three phase (Customer Charge), plus

Demand:

\$6.30 per kW for all billed kW

\$0.20 for each rkVA of Reactive Billing Demand for three phase

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PENNSYLVAN	JIA EL	ECTRIC (COMPANY

Electric Pa. P.U.C. No. 81 (Supp. XX)

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Superseding ___ Revised Page 70

RATE SCHEDULES

Rate GS-Medium (continued)

RIDERS

Bills rendered under this schedule are subject to the following applicable Rider Charges:

Rider A – Tax Adjustment Surcharge

Rider F – Phase III Energy Efficiency and Conservation Charge

Rider G – Smart Meter Technologies Charge

Rider J – Default Service Support Charge

Rider N – Solar Photovoltaic Requirements Charge

Rider P – Non-Utility Generation Charge

Rider R – Distribution System Improvement Charge

DEFAULT SERVICE CHARGES:

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For <u>Rate Schedule GS-Medium (PTC)</u> Customers receiving Default Service from the Company, Rider H – Price to Compare Default Service Rate Rider, Commercial Customer Class rate applies unless the Customer elects to receive Default Service from the Company under Rider I – Hourly Pricing Default Service Rider. <u>For Rate Schedule GS-Medium (HP) Customers receiving Default Service from the Company, Rider I - Hourly Pricing Default Service Rider rates apply.</u>

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DETERMINATION OF BILLING DEMANDRATE SCHEDULE GS-MEDIUM (PTC) AND GS-MEDIUM (HP):

Rate Schedule GS-Medium (PTC): Customers receiving service under this Rate Schedule with a kW Demand less than 100 kW.

Rate Schedule GS-Medium (HP): Customers receiving service under this Rate Schedule with a kW dDemand equal to or greater than 100 kW.

The Customer's demand used for the determination of the default service rider that the customer should be billed under if receiving Default Service from the Company shall be determined as follows: Effective June 1st of each year, a review of the measured demand for the period April 1st of the preceding year to March 31st of the current year will be conducted. Based on the review, if the measured demand in any twelve months is less than 100 k-W, then the Customer shall receive Default Service under the provisions of Rider H – Price to Compare Default Service Rate Rider. Otherwise, the Customer will receive Default Service under the provisions of Rider I – Hourly Pricing Default Service Rider.

(C) Change

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PENNSYLVANIA ELECTRIC COMPANY

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RATE SCHEDULES

Rate GS-Medium (continued)

(C)

DETERMINATION OF BILLING DEMAND:

The Company shall install suitable demand meters to determine the maximum 15-minute integrated demand when (i) the connected load being served equals fifteen (15) kilowatts or more, or (ii) the Company estimates that a demand greater than five (5) kilowatts will be established. The Company may install a demand meter on new or upgraded electric services.

A determination of connected load or estimated demand may be made by the Company at any time and shall be made when the Customer's total consumption exceeds 1,500 kWh per month for two (2) consecutive months in the most recent twelve-month period.

A Customer's demand shall be measured by indicating or recording instruments. Demands shall be integrated over 15-minute intervals. The billing demand in the current month shall be the greatest of: (i) the maximum measured demand established in the month during On-Peak Hours, as stated herein, (ii) forty percent (40%) of the maximum measured demand established in the month during off-peak hours, or (iii) contract demand or (iv) fifty percent (50%) of the highest billing demand established during the preceding eleven (11) months. The on-peak and off-peak hour provisions of this definition are only applicable for those customers who have installations of Time-of-Use demand meters.

For existing Customers that remain on Combined Billing, (refer to this Rate GS-Medium, General Provision A), billing demand shall be the sum of the individual demands of each metered service. The individual demand of each metered service shall be determined separately.

Pending the installation of a demand meter, Customer's Demand shall be a formula demand determined by dividing the kilowatt-hour consumption by 200.

(C) Change

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RATE SCHEDULES

Rate GS-Medium (continued)

REACTIVE BILLING DEMAND

For installations metered with reactive energy metering, the reactive billing demand in rkVA for the month shall be determined by multiplying the Billing Demand by the ratio of the measured lagging reactive kilovoltamperes hours to the measured kWh by the following formula: rkVA = Billing Demand X (measured lagging reactive kilovoltampere hours \div rate measured kWh). For all other installations, the Reactive Billing Demand shall be the integrated reactive demand occurring coincident with the Billing Demand.

MINIMUM CHARGE:

No bill shall be rendered by the Company for less than,

\$19.58 per month for single phase,

or

\$39.38 per month for three phase, plus

The demand charge at current rate levels times the Billing Demand, plus any distribution energy charges, and any charges stated in or calculated by any applicable Rider.

PAYMENT TERMS:

As per Rule 11, Payment of Bills.

TERM OF CONTRACT:

Each Customer shall be required to enter into a Delivery Service contract with the Company for a minimum one (1) year term. If the Delivery Service contract is terminated by the Customer prior to its expiration, the Minimum Charge provisions of this Rate Schedule shall apply. If the Customer's capacity or service requirements increase, the Company, in its sole and exclusive judgment, may at any time require the Customer to enter into a new Delivery Service contract.

GENERAL PROVISIONS:

A. COMBINED BILLING: This Provision is restricted as of June 18, 1976, to existing Customers and loads at existing locations. Combined Billing will not be permitted except where Customers are supplied with single phase and three-phase service at secondary voltages at a single location. In such instances, only one (1) single phase and one (1) three-phase service may be combined for billing purposes. Customer locations and loads may not continue to be billed under this General Provision A (i) if the Customer increases the capacity of either service entrance wiring, or (ii) the Customer increases the electrical load in the facility necessitating a change in the Company's facilities.

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RATE SCHEDULES

Rate GS-Medium (continued)

- B. SERVICE AT PRIMARY VOLTAGE: Customers served at Primary Voltage shall have the option to be billed under this Rate GS-Medium for any of the following conditions:
 - 1. A Customer with an estimated maximum demand of 1,000 kW or less, and requiring Primary Service at a voltage less than the nearest available Primary Voltage system.
 - 2. Customer's maximum billing demand does not exceed 100 kW for more than two (2) consecutive months in any 12-month period and service is supplied through a Customer-owned transformer at the nearest available Primary Voltage system.

Rules and Regulations

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service. Motors and equipment served under this rate schedule shall have electrical characteristics so as not to interfere with service supplied to other customers of the Company.

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RATE SCHEDULES

RATE GM GENERAL SERVICE - MEDIUM

Availability:

Available for secondary light and power service for loads of up to 400 kW. Secondary voltage shall be supplied to Customers at a single transformer location when load does not require transformer capacity in excess of 2,500 KVA. Upon a Customer's request, the Company may, at its option, provide transformers having a capacity of greater than 2,500 KVA.

New Customers requiring transformer capacity in excess 2,500 KVA and existing Customers whose load increases such that a transformer change is required (over 2,500 KVA) shall be required to take untransformed service.

If an existing Customer's total consumption is less than 1,500 kWh per month for twelve (12) consecutive months, the Customer may no longer be eligible for service under this Rate Schedule GM-Medium. Based upon the Company's then estimate of the Customer's usage, the Customer shall be placed on Rate Schedule GS or such other Rate Schedule for which such Customer most qualifies.

If an existing Customer's billing demand exceeds 400 kW for two (2) consecutive months in the most recent twelve-month period, then the Customer may no longer be eligible for service under this Rate Schedule GM and shall be placed on Rate Schedule GS-Large or such other Rate Schedule for which such Customer most qualifies.

All of the following general monthly charges are applicable to Delivery Service

Rate:

The net monthly charge per customer shall be:

Distribution:

\$26.87 per month (Customer Charge), plus

Demand

\$3.40 per kW for all billing demand as measured in kW

\$0.20 for each rkVA of Reactive Billing Demand

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Revised P	age 70
Superseding _	Revised Page 70

RATE SCHEDULES

Rate GM (continued)

Riders:

Bills rendered under this schedule are subject to the following applicable Rider Charges:

Rider A – Tax Adjustment Surcharge

Rider F – Phase III Energy Efficiency and Conservation Charge

Rider G – Smart Meter Technologies Charge

Rider J – Default Service Support Charge

Rider N – Solar Photovoltaic Requirements Charge

Rider O – Distribution System Improvement Charge

Default Service Charges:

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For <u>Rate Schedule GM (PTC)</u> Customers receiving Default Service from the Company, Rider H – Price to Compare Default Service Rate Rider, Commercial Customer Class rate applies unless the Customer elects to receive Default Service from the Company under Rider I – Hourly Pricing Default Service Rider.

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For Rate Schedule GM (HP) customers receiving Default Service from the Company, Rider I - Hourly Pricing Default Service Rider rates apply.

DETERMINATION OF RATE SCHEDULE GM (PTC) AND GM (HP)

Rate Schedule GM (PTC): Customers receiving service under this Rate Schedule with a kW Demand less than 100 kW.

Rate Schedule GM (HP): Customers receiving service under this Rate Schedule with a kW Demand equal to or greater than 100 kW.

The Customer's demand used for the determination of the default service rider that the customer should be billed under if receiving Default Service from the Company shall be determined as follows: Effective June 1st of each year, a review of the measured demand for the period April 1st of the preceding year to March 31st of the current year will be conducted. Based on that review, if the measured demand in any twelve months is less than 100 kW, then the Customer shall receive Default Service under the provisions of Rider H – Price to Compare Default Service Rate Rider. Otherwise, the Customer will receive Default Service under the provisions of Rider I – Hourly Pricing Default Service Rider.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-8 Page 3 of 4

PENNSYLVANIA POWER COMPANY	Electric Pa. P.U.C. No. 36 (Supp. XX)
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RATE SCHEDULES

Rate GM (continued)

Primary and Transmission Service Discount:

No service voltage discounts are available on this rate schedule.

Minimum Charge:

No bill shall be rendered by the Company for less than,

\$26.87 per month, plus

The demand charge at current rate levels times the Billing Demand, plus any distribution energy charges and any charges stated in or calculated by any applicable rider.

Determination of Billing Load:

A Customer's demand shall be measured by indicating or recording instruments. Demands shall be integrated over 15-minute intervals. The billing demand in the current month shall be the greatest of: (i) the maximum measured demand established in the month during On-Peak Hours, as stated herein, (ii) forty percent (40%) of the maximum measured demand established in the month during off-peak hours, as stated herein, (iii) contract demand, or (iv) fifty percent (50%) of the highest billing demand established during the preceding eleven (11) months. The on-peak and off-peak hour provisions of this definition are only applicable for those customers who have installations of Time-of-Use demand meters.

Pending the installation of a demand meter, Customer's Demand shall be a formula demand determined by dividing the kilowatt-hour consumption by 200.

Reactive Billing Demand:

For installations metered with reactive energy metering, the reactive billing demand in rkVA for the month shall be determined by multiplying the Billing Demand by the ratio of the measured lagging reactive kilovoltamperes hours to the measured kWh by the following formula: rkVA = Billing Demand X (measured lagging reactive kilovoltampere hours ÷ rate measured kWh). For all other installations, the Reactive Billing Demand shall be the integrated reactive demand occurring coincident with the Billing Demand.

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PENNSYLVANIA POWER COMPANY	Electric Pa. P.U.C. No. 36 (Supp. XX) Revised Page 71
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RATE SC	HEDULES

Rate GM (continued)

Terms of Payment:

As per Rule 11, Payment of Bills

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service.

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RATE SCHEDULES

SCHEDULE 30

GENERAL POWER SERVICE

Available for secondary light and power service for loads of up to 400 kW. Secondary voltage shall be supplied to Customers at a single transformer location when load does not require transformer capacity in excess of 2,500 kVA. Upon a Customer's request, the Company may, at its option, provide transformers having a capacity of greater than 2,500 kVA.

New Customers requiring transformer capacity in excess 2,500 kVA and existing Customers whose load increases such that a transformer change is required (over 2,500 kVA) shall be required to take untransformed service.

If an existing Customer's total consumption is less than 1,500 kWh per month for twelve (12) consecutive months, the Customer may no longer be eligible for service under this Rate Schedule 30. Based upon the Company's then estimate of the Customer's usage, the Customer shall be placed on Rate Schedule 20 or such other Rate Schedule for which such Customer most qualifies.

If an existing Customer's billing demand exceeds 400 kW for two (2) consecutive months in the most recent twelve-month period, then the Customer may no longer be eligible for service under this Rate Schedule 30 and shall be placed on Rate Schedule 35 or such other Rate Schedule for which such Customer most qualifies.

All of the following general monthly charges are applicable to Delivery Service

MONTHLY RATE

DISTRIBUTION CHARGES

\$18.91 per month (Customer Charge), plus

Demand

\$2.81 per kW for all billing kW

\$0.18 for each rkVA of reactive billing demand

Energy

0.400 cents per kWh for all kWh

RIDERS

Bills rendered under this schedule are subject to the following applicable Rider Charges:

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	WEST	PENN	POWER	COMPANY
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RATE SCHEDULES

Schedule 30 (continued)

Rider A – Tax Adjustment Surcharge

Rider F – Phase III Energy Efficiency and Conservation Charge

Rider G – Smart Meter Technologies Surcharge

Rider J – Default Service Support Charge

Rider N – Distribution System Improvement Charge

DEFAULT SERVICE CHARGES

(C)

For <u>Rate Schedule 30 (PTC)</u> Customers receiving Default Service from the Company, Rider H-Price to Compare Default Service Rate Rider, Commercial Customer Class rate applies unless the Customer elects to receive Default Service from the Company under Rider I-Hourly Pricing Default Service Rider. For Rate Schedule 30 (HP) Customers receiving <u>Default Service from the Company, Rider I - Hourly Pricing Default Service Rider rates</u> apply.

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DETERMINATION OF RATE SCHEDULE 30 (PTC) AND 30 (HP)

Rate Schedule 30 (PTC): Customers receiving service under this Rate Schedule with a kW Demand less than 100 kW.

Rate Schedule 30 (HP): Customers receiving service under this Rate Schedule with a kW demand equal to or greater than 100 kW.

The Customer's demand used for the determination of the default service rider that the customer should be billed under if receiving Default Service from the Company shall be determined as follows: Effective June 1st of each year, a review of the measured demand for the period April 1st of the preceding year to March 31st of the current year will be conducted. Based on that review, if the measured demand in any twelve months is less than 100 k W, then the Customer shall receive Default Service under the provisions of Rider H – Price to Compare Default Service Rate Rider. Otherwise, the Customer will receive Default Service under the provisions of Rider I – Hourly Pricing Default Service Rider.

Minimum Charge:

No bill shall be rendered by the Company for less than:

\$18.91 per month, plus

The demand charge at current rate levels times the Billing Demand, plus Distribution Charges plus any charges stated in or calculated by any applicable Rider.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-9 Page 3 of 4

	WEST	PENN	POWER	COMPANY
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RATE SCHEDULES

Schedule 30 (continued)

(C)

Determination of Billing Demand:

A Customer's demand shall be measured by indicating or recording instruments. Demands shall be integrated over fifteen (15)-minute intervals. The billing demand in the current month shall be the greatest of: (i) the maximum measured demand established in the month during On-Peak Hours, as stated herein, (ii) forty percent (40%) of the maximum measured demand established in the month during off-peak hours, (iii) contract demand, or (iv) fifty percent (50%) of the highest billing demand established during the preceding eleven (11) months. The on-peak and off-peak hour provisions of this definition are only applicable for those customers who have installations of Time-of-Use demand meters.

Pending the installation of a demand meter, Customer's Demand shall be a formula demand determined by dividing the kilowatt-hour consumption by 200.

Reactive Billing Demand:

For installations metered with reactive energy metering, the reactive billing demand in rkVA for the month shall be determined by multiplying the Billing Demand by the ratio of the measured lagging reactive kilovoltamperes hours to the measured kWh by the following formula: rkVA = Billing Demand X (measured lagging reactive kilovoltampere hours \div rate measured kWh). For all other installations, the Reactive Billing Demand shall be the integrated reactive demand occurring coincident with the Billing Demand.

PAYMENT TERMS

As per Rule 11, Payment of Bills

GENERAL

When Company installs local transformer capacity to supply a highly fluctuating load, a facility charge of 2.1% net per month of the cost of additional transformer capacity required by the highly fluctuating load shall be made.

TERM

Minimum of one year, except as provided below under Monthly Service.

(C) Change

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	WEST	PENN	POWER	COMPANY
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RATE SCHEDULES

Schedul	le 30	(continued)
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MONTHLY SERVICE

Monthly Service is supplied under this Schedule when Customer advances the net cost of connection and disconnection under the provisions of the applicable financing plan. Charges shall be increased 10% and the Minimum Charge based on 100% of the Agreement Capacity shall be waived.

Monthly Service shall not be available for standby or maintenance service such as that required for alternative generation facilities.

SERVICE AT PRIMARY VOLTAGE

Customers serviced at Primary Voltage shall have the option to be billed under this Rate Schedule 30 if the Customer's maximum billing demand does not exceed 400 kW for two (2) consecutive months and service is supplied through a Customer-owned transformer at the available Primary Voltage.

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service. Motors and equipment served under this rate schedule shall have electrical characteristics so as not to interfere with service supplied to other customers of the Company.

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Superseding	_ Revised Page 73

RATE SCHEDULES

RATE GS-LARGE GENERAL SERVICE SECONDARY

Availability:

This Rate is available to non-Residential Customers using electric service through a single delivery location for lighting, heating and/or power service whose registered demand is equal to or greater than 400 kW in two (2) consecutive months in the most recent twelve-month period, Secondary voltage shall be supplied to Customers at a single transformer location when load does not require transformer capacity in excess of 2,500 KVA. Upon a Customer's request, the Company may, at its option, provide transformers having a capacity of greater than 2,500 KVA.

New Customers requiring transformer capacity in excess 2,500 KVA and existing Customers whose load increases such that a transformer change is required (over 2,500 KVA) shall be required to take untransformed service.

All of the following general monthly charges are applicable to Delivery Service Customers.

GENERAL MONTHLY CHARGES

Distribution Charge:

\$130.07 per month (Customer Charge), plus \$4.36 per kW for all billed kW \$0.20 for each rkVA of reactive billing demand

Riders:

Bills rendered under this schedule are subject to the following applicable Rider Charges:

Rider A – Tax Adjustment Surcharge

Rider F – Phase III Energy Efficiency and Conservation Charge

Rider G – Smart Meter Technologies Charge

Rider J – Default Service Support Charge

Rider N – Solar Photovoltaic Requirements Charge

Rider O – Distribution Service Improvement Charge

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PENNSYLVANIA	POWER	COMP.	ANY
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(C)

RATE SCHEDULES

Rate GS - Large (continued)

Default Service Charges:

For <u>GS-Large</u> Customers receiving Default Service from the Company, <u>Rider I-Hourly</u> <u>Pricing Default Service Rider applies. Rider H-Price to Compare Default Service Rate Rider, Commercial Customer Class rate applies unless the Customer elects to receive Default Service from the Company under Rider I-Hourly Pricing Default Service Rider.</u>

Minimum Charge:

No bill shall be rendered by the Company for less than,

\$130.07 per month, plus

The demand charge at current rate levels for the highest kilowatt demand billed during the current and preceding eleven (11) months, plus distribution energy charges, and any charges stated in or calculated by any applicable rider.

Determination of Billing Demand:

A Customer's demand shall be measured by indicating or recording instruments. Demands shall be integrated over 15-minute intervals. The billing demand in the current month shall be the greatest of: (i) the maximum measured demand established in the month during On-Peak Hours, as stated herein, (ii) forty percent (40%) of the maximum measured demand established in the month during off-peak hours, as stated herein, (iii) contract demand, or (iv) fifty percent (50%) of the highest billing demand established during the preceding eleven (11) months. The on-peak and off-peak hour provisions of this definition are only applicable for those customers who have installations of Time-of-Use demand meters.

Pending the installation of a demand meter, Customer's Demand shall be a formula demand determined by dividing the kilowatt-hour consumption by 200.

Reactive Billing Demand:

For installations metered with reactive energy metering, the reactive billing demand in rkVA for the month shall be determined by multiplying the Billing Demand by the ratio of the measured lagging reactive kilovoltamperes hours to the measured kWh by the following formula: rkVA = Billing Demand X (measured lagging reactive kilovoltampere hours ÷ rate measured kWh). For all other installations, the Reactive Billing Demand shall be the integrated reactive demand occurring coincident with the Billing Demand.

(C) Change

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PENNSYLVANIA POWER COMPANY	Electric Pa. P.U.C. No. 36 (Supp. XX)
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RATE SCHEDULES

Rate GS- Large (continued)

Terms of Payment:

As per Rule 11, Payment of Bills

Special Provision:

For those Customers that were previously on the Optional Controlled Service Rider prior to June 20, 1996 shall be allowed to combine their separate meter readings that were in place under the Optional Controlled Service Rider into one single meter reading for billing purposes.

Rules and Regulations:

The Company's Standard Rules and Regulations shall apply to the installation and use of electric service.

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RIDERS

Rider H (continued)

The PTC_{Default} rates by Commercial or Residential Customer Class will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The PTC_{Default} rate shall be calculated by Customer Class in accordance with the formula set forth below:

$$PTC_{Default} = [(PTC_{Current} + \underline{PTC_{Adder} + E})] X [1 / (1 - T)]$$

$$PTC_{Current} = (PTC_{Current Cost Component} X PTC Loss_{Current}) + PTC_{Adm} + PTC_{NITS}$$

$$E = [((DS_{Exp1} + DS_{Exp2}) - PTC_{Rev} + DS_{Int})/DS_{Sales}]$$

Where:

 $PTC_{Current}$ = The current cost component of the $PTC_{Default}$ rate grossed up for line losses calculated by Commercial or Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

The computation of the PTC_{Current} component of the PTC_{Default} rate by Commercial or Residential Customer Class will use the following procedures:

 $PTC_{Current\ Cost\ Component} = The\ current\ cost\ component\ of\ the\ PTC_{Default}\ rate\ calculated\ by\ Customer\ Class\ determined\ to\ the\ nearest\ one-thousandth\ of\ a\ cent\ per\ kWh\ to\ be\ applied\ to\ each\ kWh\ of\ Default\ Service\ delivered\ to\ Retail\ Customers\ under\ this\ rider.\ This\ rate\ will\ be\ determined,\ by\ Customer\ Class,\ using\ the\ projected\ weighted\ cost\ of\ Default\ Service\ supply\ acquired\ by\ the\ Company\ to\ serve\ Default\ Service\ load\ and\ will\ include\ any\ AEPS\ expenses\ that\ may\ be\ incurred\ by\ the\ Company\ related\ to\ amendments\ to\ the\ AEPS\ Act\ that\ may\ occur\ subsequent\ to\ the\ effective\ date\ of\ the\ Supplier\ Master\ Agreement\ for\ the\ Default\ Service\ Supply\ Plan,\ and\ any\ PJM\ charges\ related\ to\ the\ provision\ of\ Default\ Service.$

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METROPOLITAN E	DISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 131 Superseding Revised Page 131	
	RIDERS		
Rider H (continued)			
	PTC Loss _{Current} = Distribution line l applicable Loss Factors specified be	osses for energy that are determined by the elow:	
	Customer Class Commercial Customer Class Residential Customer Class	Loss Factor 1.0515 1.0515	
$PTC_{Adm} =$	determined to the nearest one-thous	e administration costs by Customer Class sandth of a cent per kWh to be applied to ered to Retail Customers under this rider.	
$PTC_{NITS} =$	When the Company purchases Network Integration Transmission Service from PJM on behalf of customers, a Network Integration Transmission Service Charge for Default Service, determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.		
$\overline{\text{PTC}_{\text{Adder}}} =$	applicable to the Residential Custor thousandth of a cent per kWh to be	rket enhancement mechanism component mer Class determined to the nearest one- applied to each kWh of Default Service r this rider for the period June 1, 2019 through	
E =	Customer Class. The rate determin	ice Reconciliation Rate component by ed to the nearest one-thousandth of a cent e applied to each kWh of Default Service astomer Class under this rider.	
	(C) Change		

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METROPOLI	TAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 132 Superseding Revised Page 132	
	RII	DERS	
Rider H (c	ontinued)		(C)
$DS_{Exp1} =$	through May 31, 2019 in connecti	nental start-up costs incurred by the Company on with the Company's Default Service Supply mortized over the <u>forty-eightwenty fourt</u> (4824) 3, including but not limited to:	(<u>C</u>)
	billing costs inconservice to retail Other start-up of competitive bidderetail Default Starts fees The incrementary portfolio procure. Interest shall be computed monthly of interest for commercial banking the last day of the month that the other services to retail the services of th	art-up administrative costs including metering and curred and other costs as necessary to provide Default Service Customers costs incurred to develop and implement the I process for the retail Default Service Supply Plan ervice including legal, customer notice, and consultal administrative start-up costs associated with the rements of the supply needed from block and spot by for the over or under collection at the prime rate g, not to exceed the legal rate of interest, in effect of over and under collection occurs, as reported in the	tant n
		we month that the over collection is refunded or the ncluded in the determination of the monthly	
$DS_{Exp2} =$		Default Service incurred by the Company for the h the end of the previous Default Service Quarter, llowing:	
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RIDERS

Rider H (continued)

- Payments made to winning bidders
- Any net energy costs associated with the portfolio procurements of the supply needed from block and spot purchases. (These net energy costs will reflect the net proceeds from sales in the wholesale energy market of any excess energy purchased by the Company to provide Default Service that exceeds actual energy used).
- Any PJM related charges including capacity, operating reserve, transmission-related costs other than Non-Market Based Services Transmission Charges identified in Rider J, and ancillary services associated with the acquisition of default service supply.
- An allocated portion of administrative costs associated with the portfolio procurements of the supply needed from block and spot purchases.
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers.
- All contingency plan implementation costs incurred during the supply period, including any PJM charges to implement the Company's contingency plans.
- An allocated portion of other costs incurred to develop and implement the competitive bid process for Retail Default Service including legal, customer notice, and consultant fees.
- AEPS expenses incurred by the Company related to amendments to the AEPS Act occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs that are recovered through the Company's Solar Photovoltaic Requirements Charge Rider.

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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 134 Superseding Revised Page 134	
	RIDERS		
Rider H (continued)			
	with the portfolio problock and spot purely reflect the net proced exceed the AEPS crace The cost of credit will load serving entity. Any reconciliation by	nses incurred by the Company associated rocurements of the supply needed from hases. These net AEPS expenses will eds of sales of AEPS credits purchased that redits needed to meet AEPS requirements. Then the Company is considered by PJM to be the roalance associated with GS-Medium (C) and equal to or greater than 100 kW	
	migrating from Ride	er H - Price to Compare Default Service I - Hourly Pricing Default Service Rider as	
$PTC_{Rev} =$	Default Service under the Defau applicable Pennsylvania gross re	to Retail Customers by Customer Class for alt Service Supply Plan, excluding eccipts tax, through the end of the most billed under the respective Customer Class	
$\mathrm{DS}_{\mathrm{Int}} =$	through the end of the most rece Class. Interest shall be compute at the prime rate of interest for c rate of interest, in effect on the l under collection occurs, as report	ring charges calculated on a monthly basis ent Default Service Quarter by Customer ed monthly for the over or under collection commercial banking, not to exceed the legal ast day of the month that the over and rted in the <i>Wall Street Journal</i> , to the llection is refunded or the under collection	
(C) Change			

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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 135 Superseding Revised Page 135
	RIDERS	
Rider H (continued	d)	
$\mathrm{DS}_{\mathrm{Sales}} \! = \!$	The Company's projected Default S by Customer Class for the three-mocomponent of the PTC _{Default} rate wil	~ ·
T =	The Pennsylvania gross receipts tax expressed in decimal form as reflect	rate in effect during the billing month ted in the Company's base rates.
Each change in the PTC _{Default} rates will be filed with the Commission by the later of: (a) forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised PTC _{Default} rates.		
	•	ation rider, the Company is authorized d at that time under such mechanism as
Application of the $PTC_{Default}$ rates shall be subject to annual review and audit by the Commission.		to annual review and audit by the

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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp.XX) Revised Page 136 Superseding Revised Page 136
RIDERS	
RIDER H PRICE TO COMPARE DEFAULT SI	ERVICE RATE RIDER
A Price to Compare Default Service Rate ("PTC Default Service that Penelec delivers to Customers under one-thousandth of a cent per kWh. The PTC _{Default} rate so Default Service from the Company under this rider. The the provisions of this rider.	er this rider as determined to the nearest hall be billed to Customers receiving
For service rendered <u>September June</u> 1, <u>2017-20</u> 2019 the PTC _{Default} rates billed by Customer Class	are as follows:
Commercial Customer Class (Rate GS-S Borderline Service, Street Lighting Servi Street Lighting Service, and Outdoor Lig	ce, Ornamental Street Lighting, LED
\$ 0.05727 <u>X.XXXXX</u> per k	xWh.
	(C)
Residential Customer Class (Rate RS and Non-Profit Ambulance Service, Rescue S	

0.05383 X.XXXXX per kWh

(C) Change

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PENNSYLVANIA ELECTRI	C COMPANY
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RIDERS

Rider H (continued)

The PTC_{Default} rates by Commercial or Residential Customer Class will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The PTC_{Default} rate shall be calculated by Customer Class in accordance with the formula set forth below:

$$PTC_{Default} = [(PTC_{Current} + \underline{PTC_{Adder} + E})] \ X \ [1 / (1 - T)]$$

$$PTC_{Current} = (PTC_{Current} \ Cost \ Component} \ X \ PTC \ Loss_{Current}) + PTC_{Adm} + PTC_{NITS}$$

$$E = [((DS_{Exp1} + DS_{Exp2}) - PTC_{Rev} + DS_{Int})/DS_{Sales}]$$

Where:

PTC_{Current} = The current cost component of the PTC_{Default} rate grossed up for line losses calculated by Commercial or Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

The computation of the PTC_{Current} component of the PTC_{Default} rate by Commercial or Residential Customer Class will use the following procedures:

PTC_{Current Cost Component} = The current cost component of the PTC_{Default} rate calculated by Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider. This rate will be determined, by Customer Class, using the projected weighted cost of Default Service supply acquired by the Company to serve Default Service load and will include any AEPS expenses that may be incurred by the Company related to amendments to the AEPS Act that may occur subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan, and any PJM charges related to the provision of Default Service.

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RIDERS

Rider H (continued)

PTC Loss_{Current} = Distribution line losses for energy that are determined by the applicable Loss Factors specified below:

Customer Class	Loss Factor
Commercial Customer Class	1.0573
Residential Customer Class	1.0573

- PTC_{Adm} = An administrative fee for applicable administration costs by Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.
- PTC_{NITS} = When the Company purchases Network Integration Transmission Service from PJM on behalf of customers, a Network Integration Transmission Service Charge for Default Service, a Network Integration Transmission Service, determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

PTC_{Adder} = \$0.00144 per kWh for the retail market enhancement mechanism component applicable to the Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider for the period June 1, 2019 through May 31, 2023.

_E = The Price to Compare Default Service Reconciliation Rate component by Customer Class. The rate determined to the nearest one-thousandth of a cent per kWh by Customer Class shall be applied to each kWh of Default Service delivered to retail Customers by Customer Class under this rider.

(C) Change

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PENNSYLVANIA ELECTRIC COMPANY PANY	Electric Pa. P.U.C. No. 81 (Supp. XX)
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RIDERS

Rider H (continued)

 DS_{Exp1} = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 20195 in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>fortytwenty-four</u> (4824) month period ending May 31, 20237, including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the retail Default Service Supply Plan for retail Default Service including legal, customer notice, and consultant fees
- The incremental administrative start-up costs associated with the portfolio procurements of the supply needed from block and spot purchases

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

DS_{Exp2} = The cumulative costs to provide Default Service incurred by the Company for the respective Customer Class through the end of the previous Default Service Quarter, including but not limited to the following:

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PENNSYLVANIA ELE	ECTRIC COMPANY
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RIDERS

Rider H (continued)

Payments made to winning bidders

- Any net energy costs associated with the portfolio procurements of the supply needed from block and spot purchases. These net energy costs will reflect the net proceeds from sales in the wholesale energy market of any excess energy purchased by the Company to provide Default Service that exceeds actual energy used.
- Any PJM related charges including capacity, operating reserve, transmission-related costs other than Non-Market Based Services Transmission Charges identified in Rider J and ancillary services associated with the acquisition of default service supply.
- An allocated portion of administrative costs associated with the portfolio procurements of the supply needed from block and spot purchases.
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers.
- All contingency plan implementation costs incurred during the supply period, including any PJM charges to implement the Company's contingency plans.
- An allocated portion of other costs incurred to develop and implement the competitive bid process for Retail Default Service including legal, customer notice, and consultant fees.
- AEPS expenses incurred by the Company related to amendments to the AEPS Act occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs that are recovered through the Company's Solar Photovoltaic Requirements Charge Rider.

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PENNSYLVANIA ELECTRIC COMPANY

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RIDERS

Rider H (continued)

- The net AEPS expenses incurred by the Company associated with the portfolio procurements of the supply needed from block and spot purchases. These net AEPS expenses will reflect the net proceeds of sales of AEPS credits purchased that exceed the AEPS credits needed to meet AEPS requirements.
- The cost of credit when the Company is considered by PJM to be the load serving entity
- Any reconciliation balance associated with GS-Medium customers with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.
- PTC_{Rev} = The cumulative revenues billed to Retail Customers by Customer Class for Default Service under the Default Service Supply Plan, excluding applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed under the respective Customer Class PTC_{Default} rates.
- DS_{Int} = The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter by Customer Class. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX)		
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RIDERS

Rider H (continued)

DS_{Sales} = The Company's projected Default Service kWh sales to Retail Customers by Customer Class for the three-month billing period that the E rate component of the PTC_{Default} rate will be in effect.

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

Each change in the PTC_{Default} rates will be filed with the Commission by the later: (a) forty-five (45) days prior to the effective date of the rate changes, or (b) seven (7) days after last supply auction. The Company shall file details in support of the revised PTC_{Default} rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the PTC_{Default} rates shall be subject to annual review and audit by the Commission.

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RIDERS

RIDER H PRICE TO COMPARE DEFAULT SERVICE RATE RIDER

A Price to Compare Default Service Rate ("PTC_{Default}") shall be applied to each kWh of Default Service that Penn Power delivers to Customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The PTC_{Default} rate shall be billed to Customers receiving Default Service from the Company under this rider. The rates shall be calculated according to the provisions of this rider.

For service rendered <u>September June</u> 1, 20179 through <u>November August</u> 301, 20179 the PTC_{Default} rates billed by Customer Class are as follows:

Commercial Customer Class (Rate GS (excluding Special Rate GSDS), Rate GM (PTC), Rate GS-Large, Rate PNP, PLS, SV, SVD, SM and LED):

\$0.07456<u>X.XXXXX</u> per kWh.

<u>Residential Customer Class (Rate RS, and Rate GS – Volunteer Fire Company, Non-Profit</u> Ambulance Service, Rescue Squad and Senior Center Service Rate):

\$0.05956X.XXXXX per kWh

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RIDERS

Rider H (continued)

The PTC_{Default} rates by Commercial or Residential Customer Class will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The PTC_{Default} rate shall be calculated by Customer Class in accordance with the formula set forth below:

$$PTC_{Default} = [(PTC_{Current} + \underline{PTC}_{Adder} + \underline{E})] \ X \ [1 / (1 - T)]$$

$$PTC_{Current} = (PTC_{Current} \ Cost \ Component} \ X \ PTC \ Loss_{Current}) + PTC_{Adm} + PTC_{NITS}$$

$$E = [((DS_{Exp1} + DS_{Exp2}) - PTC_{Rev} + DS_{Int})/DS_{Sales}]$$

Where:

PTC_{Current} = The current cost component of the PTC_{Default} rate grossed up for line losses calculated by Commercial or Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

The computation of the PTC_{Current} component of the PTC_{Default} rate by Commercial or Residential Customer Class will use the following procedures:

PTC_{Current Cost Component} = The current cost component of the PTC_{Default} rate calculated by Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider. This rate will be determined, by Customer Class, using the projected weighted cost of Default Service supply acquired by the Company to serve Default Service load and will include any AEPS expenses that may be incurred by the Company related to amendments to the AEPS Act that may occur subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan and any PJM charges related to the provision of Default Service.

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RIDERS

Rider H (continued)

PTC Loss_{Current} = Distribution line losses for energy that are determined by the applicable Loss Factors specified below:

Customer Class	Loss Factor
Commercial Customer Class	1.0661
Residential Customer Class	1.0661

 $PTC_{Adm} =$

An administrative fee for applicable administration costs by Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

 $PTC_{NITS} =$

When the Company purchases Network Integration Transmission from PJM on behalf of customers, a Network Integration Transmission Service charge for Default Service, determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

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PTC_{Adder} =

\$0.00144 per kWh for the retail market enhancement mechanism component applicable to the Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider for the period June 1, 2019 through May 31, 2023.

E =

The Price to Compare Default Service Reconciliation Rate component by Customer Class. The rate determined to the nearest one-thousandth of a cent per kWh by Customer Class shall be applied to each kWh of Default Service delivered to retail Customers by Customer Class under this rider.

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RIDERS

Rider H (continued)

DS_{Exp1} = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 2019 in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>forty-eighttwenty-four</u> (4824) month period ending May 31, 202315, including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the retail Default Service Supply Plan for retail Default Service including legal, customer notice, and consultant fees
- The incremental administrative start-up costs associated with the portfolio procurements of the supply needed from block and spot purchases

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

DS_{Exp2} = The cumulative costs to provide Default Service incurred by the Company for the respective Customer Class through the end of the previous Default Service Quarter, including but not limited to the following:

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PENNSYI	VANIA	POWER	COMPANY
TELLINGTE	~ Y		COMITAIL

Electric Pa. P.U	J.C. No. 36 (Supp. XX)
Revised Pa	age 127
Superseding	Revised Page 127

RIDERS

Rider H (continued)

- Payments made to winning bidders
- Any net energy costs associated with the portfolio
 procurements of the supply needed from block and spot
 purchases. These net energy costs will reflect the net proceeds
 from sales in the wholesale energy market of any excess energy
 purchased by the Company to provide Default Service that
 exceeds actual energy used
- Any PJM related charges including capacity, operating reserve, transmission-related costs other than Non-Market Based Services Transmission Charges identified in Rider J, and ancillary services associated with the acquisition of default service supply
- An allocated portion of administrative costs associated with the portfolio procurements of the supply needed from block and spot purchases
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- All contingency plan implementation costs incurred during the supply period, including any PJM charges to implement the Company's contingency plans.
- An allocated portion of other costs incurred to develop and implement the competitive bid process for Retail Default Service including legal, customer notice, and consultant fees
- AEPS expenses incurred by the Company related to amendments to the AEPS Act occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs that are recovered through the Company's Solar Photovoltaic Requirements Charge Rider

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-13 Page 6 of 7

PENNSYLVANIA POWER COMPANY	Elec	tric Pa. P	. U. C	. No	. 36 ((Supp. XX))
		Revised 1	Page 1	28			
	~		_			4.00	

Superseding ____ Revised Page 128

RIDERS

Rider H (continued)

- The net AEPS expenses incurred by the Company associated with the portfolio procurements of the supply needed from block and spot purchases. These net AEPS expenses will reflect the net proceeds of sales of AEPS credits purchased that exceed the AEPS credits needed to meet AEPS requirements.
- The cost of credit when the Company is considered by PJM to be the load serving entity.
- Any reconciliation balance associated with GM customers with demand equal to or greater than 100 kW migrating from Rider H - Price to Compare Default Service Rate Rider to Rider I -Hourly Pricing Default Service Rider as of June 1, 2019.
- PTC_{Rev} = The cumulative revenues billed to Retail Customers by Customer Class for Default Service under the Default Service Supply Plan, excluding applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed under the respective Customer Class PTC_{Default} rates.
- DS_{Int} = The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter by Customer Class. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-13 Page 7 of 7

Electric Pa. P. U. C. No. 36 (Supp. XX)
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RIDERS

Rider H (continued)

DS_{Sales} = The Company's projected Default Service kWh sales to Retail Customers by Customer Class for the three-month billing period that the E rate component of the PTC_{Default} rate will be in effect.

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

Each change in the PTC_{Default} rates will be filed with the Commission by the later of (a) forty-

five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised PTC_{Default} rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the PTC_{Default} rates shall be subject to annual review and audit by the Commission.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 1 of 7

WEST PENN POWER COMPANY

Electric-Pa. P.U	U.C. No 40 (Supp. XX)
Revised Pa	age 173
Superseding	Revised Page 173

RIDERS

RIDER H PRICE TO COMPARE DEFAULT SERVICE RATE RIDER

A Price to Compare Default Service Rate ("PTC_{Default}") shall be applied to each kWh of Default Service that West Penn Power delivers to Customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The PTC_{Default} rate shall be billed to Customers receiving Default Service from the Company under this rider. The rates shall be calculated according to the provisions of this rider.

For service rendered <u>September June</u> 1, 20179 through <u>November August</u> 301, 20197 the PTC_{Default} rates billed by Customer Class are as follows:

(C)

Commercial Customer Class (Rate Schedules 20, 30 (PTC), 51 - 58, 71 and 72):

(C)

\$0.04787_X.XXXXXper kWh.

Residential Customer Class (Rate Schedule 10):

\$0.06289X.XXXXX per kWh

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 2 of 7

WEST PE	NN POWER	COMPANY
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Electric Pa. P.U.C. No. 40 (Supp. XX)

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Superseding ____ Page 174

RIDERS

Rider H (continued)

The PTC_{Default} rates by Commercial or Residential Customer Class will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The PTC_{Default} rate shall be calculated by Customer Class in accordance with the formula set forth below:

$$PTC_{Default} = [(PTC_{Current} + \underline{PTC_{Adder} + E})] X [1 / (1 - T)]$$

$$PTC_{Current} = (PTC_{Current Cost Component} X PTC Loss_{Current}) + PTC_{Adm} + PTC_{NITS}$$

$$E = [((DS_{Exp1} + DS_{Exp2}) - PTC_{Rev} + DS_{Int})/DS_{Sales}]$$

Where:

PTC_{Current} = The current cost component of the PTC_{Default} rate grossed up for line losses calculated by Commercial or Residential Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider.

The computation of the PTC_{Current} component of the PTC_{Default} rate by Commercial or Residential Customer Class will use the following procedures:

PTC_{Current Cost Component} = The current cost component of the PTC_{Default} rate calculated by Customer Class determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider. This rate will be determined, by Customer Class, using the projected weighted cost of Default Service supply acquired by the Company to serve Default Service load and will include any AEPS expenses that may be incurred by the Company related to amendments to the AEPS Act that may occur subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan, and any PJM charges related to the provision of Default Service.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 3 of 7

WEST PENN POWE	ER COMPANY	Revised Pag	.C. No. 40 (Supp. XX) ge 175 _ Revised Page 175	
	RIDERS			
Rider H (continued)				
	PTC Loss _{Current} = Distribution line the applicable Loss Factors specifi	0.	that are determined by	
	Customer Class		Loss Factor	
	Commercial Customer Class		1.0899	
	Residential Customer Class		1.0910	
PTC _{Adm} =	An administrative fee for applicable Class determined to the nearest on applied to each kWh of Default Secunder this rider.	e-thousandth of a	cent per kWh to be	
$PTC_{NITS} =$	For the Residential Customer Class Transmission Service charge for b the nearest one-thousandth of a cer Default Service delivered to Retail	lock energy purch nt per kWh to be	nases, determined to applied to each kWh of r this rider.	
PTC _{Adder} =	\$0.00144 per kWh for the retail maccomponent applicable to the Resid	ential Customer (t mechanism Class determined to the	<u>C)</u>

nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Retail Customers under this rider for the

period June 1, 2019 through May 31, 2023.

 $\mathbf{E} =$ The Price to Compare Default Service Reconciliation Rate component by Customer Class. The rate determined to the nearest one-thousandth of a cent per kWh by Customer Class shall be applied to each kWh of Default Service delivered to retail Customers by Customer Class under this rider.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 4 of 7

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RIDERS

Rider H (cont	inued)
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(C)

DS_{Exp1} = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 201<u>9</u>3 in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>forty-eighttwenty-four</u> (4824) month period ending May 31, 202315, including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the retail Default Service Supply Plan for retail Default Service including legal, customer notice, and consultant fees
- The incremental administrative start-up costs associated with the portfolio procurements of the supply needed from block and spot purchases

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

DS_{Exp2} = The cumulative costs to provide Default Service incurred by the Company for the respective Customer Class through the end of the previous Default Service Quarter, including but not limited to the following:

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 5 of 7

WEST I	PENN	POWER	COMP.	ANY
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Electric Pa. P.I	U.C. No. 40 (Supp. XX)
Revised Pa	age 177
Superseding	Revised Page 177

RIDERS

Rider H (continued)

- Payments made to winning bidders
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- Any PJM related charges including capacity, operating reserve, transmission-related costs other than Non-Market Based Services Transmission Charges, identified in Rider J and ancillary services associated with the acquisition of default service supply
- All contingency plan implementation costs incurred during the supply period, including any PJM charges related to the implementation of the Company's contingency plans
- An allocated portion of other costs incurred to develop and implement the competitive bid process for Retail Default Service including legal, customer notice, and consultant fees
- Net AEPS Expense and AEPS expenses incurred by the Company related to amendments to the AEPS Act occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs that are recovered through the Company's Solar Photovoltaic Requirements Charge Rider.
- Any reconciliation balance associated with Rate Schedule 30 (C) customers with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 6 of 7

W	JEST	PENN	POWER	COMPA	NY

Electric Pa. P.1	U.C. No. 40 (Supp. XX)
Revised Page 1	age 178
Superseding	Revised Page 178

RIDERS

Rider H (continued)

PTC_{Rev} = The cumulative revenues billed to Retail Customers by Customer Class for Default Service under the Default Service Supply Plan, excluding applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed under the respective Customer Class

PTC_{Default} rates.

DS_{Int} = The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter by Customer Class. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*,to the effective month that the over collection is refunded or the under collection is collected.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-14 Page 7 of 7

W	FST	PENN	POWER	COMPA:	NY
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Electric Pa. P.1	U.C. No. 40 (Supp. XX)
Revised P	age 179
Superseding	Revised Page 179

RIDERS

Rider H (continued)

DS_{Sales} = The Company's projected Default Service kWh sales to Retail Customers by Customer Class for the three-month billing period that the E rate component of the PTC_{Default} rate will be in effect.

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

Each change in the PTC_{Default} rates will be filed with the Commission by the later of: (a) Forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised PTC_{Default} rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the PTC_{Default} rates shall be subject to annual review and audit by the Commission.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-15 Page 1 of 6

METROPOLITAN	EDISON	COMPANY
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RIDERS

RIDER I HOURLY PRICING DEFAULT SERVICE RIDER

AVAI	LABIL	ITY:
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(C)

The charges billed under this rider are applicable to all Customers on Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP, and TP who elect to take Default Service from the Company. These charges are also applicable to Customers on Rate Schedules GS-Small and GS-Medium (<u>PTC</u>) on a voluntary basis who meet the metering requirements of this rider. Rates shall be billed under this rider on the next scheduled meter reading date after electing Default Service.

All GS-Small and GS-Medium (PTC) Customers electing service under this rider must (C) have Smart Meter technology installed as part of the Company's Smart Meter Plan filed with and approved by the Commission.

Hourly Pricing Service Charges:

Customers participating in the Hourly Pricing Default Service Rider will be billed for usage based on the following calculation:

$$\begin{aligned} & \text{Hourly Pricing Service Charges} = (\text{HP}_{\text{Energy Charge}} + \text{HP}_{\text{Cap-AEPS-Other Charge}} + \text{HP}_{\text{Administrative Charge}} + \text{HP}_{\text{Unc}} + \text{HP}_{\text{Reconciliation Charge}}) \ X \ [1 \ / \ (1-T)] \end{aligned}$$

HP Energy Charge per kWh:

$$HP_{Energy\ Charge} = \sum_{t=1}^{n} \ \left(kWh_{t}\ x\ (LMP_{t} + HP_{Oth})\ x\ HP_{Loss\ Multiplier} \right)$$

Where:

n = Total number of hours in the billing period

t = An hour in the billing period

LMP = the "Real Time" PJM load-weighted average Locational Marginal Price for the ME Transmission Zone.

HP_{Oth} = \$0.00400 per kWh for estimate of capacity, ancillary services, NITS, AEPS compliance and other supply components.

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Issued:	 Effective:	June 1	, 201	9

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METROPOLITAN EDISON COMPANY

Electric Pa. P.U.C. No. 52 (Supp. __)

Fifth Revised Page 137

Superseding Fourth Revised Page 137

RIDERS

Rider I (continued)

	~~ ~ 11	
HP Loss Multipliers:	GS-Small	1.0515
	GS-Medium	1.0515
	GS-Large	1.0515
	GP	1.0171
	TP	1.0007

These HP _{Loss Multipliers} exclude transmission losses.

HP Cap-AEPS-Other Charge:

\$X.XXXXX0.02049 per kWh representing the costs paid by the Company to the Supplier for Capacity, AEPS costs, and any other costs incurred by the Supplier multiplied by the HP Loss Multipliers. This charge is subject to quarterly adjustments.

HP Administrative Charge:

\$X.XXXXX0.00025 per kWh representing the administrative costs incurred by the Company associated with providing Hourly Pricing Service.

HP Uncollectibles Charge:

\$X.XXXXX0.00016 per kWh representing the default service-related uncollectible accounts expense associated with Hourly Pricing Default Service. This charge is subject to annual adjustment on June 1 of each year.

Ssued:	Effective:	June 1, 2019
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Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-15 Page 3 of 6

METROPOLIT	'AN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp)Revised Page 138 SupersedingRevised Page 138	
	RIDE	RS	
Rider I (continu	ned)		
HP Reconcilian	tion Charge:		
Service that Me thousandth of a billed to Custor	t-Ed delivers to Customers under to cent per kWh. The E _{HP} rate shall l	') shall be applied to each kWh of Default his rider as determined to the nearest one-be included as a non-bypassable component in the Company under this rider. The rate shall der.	
For service reno the E _{HP} rate is a		through November <u>August</u> 301, 2017 2019,	
HP Reco	onciliation Charge Rate = \$(0.0147	(5) <u>X.XXXXX</u> per kWh	
The E _{HP} rate will be calculated at the end of each Default Service Quarter (three months ending March 31 st , June 30 th , September 30 th , and December 31 st) to be effective for the threemonth period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1 st , September 1 st , December 1 st , and March 1 st). The E _{HP} rate shall be calculated in accordance with the formula set forth below:			
	$E_{HP} = ((DS_{HPExp1} + DS_{HPExp2}) - I$	$PTC_{HPRev} + DS_{HPInt})/DS_{HPSales}$	
Where:			
$E_{HP} =$		t one-thousandth of a cent per kWh to be ervice delivered to Customers under this rider. (C)	
$\overline{\mathrm{DS}_{\mathrm{HPExp1}}} =$	through May 31, 2019 in connect Supply Plan to provide Default So	nental start-up costs incurred by the Company ion with the Company's Default Service ervice amortized over the <u>fotwenty-fourty-gy</u> May 31, 20 <u>23</u> including but not limited to:	
	(C) Ch	<u>ange</u>	
Issued:		Effective: June 1, 2019	

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METROPOLITAN	EDISON	COMPANY
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Electric Pa. P.	U.C. No. 52 (Supp)
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RIDERS

Rider I (continued)

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to Retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the Retail Default Service Supply Plan including legal, customer notice, and consultant fees.

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

 $DS_{HPExp2} =$

The cumulative costs to provide Hourly Pricing Default Service incurred by the Company through the end of the previous Default Service Quarter including but not limited to the following:

- Payments made to winning bidders
- Any PJM related charges other than Non-Market Based Services Transmission charges identified in Rider J associated with the procurement of Hourly Pricing Default Service
- AEPS expenses incurred by Met-Ed related to amendments to the AEPS Act and/or related laws or regulations occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs recovered through the Company's Solar Photovoltaic Requirements Charge Rider
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- All contingency plan implementation costs incurred during the supply period
- An allocated portion of other costs incurred to develop and implement the competitive bid process for retail Default Service including legal, customer notice, and consultant fees.
- The cost of credit when the Company is considered by PJM to be the load serving entity.
- Any reconciliation balance associated with GS-Medium (C) customers with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.

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Effective: June 1, 2019

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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp)Revised Page 140 SupersedingRevised Page 140
	RIDEI	RS
Rider I (continued)		
$PTC_{HPRev} =$	The cumulative revenues, excluding any revenues associated with the HP Uncollectibles Charge and applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed to Hourly Pricing Default Service Customers under this rider including the applicable E _{HP} rates.	
$DS_{HPInt} =$	through the end of the most rebe computed monthly for the interest for commercial banking effect on the last day of the moccurs, as reported in the <i>Wal</i> .	arrying charges calculated on a monthly basis ecent Default Service Quarter. Interest shall over or under collection at the prime rate of ing, not to exceed the legal rate of interest, in nonth that the over and under collection <i>ll Street Journal</i> , to the effective month that d or the under collection is collected.
$DS_{HPSales} =$	The Company's projected Hourly Pricing Default Service kWh sales to Retail Customers for the three-month billing period that the E_{HP} rate will be in effect.	
Gross Receipts Tax	<u>::</u>	
T =	· · · · · · · · · · · · · · · · · · ·	pts tax rate in effect during the billing month reflected in the Company's base rates.

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Effective: June 1, 2019

METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp)Revised Page 141 SupersedingRevised Page 141
RIDE	RS
Rider I (continued)	
General:	
Each change in the E _{HP} rate as well as othe Commission by the later of: (a) forty-five (45) day changes; or (b) seven (7) days after the last supply support of the revised rates.	•
At the conclusion of the duration of this rector recover or refund any remaining amounts not reapproved by the Commission.	conciliation rider, the Company is authorized conciled at that time under such mechanism as
$\label{eq:Application} Application of the E_{HP} \ rate \ shall \ be \ subject \\ Commission.$	to annual review and audit by the
Adjustment for Meter Location:	
Where the Company meters distribution se the transformers, the demand and energy registrati percent (2.5%). Where the Company meters service distribution secondary voltage on the secondary signetering equipment will be used to correct for transmeter registration shall each be increased by two a	the supplied at voltages higher than the de of the transformers, either compensating - and the state of the transformer losses or the demand and energy
Metering:	
The Customer is responsible for providing metering purposes at each metering point or shall providing communications to the interval equipme of the meter(s) will be the responsibility of the Communications.	pay the Company any and all expenses for ent at the Customer's location(s). Maintenance

Issued: _____

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PENNSYLVANIA ELECTRIC COMPA	N	\	J	ſ	7	•	١	۱	ì	١	١	١	١	4	•	1	7	•	•								7	7			`					ĺ	ĺ	Γ	ſ	ſ	ſ	ſ	J	J	J	•	•	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	١	ľ	ľ	1	1	Ī	Ī			١	١	١	1	4	F)		ŀ	1	ĺ	1	/	v	١	ľ	1)			ĺ	(١			ĺ	((1		ĺ	(I	1	2	₹	ŀ	1	Γ	1	_	'	7		((ij	7	-	ŀ	,	,		I		ì	4	_	F	1				۱
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RIDERS

RIDER I HOURLY PRICING DEFAULT SERVICE RIDER

AVAILABILITY:

(C)-

The charges billed under this rider are applicable to all Customers on Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP, and LP who elect to take Default Service from the Company. These charges are also applicable to Customers on Rate Schedules GS-Small and GS-Medium (<u>PTC</u>) on a voluntary basis who meet the metering requirements of this rider. Rates shall be billed under this rider on the next scheduled meter reading date after electing Default Service

<u>(C)</u>

All GS-Small and GS-Medium (PTC) Customers electing service under this rider must have Smart Meter technology installed as part of the Company's Smart Meter Plan filed with and approved by the Commission.

Hourly Pricing Service Charges:

Customers participating in the Hourly Pricing Default Service Rider will be billed for usage based on the following calculation:

Hourly Pricing Service Charges = $(HP_{Energy\ Charge} + HP_{Cap-AEPS-Other\ Charge} + HP_{Administrative\ Charge} + HP_{Unc} + HP_{Reconciliation\ Charge}) X [1/(1-T)]$

HP Energy Charge per kWh:

$$HP_{Energy\ Charge} = \sum_{t=1}^{n} \left(kWh_t\ x\ (LMP_t + HP_{Oth})\ x\ HP_{Loss\ Multiplier}\right)$$

Where:

n = Total number of hours in the billing period

t = An hour in the billing period

LMP = the "Real Time" PJM load-weighted average Locational Marginal Price for the PN Transmission Zone

HP_{Oth} = \$0.00400 per kWh for estimate of capacity, ancillary services, NITS, AEPS Compliance and other supply components.

(C) Change

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PENNSYLVANIA ELECTRIC COMPANY Electric Pa

Electric Pa. P.U.C. No. 81 (Supp. XX)
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Superseding ____ Revised Page 144

RIDERS

Rider I (continued)

HP Loss Multipliers: GS-Small 1.0573 GS-Medium 1.0573 GS-Large 1.0573 GP 1.0234 LP 1.0035

These HP Loss Multipliers exclude transmission losses.

HP Cap-AEPS-Other Charge:

\$0.01156X.XXXXX per kWh representing the costs paid by the Company to the Supplier for Capacity, AEPS costs, and any other costs incurred by the Supplier multiplied by the HP Loss Multipliers. This charge is subject to quarterly adjustments.

HP Administrative Charge:

\$0.00012X.XXXXX per kWh representing the administrative costs incurred by the Company associated with providing Hourly Pricing Service.

HP Uncollectibles Charge:

\$0.00100\textit{X.XXXXX} per kWh representing the default service related uncollectible accounts expense associated with Hourly Pricing Default Service. This charge is subject to annual adjustment on June 1 of each year.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-16 Page 3 of 6

PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.	U.C. No. 81 (Supp. XX)
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	Superseding _	Revised Page 145

RIDERS

Rider I (continued)

HP Reconciliation Charge:

The HP Reconciliation Charge Rate ("E_{HP}") shall be applied to each kWh of Default Service that Penelec delivers to customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The E_{HP} rate shall be included as a non-bypassable component billed to Customers receiving Default Service from the Company under this rider. The rate shall be calculated according to the provisions of this rider.

For service rendered September-June 1, 20179 through November-August 301, 20179, the E_{HP} rate is as follows:

HP Reconciliation Charge Rate = (0.00079 X.XXXXX) per kWh

The E_{HP} rate will be calculated at the end of each Default Service Quarter (three months ending January 31^{st} , April 30^{th} , July 31^{st} , and October 31^{st}) to be effective for the three-month period beginning on the first day of the second calendar month following the end of that Default Service Quarter (March 1^{st} , June 1^{st} , September 1^{st} and December 1^{st}). The E_{HP} rate shall be calculated in accordance with the formula set forth below:

 $E_{HP} = \left[((DS_{HPExp1} + DS_{HPExp2} + DS_{HPExp3}) - PTC_{HPRev} + DS_{HPInt}) / DS_{HPSales} \right] X \left[1 / (1 - T) \right]$

Where:

E_{HP} = The rate determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Customers under this rider.

(C)

DS_{HPExp1} = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 201<u>95</u> in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>forty-eight</u> (48)4-month period ending May 31, 20<u>237</u> including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to Retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the Retail Default Service Supply Plan including legal, customer notice, and consultant fees.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-16 Page 4 of 6

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RIDERS

Rider I (continued)

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

 $DS_{HPExp2} =$

The cumulative costs to provide Hourly Pricing Default Service incurred by the Company through the end of the previous Default Service Quarter including but not limited to the following:

- Payments made to winning bidders
- Any PJM related charges other than Non-Market Based Services Transmission Charges identified in Rider J associated with the procurement of Hourly Pricing Default Service
- AEPS expenses incurred by Penelec related to amendments to the AEPS Act and/or related laws or regulations occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs recovered through the Company's Solar Photovoltaic Requirements Charge Rider
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- All contingency plan implementation costs incurred during the supply period
- An allocated portion of other costs incurred to develop and implement the competitive bid process for retail Default Service including legal, customer notice, and consultant fees.
- The cost of credit when the Company is considered by PJM to be the load serving entity.
- Any reconciliation balance associated with GS-Medium (C) customers with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.

PTC_{HPRev} =

The cumulative revenues, excluding any revenues associated with the HP Uncollectibles Charge and applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed to Hourly Pricing Default Service Customers under this rider including the applicable E_{HP} rates.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-16 Page 5 of 6

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RIDERS

Rider I (continued)

DS_{HPInt} = The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Ouarter. Interest shall

be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that

the over collection is refunded or the under collection is collected.

DS_{HPSales} = The Company's projected Hourly Pricing Default Service kWh sales to

Retail Customers for the three-month billing period that the E_{HP} rate will

be in effect.

Gross Receipts Tax:

The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

General:

Each change in the E_{HP} rate as well as other rates within this rider will be filed with the Commission by the later of: (a) forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the E_{HP} rate shall be subject to annual review and audit by the Commission.

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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX)
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RIDERS

Rider I (continued)

Adjustment for Meter Location:

Where the Company meters distribution secondary voltage service on the primary side of the transformers, the demand and energy registrations shall each be reduced by two and one-half percent (2.5%). Where the Company meters service supplied at voltages higher than the distribution secondary voltage on the secondary side of the transformers, either compensating - metering equipment will be used to correct for transformer losses or the demand and energy meter registration shall each be increased by two and one-half percent (2.5%).

Metering:

The Customer is responsible for providing a working dedicated telephone line for metering purposes at each metering point or shall pay the Company any and all expenses for providing communications to the interval equipment at the Customer's location(s). Maintenance of the meter(s) will be the responsibility of the Company, which will own the meter(s).

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-17 Page 1 of 5

PENNSYLVANIA POWER COMPANY

Electric Pa. P.U.C. No. 36 (Supp. XX)

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Superseding Revised Page 130

RIDERS

RIDER I HOURLY PRICING DEFAULT SERVICE RIDER

Availability:

(C)

The charges billed under this rider are applicable to all Customers who elect to take Default Service from the Company and are receiving service under Rate Schedules <u>GM (HP)</u>, <u>GS-Large</u>, GP, GT, or GS if such GS Customers also are under Special Rule GSDS. These charges are also applicable to Customers on Rate Schedules GS, <u>and GM (PTC)</u> and <u>GS-Large</u> on a voluntary basis who meet the metering requirements of this rider. Rates shall be billed under this rider on the next scheduled meter reading date after electing Default Service.

(C)

All GS and GM (PTC) Customers electing service under this rider must have Smart Meter technology installed as part of the Company's Smart Meter Plan filed with and approved by the Commission.

Hourly Pricing Service Charges:

Customers participating in the Hourly Pricing Default Service Rider will be billed for usage based on the following calculation:

Hourly Pricing Service Charges = $(HP_{Energy\ Charge} + HP_{Cap-AEPS-Other\ Charge} + HP_{Administrative\ Charge} + HP_{Unc} + HP_{Reconciliation\ Charge}) X [1 / (1-T)]$

HP Energy Charge per kWh:

$$HP_{Energy\ Charge} = \sum_{t=1}^{n} \left(kWh_{t}\ x\ \left(LMP_{t} + HP_{Oth} \right)\ x\ HP_{Loss\ Multiplier} \right)$$

Where:

n = Total number of hours in the billing period

t = An hour in the billing period

LMP = the "Real Time" PJM load-weighted average Locational Marginal Price for the Penn Power Transmission Zone.

HP_{Oth} = \$0.00400 per kWh for estimate of capacity, ancillary services, NITS, AEPS compliance and other supply components.

HP Loss Multipliers: GS-Small 1.0515 GS-Medium 1.0515 GS-Large 1.0515 GP 1.0171 GT 1.0007

These HP Loss Multipliers exclude transmission losses.

(C) Change

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RIDERS

Rider I (continued)

HP Cap-AEPS-Other Charge:

\$X.XXXXX0.01433 per kWh representing the costs paid by the Company to the Supplier for Capacity, AEPS costs, and any other costs incurred by the Supplier multiplied by the HP Loss Multipliers. This charge is subject to quarterly adjustments.

HP Administrative Charge:

\$X.XXXXX0.00003 per kWh representing the administrative costs incurred by the Company associated with providing Hourly Pricing Service.

HP Uncollectibles Charge:

\$X.XXXXX0.00002 per kWh representing the default service-related uncollectible accounts expense associated with Hourly Pricing Default Service. This charge is subject to annual adjustment on June 1 of each year.

HP Reconciliation Charge:

The HP Reconciliation Charge Rate ("E_{HP}") shall be applied to each kWh of Default Service that Penn Power delivers to Customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The E_{HP} rate shall be included as a non-bypassable component billed to Customers receiving Default Service from the Company under this rider. The rate shall be calculated according to the provisions of this rider.

(C)

For service rendered September June 1, 20197 through November 30 August 31, 20197, the E_{HP} rate is as follows:

HP Reconciliation Charge Rate = $\{X.XXXXX0.00808\}$ per kWh

(C) Change

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RIDERS

Rider I (continued)

The E_{HP} rate will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The E_{HP} rate shall be calculated in accordance with the formula set forth below:

 $E_{HP} = \left[\left(\left(DS_{HPExp1} + DS_{HPExp2} \right) - PTC_{HPRev} + DS_{HPInt} \right) / DS_{HPSales} \right] X \left[1 / (1 - T) \right]$

Where:

 E_{HP} = The rate determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Customers under this rider.

DS_{HPExp1} = An allocated portion of the incremental start-up costs incurred by the <u>(C)</u> Company through May 31, 20<u>19</u>15 in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>forty-eighttwenty four</u> (<u>48</u>24) month period ending May 31, 20<u>23</u>17 including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to Retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the Retail Default Service Supply Plan including legal, customer notice, and consultant fees.

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-17 Page 4 of 5

PENNSYLVANIA POWER COMP <i>A</i>	$\mathbf{N}\mathbf{Y}$
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RIDERS

Rider I (continued)

 $DS_{HPExp2} =$

The cumulative costs to provide Hourly Pricing Default Service incurred by the Company through the end of the previous Default Service Quarter including but not limited to the following:

- Payments made to winning bidders
- Any PJM related charges other than Non-Market Based Services Transmission Charges identified in Rider J associated with the procurement of Hourly Pricing Default Service
- AEPS expenses incurred by Penn Power related to amendments to the AEPS Act and/or related laws or regulations occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan excluding such costs recovered through the Company's Solar Photovoltaic Requirements Charge Rider
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- All contingency plan implementation costs incurred during the supply period
- An allocated portion of other costs incurred to develop and implement the competitive bid process for retail Default Service including legal, customer notice, and consultant fees
- The cost of credit when the Company is considered by PJM to be the load serving entity.
- Any reconciliation balance associated with GM customers (C) with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.

 $PTC_{HPRev} =$

The cumulative revenues, excluding any revenues associated with the HP Uncollectibles Charge and applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed to Hourly Pricing Default Service Customers under this rider including the applicable E_{HP} rates.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-17 Page 5 of 5

PENNSYLVANIA	POWER	COMP	ANY
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RIDERS

Rider I (continued)

DS_{HPInt} = The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter.

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

 $DS_{HPSales}$ = The Company's projected Hourly Pricing Default Service kWh sales to Retail Customers for the three-month billing period that the E_{HP} rate will be in effect.

Gross Receipts Tax:

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

General:

Each change in the E_{HP} rate as well as other rates within this rider will be filed with the Commission by the later of: (a) forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the E_{HP} rate shall be subject to annual review and audit by the Commission.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-18 Page 1 of 5

WEST PENN POWER COMPANY

Electric Pa. P.U.C. No. 40 (Supp. XX)
Revised Page 180
Superseding Page 180

RIDERS

RIDER I HOURLY PRICING DEFAULT SERVICE RIDER

AVAILABILITY:

(C)

The charges billed under this rider are applicable to all Customers on Rate Schedules <u>30</u> (<u>HP</u>), <u>35</u>, 40, 44 and 46 who elect to take Default Service from the Company. These charges are also applicable to Customers on Rate Schedules 20, and 30 on a voluntary basis who meet the metering requirements of this rider. Rates shall be billed under this rider on the next scheduled meter reading date after electing Default Service.

(C)

All Rate Schedules 20 and 30 (PTC) Customers electing service under this rider must have smart meter technology installed as part of the Company's smart meter plan filed with and approved by the Commission.

Hourly Pricing Service Charges:

Customers participating in the Hourly Pricing Default Service Rider will be billed for usage based on the following calculation:

 $\begin{aligned} & Hourly\ Pricing\ Service\ Charges = (HP_{Energy\ Charge} + HP_{Cap\text{-}AEPS\text{-}Other\ Charge} + HP_{Administrative} \\ & Charge + HP_{Unc} + HP_{Reconciliation\ Charge})\ X\ [1\ /\ (1\text{-}T)] \end{aligned}$

HP Energy Charge per kWh:

$$HP_{Energy Charge} = \sum_{t=1}^{n} [kWh_t x (LMP_t + HP_{Oth}) x HP_{Loss Multipliers}]$$

Where:

n = Total number of hours in the billing period

t = An hour in the billing period

LMP = the "Real Time" PJM load-weighted average Locational Marginal Price for the

APS Transmission Zone

HP_{Oth} = \$0.00400 per kWh for estimate of capacity, ancillary services, NITS, AEPS compliance and other supply components.

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-18 Page 2 of 5

WEST PENN POWER COMPANY Electric-Pa. P.U.C. No 40 (Supp. XX)

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RIDERS

Rider I (continued)

HP_{Loss Multipliers}: Rates 20 and 30 1.0899

Rate 35 1.0678 Rates 40, 44 and 46 1.0356

HP Cap-AEPS-Other Charge:

 $\$0.01060\underline{X}.XXXXX$ per kWh representing the costs paid by the Company to the supplier for capacity, AEPS costs, and any other costs incurred by the supplier multiplied by the HP_{Loss Multipliers}. This charge is subject to quarterly adjustments.

HP Administrative Charge:

\$0.00054X.XXXXX per kWh representing the administrative costs incurred by the Company associated with providing Hourly Pricing Service.

HP Uncollectibles Charge:

\$0.00012X.XXXXX per kWh representing the default service-related uncollectible accounts expense associated with Hourly Pricing Default Service. This charge is subject to annual adjustment on June 1 of each year.

HP Reconciliation Charge:

The HP Reconciliation Charge Rate ("E_{HP}") shall be applied to each kWh of Default Service that the Company delivers to Customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The E_{HP} rate shall be included as a non-bypassable component billed to Customers receiving Default Service from the Company under this rider. The rate shall be calculated according to the provisions of this rider, and shall be calculated and applied equally to Customers under this rider.

(C)

For service rendered September 1, 2017June 1, 2019 through November 30, 2017August 31, 2019, the E_{HP} rate is as follows:

HP Reconciliation Charge Rate = \$0.02523X.XXXXX per kWh

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-18 Page 3 of 5

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RIDERS

Rider I (continued)

The E_{HP} rate will be calculated at the end of each Default Service Quarter (three months ending March 31st, June 30th, September 30th, and December 31st) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1st, September 1st, December 1st, and March 1st). The E_{HP} rate shall be calculated in accordance with the formula set forth below:

 $E_{HP} = ((DS_{HPExp1} + DS_{HPExp2}) - PTC_{HPRev} + DS_{HPInt}) / DS_{HPSales}$

Where:

E_{HP} = The rate determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Customers under this rider.

ride

DS_{HPExp1} = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 20195 in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the twenty-fourforty-eight (4824) month period ending May 31, 202317 including but not limited to:

- Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- Other start-up costs incurred to develop and implement the competitive bid process for the retail Default Service Supply Plan including legal, customer notice, and consultant fees

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

DS_{HPExp2} = The cumulative costs to provide Hourly Pricing Default Service incurred by the Company through the end of the previous Default Service Quarter including but not limited to the following:

(C) Change

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RIDERS

Rider I (continued)

- Payments made to winning bidders
- Any PJM related charges other than Non-Market Based services Transmission charges identified in Rider J associated with the procurement of Hourly Pricing Default Service.
- Net AEPS expenses and AEPS expenses incurred by the Company related to amendments to the AEPS Act and/or related laws or regulations occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan.
- An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
- All contingency plan implementation costs incurred during the supply period
- An allocated portion of other costs incurred to develop and implement the competitive bid process for retail Default Service including legal, customer notice, and consultant fees
- The cost of credit when the Company is considered by PJM to be the load serving entity
- Incremental costs including but not limited to metering costs and billing expenses, incurred by the Company to expand Rate Schedule 35 to include Customers with a Kilowatt demand greater than or equal to 400 Kilowatts.
- Any reconciliation balance associated with Rate Schedule 30 customers with demand equal to or greater than 100 kW migrating from Rider H Price to Compare Default Service Rate Rider to Rider I Hourly Pricing Default Service Rider as of June 1, 2019.

•

 $PTC_{HPRev} =$

The cumulative revenues, excluding any revenues associated with the HP Uncollectibles Charge and applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed to Hourly Pricing Default Service Customers under this rider including the applicable E_{HP} rates.

 $DS_{HPInt} =$

The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

(C) Change

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RIDERS

Rider I (continued)

DS_{HPSales} = The Company's projected Hourly Pricing Default Service kWh sales to

retail Customers for the three-month billing period that the E_{HP} rate will be

in effect.

Gross Receipts Tax:

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

General:

Each change in the E_{HP} rate as well as other rates within this rider will be filed with the Commission by the later of: (a) forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the E_{HP} rate shall be subject to annual review and audit by the Commission.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-19 Page 1 of 4

WEST PENN POWER COMPANY

Electric-Pa. P. U. C. No. 38 (Supp. XX) ____ Revised Page 22 Superseding ____ Revised Page 22

RIDERS

RIDER I HOURLY PRICING DEFAULT SERVICE RIDER

AVAILABILITY:

The charges billed under this rider are applicable to all Customers on Rate Schedules 30 (HP), 35 (large), 40, 44, and 46 who elect to take Default Service from the Company. These charges are also applicable to Customers on Rate Schedules 20, and 30 (PTC) (small) on a voluntary basis who meet the metering requirements of this rider. Rates shall be billed under this rider on the next scheduled meter reading date after electing Default Service.

(C)

Rate Schedules 20 and 30 (PTC) Customers electing service under this rider must have smart meter technology installed as part of the Company's smart meter plan filed with and approved by the Commission.

Hourly Pricing Service Charges:

Customers participating in the Hourly Pricing Default Service Rider will be billed for usage based on the following calculation:

> Hourly Pricing Service Charges = (HP_{Energy Charge} + HP_{Cap-AEPS-Other Charge} + HP_{Administrative Charge} + HP_{Unc} + HP_{Reconciliation Charge}) X [1 / (1-T)]

HP Energy Charge per kWh:

 $HP_{Energy\ Charge} = \sum_{t=1}^{n} \quad [kWh_t\ x\ (LMP_t + HP_{Oth})\ x\ HP_{Loss\ Multipliers}]$

= Total number of hours in the billing period n

= An hour in the billing period

LMP = the "Real Time" PJM load-weighted average Locational Marginal Price for the

APS Transmission Zone

= \$0.00400 per kWh for estimate of capacity, ancillary services, NITS, AEPS

compliance and other supply components.

HP_{Loss Multipliers}: 1.0356

(C) Change

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-19 Page 2 of 4

WEST PENN POWER COMPANY

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(C)

RIDERS

Rider I (continued)

HP Cap-AEPS-Other Charge:

 $\$0.01060\underline{X}.\underline{X}\underline{X}\underline{X}\underline{X}\underline{X}$ per kWh representing the costs paid by the Company to the supplier for capacity, AEPS costs, and any other costs incurred by the supplier multiplied by the HP_{Loss} Multipliers. This charge is subject to quarterly adjustments.

HP Administrative Charge:

\$0.00054X.XXXXX per kWh representing the administrative costs incurred by the Company associated with providing Hourly Pricing Service.

HP Uncollectibles Charge:

\$0.00012X.XXXXX per kWh representing the default service-related uncollectible accounts expense associated with Hourly Pricing Default Service. This charge is subject to annual adjustment on June 1 of each year.

HP Reconciliation Charge:

The HP Reconciliation Charge Rate (" E_{HP} ") shall be applied to each kWh of Default Service that the Company delivers to Customers under this rider as determined to the nearest one-thousandth of a cent per kWh. The E_{HP} rate shall be included as a non-bypassable component billed to Customers receiving Default Service from the Company under this rider. The rate shall be calculated according to the provisions of this rider, and shall be calculated and applied equally to Customers under this rider.

For service rendered <u>September June</u> 1, 20179 through <u>November August</u> 301, 20197, the E_{HP} rate is as follows:

HP Reconciliation Charge Rate = \$0.02523X.XXXXX per kWh

The E_{HP} rate will be calculated at the end of each Default Service Quarter (three months ending March 31^{st} , June 30^{th} , September 30^{th} , and December 31^{st}) to be effective for the three-month period beginning on the first day of the third calendar month following the end of that Default Service Quarter (June 1^{st} , September 1^{st} , December 1^{st} , and March 1^{st}). The E_{HP} rate shall be calculated in accordance with the formula set forth below:

$$E_{HP} = ((DS_{HPExp1} + DS_{HPExp2}) - PTC_{HPRev} + DS_{HPInt}) / DS_{HPSales}$$

Where:

E_{HP} = The rate determined to the nearest one-thousandth of a cent per kWh to be applied to each kWh of Default Service delivered to Customers under this rider.

(C) Change

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WEST PENN POWER COMPANY	WFST	' PFNN	POWFR	COMP	ANY
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RIDERS

Rider I (continued) (C)

DS_{HPExp1}

- = An allocated portion of the incremental start-up costs incurred by the Company through May 31, 20<u>19</u> in connection with the Company's Default Service Supply Plan to provide Default Service amortized over the <u>forty-eighttwenty-four</u> (24<u>8</u>) month period ending May 31, 20<u>23</u>17 including but not limited to:
 - Incremental start-up administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
 - Other start-up costs incurred to develop and implement the competitive bid process for the retail Default Service Supply Plan including legal, customer notice, and consultant fees

Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected and included in the determination of the monthly amortized amount.

 DS_{HPExp2}

- = The cumulative costs to provide Hourly Pricing Default Service incurred by the Company through the end of the previous Default Service Quarter including but not limited to the following:
 - Payments made to winning bidders
 - Any PJM related charges other than Non-Market Based Services Transmission Charges identified in Rider J associated with the procurement of Hourly Pricing Default Service.
 - Net AEPS expenses and AEPS expenses incurred by the Company related to amendments to the AEPS Act and/or related laws or regulations occurring subsequent to the effective date of the Supplier Master Agreement for the Default Service Supply Plan.
 - An allocated portion of incremental administrative costs including metering and billing costs incurred and other costs as necessary to provide service to retail Default Service Customers
 - All contingency plan implementation costs incurred during the supply period
 - An allocated portion of other costs incurred to develop and implement the competitive bid process for retail Default Service including legal, customer notice, and consultant fees

(C) Change

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WEST PENN POWER COMPANY

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RIDERS

Rider I (continued)

- The cost of credit when the Company is considered by PJM to be the load serving entity
- Incremental costs, including but not limited to metering costs and billing expenses, incurred by the Company to expand Rate Schedule 35 to include Customers with a Kilowatt demand greater than or equal to 400 Kilowatts.
- Any reconciliation balance associated with Rate Schedule 30 customers with demand equal to or greater than 100 kW migrating from Rider H - Price to Compare Default Service Rate Rider to Rider I - Hourly Pricing Default Service Rider as of June 1, 2019.

PTC_{HPRev}

= The cumulative revenues, excluding any revenues associated with the HP Uncollectibles Charge and applicable Pennsylvania gross receipts tax, through the end of the most recent Default Service Quarter billed to Hourly Pricing Default Service Customers under this rider including the applicable E_{HP} rates.

DS_{HPInt}

= The cumulative amount of carrying charges calculated on a monthly basis through the end of the most recent Default Service Quarter. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month that the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

DS_{HPSales}

= The Company's projected Hourly Pricing Default Service kWh sales to retail Customers for the three-month billing period that the E_{HP} rate will be in effect.

Gross Receipts Tax:

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

General:

Each change in the E_{HP} rate as well as other rates within this rider will be filed with the Commission by the later of: (a) forty-five (45) days prior to the effective date of the rate changes; or (b) seven (7) days after the last supply auction. The Company shall file details in support of the revised rates.

At the conclusion of the duration of this reconciliation rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the E_{HP} rate shall be subject to annual review and audit by the Commission.

(C) Change

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METROPOLITAN EDISON COMPANY		Revised	C. No. 52 (Supp. XX) Page 142 Revised Page 142
	RIDERS		

RIDER J

DEFAULT SERVICE SUPPORT RIDER

A Default Service Support ("DSS") rate shall be applied to DSS Sales delivered by the Company to Delivery Service Customers under this rider as determined to the nearest one-thousandth of a cent per kWh or dollar per kW NSPL, as applicable. The DSS rate shall be billed to Customers receiving Delivery Service from the Company under this rider. The DSS rates shall be calculated according to the provisions of this rider. The DSS Rider shall be non-bypassable.

For service rendered during the DSS Initial Computational Period and thereafter, the DSS Computational Year, the DSS rates billed by Rate Schedule are as follows:

	DSS
Rate Schedule	Rates
Rate Schedule RS Rate Schedule GS Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior	X.XXX cents per kWh
Center Service Rate	X.XXX cents per kWh
Rate Schedule GS - Small	X.XXX cents per kWh
Rate Schedule GS - Medium	X.XXX cents per kWh
Rate Schedule GS - Large	\$ X.XXX per kW NSPL
Rate Schedule GP	\$ X.XXX per kW NSPL
Rate Schedule TP	\$ X.XXX per kW NSPL
Rate Schedule MS	X.XXX cents per kWh
Rate Schedule OAL	X.XXX cents per kWh
Rate Schedule STLT	X.XXX cents per kWh
Rate Schedule LED	X.XXX cents per kWh
Rate Schedule BRD	X.XXX cents per kWh

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METROPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 143 Superseding Revised Page 143
RIDERS	
Rider J (continued)	
The DSS rates by rate schedule shall be calculated and forth below:	•
DSS rate = $[UE + NUG + NMB + RE +$	$CEC + PTC_{Adder} X [1 / (1-T)]$
The components of the formula are defined below:	
Default Service Related Uncollectibles	
UE = A default service-related unbundled und determined by Customer Class and stated to the per kWh, to be applied to DSS Sales delivered commercial Delivery Service Customers under service-related portion of the uncollectible action Company's distribution base rate case and the expense incurred by the Company as a result tariff. This component of the DSS rate in this The unbundled uncollectible accounts expense purchase of receivables program allocated to bypassable, non-reconcilable basis will be Cuannually on June 1 of each year based on the Adjustments, if necessary, will be made to the distribution base rate case or the start of the noccurs earlier.	the nearest one-thousandth of a cent d by the Company to residential and er this rider. The UE reflects the default count expense based on revenues in the e additional uncollectible accounts of providing Default Service under this is non-bypassable rider is non-reconcilable. See associated with Default Service and a Delivery Service Customers on a non-astomer Class specific and will be adjusted projected price of Default Service. The uncollectible percentage in a future
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METROP	OLITAN EDISON COMPANY	Revised I	C. No. 52 (Supp. XX) Page 144 Revised Page 144
	RIDER		Ç
Rider J (c	ontinued)		
Ridel J (C	ontinued)		
The UE cl	harges by Customer Class to be included in	n DSS rates are as fo	llows:
	Commercial Customer Class (Rate GS-Borderline Service, Street Lighting Service Lighting, and Outdoor Lighting Service	vice, Ornamental Stre	
	X.XXX cents per kW	h	
	Residential Customer Class (Rate RS ar Profit Ambulance Service, Rescue Squa		- ·
	X.XXX cents per kW	h	
Non-Utili	ty Generation Charges		
	NUG = NUG	GE/S	
Where:			
NUG =	The charge to be applied to Delivery Serverefund the balance of the cumulative over Generation Charge Rider ("NUGE") whi final order at Docket No. P-2009-209305 DSS Rider. The NUG rate will be effect over the 12 month period ending May 31	r or under-collection ch was approved by to 3. The NUGE is being tive on June 1, 2017 a	of the Non-Utility the Commission in its ng recovered under this
NUGE =	The balance of the NUG Rider that remai customers.	ns to be recovered from	om or refunded to
S =	The Company's total DSS Sales per Custo projected for the DSS Computational Year		ry Service Customers
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METROI	POLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 145 Superseding Revised Page 145					
	RIDERS						
Rider J (c	Rider J (continued)						
T	he NUG charges by NUGE Rate Group to b	e included	in DSS rates are as follows:				
	Rate Schedule		NUG Rates				
	NUG Rate Group 1 - Rate Schedule RS		X.XXX cents per kWh				
	NUG Rate Group 2A - Rate Schedule GS Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Ser Center Service Rate, GS – Small, GS – Me MS, OAL, STLT, LED and BRD		X.XXX cents per kWh				
	NUG Rate Group 2B - Rate Schedule GS - Large		\$ X.XXX per kW NSPL				
	NUG Rate Group 3 - Rate Schedule GP		\$ X.XXX per kW NSPL				
	NUG Rate Group 4 - Rate Schedule TP		\$ X.XXX per kW NSPL				
Non-Mai	rket Based Services Transmission Charges	3					
	$NMB = (NMB_C - 1)$	- E) / S					
Where:							
NMB =	The charge to be applied to Delivery Service Non-Market Based Services Transmission (e Custome Charge cos	rs served under this rider for ts incurred by the Company. (C)				
NMB _C =	Forecasted NMB costs applicable to the Company's DSS Sales. Forecasted NMB costs shall include FERC approved costs for (i) PJM Regional Transmission Expansion Plan charges; (ii) PJM Expansion Cost Recovery; (iii) PJM charges for Reliability Must Run generating unit declarations and charges associated with plants deactivated after July 24, 2014, the approval date of the Company's Default Service Program at Docket No. P-2013-2391368; (iv) historical tie line, generation, and retail customer meter adjustments; (v) Unaccounted for Energy; (vi) any FERC-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009; and (vii) any other FERC-approved PJM transmission charges billed to the Company by PJM that will not be reconciled through the Company's Price To Compare Default Service Rate Rider and/or Hourly Pricing Default Service Rider and are approved by the Commission for recovery under this rider. Forecasted NMB costs are allocated to each Customer Class based upon each Customer Class's contribution to the total Company Network Service Peak Load.						
	(C) Change	<u>e</u>					
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METRO	OPOLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 146 Superseding Revised Page 146
	RIDI	ERS
Rider J	(continued)	
E =	the DSS Reconciliation Year, including a denoted by a positive E and an under-col computed monthly for the over or under commercial banking, not to exceed the le	B _C that results from billing of the NMB during applicable interest. An over-collection is lection by a negative E. Interest shall be collection at the prime rate of interest for egal rate of interest, in effect on the last day of occurs, as reported in the <i>Wall Street Journal</i> , to on is refunded or the under collection is
S =	The Company's total DSS Sales per Coprojected for the DSS Computational Y	ustomer Class to Delivery Service Customers Year.
	The NMB charges by Customer Class to	be included in DSS rates are as follows:
	Industrial Customer Class (Rate GS	– Large, GP and Rate TP):

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate MS, Borderline Service, Street Lighting Service, Ornamental Street Lighting, LED Street Lighting Service, and Outdoor Lighting Service):

X.XXX cents per kWh

\$ X.XXX per kW NSPL

Residential Customer Class (Rate RS, Rate GS – Volunteer Fire Company, Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate):

X.XXX cents per kWh

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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 147 Superseding Revised Page 147		
	RIDERS	3		
Rider J	(continued)			
Retail I	Enhancements			
Where:	$RE = [(RE_c - E_c)]$	E) / S]		
RE =	The charge to be applied to Delivery Service Retail Enhancement Costs incurred by the Co			
REc =	The Retail Enhancement Costs incurred by the expenses and implementation costs associated approved by the Commission.			
E =	The over or under-collection of the RE _C that a DSS Reconciliation Year, including applicable by a positive E and an under-collection by a monthly for the over or under collection at the banking, not to exceed the legal rate of interest over and under collection occurs, as reported month that the over collection is refunded or the second collection occurs.	le interest. An over-collection is denoted legative E. Interest shall be computed le prime rate of interest for commercial lest, in effect on the last day of the month the in the <i>Wall Street Journal</i> , to the effective		
S =	The Company's total DSS Sales per Custome projected for the DSS Computational Year.	r Class to Delivery Service Customers		
	The RE rates by Customer Class to be include	ed in DSS rates are as follows:		
	Industrial Customer Class (Rate GS - Lar	ge, GP and Rate TP):		
	\$ 0.000 per kW NSPL			
	Commercial Customer Class (Rate GS-Sr	nall):		
	X.XXX cents per kWh			
	Residential Customer Class (Rate RS and Profit Ambulance Service, Rescue Squad	Rate GS - Volunteer Fire Company, Non- and Senior Center Service Rate):		
	X.XXX cents per kWh			
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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp. XX) Revised Page 148			
			Revised Page 148		
	RIDER	S			
Rider J	(continued)				
Custon	ner Education Charges				
	$CEC = (CEC_C)$	(E - E) / S			
Where:					
CEC =	The charge to be applied to Delivery Servi Customer Education Charges incurred by t		d under this rider for		
CEC _C =	Customer Education costs for the specific costs associated with competitive market e				
E =	The over or under-collection of the CEC _C the DSS Reconciliation Year, including apprented denoted by a positive E and an under-collect computed monthly for the over or under collect commercial banking, not to exceed the legathe month the over and under collection occurred the effective month that the over collection collected.	plicable interest. An etion by a negative E llection at the prime I rate of interest, in cours, as reported in the	over-collection is Interest shall be rate of interest for effect on the last day of the Wall Street Journal, to		
S =	The Company's total DSS Sales per Custo projected for the DSS Computational Year		ry Service Customers		
	The CEC rates by Customer Class to be inc	cluded in DSS rates	are as follows:		
	<u>Industrial Customer Class (Rate GS – L</u>	arge, GP and Rate T	<u>'P):</u>		
	\$ 0.000 per kW NSPL	-			
	Commercial Customer Class (Rate GS -	- Small):			
	0.000 cents per kWh				
	Residential Customer Class (Rate RS and Profit Ambulance Service, Rescue Squa		<u> </u>		
	X.XXX cents per kW	h			
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METROPO	OLITAN EDISON COMPANY	Electric Pa. P.U.C. No. 52 (Supp. XX) <u>Original Page 148A</u>
	RIDERS	
Rider J (con		<u>(C)</u>
Price to Co	ompare Adder Credit	
	$PTC_{Adder} = PTC_{A}$	dderC / S
Where:		
PTC _{Adder} =	for the period June 1, 2020 through May 3 retail market enhancement mechanism com	ivery Service Customers served under this rider 1, 2025 related to the Price to Compare ("PTC") apponent collected by the Company in Rider H – der. This charge will be amortized for each
PTC _{AdderC} =		tomer Class to refund 95% of the actual retail nt collected in Rider H – Price To Compare
<u>S</u> =	The Company's total DSS Sales to resident the DSS Computational Year.	tial Delivery Service Customers projected for
	The PTC _{Adder} rates by Customer Class to be	e included in DSS rates are as follows:
	Industrial Customer Class (Rate GS – Larg	e, GP and Rate TP):
	\$ 0.000 per kW NSPL	
	Commercial Customer Class (Rate GS-Smarservice, Street Lighting Service, Ornament Service, and Outdoor Lighting Service):	·
	0.000 cents per kWh	
	Residential Customer Class (Rate RS and I Ambulance Service, Rescue Squad and Ser	Rate GS - Volunteer Fire Company, Non-Profit nior Center Service Rate):
	X.XXX	cents per kWh

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METROPOLITAN EDISON COMPANY		Electric Pa. P.U.C. No. 52 (Supp. XX Revised Page 149		
		Superseding		
Rider J (continued)	RIDERS			

Gross Receipts Tax

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this Rider shall have the definitions specified in Section 2 of this Tariff. For purposes of this Rider, the following additional definitions shall apply:

- 1. DSS Sales The kWh or kW NSPL delivered during a billing month to all Delivery Service Customers, as applicable to each Rate Schedule billed under the DSS Rider.
- 2. DSS Computational Year The 12-month period from June 1 through the following May 31.
- 3. DSS Reconciliation Year The 12-month period ending March 31 immediately preceding the DSS Computational Year.
- 4. DSS Initial Computational Period the period from May 3, 2015 through May 31, 2015 that the DSS Rider is in effect. Thereafter, the DSS Computational Year will be in effect.

The Company shall recalculate its DSS Rates annually and, based on that recalculation, shall file with the Commission, by May 1st of each year, revised Rates to become effective on June 1st of the same year unless the Commission orders otherwise. The revised DSS rates shall remain in effect for a period of one year, unless revised on an interim basis subject to the approval of the Commission. Upon determining that its DSS rates, if left unchanged, would result in material over or under-collection of all costs incurred, or expected to be incurred, for DSS during the then current DSS Reconciliation Year, the Company may request that the Commission approve one or more interim revisions to its DSS rates to become effective thirty (30) days from the date of filing, unless the Commission orders otherwise.

At the conclusion of the period during which this DSS Rider is in effect, the Company shall be authorized to recover or refund at any time, any remaining differences between recoverable costs and revenues billed under this rider by charges or credits to be applied to customer's bills under such mechanism the Commission may approve, but uncollectibles, which are non-reconcilable under the terms of this rider, shall not be included in the final reconciliation.

	Application	of the DSS	rates sha	ıll be sub	ject to	annual 1	review	and au	dit by tl	ne
Comn	nission.									
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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.	C. No. 81 (Supp. XX)
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RIDERS

RIDER J DEFAULT SERVICE SUPPORT RIDER

A Default Service Support ("DSS") rate shall be applied to DSS Sales delivered by the Company to Delivery Service Customers under this rider as determined to the nearest one-thousandth of a cent per kWh or dollar per kW NSPL, as applicable. The DSS rate shall be billed to Customers receiving Delivery Service from the Company under this rider. The DSS rates shall be calculated according to the provisions of this rider. The DSS Rider shall be non-bypassable.

For service rendered during the DSS Initial Computational Period and thereafter, the DSS Computational Year, the DSS rates billed by Rate Schedule are as follows:

Rate Schedule	DSS Rates
Rate Schedule RS & GS Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad	
and Senior Center Service Rate	X.XXX cents per kWh
Rate Schedule GS – Small	X.XXX cents per kWh
Rate Schedule GS – Medium	X.XXX cents per kWh
Rate Schedule H	X.XXX cents per kWh
Rate Schedule BRD	X.XXX cents per kWh
Rate Schedule LED	X.XXX cents per kWh
Rate Schedule Street Lighting Rate Schedule Municipal Street	X.XXX cents per kWh
Lighting	X.XXX cents per kWh
Rate Schedule OAL	X.XXX cents per kWh
Rate Schedule GS – Large	\$ X.XXX per kW NSPL
Rate Schedule GP	\$ X.XXX per kW NSPL
Rate Schedule LP	\$ X.XXX per kW NSPL

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PENN	ISYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX) Revised Page 150 Superseding Revised Page 150
	RIDERS	
Rider	J (continued)	
The D forth b	OSS rates by rate schedule shall be calculated a pelow: DSS rate = [UE + NMB + RE + Cl	(C
The co	omponents of the formula are defined below:	
Defau	lt Service Related Uncollectibles	
Default Service Related Uncollectibles UE = A default service-related unbundled uncollectible accounts expense charge, determined by Customer Class and stated to the nearest one-thousandth of a cent per kWh to be applied to DSS Sales delivered by the Company to residential and commercial Delivery Service Customers under this rider. The UE reflects the default service-related portion of the uncollectible account expense based on revenues in the Company's distribution base rate case and the additional uncollectible accounts expense incurred by the Company as a result of providing Default Service under this tariff. This component of the DSS rate in this non-bypassable rider is non-reconcilable. The unbundled uncollectible accounts expense associated with Default Service and a purchase of receivables program allocated to Delivery Service Customers on a non-bypassable, non-reconcilable basis will be Customer Class specific and will be adjusted annually on June 1 of each year based on the projected price of Default Service. Adjustments, if necessary, will be made to the uncollectible percentage in a future distribution base rate case or the start of the next Default Service Program, whichever occurs earlier.		
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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX) Revised Page 151 Superseding Revised Page 151		
RIDERS			
Rider J (continued)			
The UE charges by Customer Class to be inclu	nded in DSS rates are as follows:		
Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate H, Borderline Service, Street Lighting Service, Ornamental Street Lighting, LED Street Lighting Service, and Outdoor Lighting Service):			
X.XXX cents per kWh			
<u>Residential Customer Class (Rate RS, Rate GS – Volunteer Fire Company, Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate)</u> :			
X.XXX cents per kWh			

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PENNS	YLVANIA ELECTRIC COMPANY	Electric Pa. P.U.C. No. 81 (Supp. XX) Revised Page 152 Superseding Revised Page 152	
	RIDERS		
Rider J	(continued)		
Non-Ma	arket Based Services Transmission Charge	<u>s</u>	
	$NMB = (NMB_C)$	– E) / S	
Where:			
NMB =	The charge to be applied to Delivery Service Customers served under this rider for Non-Market Based Services Transmission Charge costs incurred by the Company.		
$NMB_C =$	Forecasted NMB costs applicable to the Company's DSS Sales. Forecasted NMB costs shall include FERC approved costs for (i) PJM Regional Transmission Expansion Plan charges; (ii) PJM Expansion Cost Recovery; (iii) PJM charges for Reliability Must Run generating unit declarations and charges associated with plants deactivated after July 24, 2014, the approval date of the Company's Default Service Program at Docket No. P-2013-2391372; (iv) historical tie line, generation, and retail customer meter adjustments; (v) Unaccounted for Energy; (vi) any FERC-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009; and (vii) any other FERC-approved PJM transmission charges billed to the Company by PJM that will not be reconciled through the Company's Price To Compare Default Service Rate Rider and/or Hourly Pricing Default Service Rider-and are approved by the Commission for recovery under this rider. Forecasted NMB costs are allocated to each Customer Class based upon each Customer Class's contribution to the total Company Network Service Peak Load		
E =	The over or under-collection of the NMB _C the DSS Reconciliation Year, including apple denoted by a positive E and an under-collectic computed monthly for the over or under collection commercial banking, not to exceed the legal the month the over and under collection occur to the effective month that the over collection collected.	icable interest. An over-collection is ion by a negative E. Interest shall be ection at the prime rate of interest for rate of interest, in effect on the last day of ars, as reported in the <i>Wall Street Journal</i> ,	
S =	The Company's total DSS Sales per Custome projected for the DSS Computational Year.	er Class to Delivery Service Customers	
	(C) Chang	e <u>e</u>	
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PENNSYLVANIA ELECTRIC COMPANY	Electric Pa. P.U.	C. No. 81 (Supp. XX) Page 153	
	Superseding	Revised Page 153	
RIDERS			
Rider J (continued)			
The NMB charges by Customer Class to be included in DSS rates are as follows:			
<u>Industrial Customer Class (Rate GS – Large, GP and Rate LP):</u>			
\$ X.XXX per kW NSPL	_		
Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate H, Borderline Service, Street Lighting Service, Ornamental Street Lighting, LED Street Lighting Service, and Outdoor Lighting Service):			
X.XXX cents per kWł	1		
Residential Customer Class (Rate RS, Rate GS – Volunteer Fire Company, Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate):			
X.XXX cents per kWh			

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PENNSYLVANIA ELECTRIC COMPANY		Electric Pa. P.U.C. No. 81 (Supp. XX) Revised Page 154		
			Revised Page 154	
	RIDER	.S		
Rider J	(continued)			
Retail 1	Enhancements	E) / Cl		
Where:	$RE = [(RE_c -$	- E) / S]		
RE =	The charge to be applied to Delivery Service Customers served under this rider for the Retail Enhancement Costs incurred by the Company.			
REc =	The Retail Enhancement Costs incurred by the Company to cover programming expenses and implementation costs associated with competitive market enhancements approved by the Commission.			
E =	The over or under-collection of the RE _C that results from billing of the RE during the DSS Reconciliation Year, including applicable interest. An over-collection is denoted by a positive E and an under-collection by a negative E. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month the over and under collection occurs, as reported in the <i>Wall Street Journal</i> , to the effective month that the over collection is refunded or the under collection is collected.			
S =	The Company's total DSS Sales per Customer Class to Delivery Service Customers projected for the DSS Computational Year.		Service Customers	
	The RE rates by Customer Class to be inclu	aded in DSS rates are	as follows:	
	<u>Industrial Customer Class (Rate GS – L</u>	_arge, GP and Rate LF	<u>'):</u>	
	\$ 0.000 per kW NSPI	ب		
	Commercial Customer Class (Rate GS-	<u>Small)</u> :		
	X.XXX cents per kW	h		
	Residential Customer Class (Rate RS an Profit Ambulance Service, Rescue Squa			
	X.XXX cents per kW	h		
Issued:		Effectiv	ve: June 1, 2019	

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PENNS	YLVANIA ELECTRIC COMPANY	Revised	C. No. 81 (Supp. XX) Page 155 Revised Page 155
	RIDERS		
Rider J	(continued)		
Custon	ner Education Charges $CEC = (CEC_C - E)$) / S	
Where:			
CEC =	The charge to be applied to Delivery Service Cu Customer Education Charges incurred by the Co		der this rider for
CEC _C =	Customer Education costs for the specific Custo costs associated with competitive market enhancement		
E =	The over or under-collection of the CEC _C that rethe DSS Reconciliation Year, including applicated denoted by a positive E and an under-collection computed monthly for the over or under collection commercial banking, not to exceed the legal rate the month the over and under collection occurs, the effective month that the over collection is recollected.	ble interest. An ov by a negative E. I ion at the prime rat e of interest, in effe as reported in the	er-collection is interest shall be e of interest for ect on the last day of Wall Street Journal, to
S =	The Company's total DSS Sales per Customer Composited for the DSS Computational Year.	Class to Delivery S	ervice Customers
	The CEC rates by Customer Class to be include	d in DSS rates are	as follows:
	<u>Industrial Customer Class (Rate GS – Large</u>	, GP and Rate LP)	<u>:</u>
	\$0.000 per kW NSPL		
	Commercial Customer Class (Rate GS-Sma	<u>11)</u> :	
	0.000 cents per kWh		
	Residential Customer Class (Rate RS and R Profit Ambulance Service, Rescue Squad an		
	0.000 cents per kWh		

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	PENNSYLVANIA	ELECTRIC	COMPANY
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RIDERS
Rider J (continued) (C)
Price to Compare Adder Credit
$\underline{PTC_{Adder}} = \underline{PTC_{AdderC}} / \underline{S}$
Where:
PTC _{Adder} = The charge to be applied to residential Delivery Service Customers served under this rider for the period June 1, 2020 through May 31, 2025 related to the Price to Compare ("PTC") retail market enhancement mechanism component collected by the Company in Rider H – Price To Compare Default Service Rate Rider. This charge will be amortized for each applicable DSS Computational Year.
PTC _{AdderC} = PTC Adder Credits for the Residential Customer Class to refund 95% of the actual retail market enhancement mechanism component collected in Rider H – Price To Compare Default Service Rate Rider.
S = The Company's total DSS Sales to residential Delivery Service Customers projected for the DSS Computational Year.
The PTC _{Adder} rates by Customer Class to be included in DSS rates are as follows:
Industrial Customer Class (Rate GS – Large, GP and Rate LP):
\$ 0.000 per kW NSPL
Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate H, Borderline Service, Street Lighting Service, Ornamental Street Lighting, LED Street Lighting Service, and Outdoor Lighting Service):
0.000 cents per kWh
Residential Customer Class (Rate RS and Rate GS - Volunteer Fire Company, Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate):
X.XXX cents per kWh
(C) Change

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PENNSYLVANIA ELECTRIC COMPANY		.C. No. 81 (Supp.XX) Page 156
	Superseding	Revised Page 156
RIDERS		
Rider J (continued)		

Gross Receipts Tax

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this Rider shall have the definitions specified in Section 2 of this Tariff. For purposes of this Rider, the following additional definitions shall apply:

- 1. DSS Sales The kWh or kW NSPL delivered during a billing month to all Delivery Service Customers, as applicable to each Rate Schedule billed under the DSS Rider.
- 2. DSS Computational Year The 12-month period from June 1 through the following May 31.
- 3. DSS Reconciliation Year The 12-month period ending March 31 immediately preceding the DSS Computational Year.
- 4. DSS Initial Computational Period the period from May 3, 2015 through May 31, 2015 that the DSS Rider is in effect. Thereafter, the DSS Computational Year will be in effect.

The Company shall recalculate its DSS Rates annually and, based on that recalculation, shall file with the Commission, by May 1st of each year, revised Rates to become effective on June 1st of the same year unless the Commission orders otherwise. The revised DSS rates shall remain in effect for a period of one year, unless revised on an interim basis subject to the approval of the Commission. Upon determining that its DSS rates, if left unchanged, would result in material over or under-collection of all costs incurred, or expected to be incurred, for DSS during the then current DSS Reconciliation Year, the Company may request that the Commission approve one or more interim revisions to its DSS rates to become effective thirty (30) days from the date of filing, unless the Commission orders otherwise.

At the conclusion of the period during which this DSS Rider is in effect, the Company shall be authorized to recover or refund at any time, any remaining differences between recoverable costs and revenues billed under this rider by charges or credits to be applied to customer's bills under such mechanism the Commission may approve, but uncollectibles, which are non-reconcilable under the terms of this rider, shall not be included in the final reconciliation.

1	Application (of the DSS	rates sha	ll be si	ubject to	annual	review	and au	dit by tl	he
Commis	ssion.									
Issued:							Effe	ective:	June 1,	2019

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ER COMPANY
ER COMPANY

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RIDERS

RIDER J DEFAULT SERVICE SUPPORT RIDER

A Default Service Support ("DSS") rate shall be applied to DSS Sales delivered by the Company to Delivery Service Customers under this rider as determined to the nearest one-thousandth of a cent per kWh or dollar per kW NSPL, as applicable. The DSS rate shall be billed to Customers receiving Delivery Service from the Company under this rider. The DSS rates shall be calculated according to the provisions of this rider. The DSS Rider shall be non-bypassable.

For service rendered during the DSS Initial Computational Period and thereafter, the DSS Computational Year, the DSS rates billed by Rate Schedule are as follows:

	DSS
Rate Schedule	Rates
Rate Schedule RS, & GS – Volunteer Fire Company and Non-Profit	
Ambulance Service, Rescue Squad	
and Senior Center Service Rate	X.XXX cents per kWh
Rate Schedule GS	X.XXX cents per kWh
Rate Schedule PNP	X.XXX cents per kWh
Rate Schedule GM	X.XXX cents per kWh
Rate Schedule GS – Large	\$ X.XXX per kW NSPL
Rate Schedule Primary – GP	\$ X.XXX per kW NSPL
Rate Schedule Transmission – GT	\$ X.XXX per kW NSPL
Rate Schedule GS with Special Rule	
GSDS	\$ X.XXX per kW NSPL
Rate Schedule PLS	X.XXX cents per kWh
Rate Schedule SV, SVD, SM, LED	X.XXX cents per kWh

The Residential Customer Class consists of Rate Schedules RS; and GS Special Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-Profit Rescue Squads, and Non-Profit Ambulance Services.

The Commercial Customer Class consists of Rate Schedules GS (excluding GS Special Rule GSDS), PNP, GM, GS – Large, PLS, SV, SVD, SM, and LED.

The Industrial Customer Class consists of Rate Schedules GP, GT, and GS with Special Rule GSDS.

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PENNS	YLVANIA POWER COMPANY		Electric Pa. P.U.C. No. 36 (Supp. XX) Revised Page 136 Superseding Revised Page 136
		RIDERS	
Rider J	(continued)		
below:	The DSS rates by rate schedule shall be ca	llculated annually	
	DSS rate = [UE + MPI + CEC +	NMB + RE <u> + P1</u>	(C) [CAdder] X [1 / (1-T)]
The con	nponents of the formula are defined below	7:	
<u>Default</u>	Service Related Uncollectibles:		
	UE = A default service-related unbundled by Customer Class and stated to the neare to DSS Sales delivered by the Company to Customers under this rider. The UE refleuncollectible account expense based on recase and the additional uncollectible according Default Service under this tabypassable rider is non-reconcilable. The unbundled uncollectible accounts export receivables program allocated to Deliver reconcilable basis will be Customer Classe each year based on the projected price of made to the uncollectible percentage in a next Default Service Program, whichever	est one-thousandt to residential and ects the default servenues in the Counts expense incuriff. This compounts associated a tery Service Custos specific and will Default Service. future distributio	h of a cent per kWh to be applied commercial Delivery Service rvice-related portion of the ompany's distribution base rate urred by the Company as a result onent of the DSS rate in this non-with Default Service and a purchase omers on a non-bypassable, non-l be adjusted annually on June 1 of Adjustments, if necessary, will be
	(C)) Change	
Issued:		I	Effective: June 1, 2019

PENNSYLVANIA	POWER	COMP	ANY
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Revised Pa	age 137
Superseding	Revised Page 137

RIDERS

Rider J (continued)

The UE charges by Customer Class to be included in DSS rates are as follows:

Residential Customer Class:

X.XXX cents per kWh

Commercial Customer Class:

X.XXX cents per kWh

MTEP and MISO Exit Fees and PJM Integration Charges:

 $MPI = ((((MPI_{Exp1} + MPI_{Exp2}) - E) \times Adjustment Factor) / S)$

Where:

MPI = The charge to be applied to each Delivery Service Customer served under

this Tariff for the Midwest Independent System Operator ("MISO") Transmission Expansion Plan ("MTEP") charges and MISO and PJM charges associated with the transition from MISO to PJM approved by

FERC.

 $MPI_{Exp1} =$ The Company's -cost of the MTEP charges assessed on the Company

pursuant to the Open Access Transmission Tariff ("OATT") of MISO.

 MPI_{Exp2} = The Company's (i) charges assessed under MISO's OATT that are

associated with the Company's exit from the MISO control area and (ii) charges assessed under the PJM OATT that are associated with the Company's integration into the PJM control area. All such MISO exit fees and PJM integration fees charges approved by FERC shall not exceed \$3.5 million, excluding carrying charges. The Company shall recover these charges plus applicable carrying charges over a minimum five year period.

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PENNSYLVANIA POWER COMPANY		Electric Pa. P.U.C. Revised Pa. Superseding	ge 138
RI	DERS		
Rider J (continued)			

E =

The over or under collection of MTEPs and MISO exit fees and PJM integration charges that result from the billing of the MPI portion of the DSS during the DSS Reconciliation Year (an over collection is denoted by a positive E and an under collection by a negative E), including applicable interest. Interest shall be computed monthly based upon 41 P.S. §202, the legal statutory interest rate, from the month the over or under collection occurs to the month that the over collection is refunded to or the under collection is recovered from Delivery Service Customers.

S =The Company's total DSS Sales to Delivery Service Customers projected for the DSS Computational Year.

The MPI shall be adjusted by the following Customer Class Adjustment Factors, as shown:

	Adjustment
Customer Class	Factor
Residential	.4126
Commercial	.3101
Industrial	.2773

The MPI charges, by Customer Class, to be included in DSS rates are as follows:

Residential Customer Class:

0.00000 cents per kWh

Commercial Customer Class:

0.00000 cents per kWh

Industrial Customer Class:

\$0.000 per kW NSPL

Issued:	Effective:	June 1.	, 2019
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Effective: June 1, 2019

PENNS	SYLVANIA POWER COMPANY	Electric Pa. P.U.C. No. 36 (Supp. XX) Revised Page 139
		Superseding Revised Page 139
	RIDERS	
Rider J	(continued)	
Custon	ner Education Charges:	
Where:	$CEC = (CEC_C - E) / S$	
CEC =	The charge to be applied to Delivery Service Customers s Education Charges incurred by the Company.	served under this rider for Customer
CEC _C =	Customer Education costs for the specific Customer Class associated with competitive market enhancements approv	
E =	The over or under-collection of the CEC _C that results from Reconciliation Year, including applicable interest. An over an under-collection by a negative E. Interest shall be comp collection at the prime rate of interest for commercial bank interest, in effect on the last day of the month. The over an the <i>Wall Street Journal</i> , to the effective month that the over collection is collected.	er-collection is denoted by a positive E and puted monthly for the over or under king, not to exceed the legal rate of d under collection occurs, as reported in
S =	The Company's total DSS Sales per Customer Class to De the DSS Computational Year.	elivery Service Customers projected for
	The CEC rates by Customer Class to be included in DSS	rates are as follows:
	Residential Customer Class:	
	0.000 cents per kWh	
	Commercial Customer Class:	
	0.000 cents per kWh	
	Industrial Customer Class:	
	\$0.000 per kW NSPL	

Issued: _____

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PENNSY	LVAN	IA POWER COMPANY	Revised I	C. No. 36 (Supp. XX) Page 140 Revised Page 140
		RIDERS		
Rider J (c	ontinue	d)		
Non-Mar	ket Ba	sed Services Transmission Charges:		
Where:	N.	$MB = (NMB_C - E) / S$		
N	MB =	The charge to be applied to Delivery Service Cus for Non-Market Based Services Transmission Ch Company.	stomers served under narge costs incurred	by the
N	$MB_C =$	Forecasted NMB costs applicable to the Compan shall include FERC approved costs for (i) PJM R charges; (ii) PJM Expansion Cost Recovery; (iii) generating unit declarations and charges associate 2014, the approval date of the Company's Default 2391375; (iv) historical tie line, generation, and runaccounted for Energy; (vi) any FERC-approved Transmission Expansion Plan charges related to other FERC-approved PJM transmission charges not be reconciled through the Company's Price Tand/or Hourly Pricing Default Service Rider and recovery under this rider. Forecasted NMB costs based upon each Customer Class's contribution to Peak Load.	Legional Transmissi PJM charges for Red with plants deach lt Service Programmetail customer meteod reallocation of Pocket No. EL05-1 billed to the Compare Defaulare approved by the are allocated to ea	on Expansion Plan eliability Must Run tivated after July 24, at Docket No. P-2013-er adjustments; (v) JM Regional 21-009; and (vii) any any by PJM that will t Service Rate Rider e Commission for ch Customer Class
E	=	The over or under-collection of the NMB _C that reDSS Reconciliation Year, including applicable in positive E and an under-collection by a negative the over or under collection at the prime rate of it exceed the legal rate of interest, in effect on the legal collection occurs, as reported in the Wall Street J over collection is refunded or the under collection	nterest. An over-co E. Interest shall be nterest for commerc ast day of the mont	llection is denoted by a computed monthly for cial banking, not to
S	=	The Company's total DSS Sales per Customer Clarification projected for the DSS Computational Year.	lass to Delivery Ser	vice Customers
The NME	3 rates b	y Customer Class to be included in DSS rates are	as follows:	
	Resid	dential Customer Class:		
		X.XXX cents per kWh		
	Com	mercial Customer Class:		
		X.XXX cents per kWh		
	Indus	strial Customer Class:		
		\$ X.XXX per kW NSPL		

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PENNSYLVANIA POWER COMPANY		Electric Pa. P.U.C. No. 36 (Supp. XX) Revised Page 141
		Superseding Revised Page 141
	RIDERS	
Rider J	(continued)	
Retail I Where:	Enhancements: $RE = \left[\left(RE_c - E \right) / S \right]$	
RE =	The charge to be applied to Delivery Service Customer Retail Enhancement Costs incurred by the Company.	rs served under this rider for the
REc =	The Retail Enhancement Costs incurred by the Comparand implementation costs associated with competitive the Commission.	
E =	The over or under-collection of the RE _C that results fro Reconciliation Year, including applicable interest. An positive E and an under-collection by a negative E. Interest sha or under collection at the prime rate of interest for comme legal rate of interest, in effect on the last day of the month the ov reported in the Wall Street Journal, to the effective month that a under collection is collected.	over-collection is denoted by a all be computed monthly for the over ercial banking, not to exceed the er and under collection occurs, as
S =	The Company's total DSS Sales per Customer Class to projected for the DSS Computational Year. The RE rates by Customer Class to be included in DSS Residential Customer Class:	•
	X.XXX cents per kWh Commercial Customer Class (Rate GS - Small): X.XXX cents per kWh	
	Industrial Customer Class:	
	\$0.000 per kW NSPL	

Issued: _____ Effective: June 1, 2019

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PENNSYLVANIA POWER COMPANY

Issued: _____

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	RIDERS
Rider J (cor	<u>(C)</u>
Price to Co	mpare Adder Credit
	$\underline{PTC}_{\underline{Adder}} = \underline{PTC}_{\underline{AdderC}} / \underline{S}$
Where:	
$\underline{PTC}_{Adder} =$	The charge to be applied to residential Delivery Service Customers served under this rider for the period June 1, 2020 through May 31, 2025 related to the Price to Compare ("PTC") retain market enhancement mechanism component collected by the Company in Rider H – Price Tompare Default Service Rate Rider. This charge will be amortized for each applicable DS Computational Year.
PTC _{AdderC} =	PTC Adder Credits for the Residential Customer Class to refund 95% of the actual retail market enhancement mechanism component collected in Rider H – Price To Compare Default Service Rate Rider.
<u>S</u> =	The Company's total DSS Sales to residential Delivery Service Customers projected for the DSS Computational Year.
	The PTC _{Adder} rates by Customer Class to be included in DSS rates are as follows:
	Residential Customer Class:
	X.XXX cents per kWh
	Commercial Customer Class:
	0.000 cents per kWh
	Industrial Customer Class:
	\$ 0.000 per kW NSPL

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Superseding	Revised Page 142
	Revised

Gross Receipts Tax:

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

Other Information:

All capitalized terms not otherwise defined in this Rider shall have the definitions specified in Section 2 of this Tariff. For purposes of this Rider, the following additional definitions shall apply:

- 1. DSS Sales The kWh or kW NSPL delivered during a billing month to all Delivery Service Customers, as applicable to each Rate Schedule billed under the DSS Rider.
- 2. DSS Computational Year The 12-month period from June 1 through the following May 31.
- 3. DSS Reconciliation Year The 12-month period ending March 31 immediately preceding the DSS Computational Year.
- 4. DSS Initial Computational Period the period from the effective date through May 31, 2015 that the DSS Rider is in effect. Thereafter, the DSS Computational Year will be in effect.

The Company shall recalculate its DSS Rates annually and, based on that recalculation, shall file with the Commission, by May 1st of each year, revised Rates to become effective on June 1st of the same year unless the Commission orders otherwise. The revised DSS rates shall remain in effect for a period of one year, unless revised on an interim basis subject to the approval of the Commission. Upon determining that its DSS Rates, if left unchanged, would result in material over or under-collection of all costs incurred, or expected to be incurred, for DSS during the then current DSS Reconciliation Year, the Company may request that the Commission approve one or more interim revisions to its DSS Rates to become effective thirty (30) days from the date of filing, unless the Commission orders otherwise.

At the conclusion of the period during which this DSS Rider is in effect, the Company shall be authorized to recover or refund at any time, any remaining differences between recoverable costs and revenues billed under this rider by charges or credits to be applied to customer's bills under such mechanism the Commission may approve, but uncollectibles, which are non-reconcilable under the terms of this rider, shall not be included in the final reconciliation.

Application of the DSS rates shall be subject to annua	l review and audit by the
Commission.	
Issued:	Effective: June 1, 2019

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WEST PENN POWER COMPANY	E

Electric-Pa. P.U.	C. No. 40 (Supp. XX)
Revised I	Page 185
Superseding	Revised Page 185

RIDERS

RIDER J DEFAULT SERVICE SUPPORT RIDER

A Default Service Support ("DSS") Rate shall be applied to DSS Sales delivered by the Company to Delivery Service Customers under this rider as determined to the nearest one-thousandth of a cent per kWh or dollar per kW NSPL, as applicable. The DSS Rate shall be billed to Customers receiving Delivery Service from the Company under this rider. The DSS Rates shall be calculated according to the provisions of this rider. The DSS Rider shall be non-bypassable.

For service rendered during the DSS Initial Computational Period and thereafter, the DSS Computational Year, the DSS rates billed by Rate Schedule are as follows:

	DSS
Rate Schedule	<u>Rates</u>
Rate Schedule 10	X.XXX cents/kWh
Rate Schedule 20 (Special Provision)	X.XXX cents/kWh
Rate Schedule 20	X.XXX cents/kWh
Rate Schedule 30	X.XXX cents/kWh
Rate Schedule 51	X.XXX cents/kWh
Rate Schedule 52	X.XXX cents/kWh
Rate Schedule 53	X.XXX cents/kWh
Rate Schedule 54	X.XXX cents/kWh
Rate Schedule 55	X.XXX cents/kWh
Rate Schedule 56	X.XXX cents/kWh
Rate Schedule 57	X.XXX cents/kWh
Rate Schedule 58	X.XXX cents/kWh
Rate Schedule 71	X.XXX cents/kWh
Rate Schedule 72	X.XXX cents/kWh
Rate Schedule 35	\$ X.XXX per kW NSPL
Rate Schedule 40	\$ X.XXX per kW NSPL
Rate Schedule 44	\$ X.XXX per kW NSPL
Rate Schedule 46	\$ X.XXX per kW NSPL
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	O .
WEST PENN POWER COMPANY	Electric-Pa. P.U.C. No. 40 (Supp. XX) Revised Page 186 Superseding Revised Page 186
DIDEDG	
RIDERS Rider J (continued)	
The DSS Rates by Rate Schedule shall be ca formula set forth below:	·
DSS rate = $[UE+NMB + RE + CEC]$	+ PTC _{Adder}] X [1 / (1-T)]
The components of the formula are defined below:	
Default Service Related Uncollectibles	
UE = A default service-related unbundled unce determined by Customer Class and stated to the to be applied to DSS Sales delivered by the Compelivery Service Customers under this rider. It portion of the uncollectible account expense be distribution base rate case and the additional unby the Company as a result of providing Defaution component of the DSS rate in this non-bypassa. The unbundled uncollectible accounts expense purchase of receivables program allocated to Dibypassable, non-reconcilable basis will be Cust annually on June 1 of each year based on the production base rate case or the start of the next occurs earlier.	ne nearest one-thousandth of a cent per kWh ompany to residential and commercial The UE reflects the default service-related ased on revenues in the Company's incollectible accounts expense incurred alt Service under this tariff. This able rider is non-reconcilable. associated with Default Service and a relivery Service Customers on a non-tomer Class specific and will be adjusted rojected price of Default Service. uncollectible percentage in a future
The UE charges by Customer Class to be included in D	OSS rates are as follows:
Commercial Customer Class:	
X.XXX cents per kWh	
Residential Customer Class:	
X.XXX cents per kWh	
(C) Cha	<u>nge</u>

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WEST P	ENN POWER COMPANY	Electric-Pa. P.U.C. No. 40 (Supp. XX) Revised Page 187
		Superseding Revised Page 187
	RIDERS	
Rider J (continued)	
Non-Ma	rket Based Services Transmission Charges	
	$NMB = (NMB_C - E$	E) / S
Where:		
NMB =	The charge to be applied to Delivery Service On-Market Based Services Transmission Ch	
NMB _C =	Forecasted NMB costs applicable to the Compares shall include FERC approved costs for (Expansion Plan charges; (ii) PJM Expansion Reliability Must Run generating unit declarate deactivated after the July 24, 2014, approval descrivated after the July 24	pany's DSS Sales. Forecasted NMB i) PJM Regional Transmission Cost Recovery; (iii) PJM charges for ons and charges associated with plants late of the Company's Default Service historical tie line, generation, and retail for Energy; (vi) any FERC-approved expansion Plan charges related to Docket approved PJM transmission charges experience of recovery under this rider. Forecasted ass based upon each Customer Class's
E =	The over or under-collection of the NMB _C that the DSS Reconciliation Year, including application denoted by a positive E and an under-collection computed monthly at the legal statutory interest month the over or under-collection occurs to the refunded to or the under-collection is recovered.	cable interest. An over-collection is on by a negative E. Interest shall be est rate stated in 41 P.S. § 202, from the he month that the over-collection is
S =	The Company's total DSS Sales per Customer projected for the DSS Computational Year.	r Class to Delivery Service Customers
	(C) Change	
Issued: _		Effective: June 1, 2019

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WEST	PENN POWER COMPANY		C. No. 40 (Supp. XX) Page 188
			Revised Page 188
	RIDERS		
Rider J	(continued)		
The N	MB rates by Customer Class to be included in	DSS Rates are as	follows:
	Residential Customer Class:		
	X.XXX cents per kWh		
	Commercial Customer Class:		
	X.XXX cents per kWh		
	Industrial Customer Class:		
	\$ X.XXX per kW NSPL		
Retail	Enhancements		
****	$RE = [(RE_c - E) /$	S]	
Where:			
RE =	The charge to be applied to Delivery Service Cu Retail Enhancement Costs incurred by the Com		der this rider for the
REc =	The Retail Enhancement Costs incurred by the Compenses and implementation costs associated wapproved by the Commission.		
E =	The over or under-collection of the RE _C that responsible to DSS Reconciliation Year, including applicable to by a positive E and an under-collection by a negmonthly for the over or under collection at the panking, not to exceed the legal rate of interest, over and under collection occurs, as reported in month that the over collection is refunded or the	interest. An over-ogative E. Interest sorime rate of intere in effect on the last the <i>Wall Street Journal</i>	collection is denoted hall be computed st for commercial st day of the month the <i>urnal</i> , to the effective
S =	The Company's total DSS Sales per Customer C projected for the DSS Computational Year.	lass to Delivery Se	ervice Customers

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WEST PENN POWER COMPANY	Electric-Pa. P.U.C. No. 40 (Supp. XX) Revised Page 189	
		Revised Page 189
RIDERS		
Rider J (continued)		
The RE rates by Customer Class to be included	l in DSS rates are as	follows:
Industrial Customer Class:		
\$0.000 per kW NSPL		
Commercial Customer Class (Rate 20):		
X.XXX cents per kWh		
Residential Customer Class:		
X.XXX cents per kWh <u>Customer Education Charges</u>		
$CEC = (CEC_C - E_C)$ Where:	E) / S	
CEC = The charge to be applied to Delivery Service C Customer Education Charges incurred by the C		der this rider for
CEC _C = Customer Education costs for the specific Cus costs associated with competitive market enha excluding costs being recovered by the Consur Rider.	incements approved	by the Commission,
E = The over or under-collection of the CEC _C that reduring the DSS Reconciliation Year, including is denoted by a positive E and an under-collectic computed monthly for the over or under collectic commercial banking, not to exceed the legal rate the month the over and under collection occurs to the effective month that the over collection is collected.	applicable interest. ion by a negative E. tion at the prime rate te of interest, in effect, as reported in the V	An over-collection Interest shall be of interest for et on the last day of Wall Street Journal,

Issued: _____

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WEST I	PENN POWER COMPANY	Electric-Pa. P.U. Revised	C. No. 40 (Supp. XX) Page 190
			Revised Page 190
	RID	ERS	
Rider J ((continued)		
S =	The Company's total DSS Sales per Cu projected for the DSS Computational Y	•	Service Customers
	The CEC rates by Customer Class to be	e included in DSS rates are	e as follows:
	Industrial Customer Class		
	0.000 per kW NSPL		
	Commercial Customer Class (Rate S	Schedules 20 and 30):	
	0.000 cents per kWh		
	Residential Customer Class:		
	0.000 cents per kWh		
			<u>(C)</u>
Price to	Compare Adder Credit		
Where:	$PTC_{Adder} = 1$	PTC _{AdderC} / S	
PTC _{Adder}	The charge to be applied to residential for the period June 1, 2020 through M retail market enhancement mechanism Price To Compare Default Service Ra applicable DSS Computational Year.	<u>Iay 31, 2025 related to the Parameters</u> component collected by the	<u>rice to Compare ("PTC")</u> e Company in Rider H –
PTC _{Adder}	market enhancement mechanism com Default Service Rate Rider.		
<u>S</u> =	The Company's total DSS Sales to rest the DSS Computational Year.	sidential Delivery Service C	ustomers projected for
	The PTC _{Adder} rates by Customer Class	s to be included in DSS rates	s are as follows:
	Industrial Customer Class:		
	\$ 0.000 per kW N	<u>SPL</u>	
	Commercial Customer Class:		
	0.000 cents per kV	<u>Vh</u>	
	Residential Customer Class:	L-XX 71.	
	X.XXX cents per l	<u>kwn</u>	
	(0	C) Change	
Issued:		Effective	e: June 1, 2019

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Effective: June 1, 2019

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RIDERS	
Rider J (continued)	
Gross Receipts Tax	<u>(C)</u>
T = The Pennsylvania gross receipts tax rate in effected in the Company's bar	
All capitalized terms not otherwise defined in the specified in Section 2 of this Tariff. For purposes of this definitions shall apply:	
1. DSS Sales – The kWh or kW NSPL delivered du Service Customers, as applicable to each Rate So	-
 DSS Computational Year – The 12-month period 31. 	d from June 1 through the following May
3. DSS Reconciliation Year – The 12-month period preceding the DSS Computational Year.	d ending March 31 immediately
4. DSS Initial Computational Period – the period fr through May 31, 2015. Thereafter, the DSS Cor	_
The Company shall recalculate its DSS Rates and shall file with the Commission, by May 1st of each year, June 1st of the same year unless the Commission orders remain in effect for a period of one year, unless revised approval of the Commission. Upon determining that its result in material over or under-collection of all costs in DSS during the then current DSS Reconciliation Year, to Commission approve one or more interim revisions to it (30) days from the date of filing, unless the Commission	or revised Rates to become effective on otherwise. The revised DSS rates shall on an interim basis subject to the DSS Rates, if left unchanged, would curred, or expected to be incurred, for the Company may request that the its DSS Rates to become effective thirty
At the conclusion of the period during which this shall be authorized to recover or refund at any time, any recoverable costs and revenues billed under this rider by customer's bills under such mechanism the Commission are non-reconcilable under the terms of this rider, shall a	remaining differences between charges or credits to be applied to may approve, but uncollectibles, which
Application of the DSS rates shall be subject to a Commission.	annual review and audit by the
(C) Chan	ge

Issued: _____

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WEST PENN POWER COMPANY

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RIDERS

RIDER J DEFAULT SERVICE SUPPORT RIDER

A Default Service Support ("DSS") Rate shall be applied to DSS Sales delivered by the Company to Delivery Service Customers under this rider as determined to the nearest one-thousandth of a dollar per kW NSPL. The DSS Rate shall be billed to Customers receiving Delivery Service from the Company under this rider. The DSS Rates shall be calculated according to the provisions of this rider. The DSS Rider shall be non-bypassable.

For service rendered during the DSS Computational Year, the DSS rate billed by Customer Class as follows:

Industrial Customer Class:

\$0.878X.XXX per kW NSPL

The DSS Rate shall be calculated annually in accordance with the formula set forth below:

DSS Rate = [NMB + RE + CEC] X [1 / (1-T)]

The components of the formula are defined below

Non-Market Based Services Transmission Charges

 $NMB = (NMB_C - E) / S$

Where:

NMB = The charge to be applied to Delivery Service Customers served under this rider for Non-Market Based Services Transmission Charge costs incurred by the Company.

 $NMB_C =$ Forecasted NMB costs applicable to the Company's DSS Sales. Forecasted NMB costs shall include FERC approved costs for (i) PJM Regional Transmission Expansion Plan charges; (ii) PJM Expansion Cost Recovery; (iii) PJM charges for Reliability Must Run generating unit declarations and charges associated with plants deactivated after July 24, 2014, the date of the PaPUC approval of the Company's Default Service Program at Docket No. P-2013-2391378; (iv) historical tie line, generation, and retail customer meter adjustments; (v) Unaccounted for Energy; (vi) any FERC-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009; and (vii) any other FERC-approved PJM transmission charges billed to the Company by PJM that will not be reconciled through the Company's Price To Compare Default Service Rate Rider and/or Hourly Pricing Default Service Rider and are approved by the Commission for recovery under this rider. Forecasted NMB costs are allocated to each Customer Class based upon each Customer Class's contribution to the total Company Network Service Peak Load.

(C) Change

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Rider J (continued)

- E= The over or under-collection of the NMB_C that results from billing of the NMB during the DSS Reconciliation Year, including applicable interest. An over-collection is denoted by a positive E and an under-collection by a negative E. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.
- S= The Company's total DSS Sales for the Industrial Customer Class projected for the DSS Computational Year

The NMB rates to be included in DSS Rates are as follows:

Industrial Customer Class:

\$0.826X.XXX per kW NSPL

Retail Enhancements

$$RE = [(RE_c - E) / S]$$

Where:

- RE = The charge to be applied to Delivery Service Customers served under this rider for the Retail Enhancement Costs incurred by the Company.
- REc = The Retail Enhancement Costs incurred by the Company to cover programming expenses and implementation costs associated with competitive market enhancements approved by the Commission.
- E = The over or under-collection of the RE_C that results from billing of the RE during the DSS Reconciliation Year, including applicable interest. An over-collection is denoted by a positive E and an under-collection by a negative E. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.

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WEST PENN POWER COMPANY

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RIDERS

Rider J (continued)

S = The Company's total DSS Sales per Customer Class to Delivery Service Customers projected for the DSS Computational Year.

The RE rates by Customer Class to be included in DSS rates are as follows:

Industrial Customer Class:

\$0.000 per kW NSP

Customer Education Charges

 $CEC = (CEC_C - E) / S$

Where:

- CEC = The charge to be applied to Delivery Service Customers served under this rider for Customer Education Charges incurred by the Company.
- CEC_C = Customer Education costs for the specific Customer Class to cover customer education costs associated with competitive market enhancements approved by the Commission, excluding costs being recovered by the Consumer Education Program Cost Recovery Rider.
- E = The over or under-collection of the CEC_c that results from the billing of the CEC during the DSS Reconciliation Year, including applicable interest. An over-collection is denoted by a positive E and an under-collection by a negative E. Interest shall be computed monthly for the over or under collection at the prime rate of interest for commercial banking, not to exceed the legal rate of interest, in effect on the last day of the month the over and under collection occurs, as reported in the *Wall Street Journal*, to the effective month that the over collection is refunded or the under collection is collected.
- S = The Company's total DSS Sales per Customer Class to Delivery Service Customers projected for the DSS Computational Year.

The CEC rates by Customer Class to be included in DSS rates are as follows:

Industrial Customer Class:

\$0.000 per kW NSPL

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WEST PENN POWER COMPANY

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RIDERS

Rider J (continued)

Gross Receipts Tax

T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this Rider shall have the definitions specified in Section 2 of this Tariff. For purposes of this Rider, the following additional definitions shall apply:

- 1. DSS Sales The kWh or kW NSPL delivered during a billing month to all Delivery Service Customers, as applicable to each Rate Schedule billed under the DSS Rider.
- 2. DSS Computational Year The 12-month period from June 1 through the following May 31.
- 3. DSS Reconciliation Year The 12-month period ending March 31 immediately preceding the DSS Computational Year.
- 4. Initial DSS Period the period from the effective date through May 31, 2015 that the DSS Rider is in effect. Thereafter, the DSS Computational Year will apply.

The Company shall recalculate its DSS Rates annually and, based on that recalculation, shall file with the Commission, by May 1st of each year, revised Rates to become effective on June 1st of the same year unless the Commission orders otherwise. The revised DSS rates shall remain in effect for a period of one year, unless revised on an interim basis subject to the approval of the Commission. Upon determining that its DSS Rates, if left unchanged, would result in material over or under-collection of all costs incurred, or expected to be incurred, for DSS during the then current DSS Reconciliation Year, the Company may request that the Commission approve one or more interim revisions to its DSS Rates to become effective thirty (30) days from the date of filing, unless the Commission orders otherwise.

At the conclusion of the period during which this DSS Rider is in effect, the Company shall be authorized to recover or refund at any time, any remaining differences between recoverable costs and revenues billed under this rider by charges or credits to be applied to customer's bills under such mechanism the Commission may approve, but uncollectibles, which are non-reconcilable under the terms of this rider, shall not be included in the final reconciliation.

Application of the DSS rates shall be subject to annual review and audit by the Commission.

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Metropolitan Edison Company

The Company will revise these line loss factors if PJM imposes or changes any separate charges on its transmission Customers for the level of line losses that is included in these factors. Any such revision will be filed with the FERC and the Commission, provided to EGSs via Internet electronic mail and posting on the Company's website, and become effective thirty (30) days after filing unless otherwise ordered by the Commission or the FERC (or concurrently with any change in or imposition of separate PJM line loss charges, whichever is later). The Company will make a good faith effort to advise EGSs of any change in these loss factors more than thirty (30) days in advance of a change when warranted.

- **6.4** Adequacy of Load Profiles. An EGS's remedies for any deficiency in the Company's load profiles for monthly metered Customers shall be limited to either:
 - (a) arranging, at its own expense, for the installation pursuant to PaPUC rules and procedures of Hourly or Sub-Hourly Metering Equipment at the Customer's premises in order to permit the Customer to be forecasted, billed and reconciled as an hourly metered Customer; or
 - (b) entering, at its own expense, into a joint load study with the Company to develop new load profiles.

Nothing in this Tariff precludes an EGS from using its own load profiles at any time although the Company will use its own load profiles to determine the energy imbalances at the end of each billing month.

7. ENERGY SCHEDULES and USE OF SCHEDULING COORDINATORS

7.1 Energy Schedules. The EGS, or its designated Scheduling Coordinator(s), shall be responsible for scheduling energy and purchasing all transmission and ancillary services as defined by the PJM Tariff necessary to get energy to the Customer's point of delivery pursuant to the service agreement for Network Integration Transmission Service under the PJM Tariff, as noted in Appendix A – Responsibilities for PJM Billing Line Items as Defined in Applicable PJM Agreement or Manual.

EGSs will no longer be responsible for PJM Regional Transmission Expansion Plan Charges ("RTEPs") (PJM Tariff Schedule 12) and PJM Expansion Cost Recovery charges (PJM Tariff Schedule 13) billed for services rendered by PJM beginning June 1, 2013.

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Beginning June 1, 2015, EGS will no longer be responsible for the following transmission costs: (1) PJM charges associated with reliability must run ("RMR") generating unit declarations and deactivation of plants deactivated July 24, 2014, the date of the Commission approval of Met Ed's Default Service Programs in PaPUC Docket No. P-2013-2391368; (2) historical out of market tie line, generation and retail customer meter adjustments and (3) unaccounted for energy.

(C)

EGSs will not be responsible for any approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.

8. SETTLEMENTS

- **8.1 Applicability of PJM Tariff.** The EGS agrees that settlements will be provided under the rates, terms, and conditions of the PJM Tariff.
- **8.2 Billing.** Billing for settlements shall be rendered by PJM in accordance with the PJM Tariff.
- **8.3 Metered Data Collection**. Meter data collected by the Company shall be utilized to calculate the quantity of energy actually used by an EGS's Customers for settlements.
 - **8.3.1 Monthly Metered Customers.** Data from monthly metered Customers is collected corresponding to Customers' billing cycles. The Company shall convert such meter data for Customers to equivalent hourly usage. Rate class load profiles will be adjusted for usage factor and losses to derive an hour-by-hour usage, based on the applicable PJM rules, agreements, and procedures.

(C) Change

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APPENDIX A Responsibilities for PJM Billing Line Items as Defined Applicable PJM Agreement or Manual

Charge ID #	PJM Billing Statement Line Items	Responsible Party **	
6	6	EDC	EGS
1100	Network Integration Transmission Service		X
1102	Network Integration Transmission Service (exempt)		X
1104	Network Integration Transmission Service Offset		X
1108	Transmission Enhancement	X	
1110	Direct Assignment Facilities		X
1115	<u>Transmission Enhancement Settlement (EL05-121-009)</u>	<u>X</u>	
1120	Other Supporting Facilities		X
1130	Firm Point-to-Point Transmission Service		X
1133	Firm Point-to-Point Transmission Service Resale Charge		X
1140	Non-Firm Point-to-Point Transmission Service		X
1143	Non-Firm Point-to-Point Transmission Service Resale Charge		X
1200	Day-ahead Spot Market Energy		X
1205	Balancing Spot Market Energy		X
1210	Day-ahead Transmission Congestion		X
1215	Balancing Transmission Congestion		X
1218	Planning Period Congestion Uplift		X
1220	Day-ahead Transmission Losses		X
1225	Balancing Transmission Losses		X
1230	Inadvertent Interchange		X

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Charge ID#	PJM Billing Statement Line Items	Respon EDC	sible Party **
1240	Day-ahead Economic Load Response		X
1241	Real-time Economic Load Response		X
1245	Emergency Load Response		X
1250	Meter Error Correction		X
1260	Emergency Energy		X
1301	PJM Scheduling, System Control and Dispatch Service – Control Area Administration		X
1302	PJM Scheduling, System Control and Dispatch Service – FTR Administration		X
1303	PJM Scheduling, System Control and Dispatch Service –Market Support		X
1304	PJM Scheduling, System Control and Dispatch Service – Regulation Market Administration		X
1305	PJM Scheduling, System Control and Dispatch Service – Capacity Resource/Obligation Mgmt.		X
1306	PJM Scheduling, System Control and Dispatch Service – Advanced Second Control Center		X
1308	PJM Scheduling, System Control and Dispatch Service Refund – Control Area Administration		X
1309	PJM Scheduling, System Control and Dispatch Service Refund – FTR Administration		X
1310	PJM Scheduling, System Control and Dispatch Service Refund – Market Support		X
1311	PJM Scheduling, System Control and Dispatch Service Refund –Regulation Market Administration		X
1312	PJM Scheduling, System Control and Dispatch Service Refund – Capacity Resource/Obligation Mgmt.		X
1314	Market Monitoring Unit (MMU) Funding		X

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Charge ID #	PJM Billing Statement Line Items	Respon EDC	sible Party **
1315	FERC Annual Charge Recovery		X
1316	Organization of PJM States, Inc. (OPSI) Funding		X
1317	North American Electric Reliability Corporation (NERC)		X
1318	Reliability First Corporation (RFC)		X
1320	Transmission Owner Scheduling, System Control and Dispatch Service		X
1330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
1340	Regulation and Frequency Response Service		X
1350	Energy Imbalance Service		X
1360	Synchronized Reserve		X
1365	Day-ahead Scheduling Reserve		X
1370	Day-ahead Operating Reserve		X
1371	Day-ahead Operating Reserve for Load Response		X
1375	Balancing Operating Reserve		X
1376	Balancing Operating Reserve for Load Response		X
1377	Synchronous Condensing		X
1378	Reactive Services		X
1380	Black Start Service		X
1400	Load Reconciliation for Spot Market Energy		X
1410	Load Reconciliation for Transmission Congestion		X
1420	Load Reconciliation for Transmission Losses		X
1430	Load Reconciliation for Inadvertent Interchange		X

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Metropolitan Edison Company

Charge ID#	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
1440	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service	X	
1441	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund	X	
1445	Load Reconciliation for FERC Annual Charge Recovery	X	
1446	Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding	X	
1447	Load Reconciliation for North American Electric Reliability Corporation (NERC)	X	
1448	Load Reconciliation for Reliability First Corporation (RFC)	X	
1450	Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service	X	
1460	Load Reconciliation for Regulation and Frequency Response Service	X	
1470	Load Reconciliation for Synchronized Reserve	X	
1475	DASR Load Reconciliation	X	
1478	Load Reconciliation for Operating Reserve	X	
1480	Load Reconciliation for Synchronous Condensing	X	
1490	Load Reconciliation for Reactive Services	X	
1500	Financial Transmission Rights Auction	X	
1600	RPM Auction	X	
1610	Locational Reliability	X	
1650	Non-Unit Specific Capacity Transaction	X	
1660	Demand Resource and ILR Compliance Penalty	X	
1661	Capacity Resource Deficiency	X	
1662	Generation Resource Rating Test Failure	X	

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Metropolitan Edison Company

Charge ID #	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
1663	Qualifying Transmission Upgrade Compliance Penalty		X
1664	Peak Season Maintenance Compliance Penalty		X
1665	Peak-Hour Period Availability		X
1710	PJM/MISO Seams Elimination Cost Assignment		X
1720	RTO Start-up Cost Recovery		X
1730	Expansion Cost Recovery	X	
1900	Unscheduled Transmission Service		X
1910	Ramapo Phase Angle Regulators		X
1920	Station Power		X
1930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391368		X
1930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391368	X	
1950	Virginia Retail Administrative Fee		X
1980	Miscellaneous Bilateral		X
1995	PJM Annual Membership Fee		X
2100	Network Integration Transmission Service		X
2102	Network Integration Transmission Service (exempt)		X
2104	Network Integration Transmission Service Offset		X
2106	Non-Zone Network Integration Transmission Service		X

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Metropolitan Edison Company

Charge ID #	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
2108	Transmission Enhancement	X	
2110	Direct Assignment Facilities		X
2115	Transmission Enhancement Settlement (EL05-121-009)	<u>X</u>	
2120	Other Supporting Facilities		X
2130	Firm Point-to-Point Transmission Service		X
2132	Internal Firm Point-to-Point Transmission Service		X
2133	Firm Point-to-Point Transmission Service Resale Credit		X
2140	Non-Firm Point-to-Point Transmission Service		X
2142	Internal Non-Firm Point-to-Point Transmission Service		X
2143	Non-Firm Point-to-Point Transmission Service Resale Credit		X
2210	Transmission Congestion		X
2217	Planning Period Excess Congestion		X
2218	Planning Period Congestion Uplift		X
2220	Transmission Losses		X
2240	Day-ahead Economic Load Response		X
2241	Real-time Economic Load Response		X
2245	Emergency Load Response		X
2260	Emergency Energy		X
2320	Transmission Owner Scheduling, System Control and Dispatch Service		X
2330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
2340	Regulation and Frequency Response Service		X
2350	Energy Imbalance Service		X

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Metropolitan Edison Company

Charge ID #	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
2360	Synchronized Reserve	X	
2365	Day-ahead Scheduling Reserve	X	
2370	Day-ahead Operating Reserve	X	
2371	Day-ahead Operating Reserve for Load Response	X	
2375	Balancing Operating Reserve	X	
2376	Balancing Operating Reserve for Load Response	X	
2377	Synchronous Condensing	X	
2378	Reactive Services	X	
2380	Black Start Service	X	
2420	Load Reconciliation for Transmission Losses	X	
2500	Financial Transmission Rights Auction	X	
2510	Auction Revenue Rights	X	
2600	RPM Auction	X	
2620	Interruptible Load for Reliability	X	
2630	Capacity Transfer Rights	X	
2640	Incremental Capacity Transfer Rights	X	
2650	Non-Unit Specific Capacity Transaction	X	
2660	Demand Resource and ILR Compliance Penalty	X	
2661	Capacity Deficiency Resource	X	
2662	Generation Resource Rating Test Failure	X	
2663	Qualifying Transmission Upgrade Compliance Penalty	X	

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Charge ID #	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
2664	Peak Season Maintenance Compliance Penalty		X
2665	Peak-Hour Period Availability		X
2710	PJM/MISO Seams Elimination Cost Assignment		X
2720	RTO Start-up Cost Recovery		X
2730	Expansion Cost Recovery	X	
2910	Ramapo Phase Angle Regulators		X
2930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391368		X
2930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391368	X	
2950	Virginia Retail Administrative Fee		X
2980	Miscellaneous Bilateral		X
2996	Annual PJM Cell Tower		X
2997	Annual PJM Building Rent		X

^{**}Any PJM fees or charges not specifically identified as being the responsibility of the EDC shall be the responsibility of the EGS. Line Items 2100, 2102, and 2104 are Transmission Owner Revenues.

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Pennsylvania Electric Company

The Company will revise these line loss factors if PJM imposes or changes any separate charges on its transmission Customers for the level of line losses that is included in these factors. Any such revision will be filed with the FERC and the Commission, provided to EGSs via Internet electronic mail and posting on the Company's website, and become effective thirty (30) days after filing unless otherwise ordered by the Commission or the FERC (or concurrently with any change in or imposition of separate PJM line loss charges, whichever is later). The Company will make a good faith effort to advise EGSs of any change in these loss factors more than thirty (30) days in advance of a change when warranted.

- **6.4 Adequacy of Load Profiles.** An EGS's remedies for any deficiency in the Company's load profiles for monthly metered Customers shall be limited to either:
 - (a) arranging, at its own expense, for the installation pursuant to PaPUC rules and procedures of Hourly or Sub-Hourly Metering Equipment at the Customer's premises in order to permit the Customer to be forecasted, billed and reconciled as an hourly metered Customer; or
 - (b) entering, at its own expense, into a joint load study with the Company to develop new load profiles.

Nothing in this Tariff precludes an EGS from using its own load profiles at any time although the Company will use its own load profiles to determine the energy imbalances at the end of each billing month.

7. ENERGY SCHEDULES and USE OF SCHEDULING COORDINATORS

7.1 Energy Schedules. The EGS, or its designated Scheduling Coordinator(s), shall be responsible for scheduling energy and purchasing all transmission and ancillary services as defined by the PJM Tariff necessary to get energy to the Customer's point of delivery pursuant to the service agreement for Network Integration Transmission Service under the PJM Tariff, as noted in Appendix A – Responsibilities for PJM Billing Line Items as Defined in Applicable PJM Agreement or Manual.

EGSs will no longer be responsible for PJM Regional Transmission Expansion Plan charges ("RTEPs") (PJM Tariff Schedule 12) and PJM Expansion Cost Recovery charges (PJM Tariff Schedule 13) billed for service rendered by PJM beginning June 1, 2013.

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Pennsylvania Electric Company

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Beginning June 1, 2015, EGS will no longer be responsible for the following transmission costs; (1) PJM charges associated with reliability must run ("RMR") generating unit declarations and deactivation of plants deactivated after July 24, 2014, the date the Commission approval of the Company's Default Service Programs in PaPUC Docket No. P-2013-2391372; (2) historical out of market tie line, generation and retail customer meter adjustments; and (3) unaccounted for energy.

(C)

EGSs will not be responsible for any approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.

8. SETTLEMENTS

- **8.1 Applicability of PJM Tariff.** The EGS agrees that settlements will be provided under the rates, terms, and conditions of the PJM Tariff.
- **8.2 Billing.** Billing for settlements shall be rendered by PJM in accordance with the PJM Tariff.
- **8.3 Metered Data Collection**. Meter data collected by the Company shall be utilized to calculate the quantity of energy actually used by an EGS's Customers for settlements.
 - **8.3.1 Monthly Metered Customers.** Data from monthly metered Customers is collected corresponding to Customers' billing cycles. The Company shall convert such meter data for Customers to equivalent hourly usage. Rate class load profiles will be adjusted for usage factor and losses to derive an hour-by-hour usage, based on the applicable PJM rules, agreements, and procedures.

(C) Change

(C)

APPENDIX A Responsibilities for PJM Billing Line Items as Defined Applicable PJM Agreement or Manual

Responsible Party ** Charge ID# **PJM Billing Statement Line Items EDC EGS** Network Integration Transmission Service 1100 X 1102 Network Integration Transmission Service X (exempt) 1104 Network Integration Transmission Service X Offset 1108 Transmission Enhancement X 1110 X Direct Assignment Facilities 1115 Transmission Enhancement Settlement (EL05-X 121-009) 1120 Other Supporting Facilities X 1130 Firm Point-to-Point Transmission Service X 1133 Firm Point-to-Point Transmission Service X Resale Charge 1140 Non-Firm Point-to-Point Transmission Service X Non-Firm Point-to-Point Transmission Service X 1143 Resale Charge 1200 Day-ahead Spot Market Energy X 1205 X Balancing Spot Market Energy 1210 Day-ahead Transmission Congestion X 1215 **Balancing Transmission Congestion** X X 1218 Planning Period Congestion Uplift 1220 X Day-ahead Transmission Losses 1225 X **Balancing Transmission Losses** 1230 Inadvertent Interchange X

(C) Change

Charge ID#	PJM Billing Statement Line Items	Respons	ible Party **
		EDC	EGS
1240	Day-ahead Economic Load Response		X
1241	Real-time Economic Load Response		X
1245	Emergency Load Response		X
1250	Meter Error Correction		X
1260	Emergency Energy		X
1301	PJM Scheduling, System Control and Dispatch Service – Control Area Administration		X
1302	PJM Scheduling, System Control and Dispatch Service – FTR Administration		X
1303	PJM Scheduling, System Control and Dispatch Service –Market Support		X
1304	PJM Scheduling, System Control and Dispatch Service – Regulation Market Administration		X
1305	PJM Scheduling, System Control and Dispatch Service – Capacity Resource/Obligation Mgmt.		X
1306	PJM Scheduling, System Control and Dispatch Service – Advanced Second Control Center		X
1308	PJM Scheduling, System Control and Dispatch Service Refund – Control Area Administration		X
1309	PJM Scheduling, System Control and Dispatch Service Refund – FTR Administration		X
1310	PJM Scheduling, System Control and Dispatch Service Refund – Market Support		X
1311	PJM Scheduling, System Control and Dispatch Service Refund –Regulation Market Administration		X
1312	PJM Scheduling, System Control and Dispatch Service Refund – Capacity Resource/Obligation Mgmt.		X
1314	Market Monitoring Unit (MMU) Funding		X

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Charge ID#	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
1315	FERC Annual Charge Recovery		X
1316	Organization of PJM States, Inc. (OPSI) Funding		X
1317	North American Electric Reliability Corporation (NERC)		X
1318	Reliability First Corporation (RFC)		X
1320	Transmission Owner Scheduling, System Control and Dispatch Service		X
1330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
1340	Regulation and Frequency Response Service		X
1350	Energy Imbalance Service		X
1360	Synchronized Reserve		X
1365	Day-ahead Scheduling Reserve		X
1370	Day-ahead Operating Reserve		X
1371	Day-ahead Operating Reserve for Load Response		X
1375	Balancing Operating Reserve		X
1376	Balancing Operating Reserve for Load Response		X
1377	Synchronous Condensing		X
1378	Reactive Services		X
1380	Black Start Service		X
1400	Load Reconciliation for Spot Market Energy		X
1410	Load Reconciliation for Transmission Congestion		X
1420	Load Reconciliation for Transmission Losses		X
1430	Load Reconciliation for Inadvertent Interchange		X

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Charge ID #	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
1440	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service		X
1441	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund		X
1445	Load Reconciliation for FERC Annual Charge Recovery		X
1446	Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding		X
1447	Load Reconciliation for North American Electric Reliability Corporation (NERC)		X
1448	Load Reconciliation for Reliability First Corporation (RFC)		X
1450	Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service		X
1460	Load Reconciliation for Regulation and Frequency Response Service		X
1470	Load Reconciliation for Synchronized Reserve		X
1475	DASR Load Reconciliation		X
1478	Load Reconciliation for Operating Reserve		X
1480	Load Reconciliation for Synchronous Condensing		X
1490	Load Reconciliation for Reactive Services		X
1500	Financial Transmission Rights Auction		X
1600	RPM Auction		X
1610	Locational Reliability		X
1650	Non-Unit Specific Capacity Transaction		X
1660	Demand Resource and ILR Compliance Penalty		X
1661	Capacity Resource Deficiency		X
1662	Generation Resource Rating Test Failure		X

Charge ID #	PJM Billing Statement Line Items	Respon	sible Party **
1663	Qualifying Transmission Upgrade Compliance Penalty		X
1664	Peak Season Maintenance Compliance Penalty		X
1665	Peak-Hour Period Availability		X
1710	PJM/MISO Seams Elimination Cost Assignment		X
1720	RTO Start-up Cost Recovery		X
1730	Expansion Cost Recovery	X	
1900	Unscheduled Transmission Service		X
1910	Ramapo Phase Angle Regulators		X
1920	Station Power		X
1930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391372		X
1930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391372	X	
1950	Virginia Retail Administrative Fee		X
1980	Miscellaneous Bilateral		X
1995	PJM Annual Membership Fee		X
2100	Network Integration Transmission Service		X
2102	Network Integration Transmission Service (exempt)		X
2104	Network Integration Transmission Service Offset		X
2106	Non-Zone Network Integration Transmission Service		X

(C)

Charge ID #	PJM Billing Statement Line Items	Responsible Party *:	
		EDC	EGS
2108	Transmission Enhancement	X	
2110	Direct Assignment Facilities		X
<u>2115</u>	Transmission Enhancement Settlement (EL05-121-009)	<u>X</u>	
2120	Other Supporting Facilities		X
2130	Firm Point-to-Point Transmission Service		X
2132	Internal Firm Point-to-Point Transmission		X
2133	Service Firm Point-to-Point Transmission Service Resale Credit		X
2140	Non-Firm Point-to-Point Transmission Service		X
2142	Internal Non-Firm Point-to-Point Transmission Service		X
2143	Non-Firm Point-to-Point Transmission Service Resale Credit		X
2210	Transmission Congestion		X
2217	Planning Period Excess Congestion		X
2218	Planning Period Congestion Uplift		X
2220	Transmission Losses		X
2240	Day-ahead Economic Load Response		X
2241	Real-time Economic Load Response		X
2245	Emergency Load Response		X
2260	Emergency Energy		X
2320	Transmission Owner Scheduling, System Control and Dispatch Service		X
2330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
2340	Regulation and Frequency Response Service		X
2350	Energy Imbalance Service		X

(C) Change

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Charge ID#	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
2360	Synchronized Reserve		X
2365	Day-ahead Scheduling Reserve		X
2370	Day-ahead Operating Reserve		X
2371	Day-ahead Operating Reserve for Load Response		X
2375	Balancing Operating Reserve		X
2376	Balancing Operating Reserve for Load Response		X
2377	Synchronous Condensing		X
2378	Reactive Services		X
2380	Black Start Service		X
2420	Load Reconciliation for Transmission Losses		X
2500	Financial Transmission Rights Auction		X
2510	Auction Revenue Rights		X
2600	RPM Auction		X
2620	Interruptible Load for Reliability		X
2630	Capacity Transfer Rights		X
2640	Incremental Capacity Transfer Rights		X
2650	Non-Unit Specific Capacity Transaction		X
2660	Demand Resource and ILR Compliance Penalty		X
2661	Capacity Deficiency Resource		X
2662	Generation Resource Rating Test Failure		X
2663	Qualifying Transmission Upgrade Compliance Penalty		X

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Charge ID#	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
2664	Peak Season Maintenance Compliance Penalty		X
2665	Peak-Hour Period Availability		X
2710	PJM/MISO Seams Elimination Cost Assignment		X
2720	RTO Start-up Cost Recovery		X
2730	Expansion Cost Recovery	X	
2910	Ramapo Phase Angle Regulators		X
2930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391372		X
2930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391372	X	
2950	Virginia Retail Administrative Fee		X
2980	Miscellaneous Bilateral		X
2996	Annual PJM Cell Tower		X
2997	Annual PJM Building Rent		X

^{**}Any PJM fees or charges not specifically identified as being the responsibility of the EDC shall be the responsibility of the EGS. Line Items 2100, 2102, and 2104 are Transmission Owner Revenues.

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7. ENERGY SCHEDULES and USE OF SCHEDULING COORDINATORS

7.1 Energy Schedules. The EGS, or its designated Scheduling Coordinator(s), shall be responsible for scheduling energy and purchasing all transmission and ancillary services as defined by the PJM Tariff necessary to get energy to the Customer's point of delivery pursuant to the service agreement for Network Integration Transmission Service under the PJM Tariff, as noted in Appendix A – Responsibilities for PJM Billing Line Items as Defined in Applicable PJM Agreement or Manual.

EGSs will no longer be responsible for PJM Regional Transmission Expansion Plan charges ("RTEPs") (PJM Tariff Schedule 12) and PJM Expansion Cost Recovery charges (PJM Tariff Schedule 13) billed for service rendered by PJM beginning June 1, 2013.

Beginning June 1, 2015, EGS will no longer be responsible for the following transmission costs: (1) PJM charges associated with reliability must run ("RMR") generating unit declarations and deactivation of plants deactivated after July 24, 2014, the date of the Commission approval of the Company's Default Service Programs in PaPUC Docket No. P-2013-2391375; (2) historical out of market tie line generation and retail customer meter adjustments; and (3) unaccounted for energy.

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EGSs will not be responsible for any approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.

7.2 Transition From MISO To PJM. EGS will not be responsible for MTEP Charges or any MISO Exit Fees or PJM Integration Fees assessed between June 1, 2011 and May 31, 2013. In the event EGSs are assessed for such charges, the Company shall arrange for EGSs to receive credit equal to the assessed charges through PJM or reimbursement directly from the Company, in the Company's discretion.

8. SETTLEMENTS

- **8.1 Applicability of PJM Tariff.** The EGS agrees that settlements will be provided under the rates, terms, and conditions of the PJM Tariff.
- **8.2 Billing.** Billing for settlements shall be rendered by PJM in accordance with the PJM Tariff.
- **8.3 Metered Data Collection**. Meter data collected by the Company shall be utilized to calculate the quantity of energy actually used by an EGS's Customers for settlements.

(C) Change

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APPENDIX A Responsibilities for PJM Billing Line Items as Defined Applicable PJM Agreement or Manual

PJM Billing Statement Line Items Responsible Party ** Charge ID# **EDC EGS** 1100 Network Integration Transmission Service X 1102 Network Integration Transmission Service X (exempt) Network Integration Transmission Service 1104 X Offset 1108 Transmission Enhancement X 1110 Direct Assignment Facilities X Transmission Enhancement Settlement (EL05-1115 X 121-009) 1120 Other Supporting Facilities X 1130 Firm Point-to-Point Transmission Service X X 1133 Firm Point-to-Point Transmission Service Resale Charge Non-Firm Point-to-Point Transmission Service 1140 X Non-Firm Point-to-Point Transmission Service 1143 X Resale Charge 1200 Day-ahead Spot Market Energy X 1205 Balancing Spot Market Energy X 1210 Day-ahead Transmission Congestion X 1215 **Balancing Transmission Congestion** X 1218 Planning Period Congestion Uplift X 1220 X Day-ahead Transmission Losses 1225 X **Balancing Transmission Losses** 1230 Inadvertent Interchange X

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Issued: Effective: June 1, 2019

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Charge ID #	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
1240	Day-ahead Economic Load Response		X
1241	Real-time Economic Load Response		X
1245	Emergency Load Response		X
1250	Meter Error Correction		X
1260	Emergency Energy		X
1301	PJM Scheduling, System Control and Dispatch Service – Control Area Administration		X
1302	PJM Scheduling, System Control and Dispatch Service – FTR Administration		X
1303	PJM Scheduling, System Control and Dispatch Service –Market Support		X
1304	PJM Scheduling, System Control and Dispatch Service – Regulation Market Administration		X
1305	PJM Scheduling, System Control and Dispatch Service – Capacity Resource/Obligation Mgmt.		X
1306	PJM Scheduling, System Control and Dispatch Service – Advanced Second Control Center		X
1308	PJM Scheduling, System Control and Dispatch Service Refund – Control Area Administration		X
1309	PJM Scheduling, System Control and Dispatch Service Refund – FTR Administration		X
1310	PJM Scheduling, System Control and Dispatch Service Refund – Market Support		X
1311	PJM Scheduling, System Control and Dispatch Service Refund –Regulation Market Administration		X
1312	PJM Scheduling, System Control and Dispatch Service Refund – Capacity Resource/Obligation Mgmt.		X
1314	Market Monitoring Unit (MMU) Funding		X

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Charge ID#	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
1315	FERC Annual Charge Recovery		X
1316	Organization of PJM States, Inc. (OPSI) Funding		X
1317	North American Electric Reliability Corporation (NERC)		X
1318	Reliability First Corporation (RFC)		X
1320	Transmission Owner Scheduling, System Control and Dispatch Service		X
1330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
1340	Regulation and Frequency Response Service		X
1350	Energy Imbalance Service		X
1360	Synchronized Reserve		X
1365	Day-ahead Scheduling Reserve		X
1370	Day-ahead Operating Reserve		X
1371	Day-ahead Operating Reserve for Load Response		X
1375	Balancing Operating Reserve		X
1376	Balancing Operating Reserve for Load Response		X
1377	Synchronous Condensing		X
1378	Reactive Services		X
1380	Black Start Service		X
1400	Load Reconciliation for Spot Market Energy		X
1410	Load Reconciliation for Transmission Congestion		X
1420	Load Reconciliation for Transmission Losses		X
1430	Load Reconciliation for Inadvertent Interchange		X

Charge ID#	PJM Billing Statement Line Items	Responsible Party **	
		EDC	EGS
1440	Load Reconciliation for PJM Scheduling,		X
	System Control and Dispatch Service		
1441	Load Reconciliation for PJM Scheduling,		X
	System Control and Dispatch Service Refund		
1445	Load Reconciliation for FERC Annual Charge		X
	Recovery		
1446	Load Reconciliation for Organization of PJM		X
	States, Inc. (OPSI) Funding		
1447	Load Reconciliation for North American		X
	Electric Reliability Corporation (NERC)		
1448	Load Reconciliation for Reliability First		X
	Corporation (RFC)		
1450	Load Reconciliation for Transmission Owner		X
	Scheduling, System Control and Dispatch		
	Service		
1460	Load Reconciliation for Regulation and		X
	Frequency Response Service		
1470	Load Reconciliation for Synchronized Reserve		X
1170			
1475	DASR Load Reconciliation		X
1478	Load Reconciliation for Operating Reserve		X
	1 0		
1480	Load Reconciliation for Synchronous		X
	Condensing		
1490	Load Reconciliation for Reactive Services		X
1500	Financial Transmission Rights Auction		X
	č		
1600	RPM Auction		X
1610	Locational Reliability		X
1650	Non-Unit Specific Capacity Transaction		X
1660	Demand Resource and ILR Compliance		X
	Penalty		
1661	Capacity Resource Deficiency		X
1662	Generation Resource Rating Test Failure		X
-	6		

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Charge ID #	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
1663	Qualifying Transmission Upgrade Compliance Penalty		X
1664	Peak Season Maintenance Compliance Penalty		X
1665	Peak-Hour Period Availability		X
1710	PJM/MISO Seams Elimination Cost Assignment		X
1720	RTO Start-up Cost Recovery		X
1730	Expansion Cost Recovery	X	
1900	Unscheduled Transmission Service		X
1910	Ramapo Phase Angle Regulators		X
1920	Station Power		X
1930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391375		X
1930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391375	X	
1950	Virginia Retail Administrative Fee		X
1980	Miscellaneous Bilateral		X
1995	PJM Annual Membership Fee		X
2100	Network Integration Transmission Service		X
2102	Network Integration Transmission Service (exempt)		X
2104	Network Integration Transmission Service Offset		X
2106	Non-Zone Network Integration Transmission Service		X

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Charge ID #	PJM Billing Statement Line Items	-	sible Party *
		EDC	EGS
2108	Transmission Enhancement	X	
2110	Direct Assignment Facilities		X
2115	Transmission Enhancement Settlement (EL05-121-009)	<u>X</u>	
2120	Other Supporting Facilities		X
2130	Firm Point-to-Point Transmission Service		X
2132	Internal Firm Point-to-Point Transmission Service		X
2133	Firm Point-to-Point Transmission Service Resale Credit		X
2140	Non-Firm Point-to-Point Transmission Service		X
2142	Internal Non-Firm Point-to-Point Transmission Service		X
2143	Non-Firm Point-to-Point Transmission Service Resale Credit		X
2210	Transmission Congestion		X
2217	Planning Period Excess Congestion		X
2218	Planning Period Congestion Uplift		X
2220	Transmission Losses		X
2240	Day-ahead Economic Load Response		X
2241	Real-time Economic Load Response		X
2245	Emergency Load Response		X
2260	Emergency Energy		X
2320	Transmission Owner Scheduling, System Control and Dispatch Service		X
2330	Reactive Supply and Voltage Control from Generation and Other Sources Service		X
2340	Regulation and Frequency Response Service		X
2350	Energy Imbalance Service		X

(C) Change

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Charge ID#	PJM Billing Statement Line Items	Responsible Party ** EDC EGS	
2360	Synchronized Reserve		X
2365	Day-ahead Scheduling Reserve		X
2370	Day-ahead Operating Reserve		X
2371	Day-ahead Operating Reserve for Load Response		X
2375	Balancing Operating Reserve		X
2376	Balancing Operating Reserve for Load Response		X
2377	Synchronous Condensing		X
2378	Reactive Services		X
2380	Black Start Service		X
2420	Load Reconciliation for Transmission Losses		X
2500	Financial Transmission Rights Auction		X
2510	Auction Revenue Rights		X
2600	RPM Auction		X
2620	Interruptible Load for Reliability		X
2630	Capacity Transfer Rights		X
2640	Incremental Capacity Transfer Rights		X
2650	Non-Unit Specific Capacity Transaction		X
2660	Demand Resource and ILR Compliance Penalty		X
2661	Capacity Deficiency Resource		X
2662	Generation Resource Rating Test Failure		X
2663	Qualifying Transmission Upgrade Compliance Penalty		X

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Charge ID #	PJM Billing Statement Line Items	Responsible Party **	
		EDĈ	EGS
2664	Peak Season Maintenance Compliance Penalty		X
2665	Peak-Hour Period Availability		X
2710	PJM/MISO Seams Elimination Cost Assignment		X
2720	RTO Start-up Cost Recovery		X
2730	Expansion Cost Recovery	X	
2910	Ramapo Phase Angle Regulators		X
2930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391375		X
2930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391375	X	
2950	Virginia Retail Administrative Fee		X
2980	Miscellaneous Bilateral		X
2996	Annual PJM Cell Tower		X
2997	Annual PJM Building Rent		X

^{**}Any PJM fees or charges not specifically identified as being the responsibility of the EDC shall be the responsibility of the EGS. Line Items 2100, 2102, and 2104 are Transmission Owner Revenues.

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WEST PENN POWER COMPANY

- 5.14.2 Transfer of Cost Obligations Between Registered EGSs and Customers. Nothing in the EGS Tariff is intended to prevent a Registered EGS and a Customer from agreeing to reallocate between them any charges that the EGS Tariff imposes on the Registered EGS, provided that any such agreement shall not change in any way the Registered EGSs obligation to pay such charges to the Company, and that any such agreement shall not confer upon the Company any right to seek recourse directly from the Registered EGSs Customer for any charges owed to the Company by the Registered EGS.
- **5.14.3 Customer Obligations.** Customers of a Registered EGS remain bound by the rules and requirements of the applicable EDC Tariff under which they receive service from the Company.

6. LOAD FORECASTING

- 6.1 Customer Load Forecasting. The Registered EGS is responsible for forecasting its Customer load obligations. The Company will post 24-hour next day forecasts respective to each LSE as support information. This information will be available on an on-going basis for a Registered EGS to download from a password secured Company website. These will be provided for informational purposes only.
- **Typical Load Data.** The Company shall provide typical load curve data respective to Monthly metered Customer class types. This data is available on the Company's website.
- **6.3 Updates to Typical Load Curve Data.** The Company shall review annually its methodology, algorithms and Load Forecasting results and shall perform additional load studies to update the load curve data as required.
- **Right to Aggregate.** Registered EGSs may aggregate their Customers' loads when exercising Customer Choice. Customers receiving Competitive Generation Service from a Registered EGS may aggregate multiple EDC accounts or meters for the purpose of energy scheduling and billing of Competitive Generation Service only if the Registered EGS performs the billing of the Competitive Generation Service.
- **6.5 Split Loads.** Partial requirements or split loads are not allowed. Only one Registered EGS will be allowed to provide Competitive Generation Service to a Customer's EDC account.

7. LOAD SCHEDULING

7.1 Day Ahead Energy Schedules. The Registered EGS is responsible for fulfilling its load obligations directly with PJM according to the PJM OATT, as noted in Appendix A-Responsibilities for PJM Billing Line Items as Defined in Applicable PJM Agreement or Manual.

EGSs will no longer be responsible for PJM Regional Transmission Expansion Plan charges ("RTEPs") (PJM OATT Schedule 12) and Expansion Cost Recovery charges (PJM OATT Schedule 13) billed for service rendered by PJM after June 1, 2013.

Beginning June 1, 2015, EGS will no longer be responsible for the following transmission costs; (1) PJM charges associated with reliability must run ("RMR") generating unit declarations and deactivation of plants deactivated after July 24, 2014, the date of the Commission's approval of West Penn Power's Default Service Programs in PaPUC Docket No. P-2013-2391378; (2) historical out of market tie line, generation and retail customer meter adjustments; and (3) unaccounted for energy.

EGSs will not be responsible for any approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009.

(C) Change

APPENDIX A

Responsibilities for PJM Billing Line Items as Defined Applicable PJM Agreement or Manual

PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
Network Integration Transmission Service	-	X
Network Integration Transmission Service (exempt)		Х
Network Integration Transmission Service Offset		X
Transmission Enhancement	X	
Direct Assignment Facilities		Х
<u>Transmission Enhancement Settlement</u> (EL05-121-009)	X	
Other Supporting Facilities		Х
Firm Point-to-Point Transmission Service		Х
Firm Point-to-Point Transmission Service Resale Charges		Х
Non-Firm Point-to-Point Transmission Service		Х
Non-Firm Point-to-Point Transmission Service Resale Charge		Х
Day-ahead Spot Market Energy		Х
Balancing Spot Market Energy		Х
Day-ahead Transmission Congestion		Х
Balancing Transmission Congestion		Х
Planning Period Congestion Uplift		Х
Day-ahead Transmission Losses		Х
Balancing Transmission Losses		Х
Inadvertent Interchange		Х
Day-ahead Economic Load Response		Х
Real-time Economic Load Response		Х
	Network Integration Transmission Service Network Integration Transmission Service (exempt) Network Integration Transmission Service Offset Transmission Enhancement Direct Assignment Facilities Transmission Enhancement Settlement (EL05-121-009) Other Supporting Facilities Firm Point-to-Point Transmission Service Resale Charges Non-Firm Point-to-Point Transmission Service Non-Firm Point-to-Point Transmission Service Resale Charge Day-ahead Spot Market Energy Balancing Spot Market Energy Day-ahead Transmission Congestion Planning Period Congestion Uplift Day-ahead Transmission Losses Balancing Transmission Losses Inadvertent Interchange Day-ahead Economic Load Response	Network Integration Transmission Service Network Integration Transmission Service (exempt) Network Integration Transmission Service Offset Transmission Enhancement X Direct Assignment Facilities Transmission Enhancement Settlement (EL05-121-009) Other Supporting Facilities Firm Point-to-Point Transmission Service Firm Point-to-Point Transmission Service Resale Charges Non-Firm Point-to-Point Transmission Service Non-Firm Point-to-Point Transmission Service Resale Charge Day-ahead Spot Market Energy Balancing Spot Market Energy Day-ahead Transmission Congestion Planning Period Congestion Uplift Day-ahead Transmission Losses Balancing Transmission Losses Inadvertent Interchange Day-ahead Economic Load Response

(C) Change

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
1245	Emergency Load Response		Х
1250	Meter Error Correction		Х
1260	Emergency Energy		X
1301	PJM Scheduling, System Control and Dispatch Service – Control Area Administration		Х
1302	PJM Scheduling, System Control and Dispatch Service – FTR Administration		Х
1303	PJM Scheduling, System Control and Dispatch Service – Market Support		Х
1304	PJM Scheduling, System Control and Dispatch Service – Regulation Market Administration		Х
1305	PJM Scheduling, System Control and Dispatch Service – Capacity Resource/Obligation Mgmt.		Х
1306	PJM Scheduling, System Control and Dispatch Service – Advance Second Control Center		Х
1308	PJM Scheduling, System Control and Dispatch Service Refund – Control Area Administration		Х
1309	PJM Scheduling, System Control and Dispatch Service Refund – FTR Administration		Х
1310	PJM Scheduling, System Control and Dispatch Service Refund – Market Support		Х
1311	PJM Scheduling, System Control and Dispatch Service Refund – Regulation Market Administration		Х
1312	PJM Scheduling, System Control and Dispatch Service Refund – Capacity Resource/Obligation Mgmt.		Х
1314	Market Monitoring Unit (MMU) Funding		X
1315	FERC Annual Charge Recovery		X
1316	Organization of PJM States, Inc. (OPSI) Funding		X
1317	North American Electric Reliability Corporation (NERC)		Х

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
1318	Reliability First Corporation (RFC)		Х
1320	Transmission Owner Scheduling, System Control and Dispatch Service		Х
1330	Reactive Supply and Voltage Control from Generation and Other Sources Service		Х
1340	Regulation and Frequency Response Service		Х
1350	Energy Imbalance Service		Х
1360	Synchronized Reserve		Х
1365	Day-ahead Scheduling Reserve		Х
1370	Day-ahead Operating Reserve		Х
1371	Day-ahead Operating Reserve for Load Response		Х
1375	Balancing Operating Reserve		Х
1376	Balancing Operating Reserve for Load Response		Х
1377	Synchronous Condensing		Х
1378	Reactive Services		Х
1380	Black Start Service		Х
1400	Load Reconciliation for Spot Market Energy		Х
1410	Load Reconciliation for Transmission Congestion		Х
1420	Load Reconciliation for Transmission Losses		Х
1430	Load Reconciliation for Inadvertent Interchange		Х
1440	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service		Х
1441	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund		Х
1445	Load Reconciliation for FERC Annual Charge Recovery		Х
1446	Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding		Х

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
1447	Load Reconciliation for North American Electric Reliability Corporation (NERC)		Х
1448	Load Reconciliation for Reliability First Corporation (RFC)		X
1450	Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service		X
1460	Load Reconciliation for Regulation and Frequency Response Service		Х
1470	Load Reconciliation for Synchronized Reserve		Х
1475	DASR Load Reconciliation		Х
1478	Load Reconciliation for Operating Reserve		Х
1480	Load Reconciliation for Synchronous Condensing		Х
1490	Load Reconciliation for Reactive Services		Х
1500	Financial Transmission Rights Auction		Х
1600	RPM Auction		Х
1610	Locational Reliability		Х
1650	Non-Unit Specific Capacity Transaction		Х
1660	Demand Resource and ILR Compliance Penalty		Х
1661	Capacity Resource Deficiency		Х
1662	Generation Resource Rating Test Failure		Х
1663	Qualifying Transmission Upgrade Compliance Penalty		Х
1664	Peak Season Maintenance Compliance Penalty		Х
1665	Peak-Hour Period Availability		Х
1710	PJM/MISO Seams Elimination Cost Assignment		Х
1720	RTO Start-up Cost Recovery		Х
1730	Expansion Cost Recovery	Х	

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
1900	Unscheduled Transmission Service		Х
1910	Ramapo Phase Angle Regulators		Х
1920	Station Power		Х
1930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391378		Х
1930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391378	Х	
1950	Virginia Retail Administrative Fee		Х
1980	Miscellaneous Bilateral		Х
1995	PJM Annual Membership Fee		Х
2100	Network Integration Transmission Service		Х
2102	Network Integration Transmission Service (exempt)		Х
2104	Network Integration Transmission Service Offset		Х
2106	Non-Zone Network Integration Transmission Service		Х
2108	Transmission Enhancement	X	
2110	Direct Assignment Facilities		Х
<u>2115</u>	Transmission Enhancement Settlement (EL05-121-009)	<u>X</u>	
2120	Other Supporting Facilities		Х
2130	Firm Point-to-Point Transmission Service		Х
2132	Internal Firm Point-to-Point Transmission Service		Х
2133	Firm Point-to-Point Transmission Service Resale Credit		Х
2140	Non-Firm Point-to-Point Transmission Service		Х

(C) Change

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
2142	Internal Non-Firm Point-to-Point Transmission Service		Х
2143	Non-Firm Point-to-Point Transmission Service Resale Credit		Х
2210	Transmission Congestion		Х
2217	Planning Period Excess Congestion		Х
2218	Planning Period Congestion Uplift		Х
2220	Transmission Losses		X
2240	Day-ahead Economic Load Response		Х
2241	Real-time Economic Load Response		Х
2245	Emergency Load Response		Х
2260	Emergency Energy		Х
2320	Transmission Owner Scheduling, System Control and Dispatch Service		Х
2330	Reactive Supply and Voltage Control from Generation and Other Sources Service		Х
2340	Regulation and Frequency Response Service		Х
2350	Energy Imbalance Service		Х
2360	Synchronized Reserve		Х
2365	Day-ahead Scheduling Reserve		Х
2370	Day-ahead Operating Reserve		X
2371	Day-ahead Operating Reserve for Load Response		X
2375	Balancing Operating Reserve		X
2376	Balancing Operating Reserve for Load Response		Х
2377	Synchronous Condensing		X
2378	Reactive Services		Х

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
2380	Black Start Service		Х
2420	Load Reconciliation for Transmission Losses		Х
2500	Financial Transmission Rights Auction		Х
2510	Auction Revenue Rights		Х
2600	RPM Auction		Х
2620	Interruptible Load for Reliability		Х
2630	Capacity Transfer Rights		X
2640	Incremental Capacity Transfer Rights		X
2650	Non-Unit Specific Capacity Transaction		X
2660	Demand Resource and ILR Compliance Penalty		Х
2661	Capacity Deficiency Resource		Х
2662	Generation Resource Rating Test Failure		Х
2663	Qualifying Transmission Upgrade Compliance Penalty		Х
2664	Peak Season Maintenance Compliance Penalty		Х
2665	Peak-Hour Period Availability		Х
2710	PJM/MISO Seams Elimination Cost Assignment		Х
2720	RTO Start-up Cost Recovery		Х
2730	Expansion Cost Recovery	Х	
2910	Ramapo Phase Angle Regulators		Х
2930	Generation Deactivation and RMR Generating Unit Declarations Before July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391378		Х

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West Penn Power Company

Charge ID #	PJM Billing Statement Line Items	Responsible EDC	Party ** EGS
2930	Generation Deactivation and RMR Generating Unit Declarations After July 24, 2014, the date of the PaPUC Approval of the Company's Default Service Program in PaPUC Docket No. P-2013-2391378	X	
2950	Virginia Retail Administrative Fee		X
2980	Miscellaneous Bilateral		Х
2996	Annual PJM Cell Tower		Х
2997	Annual PJM Building Rent		Х

^{**}Any PJM fees or charges not specifically identified as being the responsibility of the EDC shall be the responsibility of the EGS. Line Items 2100, 2102 and 2104 are Transmission Owner Revenues.

Customer Referral Program Agreement

Residential and Small Commercial Customer Class Full Requirements

for

{Insert EDC Here}

CUSTOMER REFERRAL PROGRAM AGREEMENT

THIS CUSTOMER REFERRAL PROGRAM AGREEMENT ("Agreement") is made and entered into as of {Insert Date} ("Effective Date") by and between {Insert EDC Name Here} ("Company"), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania and _______ ("Customer Referral Supplier")) a corporation organized and existing under the laws of [State of or Commonwealth of.....]. The Company and the Customer Referral Supplier hereinafter are sometimes referred to collectively as the "Parties," or individually as a "Party."

WITNESSETH:

WHEREAS, the Company is an electric public utility engaged, inter alia, in providing retail electric service within its service territory located in the Commonwealth of Pennsylvania; and

WHEREAS, the Pennsylvania Public Utility Commission ("PaPUC" or "Commission") has found that it would serve the public interest for the Company to establish a Customer Referral Program to refer customers that contact the Company to licensed Electric Generation Suppliers ("EGSs"), and the PaPUC has approved the Program; and

WHEREAS, the undersigned EGS desires to participate in the Customer Referral Program.

WHEREAS, the Customer Referral Supplier is licensed by the PaPUC to offer and supply competitive retail electric services in Pennsylvania, and is a registered supplier under the Company's Supplier Coordination Tariff.

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth below, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby covenant, promise and agree as follows:

Article 1 Definitions

Any capitalized or abbreviated term not elsewhere defined in this Agreement shall have the definition set forth in this Article.

- 1.1 **Agreement** This Agreement for an EGS to become a Customer Referral Supplier and to participate in the Company's Customer Referral Program together with attached Appendices.
- 1.2 **Applicable Legal Authorities** Those federal and Pennsylvania statutes and administrative rules, regulations and Orders that govern the electric utility industry in Pennsylvania, as they may be amended from time to time.
- 1.3 **Business Day** Any day on which the Company's corporate offices are open for business.
- 1.4 **Company** Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company or West Penn Power Company individually, or in combination as the "Companies."
- 1.5 **Consolidated EDC Billing** Shall have the meaning set forth in the Company's Supplier Tariff as filed with the PaPUC and available on the Company's website.
- 1.6 **Customer** Any person or entity who enters a contractual agreement with the Company to receive retail electric service including, without limitation, all persons or entities taking service under a retail tariff that are eligible to receive competitive electricity supply from an EGS or Default Service in accordance with the Applicable Legal Authorities.
- 1.7 **Customer Referral Customer(s)** Customers who are provided competitive retail electric service as part of the Customer Referral Program in accordance with the terms of this Agreement.
- 1.8 **Customer Referral Program or "CRP"** The Customer Referral Program as defined in this agreement
- 1.9 **Customer Referral Program Implementation Team** customer service representatives trained in Pennsylvania customer choice issues and processes and the Customer Referral Program, employed by the Company directly or as independent contractors to implement the Customer Referral Program on behalf of the Company.

- 1.10 **Customer Referral 12 Month Fixed Price** The 12 month fixed price set forth each quarter in the Confirmation Sheet, which shall be in the form provided in Appendix A. The fixed price includes all EGS charges for Basic Electricity Supply including generation charges, market based transmission charges, and all Independent System Operator charges and gross receipt taxes. The fixed price shall be billed to an enrolled customer for 12 consecutive billing periods.
- 1.11 **Customer Referral Supplier** An entity that: (i) has accepted the obligations and associated rights to provide competitive retail electric service under the terms of this Agreement to retail customers in accordance with the Applicable Legal Authorities; (ii) has entered into this Agreement with the Company; (iii) is a full member of PJM and registered with PJM as a Load Serving Entity; (iv) is licensed by the PaPUC to offer and supply electric generation services in Pennsylvania, and (v) is in compliance with the terms and conditions of the Company's Supplier Tariff.
- 1.12 **Customer Referral Supplier Representative** Any officer, director, employee, consultant, contractor, or other agent or representative of the Customer Referral Supplier having actual or apparent authority to act on behalf of the Customer Referral Supplier in connection with the Customer Referral Supplier's performance under this Agreement. To the extent the Customer Referral Supplier is a division or group of a Company, the term Customer Referral Supplier Representative does not include any person in that Company who is not part of the Customer Referral Supplier's division or group.
- 1.13 **Default Service** Shall mean Default Service as defined in 52 Pa. Code § 54.182.
- 1.14 **Electric Distribution Company or "EDC"** A public utility providing facilities for the transmission and distribution of electricity to retail Customers in Pennsylvania subject to the jurisdiction of the Commission.
- 1.15 **Electric Generation Supplier or "EGS"** A person or entity that is duly certified by the Commission to offer and provide competitive retail electric service to retail customers located in the Commonwealth of Pennsylvania.
- 1.16 **Electronic Data Interchange or "EDI"** The standardized format for the electronic transfer of data between different entities.
- 1.17 **FERC** The Federal Energy Regulatory Commission.
- 1.18 **Price-to-Compare** Shall mean "price-to-compare" as defined in 52 Pa. Code § 54.182.
- 1.19 **Participating EGSs** All EGSs that have executed this Agreement.
- 1.20 **PJM** PJM Interconnection, LLC.
- 1.21 **Rate Schedule(s)** The Customer rate schedule(s) in the electric service tariff of the Company on file with the Commission as they may be modified from time to time.
- 1.22 **Rate Ready** Shall have the meaning set forth in the Company' Supplier Tariff as filed with the PaPUC and available on the Company's website.

- 1.23 **Residential Customer** Customers on: Rate Schedules RS and GS-Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service. (Metropolitan Edison Company and Pennsylvania Electric Company); Rate Schedules RS and GS Special Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-Profit Rescue Squads, and Non-Profit Ambulance Services (Pennsylvania Power Company); or Domestic Service Schedule 10 and Rate Schedule 20 special provision for Volunteer Fire Company, Non-Profit Ambulance Service, Non-Profit Rescue Squad and Non-Profit Senior Citizen Center (West Penn Power Company), each as defined in the electric service tariff of the Company on file with the Commission as they may be modified from time to time.
- 1.24 **Seller** means the Customer Referral Supplier.
- 1.25 **Service Territory** The service territory in which the Company is authorized to furnish retail electric service in Pennsylvania.
- 1.26 Small Commercial Customer Customer on Rate Schedule GS-Small (Metropolitan Edison Company and Pennsylvania Electric Company); General Service Small (Pennsylvania Power Company); or General Service Schedule 20 (West Penn Power Company) as defined in each respective Company's electric service tariff on file with the Commission as such may be modified from time to time.
- 1.27 **Supplier Tariff** –The PaPUC-approved Electric Generation Supplier Tariff for the Company.

Article 2 General Terms and Conditions

2.1 Term

This Agreement shall be effective upon execution by the Parties and with the approval of the PaPUC and shall terminate on May 31, 2023. This Agreement may be terminated prior to the end of each such term by the existence of any of the following conditions: (1) if the Customer Referral Program is terminated by governmental action; (2) if the Customer Referral Supplier is no longer a certified EGS; (3) if either Party is in material breach of this Agreement or the Supplier Tariff; or (4) pursuant to Article 3 of this Agreement.

2.2 Customer Referral Supplier Participation and Suspension of Participation

Customer Referral Suppliers will be able to begin participation in the Program effective on the following dates each year: June 1, September 1, December 1 or March 1. In order to participate, a Customer Referral Supplier must provide initial notice of its intent to participate in the Customer Referral Program at least sixty days prior to its desired effective date. A Customer Referral Supplier that has previously participated in the Company's Customer Referral Program must provide notice of its intent to participate at least thirty days prior to its desired effective date. A Customer Referral Supplier may suspend its participation in the Customer Referral Program effective on those same four dates (June 1, September 1, December 1 or March 1) and must provide notice of its intent to suspend participation at least thirty days prior to its desired effective suspension date. Notice of participation or suspension of participation shall be provided in the Form of Appendix C attached hereto.

2.3 Supplier Tariff

Except as otherwise stated herein, all the terms and conditions of the Company's Supplier Tariff, as filed with the PaPUC and available on the Company's website, and as modified from time to time with the approval of the Commission, are incorporated herein by reference, are in full force and effect and are binding upon the Parties for the duration of this Agreement.

2.4 CRP Charges – Calculation

Each Company will incur the following types of cost related to the Customer Referral Program: (1) capital and start up costs, such as costs associated with programming, development of phone scripts, administration of developing third party

vendor arrangements, etc. (the "Initial CRP Costs"); and (2) ongoing monthly costs, such as third party contractor charges and continuing internal administrative costs (the "Ongoing CRP Costs"; collectively, "CRP Costs"). The Companies will update their estimate of the CRP Costs prior to soliciting EGS participation in the CRP.

Each Company will track and record its CRP Costs separately, and each Company will recover CRP Costs from Customer Referral Suppliers by assessing a standard, percustomer charge (the "CRP Charge"), not to exceed \$30. The CRP Charge is subject to change by order of the Pa PUC or a Court of competent jurisdiction, and such change might be retroactive. A Customer Referral Supplier will be assessed a CRP Charge for every CRP customer enrollment that has been completed for that Customer Referral Supplier. The CRP Charge will be calculated on an annual basis, with a new CRP Charge becoming effective June 1 of each year.

The CRP Charge will be calculated by dividing CRP Costs by a projected number of customer enrollments in the CRP during the applicable year. Three cost components will be included in the CRP calculation: (1) Initial CRP Costs; (2) Ongoing CRP Costs; and (3) a reconciliation component for each year beyond the first year of the CRP (the "Reconciliation Component"). The Initial CRP Costs will be recovered utilizing a 12-month amortization period, and will include a return at the legal rate of interest.

In the event that the actual CRP Costs result in a cost per customer that exceeds the CRP Charge, the Companies will recover the resulting difference between their actual costs and the amount recovered by their CRP Charge through a non-bypassable surcharge applied to the bills of all Customers eligible to participate in the CRP.

2.5 CRP Charges

- (a) Consistent with the calculation methodology in Section 2.4, the Companies will provide updates of the CRP Charge to the Customer Referral Suppliers annually and will communicate the annual CRP Charge to Customer Referral Suppliers through a modification to Appendix B attached hereto, by May 1 of each year.
- (b) The Companies shall charge any Customer Referral Supplier in confirmed violation of the CRP Agreement an hourly fee, consistent with the Technical Support and Assistance Charge allowed for under the Supplier Tariff, for time spent researching, manually verifying and confirming a Customer Referral Customer's account. The Companies will notify the affected Customer Referral Supplier and such Supplier will have ten days to submit a formal objection to the Companies' initial determination. The formal objection shall be processed consistent with Section 18 of the Companies' Supplier Coordination Tariffs.
- (c) The Companies shall charge any Customer Referral Supplier in confirmed violation of the CRP Agreement all legal fees resulting from customer complaints from Customer Referral Customers caused by the action or inaction of the Customer Referral Supplier.

2.6 Company Obligations and Authority

The Company shall:

(a) Record the Customer's intent to participate and then transmit the following to each participating EGS via a secure website post or secure EDI transmittal: (1) the Customer's intent to participate; (2) the Company's twenty-digit customer identification number; and (3) the Customer's billing address. This transmission will provide the EGS with a valid referral for processing an enrollment.

- (b) Bill the Customer Referral Customers on behalf of the Customer Referral Supplier under Rate Ready Consolidated EDC Billing utilizing the Customer Referral 12-Month Fixed Price in effect when the Customer enrolls, as set forth in Appendix A (the "Confirmation Sheet");
- (c) Assign to the Customer Referral Supplier all eligible Customer accounts enrolled by the Customer Referral Supplier, with the requisite Customer consent, consistent with the Supplier Tariff as filed with the PaPUC and available on the Company's website;
- (d) Inform Residential and Small Commercial Default Service Customers that contact the Company regarding a high bill, a new service request, or electric choice inquiry, that they have the ability to purchase power from an EGS and offering such Customers the opportunity to have their call transferred to the Company's Customer Referral Program Implementation Team;
- (e) Have the Customer Referral Program Implementation Team inform the customer that the Company can refer the customer to an EGS with a 12-month fixed price that is below the EDC's current Price-To-Compare default service rate.
- (f) The Company will give the Customer an opportunity, at the Customer's election, to choose an EGS or to be referred to an EGS on a rotating basis. The rotation process is designed to provide each EGS participating in the Customer Referral Program generally equivalent numbers of rotation-assigned customers, by service type. EGSs must serve all such Residential or Small Commercial Customers referred through a Customer Referral Program.

(g) Secure PaPUC approval to implement the Customer Referral Program for the period June 1, 2019 to May 31, 2023.

2.7 Obligations of the Customer Referral Supplier

The Customer Referral Supplier shall:

- (a) Provide Competitive Energy Supply (as defined in the Supplier Tariff) to Customer Referral Customers, consistent with the terms and conditions of service set forth in this Agreement ("Customer Referral Supply"), and PaPUC Orders regarding the Customer Referral Program;
- (b) Meet all of the obligations and requirements of a PaPUC-licensed EGS under the then current Supplier Tariff;
- (c) Cooperate, at its own expense, with the Company in any regulatory compliance efforts that may be required to maintain the ongoing validity and enforceability of the terms of this Agreement, and fulfill any regulatory reporting requirement associated with the provision of the Customer Referral Supply, before the PaPUC, FERC or any other regulatory body asserting jurisdiction;
- (d) Use EDC Rate Ready Consolidated Billing to bill Customer Referral Customers the Customer Referral 12-Month Fixed Price in effect when the Customer enrolled in the Customer Referral Program as set forth in the applicable Confirmation Sheet for 12 consecutive billing periods, unless the contract is terminated by the customer;
- (e) After receiving a valid referral for enrollment, issue a standard disclosure statement, consistent with the Terms and Conditions of the Customer Referral Program

and welcome kit to the customer at least 3 days prior to transmitting an EDI 814 enrollment transaction to the EDC;

- (f) Transmit an EDI 814 enrollment transaction to the EDC consistent with Commission regulations and comply with the switching rules in the Company's Supplier Tariff;
- (g) Pay bills rendered from the EDC relating to the CRP (including the CRP Charge) within 30 days; and
- (h) Comply with Commission regulations regarding notice of a price change and changes in the terms and conditions of service following the 12-month initial contract period.

2.8 No Guarantee of Customer Referral Customers

The Company makes no guarantee or representation as to the number of Residential or Small Commercial Customers, if any, that will become Customer Referral Customers or will become Customer Referral Customers of any particular EGS during the term of this Agreement.

2.9 Fees, Penalties, and Exceptions

Customer Referral Customers will be billed the Customer Referral 12-Month Fixed Price, as applicable, set forth in the applicable Confirmation Sheet under and subject to the terms and conditions set forth herein and in applicable PaPUC Orders.

Customer Referral Suppliers will be paid by the Company pursuant to the Customer Referral 12-Month Fixed Price, as applicable, set forth in the applicable Confirmation

Sheet and the terms and conditions of the Supplier Tariff. Customer Referral Suppliers will not impose any penalties or fees on Customer Referral Customers.

2.10 Guaranteed Power Supply to Customer Referral Customers for One Year

All Customer Referral Customers enrolled in the Customer Referral Program shall receive power at the Customer Referral 12-Month Fixed Price, as applicable, as set forth in the applicable Confirmation Sheet from the Customer Referral Customer's initial meter read date during the contract terms set forth in Appendix A and ending with the Customer Referral Customer's last meter read date during the 12 month contract term such that the Customer will receive 12 consecutive bills calculated using the Customer Referral 12-Month Fixed Price applicable to the Customer at the time of enrollment.

2.11 Enrollment Procedures and Policies

Customer Referral Customers can enroll or switch to an EGS, including an alternative offer from the Customer Referral Supplier, or return to Default Service at any time during the 12 month period that the 12-Month Fixed Price is billed without restriction or penalty.

2.12 Service Inquiries and Notices to Customer Referral Customers

Customer Referral Customers may direct inquiries regarding this Agreement and any power supply or billing questions regarding the Customer Referral Program to the Customer Referral Supplier, whose address and phone number shall be provided in all communications with Customer Referral Customers regarding the Customer Referral Program.

Article 3 Early Termination of Agreement

The Customer Referral Supplier may only terminate its Consumer Contract and Disclosure Statement with Customer Referral Customers during the initial 12 month billing period upon 30 days' prior written notice to the customer due to a change in law or other act beyond the Customer Referral Supplier's reasonable control or if the Customer Referral Supplier is no longer able to serve the customer. In addition, the Customer Referral Supplier may reject the enrollment or terminate its Consumer Contract if the Customer does any of the following:

- Moves within or outside of the EDC's service territory or fails to remain an EDC distribution Customer throughout the term under the applicable residential or small commercial electric rate class;
- Fails to be eligible for EDC consolidated billing throughout the term;
- Provides any false, inaccurate or misleading information to the Customer Referral Supplier or the EDC.

Article 4 Energy Efficiency and Conservation Programs

The Customer Referral Supplier acknowledges that Customer Referral Customers may participate in energy efficiency and conservation programs offered by the Company (as required by Applicable Legal Authorities or otherwise), by PJM, or by other third parties, and that such participation may reduce or change the amount of Customer Referral Supply that Customer Referral Supplier is required to provide and, therefore, the amount of money it may receive under this Agreement. Customer Referral Supply does not include the load which the Customer Referral Supplier may have served in the absence of such programs, and the Company shall have no obligation whatsoever to Customer Referral Supplier with respect to the effect, if any, of such programs. Customer Referral Supplier is solely responsible for determining the effect, if any, of such programs on future load requirements.

Article 5 Entire Agreement

This Agreement and Appendices attached hereto constitute the entire Agreement and understanding between the Parties with respect to the services that are being provided hereunder. All prior written and verbal agreements and representations, if any, with respect to these services are merged into and superseded by this Agreement. No revisions or modifications to this Agreement will be valid, unless written and executed by all Parties and approved by the PaPUC.

Article 6 Authorization

Each Party to this Agreement represents and warrants that it has full and complete authority to enter into and perform this Agreement. Each person who executes this Agreement on behalf of either Party represents and warrants that he or she has full and complete authority to do so and that such Party will be bound by the Agreement.

Article 7 Jurisdiction

Any and all matters of dispute between the Parties, whenever arising, shall be governed, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania regardless of the theory upon which such matter is asserted.

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-29 Page 15 of 18

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives to be effective as of the day and year first written above.

ATTEST:		{INSERT EDC HERE}
By:	Bv:	
Name: [Insert Name] Title: [Insert Title]		Name: [Insert Name] Title: [Insert Title]

APPENDIX A

RESIDENTIAL OR SMALL COMMERCIAL CUSTOMER REFERRAL PROGRAM PRICING CONFIRMATION SHEET

FOR CUSTOMER ENROLLMENTS FOR THE PERIOD XX/XX/XXXX TO XX/XX/XXXX

The Customer Referral Supplier shall bill Customer Referral Customers in the [Name of EDC and name of Class] program that have been enrolled* during the period XX/XX/XXXX to XX/XX/XXXX at the prices set forth below. The following Fixed Rate shall be in effect through the last meter read date for 12 monthly billing periods after Enrollment.

Residential Customer Referral 12-Month Fixed Rate \$0.XXXX per kWh

Small Commercial Customer Referral 12-Month Fixed Rate \$0.XXXX per kWh

*Enrolled shall mean the day the customer accepts the EGS proposal for service

<u>Customers Referral Customers shall be enrolled using Rate Code xxxxxx for the Period xx/xx/xxxx to xx/xx/xxxx</u>

APPENDIX B

CUSTOMER REFERRAL PROGRAM CHARGE

PER CUSTOMER ENROLLED FOR THE PERIOD XX/XX/XXXX TO XX/XX/XXXX

The Companies shall charge the Customer Referral Suppliers for each customer enrolled during the period XX/XX/XXXX to XX/XX/XXXX at the CRP Charge set forth below.

CRP Charge Rate

\$XX.XX per customer enrolled

APPENDIX C

EGS PARTICIPATION OR SUSPENSION OF PARTICIPATION NOTICE

The Customer Referral Supplier shall be permitted to participate or suspend participation June 1, September 1, December 1 or March 1 upon providing the Companies with proper notice, as set forth below.

CUSTOMER REFERRAL SUPPLIER NOTICE TO PARTICIPATE IN OR WITHDRAW FROM THE ENROLLMENT OF NEW CRP CUSTOMERS

{INSERT EGS Name HERE} did not previously participate in the Company's Customer Referral Program and is hereby providing the Company 60 days notice of intent to enroll new customers in the [Name of EDC and Class] Customer Referral Program beginning XX/XX/XXXX.

{INSERT EGS Name HERE} previously participated in the Company's Customer Referral Program and is hereby providing the Company 30 days notice of intent to enroll new customers in the [Name of EDC and Class] Customer Referral Program beginning XX/XX/XXXX.

{INSERT EGS Name HERE} is hereby providing the Company 30 days notice of intent to withdraw from enrolling new customers in the [Name of EDC and Class]

Customer Referral Program beginning XX/XX/XXXX.

EGS Representative_	
Date_	

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-30 Page 1 of 2

DSP IV POR Clawback Charge 12-Months Ended August 31, 2016 Calculation Summary

			Fir	st Prong				Second Pro	ng				Charge	
Co	EGS	EGS Revenues	EGS Write-O	EGS Write- Offs as a % of Ffs Revenues (3) = (2)/(1)	ОрСо	200% of OpCo Average % (5) = (4)x2	kWh (6)	Average Rate ¢/kWh (7) = ((1)/(6))×100	Weighted Avg PTC ¢/kWh	150% Weighted Avg PTC ¢/kWh (9) = (8) x 1.5	20 20	S Write-Offs alculated at 10% of OpCo Average % (10) = (1)x(5)	Clawback Charge (11) = (2)-(10)	Total OpCo Clawback Charge (12)
		(-)	(2)	(3) - (2)/(1)	(4)	(3) - (4)X2	(0)	(7) - ((1)) (0)) × 100	(0)	(5) - (6) X 1.5		(10) - (1)/(3)	(11) - (2) (10)	(12)
ME	EGS-1	\$ 931,766.72	\$ 97,450	.12 10.46%	1.82%	3.65%	5,479,236	17.01	7.44	11.15	\$	34,009.49	\$ 63,440.63	\$ 63,440.63
PN	EGS-2	\$ 2,610,064.93	\$ \$ 386,019	.62 14.79%	1.53%	3.07%	21,330,459	12.24	7.11	10.67	\$	80,128.99	\$ 305,890.63	\$ 311,349.47
	EGS-3	\$ 1,386,580.45	\$ 48,026	.86 3.46%	1.53%	3.07%	11,760,397	11.79			\$	42,568.02	\$ 5,458.84	
PP	EGS-3	\$ 568,236.09	\$ 9,363	25 1.65%	0.74%	1.48%	4,356,697	13.04	8.45	12.68	\$	8,409.89	\$ 953.36	\$ 953.36
WP	EGS-1	\$ 868,173.59	\$ 35,274	.38 4.06%	0.94%	1.88%	5,987,876	14.50	7.21	10.81	\$	16,321.66	\$ 18,952.72	\$ 197,859.78
	EGS-2	\$ 1,426,341.02	\$ 205,722	.27 14.42%	0.94%	1.88%	11,549,345	12.35			\$	26,815.21	\$ 178,907.06	
											Tota	l Clawback Ch	arge	\$ 573,603.23

DSP IV POR Clawback Charge 12-Months Ended August 31, 2017 Calculation Summary

					First Pr	ong				Second Pro	ng				CI	narge		
Co	EGS	ı	EGS Revenues (1)	E	EGS Write-Offs	EGS Write- Offs as a % of Revenues (3) = (2)/(1)	OpCo Average %	200% of OpCo Average % (5) = (4)x2	kWh (6)	Average Rate ¢/kWh (7) = ((1)/(6))×100	Weighted Avg PTC ¢/kWh	150% Weighted Avg PTC ¢/kWh (9) = (8) x 1.5	20 20	S Write-Offs alculated at 10% of OpCo Average % (10) = (1)x(5)		lawback Charge L) = (2)-(10)	Cl	rtal OpCo lawback Charge (12)
ME	EGS-1	\$	198,514.26	\$	7,908.53	3.98%	1.41%	2.83%	1,824,878	10.88	6.88	10.32	\$	5,608.42	\$	2,300.11	\$	2,300.11
PN	EGS-2 EGS-3	\$ \$	2,259,090.88 949,031.72		200,414.28 45,323.56	8.87% 4.78%			20,526,495 8,610,451	11.01 11.02	6.76 6.76	10.13 10.13	\$ \$	57,441.15 24,130.71		42,973.13 21,192.85	\$ 1	64,165.98
PP	EGS-3	\$	364,490.53	\$	6,777.45	1.86%	0.85%	1.69%	3,252,263	11.21	7.24	10.85	\$	6,173.32	\$	604.13	\$	604.13
WP	EGS-4 EGS-2	\$ \$	373,271.74 926,876.54		27,014.42 88,192.11	7.24% 9.51%			3,482,588 8,109,852	10.72 11.43	7.10 7.10	10.65 10.65	\$ \$	8,115.90 20,152.70		18,898.52 68,039.41	\$	86,937.93
													Tota	l Clawback Cha	arge		\$ 2	54,008.15

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-30 Page 2 of 2

Uncollectible Expense Analysis

12-Months Ended August 31, 2016

12-Months Ended August 31, 2017

				Company Retains				Company Retains
				or Refunds				or Refunds
	Actuals	Ra	ate Recovery	Clawback Charge	Actuals	R	ate Recovery	Clawback Charge
ME	\$ 15,680,515	\$	12,136,226	Retains	\$ 14,147,854	\$	16,567,834	Refunds
PN	\$ 13,954,459	\$	8,958,844	Retains	\$ 12,521,058	\$	14,288,762	Refunds
PP	\$ 2,993,772	\$	1,610,410	Retains	\$ 3,164,140	\$	2,827,800	Retains
WP	\$ 12,425,629	\$	10,641,643	Retains	\$ 12,144,017	\$	13,810,115	Refunds

Met-Ed/Penelec/Penn Power/West Penn Exhibit KLB-31 Page 1 of 1

Calculation of Monthly Retail Market Enhancement Rate Mechanism ("PTC Adder")

1	CRP	Charge	per	Customer
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- 2 Estimated Customer Retention Period (in months)
- 3 Monthly CRP Charge per Customer (Line 1 / Line 2)
- 4 Average Monthly Usage of Residential Customers (in kWh)
- 5 PTC Adder per kWh (Line 3 / Line 4)

Met-Ed	Penelec	Penn Power	West Penn
\$30	\$30	\$30	\$30
<u>24</u>	<u>24</u>	<u>24</u>	<u>24</u>
\$1.25	\$1.25	\$1.25	\$1.25
<u>869</u>	<u>869</u>	<u>869</u>	<u>869</u>
\$0.00144	\$0.00144	\$0.00144	\$0.00144

Estimated Met-Ed Default Service Program Administrative Costs

Estimated Costs Line No. **Description of Administrative Costs** Residential Commercial **HPS/Industrial Total** Bill Inserts and Customer Notifications (Change in Hourly Pricing Threshold) \$ \$ 1,047 1,047 2 Legal and Regulatory Expenses for Default Service Program Proceeding Consultant Costs for Default Service Program Proceeding and Administration of **Descending Clock Auction Process** 3 536,333 116,196 14,299 666,827 4 Metering and Related Expenses Billing System Enhancements and IT Related Expenses 5 Actual Totals (Line 1 through Line 5) \$ 536,333 6 \$ 116,196 15,347 667,875

Estimated Penelec Default Service Program Administrative Costs

		Estimated Costs								
Line No.	Description of Administrative Costs	Residential	Commercial	HPS/Industrial	Total					
1	Bill Inserts and Customer Notifications (Change in Hourly Pricing Threshold)	\$ -	\$ -	\$ 1,180	\$ 1,180					
2	Legal and Regulatory Expenses for Default Service Program Proceeding Consultant Costs for Default Service Program Proceeding and Administration of	-	-	-	-					
3	Descending Clock Auction Process	447,753	148,906	20,560	617,218					
4	Metering and Related Expenses	-	-	-	-					
5	Billing System Enhancements and IT Related Expenses									
6	Actual Totals (Line 1 through Line 5)	\$ 447,753	\$ 148,906	\$ 21,740	\$ 618,399					

Estimated Penn Power Default Service Program Administrative Costs

		_	Estimated Costs									
Line No.	Description of Administrative Costs		Residential		Commercial		HPS/Industrial		Total			
1	Bill Inserts and Customer Notifications (Change in Hourly Pricing Threshold)	\$	-	\$	-	\$	475	\$	475			
2	Legal and Regulatory Expenses for Default Service Program Proceeding		-		-		-		-			
	Consultant Costs for Default Service Program Proceeding and Administration of											
3	Descending Clock Auction Process		184,852		53,068		14,108	2	52,028			
4	Metering and Related Expenses		-		-		-		-			
5	Billing System Enhancements and IT Related Expenses	_					<u>-</u>					
6	Actual Totals (Line 1 through Line 5)	\$	184,852	\$	53,068	\$	14,583	\$ 2	52,503			

Estimated West Penn Default Service Program Administrative Costs

		Estimated Costs									
Line No.	Description of Administrative Costs	Residential	Commercial	HPS/Industrial	Total						
1	Bill Inserts and Customer Notifications (Change in Hourly Pricing Threshold)	\$ -	\$ -	\$ 1,547	\$ 1,547						
2	Legal and Regulatory Expenses for Default Service Program Proceeding	-	-	-	-						
	Consultant Costs for Default Service Program Proceeding and Administration of										
3	Descending Clock Auction Process	772,182	201,556	90,188	1,063,926						
4	Metering and Related Expenses	-	-	-	-						
5	Billing System Enhancements and IT Related Expenses										
6	Actual Totals (Line 1 through Line 5)	\$ 772,182	\$ 201,556	\$ 91,735	\$ 1,065,473						

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

METROPOLITAN EDISON COMPANY DOCKET NO. P-2017
PENNSYLVANIA ELECTRIC COMPANY
DOCKET NO. P-2017
PENNSYLVANIA POWER COMPANY
DOCKET NO. P-2017
WEST PENN POWER COMPANY
DOCKET NO. P-2017

DEFAULT SERVICE PROGRAMS

For the Period June 1, 2019 to May 31, 2023

Direct Testimony of James H. Catanach

List of Topics Addressed
Procurement Plan Product Definitions
Procurement Process and Schedule
Default Service Supplier Master Agreement
Alternative Energy Portfolio Standards Act Requirements
Contingency Plans

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III.	PROCUREMENT PROCESS AND SCHEDULE11
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V.	ALTERNATIVE ENERGY PORTFOLIO STANDARDS ACT REQUIREMENTS
VI.	CONTINGENCY PLANS30

1 2 3 4		DIRECT TESTIMONY OF JAMES H. CATANACH
5	I.	INTRODUCTION AND PURPOSE
6	Q.	Please state your name and business address.
7	A.	My name is James H. Catanach. My business address is 2800 Pottsville Pike, Reading
8		Pennsylvania 19605.
9	Q.	By whom are you employed and in what capacity?
10	A.	I am employed by FirstEnergy Service Company as Manager for the Regulated Commodity
11		Sourcing Department ("RCS"). RCS is primarily responsible for procuring power and
12		power related products for all of FirstEnergy Corp.'s ("FirstEnergy") regulated utilities. ¹
13	Q.	Please describe your educational background and professional experience.
14	A.	I am a graduate of the University of Rhode Island with a Bachelor of Science degree in
15		Mechanical Engineering and a Masters of Business Administration from the Pennsylvania
16		State University. I also have a Professional Engineering License in the Commonwealth of
17		Pennsylvania. I have over thirty-five years of experience in the electric industry and have
18		experience in both physical and financial power supply. My professional experience is
19		more fully detailed in Appendix A.

¹ Jersey Central Power & Light Company, Metropolitan Edison Company ("Met-Ed"), Monongahela Power Company, Ohio Edison Company, Pennsylvania Electric Company ("Penelec"), Pennsylvania Power Company ("Penn Power"), The Potomac Edison Company, The Cleveland Electric Illuminating Company, Toledo Edison Company and West Penn Power Company ("West Penn").

Q. Please describe your responsibilities as Manager, RCS.

A.

I am primarily responsible for the procurement and management of the regulated energy supply and renewable energy portfolio that FirstEnergy's electric distribution utilities are required to maintain as load serving entities ("LSEs") to serve their Pennsylvania and New Jersey retail electric customers. I have either directed or participated in fifteen competitive power and renewable energy credit procurements in Pennsylvania and New Jersey utilizing both auction and request for proposal ("RFP") formats. As a result, I am very familiar with the attributes of these procurement processes, which are tailored for the specific markets in which the solicitations are conducted. One of the primary functions of RCS is to provide oversight in the implementation of these power procurement processes, including, but not limited to, supporting the procurement plans of the FirstEnergy utilities in regulatory proceedings; developing both solicitation and contract materials; interacting with independent evaluators; executing contracts; and handling many of the operational aspects of these solicitations requiring interface with regional transmission organizations such as PJM Interconnection, L.L.C. ("PJM").

Q. On whose behalf are you testifying in this proceeding?

- 17 A. I am testifying on behalf of Met-Ed, Penelec, Penn Power and West Penn (each of which
 18 may be referred to as a "Company" and, in any combination, as the "Companies").
- 19 Q. Please describe the purpose of your testimony.
- 20 A. The purpose of my testimony is to describe: (i) the proposed products to be procured under 21 each Company's Default Service Program ("DSP") for the period June 1, 2019 through 22 May 31, 2023; (ii) the proposed procurement process and schedule of the multiple 23 procurements by the Companies; (iii) the proposed Supplier Master Agreement ("SMA")

for execution between the Companies and winning suppliers; (iv) compliance with Pennsylvania's Alternative Energy Portfolio Standards Act ("AEPS" or the "AEPS Act"); and (v) the Companies' contingency plans in the event of default service supplier default or unfilled solicitations due to lack of bids or the Commission's rejection of bids.

5 Q. Have you prepared any exhibits to accompany your testimony?

A. Yes. Met-Ed/Penelec/Penn Power/West Penn Exhibits JHC-1 through JHC-5 were prepared by me or under my supervision and are described in detail later in my testimony.

8 II. PROCUREMENT PLAN PRODUCT DEFINITIONS

A.

9 Q. Please provide an overview of the Companies' DSPs.

The term of the Companies' DSPs will be for the forty-eight months spanning June 1, 2019 through May 31, 2023. The proposed DSPs will procure the required power supply in the wholesale marketplace, by Company and rate class, through multiple solicitations. Power to serve the non-shopping loads of each of the Companies will be procured in tranches of approximately 50 megawatts ("MW") each for the residential and commercial rate classes and in tranches of approximately 100 MW each for the industrial rate class.

The DSPs are designed to offer non-shopping customers power through a prudent mix of variable priced products for industrial customers, a blend of 5% variable priced products and 95% fixed-price 12 and 24-month products for residential customers, and a blend of fixed-price 3, 12 and 24-month products for commercial customers. Default service suppliers who are successful bidders in the competitive procurement process will be responsible for satisfying the AEPS Act requirements, with the exception of 100% of the solar photovoltaic alternative energy credit ("SPAEC") requirements for Met-Ed, Penelec

and Penn Power, which the Companies will continue to procure through market-based purchases.²

Q. What are the benefits of the DSPs?

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Under the DSPs, customers will be served by products reflecting market-based generation rates, which will provide opportunities for electric generation suppliers ("EGSs") to offer competitive alternatives in accordance with the provisions of the Electricity Generation Customer Choice and Competition Act and the Commission's default service regulations. The DSPs will continue to offer fixed generation rates that change on a quarterly basis, and will be synchronized with the PJM energy year beginning June 1 for residential and commercial customers, and continue to make hourly pricing available to industrial customers. The DSPs will enable the Companies to procure their generation supplies through multiple solicitations, providing price diversity to the DSP rates while protecting residential customers from short-term price variations due to anomalies in the marketplace for generation supply. The 24-month term fixed product will provide assured, stable pricing for residential customers while the five percent variable priced product for residential, 3-month product for commercial, and the 12-month product for residential and commercial will refresh the default service rate to make it more reflective of current market trends over the term of the DSPs. At the same time, the 12-month products will reduce residential customers' exposure to significant price volatility associated with shorter term products (e.g., variable and 3-month) due to short-term market anomalies as experienced during the 2014 Polar Vortex and the 2015 Siberian Express. The DSPs also provide bidding flexibility in that the Companies will simultaneously procure their generation

² As discussed later in my testimony, a limited number of Tier I alternative energy credits ("AECs") and SPAECs will be assigned to West Penn's default service suppliers as a result of existing, long-term purchases by West Penn.

supplies through a descending price clock auction ("DCA") process, a feature which is expected to increase the number of bidders and, thereby, the competitiveness of the procurement process. In fact, based on the five DSP-IV auctions conducted through October 30, 2017, the average number of register bidders and winning suppliers has been thirteen and eight, respectively, per auction. In total, the Companies' DSPs are designed to yield market-reflective rates through a prudent mix of products acquired at the least cost over time, which is a key requirement Pennslvania's Act 129 of October 15, 2008 ("Act 129"). The Programs' compliance with the least cost over time standard is futher described in the testimony of Witness James D. Reitzes found in Met-Ed/Penelec/Penn Power/West Penn Statement No. 3.

A.

Q. What is the nature of the products the Companies seek to obtain under the DSPs?

The proposed products are full-requirements, load-following energy and energy-related services for the customers of Met-Ed, Penelec, Penn Power and West Penn who have not chosen an EGS or whose EGS fails to provide service. Each Company's non-shopping load will be segregated into customer classes, each with its own product specifications. The load of each class will be divided into tranches, with each tranche representing a fixed percentage of the Company's non-shopping load. Procurement winners will be responsible for fulfilling all obligations of a PJM LSE and, as such, will be required to provide energy, capacity, and transmission service, as well as all PJM administrative expenses and any other services or fees as required by PJM of an LSE, with some limited exceptions. Specifically, winning bidders will not be responsible for the following charges: Regional Transmission Expansion Plan charges ("RTEP"); Expansion Cost Recovery Charges ("ECRC"); Reliability Must Run/generation deactivation charges ("RMR") associated with generating plants for which specific RMR charges that began after July 24, 2014; historical

out of market tie line, generation and retail customer meter adjustments; unaccounted for energy ("UFE"); and any FERC-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009 (collectively referred to as "non-market based charges," or "NMB charges").

A.

Default service suppliers in the Met-Ed, Penelec and Penn Power service territories will also be responsible for meeting 100% of the non-solar Tier I and Tier II AEPS Act requirements. Met-Ed, Penelec and Penn Power will procure all necessary solar photovoltaic requirements on behalf of both default service suppliers and EGSs that serve load in their respective service areas. In the West Penn service territory, default service suppliers will be responsible for all Tier I and Tier II AEPS Act requirements (including solar photovoltaic requirements) less any Tier I AECs or SPAECs that are allocated to the default service suppliers from existing long-term purchases made by West Penn. The requirements to comply with the AEPS Act are further defined in Section V.

Consistent with Commission Orders and existing practice, the NMB charges will be paid by the Companies on behalf of all customers and recovered from all customers through the Default Service Support ("DSS") Rider in the respective Company tariffs. Witness Kimberlie L. Bortz discusses these costs and their proposed recovery in Met-Ed/Penelec/Penn Power/West Penn Statement No. 1.

Q. What are the customer classes being proposed by the Companies?

The Companies propose to segregate load into the same three classes that they have traditionally used for default service purposes: a residential class, a commercial class and an industrial class. Witness Kimberlie L. Bortz discusses the customer classes and changes

- in the commercial and industrial rate classes in Met-Ed/Penelec/Penn Power/West Penn

 Statement No. 1.
- 3 Q. How many and what size customer class tranches are being proposed by the
 4 Companies?
- 5 A. The Companies propose to bid out a total of seventy-nine residential class tranches of
 6 approximately 50 MW each; a total of fifty commercial class tranches of approximately 50
 7 MW each; and thirty-one tranches of approximately 100 MW each of an hourly pricing
 8 service for their industrial customers. A tranche represents a defined percentage of the load
 9 of a particular customer class that the default service supplier must serve, including the
 10 provision of energy, capacity, ancillary services, transmission services and Network
 11 Integration Transmission Service ("NITS") (but excluding NMB charges).
- 12 Q. You mentioned that the Companies will hold simultaneous procurement processes.
- Will residential, commercial and industrial class products be offered simultaneously using the same type of procurement process as well?
- 15 A. Yes. There will be procurement processes for the Companies' fixed-price residential and
 16 commercial products and the hourly-priced service for industrial customers that occur on
 17 the same day, each using a DCA process run by CRA International, Inc. d/b/a Charles River
 18 Associates ("CRA"), the independent auction manager (i.e., independent evaluator) that
 19 has also been used by the Companies under their most recent DSPs.

20 Q. What are the residential class products proposed by the Companies?

A. Each residential class tranche is 95% fixed-price, load-following full requirements product, with either a 12-month or 24-month term. The remaining 5% is the real time hourly load locational marginal price ("LMP") for the Delivery Point plus a fixed adder of \$20.00 per

megawatt hour ("MWh"). This additional adder is intended to capture an estimate of costs of other supply components associated with meeting this full-requirements obligation, including capacity, ancillary services, NITS, AEPS compliance, and other costs. All required residential tranches will be secured over twelve procurement dates.

5 Q. What are the commercial class products proposed by the Companies?

A.

A. The commercial class product is a fixed-price, load-following full requirements product,
with either a 3-month, 12-month or 24-month term, and with all tranches secured over
eighteen procurement dates.

9 Q. What are the industrial class products proposed by the Companies?

The Companies are not proposing any changes to the products offered to their industrial classes under today's programs. That is, the Companies propose to continue to secure power supply for the industrial class utilizing a service referred to as the hourly pricing service ("HPS"). Contracts for HPS will be for 12-month terms beginning June 1 in 2019, 2020, 2021 and 2022. The HPS is not a fixed-price service, but a variable hourly service that is priced to the PJM real-time hourly total LMP for each Company's PJM delivery point. Default service suppliers will be bidding for the right to serve a portion of a Company's HPS load – for a total of thirty-one tranches across all the Companies. Customers on HPS will pay, and winning default service suppliers will receive: 1) the winning price bid by the winning default service supplier in the hourly-priced auction; 2) the applicable PJM zonal real-time hourly LMP; and 3) a fixed adder of \$4/MWh. This additional adder is intended to capture an estimate of costs of other supply components associated with meeting this full-requirements obligation, including capacity, ancillary services, NITS, AEPS compliance, and other costs.

1 Q. Are there any changes as to what customers are classified as industrial?

2 A. Yes. Beginning June 1, 2019, customers classified as commercial that have demand at or

above 100 kilowatts will be moved from the commercial to industrial classification. This

will be discussed more fully in Witness Kimberlie L. Bortz's testimony in Met-

Ed/Penelec/Penn Power/West Penn Statement No. 1.

6 Q. Do you believe the residential 5% variable priced and 95% fixed-price 12 and 24-

month tranche products and the commercial fixed-price 3, 12 and 24-month tranche

products paired with the Companies' proposed continuation of industrial HPS are

consistent with Act 129 of 2008 and the Commission's default service regulations and

policy statement?

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A. Yes. The proposed product mix, along with previously procured long-term alternative

energy portfolio standard credit agreements, meets the current legislative standard under

Act 129 and the Commission's default service regulations and policy statement, which

require a default service procurement plan to include a prudent mix of variable market

purchases, short-term contracts and long-term purchase contracts, informed by recent

activity in the wholesale and retail markets, that provides adequate and reliable service and

is designed to ensure least cost to customers over time.³ This is supported by the fact that

the Commission approved a similar product mix as part of the Companies'

current and past several DSPs.

³ See 66 Pa.C.S. § 2807(e); 52 Pa. Code § 54.186; 52 Pa. Code § 69.1805.

- Q. Please describe the general obligations of default service suppliers with respect to PJM requirements.
- Winning default service suppliers will schedule delivery to the applicable PJM delivery 3 A. point of the Company which they have bid successfully to supply. It is mandatory that 4 winning default service suppliers be members of PJM and be cognizant of and compliant 5 6 with all regulations, business rules, scheduling protocols and all other aspects of doing 7 business within PJM, including the introduction of new billing line items that are not otherwise specified as the responsibility of the Companies. All operational supply risk to 8 9 perform under this procurement process will be borne by the winning default service suppliers. 10
- 11 Q. Are the Companies proposing any modifications to the procurement process?
- 12 A. No.
- 13 Q. What is a load cap?
- A. Load caps are a restriction on the amount of supply any one bidder can win in an auction.

 Load caps, which have the potential to attract additional bidders, especially to a novice

 procurement process, are generally used in competitive solicitations to encourage supplier

 diversity and mitigate the impact of a supplier default on retail customers.
- 18 Q. What is the current load cap and are the Companies proposing to change it?
- 19 A. The current load cap is currently 75%. The Companies are not proposing to change the load cap percentage.

- 1 Q. Have the Companies experienced a default by any of their default service suppliers?
- 2 A. No. The Companies have not experienced a default by any of their default service suppliers
- since the inception of their default service programs. While a default remains a possibility
- and should be planned for, the Companies believe the likelihood of a default is very low.
- In the event of a supplier default, contingency plans are outlined in Section VI below.

6 III. PROCUREMENT PROCESS AND SCHEDULE

- 7 Q. Are there any changes in the months the auctions are currently held?
- 8 A. Yes. The Companies will conduct each fall auction between October 20 and November 20
- 9 in order to allow participants in the fall auction to have access to any applicable proposed
- formula NITS rate changes for the upcoming calender year for several weeks prior to the
- auction. This should benefit default service customers by reducing any risk premium that
- might be added by bidders associated with uncertainty over upcoming NITs rate changes.
- Throughout my testimony and in Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-1,
- "Oct/Nov" refers to the timeframe from October 20 to November 20.
- 15 Q. What are the procurement dates and terms proposed by the Companies?
- 16 A. The Companies are proposing a procurement plan for all customer classes using eighteen
- separate procurement dates. As shown in Met-Ed/Penelec/Penn Power/West Penn Exhibit
- JHC-1, the Companies propose procurements occurring in Oct/Nov 2018, 2019, 2020,
- 2021, and 2022; January 2019, 2020, 2021, 2022 and 2023; April 2019, 2020, 2021, and
- 20 2022; and June 2019, 2020, 2021 and 2022.
- 21 For the residential 12-month product the auctions will be held: Oct/Nov 2018, 2019, 2020
- and 2021; January 2019, 2020, 2021 and 2022; April 2019, 2020, 2021 and 2022.

- For the residential 24-month product the auctions will be held: Oct/Nov 2018 and 2020;
- 2 January 2019, 2020 and 2021; April 2019, 2020 and 2021.
- For the commercial 3-month product the auctions will be held: Oct/Nov 2019, 2020, 2021
- and 2022; January 2020, 2021, 2022 and 2023; April 2019, 2020, 2021 and 2022; June
- 5 2019, 2020, 2021 and 2022.
- For the commercial 12-month product the auctions will be held: Oct/Nov 2018, 2019, 2020
- 7 and 2021; January 2019, 2020, 2021 and 2022; April 2019, 2020, 2021 and 2022.
- For the commercial 24-month product the auctions will be held: Oct/Nov 2018 and 2020;
- 9 January 2019 and 2021; April 2019, 2020 and 2021.
- The total industrial class load will be procured through four separate auctions to be held in
- January 2019, January 2020, January 2021 and January 2022 for 12-month agreement
- terms beginning June 1 of the auction year.

13 Q. What auction design will be used for the default service auctions?

- 14 A. The Companies propose to continue their current approach of using a version of the
- simultaneous, multiple-round, DCA format to procure default service supplies. This
- auction platform is commonly used for multiple commodity types and has been
- successfully used in numerous electricity procurements in Pennsylvania and across various
- states since the late 1990s.
- The bidding format is simultaneous in that multiple products and/or multiple tranches are
- bid on simultaneously. Bidding takes place online using web-based software in a series of
- bidding rounds, with pre-specified starting and ending times for each round. Prior to the

start of each round, the announced price for each product is disclosed to bidders. The announced price is the same for each tranche for a product, but may differ across products. The announced round 1 starting price for each product is set sufficiently high enough so as to encourage bidder participation. At the end of each round, the bidding software (with oversight of CRA) determines which products are over-subscribed and which products are under-subscribed. A product is over-subscribed if suppliers bid to supply more tranches than the number of tranches needed of that product. Likewise, a product is undersubscribed if fewer tranches were bid on it than needed. If a product is over-subscribed, the announced price for that product will be reduced by a decrement for the next round. If a product is not over-subscribed, its announced price will not change for the next round. The bidding process continues in this manner, with prices tending to tick down like a countdown clock. As prices change across the products, bidders are allowed to change the number of tranches they bid, subject to certain restrictions. Subject to these restrictions, in each round, a bidder simply specifies the number of tranches that it is willing and able to supply for each product at the announced price for each product. There is no predetermined number of rounds before the auction closes. The auction closes after the first round in which no product is over-subscribed. The clearing price for a product is the lowest price at which the product is not under-subscribed. Winning tranches for the product are tranches that were bid at a price no higher than the clearing price. Winning bidders are those bidders who bid the winning tranches. Throughout the auction, the pricing for each product is know to the suppliers, which provides price transparency.

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This price transparency allows the bidders flexibility to switch products throughout the auction, as is described in the testimony of Witness James D. Reitzes.

The Bidding Rules and appendices for the default service procurement auctions are attached as Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-2 and provide a more detailed description of the bidding process.

4 Q. How are prospective bidders qualified for participation in the DSP auctions?

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Prospective bidders will be required to satisfy financial and non-financial requirements through a two-part application process designed to demonstrate their ability and commitment to meet the requirements of participation in the auction process and the requirements of being a default service supplier. The Part 1 Application and Part 2 Application forms, as well as pre-bid credit documents, are attached as Appendices 1 and 2 to Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-2 and will be available through the CRA web-based data room, as in past auctions. If a prospective bidder is interested in participating in the 95% fixed-priced and 5% variable priced residential, fixed-price commercial, or the hourly-priced industrial auctions, it will need to complete and submit one Part 1 Application and, subsequent to that, one Part 2 Application. As much as possible, the application process will be conducted electronically via the CRA web-based data room using protocols CRA has used successfully in other similar auction processes including the current DSPs. The CRA process is designed to be secure and to make it easier and less time consuming for applicants to submit application materials. The process further provides: (i) for the review and assessment of the applications; (ii) timely feedback to applicants; (iii) the ability of applicants to easily check on the status of their applications; and (iv) the ability of applicants to cure any deficiencies.

- Q. Are the bid rules reflected in Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-2 and the associated Appendices consistent with those that are being used by the Companies in their current DSPs?
- Yes. The bid rules and associated Appendices are consistent between the proposed DSPs 4 A. and the current DSPs, with mostly minor updates to dates and addresses. In particular, the 5 6 Part 1 Application and Part 2 Application processes to qualify and register bidders, the 7 web-based data room, the frequently asked question process, the communications protocol, the bidding format and the post-auction process will all be the same as under the 8 9 Companies' current DSPs. The sole substantive modification is to account for the expansion of NMB charges to include any FERC-approved reallocation of PJM Regional 10 Transmission Expansion Plan charges related to Docket No. EL05-121-009 in order to 11 assign responsibility for this item, to the extent implemented, to the Companies. This 12 matches the responsibility assigned for purposes of rate design and retail supply as 13 14 explained by Witness Bortz in Met-Ed/Penelec/Penn Power/West Penn Statement No. 1.
 - Q. When will the Companies and the independent evaluator hold information sessions for interested participants?

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A. A bidder information session will be held generally at least a month before each auction.

The purpose of these sessions will be to describe the bid rules, the two-part qualification process, the Supplier Master Agreement, and the procurement information website and its contents, as well as other pertinent information bidders will need to evaluate this procurement opportunity.

Q. How can prospective default service suppliers learn more about the load characteristics of the Companies' default service products?

A. Prospective default service suppliers will have access to the web-based data room administered by CRA as part of the auction information website which will be operational prior to the start of the procurement process. The data room will include hourly historical load characteristics of each product and the most current customer shopping statistics by customer class by Company, which is updated monthly. This will afford prospective default service suppliers an opportunity to view product load volatility through time to help gauge volume risk. Furthermore, participants will have the opportunity to ask questions about any of the default service products in the procurement process at an information session or via a frequently asked question feature via the CRA web-based data room.

Q. Please describe the process following the close of the default service auctions.

- A. After the last round of the auction, bidders who remained active in the auction will see preliminary auction results on the bidding website. The bidders will see the clearing price for each product and the number of tranches the bidder tentatively won for each product.

 CRA will also provide to the Companies the identities of the winning bidders, the number of tranches each winning bidder has won for each product, and the associated clearing prices, which results are subject to Commission approval.
 - After the close of the auction, CRA will provide a confidential report to the Commission that will include, among other things, the list of winning bidders and the clearing price for each product. The Commission will have one business day after receiving the CRA auction report to approve the results of the auction.

Upon approval by the Commission, the winning bidders and the Companies will execute a SMA, the form of which is attached as Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-3. Pre-bid security will be returned to all bidders upon execution of the SMA on or before the third business day after the Commission has rendered its decision on the auction results. Pre-bid security may be held for any bidder that violated any of the rules or certifications of the auction process.

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Q. Do you believe that the use of a DCA is the appropriate auction design for the default service auctions?

Yes. As previously mentioned, the Companies' proposed DCA process is identical to the auction process used under the Companies' current and past DSPs, as well as similar to auction processes used in other jurisdictions to successfully procure electric power service. It is a process that default service suppliers and other stakeholders accept and are experienced with. Further, its design encourages participation because it is fair, open, transparent, and non-discriminatory, and provides low barriers to participation for a variety of prospective bidders. The tranche sizes and the range of contract durations appeal to various bidders because they are consistent with products available in energy markets. With the simultaneous bidding on products that are related in value (the residential and commercial products across the Companies, and the industrial products across the Companies), bidders are able to switch their bid quantities across the Companies' products and bid simultaneously on substitutable and/or complementary products in response to changes in pricing. Because these factors encourage active participation and allow participants to bid efficiently, the auctions are designed to yield competitive outcomes.

IV. DEFAULT SERVICE SUPPLIER MASTER AGREEMENT

2 Q. What is the Supplier Master Agreement ("SMA")?

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- A. The default service SMA is the agreement executed by each Company and each successful bidder that governs specific duties, rights and obligations in connection with the sale and
- 5 purchase of default service supply to serve the Companies' retail default service customers.

6 Q. How was the Companies' proposed form SMA developed?

7 A. In its Order entered on February 15, 2013 in Investigation of Pennsylvania's Retail Electricity Market: End State of Default Service at Docket No. I-2011-2237952, the 8 9 Commission directed its Office of Competitive Market Oversight ("OCMO") to create a procurement collaboration working group, which was tasked with formulating, among 10 other things, a uniform SMA. The Companies participated actively in the working group's 11 12 development of the uniform SMA to be used on a statewide basis. The resulting OCMO 13 collaborative SMA, with minor modifications, was adopted by the Companies and is currently in use under the Companies' current DSPs. The Companies are proposing a 14 similar form SMA for use under the proposed DSPs, subject to minor modifications as 15 discussed below. The proposed form SMA is attached as Met-Ed/Penelec/Penn 16 17 Power/West Penn Exhibit JHC-3.

Q. Does each Company propose to have a unique SMA?

19 A. No. All the Companies will use the uniform SMA template. However, they will adjust the
20 SMA Appendices to their individual needs based on the product mix, pricing, and other
21 terms specific to each Company and each customer class.

Q. How are suppliers to be paid under the proposed form SMA?

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It depends largely upon the class being served. For residential products, default service suppliers will be paid a 95% fixed and 5% variable price. The fixed price, in dollars per megawatt-hour ("MWh"), will be for 95% of the delivered supply each hour, will be established through the Companies' competitive procurement process, and will be included in Exhibit 1 to the SMAs when known. The fixed price will cover all cost components associated with meeting the full-requirements default service supply including capacity, ancillary services, NITS, AEPS compliance, and all PJM administrative expenses and any other services or fees as required by PJM of an LSE, but will exclude the NMB charges as previously discussed herein. The variable price, in dollars per MWh, will be for 5% of the delivery supply each hour, and will be the real-time hourly total LMP for the delivery point, plus a fixed adder of \$20.00/MWh. The applicable delivery point will be included in Exhibit 1 to the SMAs when known.

For commercial products, default service suppliers will be paid a fixed price. The fixed price, in dollars per MWh, will be for 100% of the delivered supply each hour, which will be established through the Companies' competitive procurement process and included in Exhibit 1 to the SMAs when known. The fixed price will cover all cost components associated with meeting the full-requirements default service supply including capacity, ancillary services, NITS, AEPS compliance, and all PJM administrative expenses and any other services or fees as required by PJM of an LSE, but will exclude the NMB charges as previously discussed herein.

For industrial products, default service suppliers will be paid a variable price for each hour during the applicable period equal to the delivered supply multiplied by the sum of the real-

time hourly LMP for the applicable PJM delivery point, plus the winning price for the winning default service suppliers in the hourly-priced auction, plus an additional \$4/MWh to capture an estimate of costs of other supply components associated with meeting this full-requirements obligation, including capacity, ancillary services, NITS, AEPS compliance, and all PJM administrative expenses and any other services or fees as required by PJM of an LSE, but excluding the NMB charges.

Q. Will payments to a supplier for default service load for residential and commercial customers vary seasonally?

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No. Residential and commercial SMAs will no longer contain provisions that adjust the price paid to default service suppliers for each MWh of load by a seasonal billing factor, representing anticipated seasonal differences in energy prices. Because non-summer month volatility has been much more pronounced in recent years, there is no longer a need to "summer-weight" prices paid to suppliers. For example, the seasonal billing factor under the Companies' current DSPs is currently 1.0, meaning there is no summer weighting. As was the case in prior DSPs, the seasonal billing factors do not apply to the industrial SMAs because the price paid for energy under the industrial product is based upon a real-time, hourly LMP.

Q. Please explain how the credit requirements work in the uniform SMA.

An unsecured credit matrix was developed by the Companies to allow each Pennsylvania utility to have a tailored unsecured credit table based on its own credit policy. A supplier's credit exposure ("Total Exposure Amount") is based upon a fixed amount corresponding to the total default service load the supplier is obligated to serve. The maximum unsecured credit will be based on Appendix A of the uniform SMA and will be determined as the

lesser of the percentage of tangible net worth ("TNW")⁴ or the Credit Limit Cap. The credit matrix will define the maximum amounts to be used for these metrics based on the 2 3 default service supplier's average credit ratings by Standard & Poor's Rating Service, Moody's Investor Service, Inc., and/or Fitch Investor Service, Inc. 4 If a default service supplier's Total Exposure Amount exceeds the default service 5 supplier's maximum unsecured credit limit, the default service supplier will have to furnish 6 either cash or an acceptable letter of credit equal to the excess amount. The standard form 7 for the letter of credit is provided in Appendix F of the uniform SMA. 8

Are the Companies proposing any modifications to the SMA? 9 Q.

10 A. Yes.

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Q. What modifications are the Companies proposing? 11

The changes are limited to the appendices of the SMA. In Appendix C, DS Supplier A. Specifications, the DS Customer Groups were updated to reflect the new rate schedules developed for commercial customers impacted by the move to hourly pricing as discussed by Witness Kimberlie L. Bortz in her testimony in Met-Ed/Penelec/Penn Power/West Penn Statement No. 1. In Appendix D, Responsibilities for PJM Billing Line Items as Defined in Applicable PJM Agreement or Manual, the table was updated to reflect new PJM Billing Line Items that have either been approved or are pending approval by FERC, including any FERC-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009. In Appendix F, Letter of Credit Documentation, cleanup modifications have been made to remove the use of Annex 3 and Annex 5, as these two mechanisms are obsolete and are not

⁴ TNW is defined as total assets less intangible assets and total liabilities.

used. In particular, Annex 3 - Availability Certificate, is no longer used due to the fact that banks typically revise or reissue letters of credit rather than using availability certificates. Similarly, Annex 5 is no longer used due to the fact that letters of credit typically renew as a matter of course rather than requiring a manual request for and grant of extension. These edits are reflected in markup within Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-3.

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Q. Will bidders be permitted to propose additional modifications to the SMA once approved?

No. The Companies intend to treat all bidders uniformly, which requires that each bidder have the same rights and obligations under the SMA. Moreover, a standardized contract permits bidders to be selected on the sole criterion of price. The uniform SMA proposed by the Companies contains provisions that were developed as part of the working group process and are already well-understood by bidders. Additionally, the OCMO working group that developed the uniform SMA provided ample opportunity for input from the wholesale supplier community during the development process. Also, the Companies have, over time, identified various updates based on practical experience with historical auctions or through input from parties to past DSP proceedings.

V. ALTERNATIVE ENERGY PORTFOLIO STANDARDS ACT REQUIREMENTS

19 Q. What are the AEPS Act requirements for the Companies?

The AEPS Act requires the Companies and other electric distribution companies ("EDCs"), as well as EGSs, to obtain an increasing percentage of electricity sold to Pennsylvania retail customers from certain alternative energy sources, such as wind, solar energy and biomass. Compliance is measured through alternative energy credits or "AECs," which

are equal to one MWh of energy from approved "Tier I" or "Tier II" alternative energy sources. The AEPS Act also includes a solar "set-aside," which mandates that a specific portion of the Companies' Tier I requirements be satisfied through AECs derived from solar photovoltaic energy. The AEPS Act defines Tier I and Tier II alternative energy sources and the dates and percentages of supply required for compliance. The Tier I, Tier II and SPAEC percentage requirements during the proposed DSPs are more fully described in Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-4.

- Q. Are winning default service suppliers responsible for all of the AEPS Act requirements described in Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-4?
- A. Default service suppliers in the Met-Ed, Penelec and Penn Power service territories will be responsible for meeting 100% of the non-solar Tier I and Tier II AEPS Act requirements.

 Met-Ed, Penelec and Penn Power will procure all necessary solar photovoltaic requirements on behalf of default service suppliers and EGSs that serve load in their respective service areas. In the West Penn service territory, default service suppliers will be responsible for all Tier I and Tier II AEPS Act requirements (including solar photovoltaic requirements) less any Tier I AECs or SPAECs that are allocated to the default service suppliers from existing long-term purchases made by West Penn.
- 18 Q. How will the 100% of Solar Photovoltaic AEPS Act requirements described in Met19 Ed/Penelec/Penn Power/West Penn Exhibit JHC-4 be met for Met-Ed, Penelec and
 20 Penn Power?
- A. The Companies plan to continue using The Brattle Group as the independent third-party evaluator for the procurement of SPAECs. The Brattle Group has considerable expertise

⁵ 73 P.S. §§ 1648.2 and 1648.3.

in competitive energy matters and has been involved in several RFP design and management processes, including the procurement of electric power and renewable energy supplies under long-term contracts. The Brattle Group has served as the independent evaluator in past SPAEC procurements held by the Companies. Just as under their current DSPs, Met-Ed, Penelec and Penn Power will procure SPAECs for 100% of their shopping and non-shopping load. Those Companies will conduct two RFPs for two-year SPAEC products in each of March 2019 and March 2021 to procure the estimated additional SPAEC requirements for the new DSP term beginning June 1, 2019, after adjusting for the SPAECs already purchased through the 10-year SPAEC RFPs conducted under previously approved DSPs. The estimated volumes under the RFP will be determined based upon the most recent load forecast for the Companies at the time of the RFP. At the end of the 2019/2020, 2020/2021, 2021/2022 or 2022/2023 AEPS compliance period, if necessary for compliance purposes, the Companies will conduct short-term SPAEC procurements at market prices. 6 Copies of the Companies' SPAEC Request for Proposals Rules, SPAEC Purchase and Sale Agreement ("SPAECPSA") and additional applicable RFP documentation are attached as Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-5.

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Q. Are the Companies proposing any modifications to the RFP Rules, accompanying documents, or SPAECPSA?

A. Yes. The substantive changes are limited to proposed are certain edits to the SPAECPSA (specifically, within Appendix B) comparable to the edits to Appendix F of the SMA discussed earlier in this testimony. These edits are reflected in markup within Met-

⁶ In the event the Companies hold excess SPAECs at the end of a compliance period, the excess SPAECs will be banked for future compliance periods unless such SPAECs are set to expire at the end of the current compliance period. In that instance, the expiring SPAECs will be sold and revenues collected from such sales will be credited back through the Companies' Solar Photovoltaic Requirements Charge Riders.

Ed/Penelec/Penn Power/West Penn Exhibit JHC-5, Appendix 1. The bid rules and additional documentation found in Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-2 3 5 have not been modified from those approved as part of the Companies' current DSPs, except for non-substantive cleanup changes and updates. 4

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- Q. You mentioned that West Penn default service suppliers are responsible for all AEPS 5 Act requirements less any Tier I AECs or SPAECs that are allocated to the suppliers 6 from existing long-term purchases made by West Penn. Please explain. 7
 - Consistent with the Commission's Final Order approving West Penn's current default service plan at Docket No. P-2015-2511356, West Penn will continue to require each default service supplier to provide Tier I AECs and SPAECs associated with the load served by the default service supplier. However, Tier I AECs and SPAECs that West Penn procured under existing long-term contracts previously approved by the Commission will be used to reduce the number of Tier I AECs and SPAECs that those default service suppliers would otherwise be obligated to transfer to West Penn under the SMAs. These Tier I AECs and SPAECs will be allocated on a pro rata basis in accordance with the percentage of default service load served by default service suppliers, and default service suppliers will be informed through the frequently asked question feature, prior to the first auction, of the exact amount of Tier I AECs and SPAECs that will be allocated in each procurement of default service supply so that the reduction in Tier I AEC and SPAEC obligations may be factored into default service supplier bids.

- Q. Are winning default service suppliers responsible for any additional Tier I and/or
 Tier II AEPS requirements imposed prior to the effective date of the SMA?
- 3 A. Yes. Winning default service suppliers are responsible for additional Tier I and/or Tier II AEPS requirements imposed prior to the execution of the SMA. For example, Act 129 4 provides that "the commission shall at least quarterly increase the percentage share of Tier 5 I alternative energy sources required to be sold by an EDC or electric generation supplier 6 under Section 3(b)(l) of the Alternative Energy Portfolio Standards Act to reflect any new 7 biomass energy or low-impact hydropower resources that qualify as a Tier I alternative 8 9 energy source under this Section." 66 Pa.C.S. § 2814(c). Winning default service suppliers will be responsible for compliance with the Tier I percentage increases resulting from that 10 provision of Act 129. 11
- Q. Are winning default service suppliers responsible for any additional AEPS requirements resulting from legislative or administrative changes implemented following the effective date of the SMA?

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No. The Companies recognize that having winning default service suppliers bear the risk of additional future legislative or administrative changes to the AEPS requirements following the effective date of an executed SMA may cause these default service suppliers to add an additional risk premium into their bids. To alleviate this uncertainty and the risk premium associated with it, the Companies propose that the Companies themselves be responsible for any incremental AEPS compliance requirements to ensure these additional requirements are met through procurements at market prices. The costs associated with any incremental AEPS compliance requirements and/or potential penalties will be recovered from default service customers through the reconciliation process and added to the weighted average cost of default service supply.

- Q. What is the procedure the Companies will use to verify that winning default service suppliers have complied with the AEPS Act?
- The Companies will continue to only accept AECs from Tier I and Tier II sources approved 3 A. by the Commission's AEPS Program Administrator and generated through PJM 4 Environmental Information Services Inc.'s Generation Attributes Tracking System 5 ("GATS"), which the Commission has designated under the AEPS Act as the "registry" 6 for issuance of AECs. It will be incumbent on the winning default service supplier to open 7 and maintain, at its own expense, a GATS account in order to satisfy the AEPS Act 8 9 requirements. This process is currently and successfully being used for compliance with the AEPS Act requirements by the Companies. 10
- 11 Q. What happens if a portion of the default service supplier-sourced AECS are found by
 12 the Commission to be non-compliant with the AEPS Act requirements and a penalty
 13 is levied against the Companies?
- 14 A. The default service supplier that failed to acquire the necessary AECs during the
 15 compliance periods will be identified by the Companies and will be assessed a penalty.⁷
 16 Customers will not be at risk for default service supplier non-compliance.
- 17 Q. Is the Companies' plan to meet AEPS Act obligations consistent with Act 129 and the
 18 Commission's default service regulations?
- 19 A. Yes. Act 129's requirement that EDCs procure power through a competitive process also 20 applies to the Companies' procurement of SPAECs or AECs to satisfy AEPS Act

⁷ The default service supplier that failed to acquire the necessary AECs during the compliance periods will be identified by the Companies and will be assessed any alternative compliance payment or other penalty imposed by the Commission for the AEPS non-compliance.

obligations.⁸ Further, the Commission's AEPS regulations state that a default service provider "shall demonstrate compliance" with the AEPS regulations and default service regulations "by identifying a competitive procurement process for acquiring alternative energy credits" in its default service plan.⁹ The Companies propose to use competitive processes to fulfill their AEPS obligations through the default service procurement and a separate RFP for SPAECs for Met-Ed, Penelec and Penn Power, consistent with the Companies' current Commission-approved DSPs.

8 Q. Are the Companies making any other proposals relative to the procurement of short9 term market AECs?

Yes. As discussed above, if necessary for compliance purposes, the Companies conduct short-term AEC procurements at market prices to fulfill any shortfalls for compliance. This currently includes bilateral purchases from Commission-approved **AEC** providers/facilities or transactions conducted through AEC brokers. Under the proposed DSPs, the Companies will continue to address potential shortfalls through market purchases. However, the Companies are seeking continued approval for the additional ability to make market-priced sales and purchases of excess AECs produced by non-utility generators ("NUGs") which currently sell these AECs as part of their total output to Penelec under existing Commission-approved NUG contracts as they are permitted to do today under their current DSPs.

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⁸ 66 Pa.C.S. § 2807(e)(3.5).

⁹ 52 Pa. Code § 75.67(b).

Q. Why is this approval required?

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Under Docket No. P-2009-2093054, Penelec received approval to sell the output of the 2 A. NUGs, including all associated AECs, into the PJM-administered markets, the revenues 3 from which would be credited back to customers through the Company's NUG Charge 4 Rider. At the time this approval was granted, sales from Penelec to its affiliates were not 5 contemplated. However, the AECs Penelec receives from the NUGs qualify as Tier II 6 resources in Pennsylvania. The Pennsylvania Tier II AEC market historically has been and 7 continues to be significantly oversupplied. Thus, Penelec has not been able to sell all Tier 8 9 II AECs it has received from the NUGs. Meanwhile, the other Companies have been forced to separately purchase Tier II AECs from other vendors in order to meet their AEPS Act 10 obligations. The continuation of the process approved in the Companies' current DSPs 11 will allow Penelec to sell more of the Tier II AECs that it cannot otherwise dispose of, 12 thereby creating revenue for the benefit of its retail customers while helping its 13 14 Pennsylvania affiliate EDCs fulfill their own AEC shortfalls.

Q. What affiliates would be eligible to purchase these excess AECs under the Companies'proposal?

- A. Should Penelec find itself holding excess credits, Met-Ed, Penn Power or West Penn would be eligible buyers to fill their own shortfalls.
- 19 Q. How would the Companies ensure that purchases amongst one another would be conducted at market prices?
- 21 A. On the date of transaction, market quotes will be obtained from three AEC brokers through 22 their published broker sheets. The offer portion of the quote for the applicable AES product

- from the three AEC brokers would be averaged to determine a representative market price for the affiliate transaction.
- 3 Q. What happens to the money paid for any AECs purchased under this proposal?
- A. Monies received by Penelec would be returned to retail customers through Penelec's Non-Utility Generation Charge Rider in the same manner as revenues associated with such

7 VI. CONTINGENCY PLANS

AECs are today.

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- 8 Q. What default service supply contingencies do the Companies propose to address in their DSPs?
- 10 A. While not every contingency can be anticipated, the Companies have identified the 11 following possible scenarios for which contingency plans have been developed:
 - (a) The Companies' competitive solicitations for full requirements loadfollowing tranche products or SPAECs are not fully subscribed due to lack of bids or rejection of bids by the Commission; or
 - (b) A default by any of the winning suppliers prior to the start of the delivery period or at any time during the delivery period.
- 17 Q. What is the contingency plan if the Companies' competitive solicitation for full 18 requirements, load-following products is not fully subscribed due to lack of bids or 19 rejection of bids by the Commission?
- A. In the event that a scheduled solicitation is not fully subscribed following the initial proposed procurement due to a lack of bids or due to rejection of bids by the Commission, the Companies will rebid the unfilled tranches from that solicitation in the next scheduled procurement for which there is sufficient calendar time to include the tranches. For any

unfilled tranches still remaining, the Companies acting as the LSE will purchase the necessary physical supply through PJM-administered markets. The Companies' procurements will be made at real-time zonal variable market prices, plus other supply costs including capacity, NITS, ancillary services and AEPS Act compliance. The Companies will not enter into hedging transactions to attempt to mitigate the associated price or volume risks to serve these tranches. The Companies will also propose to satisfy AEPS compliance requirements for unfilled tranches at market prices. At the next quarterly rate adjustment, the Companies will include an estimate of these costs in the weighted cost of the default service supply calculation and utilize the reconciliation process to recover from default service customers the difference between the estimated and actual costs that the Companies incur as a result of purchasing the necessary supply and AEPS requirements.

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Q. What is the contingency plan if a winning bidder of a full service load-following tranche product were to default prior to the start of or during the Companies' delivery periods?

If a winning bidder defaults prior to the start of or during the delivery period, the Companies will offer the unfilled tranches to the other registered bidders who participated in the most recent solicitation. The Companies may enter into an agreement with the registered bidder or bidders offering the best terms for the unfilled tranches resulting from the default, provided the prices offered by such bidder or bidders are consistent with the original prices under which the unfilled tranches were procured adjusted for changes in market conditions from the time when the original tranches were procured. If the Companies are not able to enter into such an agreement and a minimum of thirty calendar days exists prior to the start of the delivery period, the Companies will seek to bid the

- defaulted tranches in a separate supplemental competitive solicitation. As with other unfilled tranches described above, if insufficient time exists to conduct an additional competitive solicitation, or if the supplemental solicitation is unsuccessful, the Companies will supply the tranches using PJM-administered markets with recovery and reconciliation of estimated and actual costs as described previously.
- Q. Please describe the Companies' contingency plan in case the RFP to solicit bids for SPAECS is not fully subscribed due to lack of bids or rejection of the bids by the Commission, or in the case of a winning SPAEC supplier default before or during the delivery period.
- 10 A. If any SPAEC tranches remain unfilled due to a lack of bids or rejection of bids by the
 11 Commission, or if a winning SPAEC supplier defaults before or during the delivery period,
 12 the Companies will conduct short-term procurements at market prices to ensure compliance
 13 with all solar photovoltaic AEPS requirements until such time as the Commission approves
 14 an alternative mechanism.
- 15 Q. Does this conclude your direct testimony?
- 16 A. Yes, it does.

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EDUCUCATION AND PROFESSIONAL BACKGROUND

My name is James H. Catanach and my business address is 2800 Pottsville Pike, Reading, PA 19605. I am employed by FirstEnergy Service Company ("FirstEnergy") as Manager of the Regulated Commodity Sourcing Department. This position is primarily responsible for the procurement and management of the regulated energy supply portfolio, including compliance with renewable energy / alternative energy portfolio standard requirements, that FirstEnergy's electric utilities are required to maintain as load serving entities to serve their West Virginia, Ohio, Pennsylvania, New Jersey and Maryland retail electric customers.

I am a graduate of the University of Rhode Island with a Bachelor of Science degree in Mechanical Engineering and a Masters of Business Administration from the Pennsylvania State University. I also have a Professional Engineering License in the Commonwealth of Pennsylvania. I have been employed in the energy field since 1982 with General Public Utilities and FirstEnergy. My professional experience has primarily been in the Regional Operation at FirstEnergy: Customer Service, Meter Reading, Meter Engineering, Planning and Protection, Line Design and Maintenance, Asset and Project Management, Revenue Protection, Business Office Operations. While in Operations I have held several Manager positions: Easton/Stroudsburg Line and Business Office Operations, Cleveland Electric Illuminating Engineering Department, Customer Support, Meter Reading and Engineering, and Asset Strategy. Since December 2015, I have been a Manager in the Regulated Commodity Sourcing Department.

I have prepared supporting case materials in various jurisdictions including the Pennsylvania Public Utility Commission and the New Jersey Board of Public Utilities. Such cases include but are not limited to:

State & General Description	Case / Docket #
<u>Pennsylvania</u>	
Joint Petition of Metropolitan Edison Company,	P-2015-2511333
Pennsylvania Electric Company,	P-2015-2511351
Pennsylvania Power Company	P-2015-2511355
and West Penn Power Company	P-2015-2511356
For Approval of Their Default Service Programs	
New Jersey In the Matter of the Provision of Basic Generation Service For the Period Beginning June 1, 2017	ER16040337
In the Matter of the Provision of Basic Generation Service For the Period Beginning June 1, 2018	ER17040335

Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-1

	Residential Full Requirements Tranche Procurement Schedule																		
				6/1/19	9/1/19	12/1/19	3/1/20	6/1/20	9/1/20	12/1/20	3/1/21	6/1/21	9/1/21	12/1/21	3/1/22	6/1/22	9/1/22	12/1/22	3/1/23
	Percent		Months to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
Auction Month	Load	Tranches	Delivery	8/31/19	11/30/19	2/29/20	5/31/20	8/31/20	11/30/20	2/28/21	5/31/21	8/31/21	11/30/21	2/29/22	5/31/22	8/31/22	11/30/22	2/28/23	5/31/23
Oct/Nov 2018	16.46%	13	8		12-M	onths													
OCI/140V 2018	13.92%	11	8				24-M	onths											
January 2019	17.72%	14	5		12-M	onths													
January 2015	15.19%	12	5				24-M	onths											
April 2019	20.25%	16	2		12-M	onths													
April 2015	16.46%	13	2				24-M	onths											
Oct/Nov 2019	13.92%	11	8						12-M	onths									
January 2020	15.19%	12	5						12-M	onths									
Junuary 2020	2.53%	2	5					24-Months											
April 2020	16.46%	13	2					12-Months											
April 2020	6.33%	5	2								24-M	Months							
Oct/Nov 2020	16.46%	13	8										12-M	onths					
000,000 2020	12.66%	10	8												24-M	onths			
January 2021	16.46%	13	5										12-M	onths					
54.144. y 2022	13.92%	11	5												24-M	onths			
April 2021	16.46%	13	2										12-M	onths					
April 2021	15.19%	12	2									24-Months							
Oct/Nov 2021	17.72%	14	8															onths	
January 2022	17.72%	14	5									12-Months							
April 2022	22.78%	18	2									12-Months							

						Com	mercial Fu	II Require	ments Tran	che Procu	rement Sc	hedule							
		I		6/1/19	9/1/19	12/1/19	3/1/20	6/1/20	9/1/20	12/1/20	3/1/21	6/1/21	9/1/21	12/1/21	3/1/22	6/1/22	9/1/22	12/1/22	3/1/23
Auction Month	Percent	Tranches	Months to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
Addion Month	Load	Tranciles	Delivery	8/31/19	11/30/19	2/29/20	5/31/20	8/31/20	11/30/20	2/28/21	5/31/21	8/31/21	11/30/21	2/29/22	5/31/22	8/31/22	11/30/22	2/28/23	5/31/23
Oct/Nov 2018	8.00%	4	8		12-M	onths													
Oct/1101 2010	6.00%	3	8				24-M	onths											
January 2019	14.00%	7	5		12-M	onths													
Junuary 2015	10.00%	5	5				24-M	onths											
	32.00%	16	2	3-Months															
April 2019	16.00%	8	2		12-M	onths													
	14.00%	7	2				24-M	onths											
June 2019	32.00%	16	3		3-Months														
Oct/Nov 2019	32.00%	16	2			3-Months													
Oct/1101 2015	8.00%	4	8						12-M	onths									
January 2020	32.00%	16	2				3-Months												
	8.00%	4	5						12-M	onths									
April 2020	32.00%	16	2					3-Months	Months										
April 2020	14.00%	7	2						12-M	onths									
	8.00%	4	2								24-M	onths	onths						
June 2020	32.00%	16	3						3-Months										
	32.00%	16	2							3-Months									
Oct/Nov 2020	8.00%	4	8												Months				
	6.00%	3	8												24-M	lonths			
	32.00%	16	2								3-Months								
January 2021	12.00%	6	5										12-Months						
	8.00%	4	5												24-M	lonths			
	32.00%	16	2									3-Months							
April 2021	14.00%	7	2										12-M	onths					
	12.00%	6	2												24-M	lonths			
June 2021	32.00%	16	3										3-Months						
Oct/Nov 2021	32.00%	16	2											3-Months					
OCI/NOV 2021	12.00%	6	8														12-M	onths	
January 2022	32.00%	16	2												3-Months				
January 2022	14.00%	7	5														12-M	onths	
April 2022	32.00%	16	2													3-Months			
April 2022	16.00%	8	2														12-M	onths	
June 2022	32.00%	16	3														3-Months		
Oct/Nov 2022	32.00%	16	2															3-Months	
January 2023	32.00%	16	2																3-Months

	Hourly Price Service Tranche Procurement Schedule																		
	Percent Load Tranches			6/1/19	9/1/19	12/1/19	3/1/20	6/1/20	9/1/20	12/1/20	3/1/21	6/1/21	9/1/21	12/1/21	3/1/22	6/1/22	9/1/22	12/1/22	3/1/23
Auction Month		Months to Delivery	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	
			•	8/31/19	11/30/19	2/29/20	5/31/20	8/31/20	11/30/20	2/28/21	5/31/21	8/31/21	11/30/21	2/29/22	5/31/22	8/31/22	11/30/22	2/28/23	5/31/23
January 2019	100.00%	31	5		12-M	onths													
January 2020	100.00%	31	5						12-M	onths									
January 2021	100.00%	31	5									12-Months							
January 2022	100.00%	31	5													12-Months			



Bidding Rules

For Fixed-Price and Hourly-Priced Auctions

To Procure Default Service Products

Under Default Service Program DSP-V for

Metropolitan Edison Company ("Met-Ed")

Pennsylvania Electric Company ("Penelec")

Pennsylvania Power Company ("Penn Power")

West Penn Power Company ("West Penn")

Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-2

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1. INTRODUCTION

These Bidding Rules apply to the auctions to procure Default Service products for Metropolitan Edison Company ("Met-Ed"), Pennsylvania Electric Company ("Penelec"), Pennsylvania Power Company ("Penn Power") and West Penn Power Company ("West Penn") (each of which may be referred to as a "Company", and/or in combinations as "Companies") for all of their retail customers that take retail generation service from the Companies.

Default Service products for residential and commercial customers will be procured in a separate auction ("Residential/Commercial Auction" or "Fixed-Price Auction" or "FP Auction") from the auction for industrial customers ("Industrial Auction" or "Hourly-Priced Auction" or "HP Auction"). Unless otherwise noted, these Bidding Rules apply to each auction.

Bidders need to be familiar with the Supplier Master Agreement ("SMA"), the Bidding Rules, and all other documents for the auctions, including the Part 1 Application and the Part 2 Application which apply to both auctions. Bidders should visit the Information Website regularly for up-to-date information, including information specific to each auction. The Information Website contains relevant data, the schedule and key dates for participating in the auction process, frequently asked questions, and other information.

The following documents are appended to, and shall be considered integral parts of, these Bidding Rules:

Appendix 1 Part 1 Application for Fixed-Price and Hourly-Priced Auctions to Procure Default

Service Products

Appendix 2 Part 2 Application for Fixed-Price and Hourly-Priced Auctions to Procure Default

Service Products

Appendix 3 Sample Pre-Bid Letter of Credit

Unless noted otherwise, "days" refer to business days and times refer to prevailing Eastern Time. Capitalized terms in this document, which are not defined explicitly herein, are defined in the SMA. In accordance with the SMA, "Default Service" and "DS" are equivalent (e.g., "Default Service Load" in these Bidding Rules corresponds to "DS Load" in the SMA).

Examples in these Bidding Rules are illustrative only.

These Bidding Rules may be modified from time to time by the Independent Evaluator in order to: (i) facilitate a more competitive auction process, (ii) make any necessary corrections and/or clarifications, (iii) account for any change in auction products, (iv) conform to any change in state or federal law or rule, and (v) apply any change deemed necessary at the discretion of the Independent Evaluator. All modifications will be posted to the Information Website and carried out in consultation with the Companies.

1.1 Independent Evaluator

The Independent Evaluator is CRA International, Inc. d/b/a Charles River Associates ("CRA"). The Independent Evaluator (also referred to as the Auction Manager) can be contacted by sending an email to fepaauction@crai.com. The full contact information for the Independent Evaluator is as follows:

Independent Evaluator c/o Brad Miller, Vice President CRA International, Inc. John Hancock Tower, T-9 200 Clarendon Street Boston, MA 02116-5092 Phone: 617.425.3384

fepaauction@crai.com

2. THE PRODUCTS BEING PROCURED

This section summarizes the common elements of the products to be procured in the auctions. The Information Website provides details about the products to be procured in a specific auction, including the delivery periods, the number of tranches, and the nominal MW size of the tranches.

2.1 Default Service Load

Default Service Load is each Company's aggregate requirement to serve its Default Service customers. For purposes of these Bidding Rules, a "Default Service Customer" is a retail customer of a Company taking Default Service.

2.2 Full Requirements Service

The auctions are designed to procure full requirements, load-following energy and energy-related services for Default Service Customers of the Companies.

Obligations of Default Service Suppliers include the following:

- Assume all responsibilities of a PJM Load Serving Entity ("LSE"), including all PJM administrative
 expenses and any other services or fees as required by PJM of an LSE.
- Provide for energy.
- Provide for capacity.
- Provide for ancillary services.
- Provide for transmission service, including Network Integration Transmission Service ("NITS").

Obligations of Default Service Suppliers exclude the following:

- Regional Transmission Expansion Plan charges ("RTEP");
- PJM Expansion Cost Recovery charges ("ECRC");
- Reliability Must Run / Generation Deactivation charges ("RMR") associated with generating plants for
 which specific RMR charges begin after the approval of the Companies' current Default Service Plans
 ("DSP-IV") by the Pennsylvania Public Utility Commission ("Commission"). All Suppliers will continue
 to be responsible for RMR charges associated with generating plants that began before the approval
 of DSP-III by the Commission, as those charges may change over time;
- Unaccounted for Energy; and
- Historical out of market tie line, generation and retail customer meter adjustments; or
- <u>Any Federal Energy Regulatory Commission ("FERC")-approved reallocation of PJM Regional</u> Transmission Expansion Plan charges related to Docket No. EL05-121-009.

Alternative Energy Portfolio Standards Act ("AEPS Act" or "AEPS") credits needed to meet the requirements of the Companies' Default Service Load

The obligations of Default Service Suppliers to provide Alternative Energy Credits ("AECs") under the SMA vary among the Companies.

- Default Service Suppliers in the Met-Ed, Penelec, and Penn Power service territories will be
 responsible for meeting 100 percent of the non-solar Tier I and Tier II AEPS Act requirements.
 Met-Ed, Penelec, and Penn Power will procure all necessary solar photovoltaic requirements on
 behalf of Default Service Suppliers and EGSs that serve load in their respective service areas.
- In the West Penn service territory, Default Service Suppliers will be responsible for all Tier I and Tier II AEPS Act requirements (including solar photovoltaic requirements) less any Tier I AECs or solar photovoltaic AECs ("SPAECs") that are allocated to the suppliers from existing long-term purchases made by West Penn.

The requirements of Default Service Suppliers are described more specifically in the SMA.

2.3 Tranches

Default Service Load will be divided into identical units called tranches, each representing a defined percentage of Default Service Load. For example, if there are 25 tranches for a given customer class, then each tranche equals one divided by twenty-five, or four percent of that class's load. This includes four percent (4%) of the actual hourly energy required for Default Service Load for the applicable delivery period as well as four percent (4%) of the PJM capacity requirement for the applicable delivery period.

The number of tranches intended to be procured in the auction for a product is referred to as the "tranche target" for that product. The Independent Evaluator may reduce the tranche targets if indications of interest in the auction are such that doing so is required to promote more competitive bidding.

3. PRICES PAID TO DEFAULT SERVICE SUPPLIERS

This section summarizes the components of the prices to be paid to Default Service Suppliers. The SMA takes precedent over the summary provided here.

3.1 Prices Paid to Winning Suppliers in the Fixed-Price Auction

In accordance with the SMA, the Default Service Suppliers from the Fixed-Price Auction for residential customer load and for commercial customer load will be paid a price comprising a fixed price component only.

 The <u>residential and commercial fixed price component</u> will be equal to 100 percent (100%) of the delivered supply each hour multiplied by the price established through the Companies' competitive procurement process.

3.2 Prices Paid to Winning Suppliers in the Hourly-Priced Auction

In accordance with the SMA, the Default Service Suppliers from the Hourly-Priced Auction will be paid a price comprising a fixed price component and a variable price component.

- The <u>fixed price component</u> will be equal to 100 percent (100%) of the delivered supply each hour multiplied by the price established through the Companies' competitive procurement process.
- The <u>variable price component</u> will be equal to 100 percent (100%) of the delivered supply each hour multiplied by a "spot price." The "spot price" will be equal to the sum of:
 - (a) The real time hourly total LMP established by PJM for the PJM delivery point of the applicable Company, plus
 - (b) An adder of \$4/MWh. This adder is designed to capture an estimate of costs of other supply components associated with meeting the full-requirements obligation, including capacity, ancillary services, NITS, AEPS compliance, and other costs.

4. PRIOR TO THE START OF BIDDING

4.1 Information Provided to Bidders

The Companies will make available certain information to suppliers in advance of qualification. This information will be posted on the Information Website.

4.1.1 Data

Load and other data that are posted to the Information Website are described in a data description document on the Information Website.

4.1.2 Minimum and Maximum Starting Prices

The Independent Evaluator will announce a minimum starting price and a maximum starting price for each product in the auction. The minimum and maximum starting prices establish the range for the possible round 1 prices for the auction.

4.1.3 Tranche Size, Tranche Targets

No later than eight (8) days prior to the Part 1 Application Due Date, the Independent Evaluator will announce for each product in the auction:

- The tranche targets or the number of tranches being procured for each product.
- The size (%) and MW-measure of the tranches in the auction.

No later than four (4) days prior to the Part 2 Application Due Date, the Independent Evaluator will announce:

Any update to the MW-measure of the tranches in the auction.

4.2 Qualification Process

There are two parts to the bidder application and qualification process. In Part 1, prospective bidders apply to become Qualified Bidders. In Part 2, each Qualified Bidder provides certifications and its indicative offer and pre-bid security in order to become a Registered Bidder.

A prospective bidder is required to submit a new Part 1 Application before the first auction in a calendar year in which it would like to participate.

If a prospective bidder submits a successful Part 1 Application for an upcoming auction, in general the Qualified Bidder will not need to submit a new Part 1 Application for any subsequent auction that is held in the same calendar year as the upcoming auction. For example, if the prospective bidder submits a successful Part 1 Application and becomes a Qualified Bidder for an auction held in January, the Qualified Bidder generally would not need to submit a Part 1 Application prior to any other auctions held in the same calendar year. However, the Qualified Bidder will need to submit a new Part 1 Application if the information in the prior successful Part 1 Application has changed. Also, the Qualified Bidder is required to submit its most recent (e.g., quarterly) financial statements before each auction.

A Qualified Bidder is required to submit a new Part 2 Application before each auction it would like to participate in.

4.2.1 Part 1 Application: Certifications and Other Qualified Bidder Requirements

In the Part 1 Application process, prospective bidders will be required to:

- Submit an application from a person with the power to bind the bidder.
- Agree to comply with all rules of the auction.
- Agree that if they become winning bidders, they will execute the applicable SMA with the Companies within 3 business days following the date of the Commission's approval of the auction results.
- Show either that they are a PJM Market Participant and Load Serving Entity in PJM, or that there
 exist no impediments to them becoming a PJM Market Participant and Load Serving Entity in PJM by
 the start of the applicable delivery period.
- Agree that if they become winning bidders, they will comply with the creditworthiness requirements set forth in the SMA.
- Certify that if they qualify to participate, they will not disclose information regarding the list of Qualified Bidders or confidential information that may be obtained during the bidding process about Qualified Bidders.
- Certify that if they qualify to participate, they will not substitute another entity in their place, transfer their rights to another entity, or otherwise assign their status as Qualified Bidders to another entity.

Part 1 Applications must be submitted to the Independent Evaluator no later than 12:00 p.m. noon prevailing Eastern Time on the Part 1 Application Due Date. Prospective bidders will be notified by the Independent Evaluator no later than three (3) days after the Part 1 Application Due Date whether they succeeded in becoming Qualified Bidders.

A prospective bidder that has qualified during the Part 1 Application process becomes a Qualified Bidder. The Independent Evaluator will send a list of all Qualified Bidders to relevant parties that have undertaken to maintain the confidentiality of the list of Qualified Bidders. The relevant parties that will receive this list of Qualified Bidders are as follows:

- Each Qualified Bidder.
- Other parties as necessary to oversee the proper conduct of the auction, including representatives from the Companies and Commission Staff.

All parties receiving a list of Qualified Bidders will be subject to the confidentiality requirements as specified below and in the section, "Communications Protocols," in these Bidding Rules.

4.2.2 Part 2 Application: Certifications, Indicative Offer, and Pre-Bid Security

For each auction, a Qualified Bidder must successfully complete the Part 2 Application process in order to become a Registered Bidder that can bid in the auction. Only Qualified Bidders may submit a Part 2 Application.

Part 2 Applications must be submitted to the Independent Evaluator no later than 12:00 p.m. noon prevailing Eastern Time on the Part 2 Application Due Date. Qualified Bidders will be notified by the Independent Evaluator whether they succeeded in the Part 2 Application process no later than three (3) days after the Part 2 Application Due Date.

Certifications

In the Part 2 Application, each Qualified Bidder will make a number of certifications to ensure the confidentiality of information regarding the auction, and in regards to associations with other Qualified Bidders, to ensure that they are participating independently of other Qualified Bidders. More details on the certifications can be found in the section, "Confidential Information, Certifications, and Sanctions," later in this document.

The competitiveness of the auction and the ability of the auction to produce competitive prices may be harmed by the coordinated or collusive behavior that associations among bidders may facilitate. As the Independent Evaluator relies on a number of factors to assess and promote competitive bidding, including the number of independent competitors, providing inaccurate information or insufficient disclosure of associations in the Part 2 Application is prohibited. More details on rules and protocols for participation by associated bidders can be found in the section, "Bidder Associations," later in this document.

Indicative Offers

With its Part 2 Application, a Qualified Bidder will be required to submit indicative offers and to post prebid security sufficient for their indicative offers. A Qualified Bidder provides two indicative offers for each auction that the Qualified Bidder is applying to participate in: one indicative offer at the minimum starting prices for the products in the auction, and one indicative offer at the maximum starting prices for the products in the auction. An indicative offer specifies for each product in the auction the number of tranches that the Qualified Bidder is willing to serve for that product. Thus, the indicative offer at the minimum starting prices in the auction specifies the number of tranches that the Qualified Bidder is willing to serve for each product in the auction at the minimum starting price for the product. The indicative offer at the maximum starting prices in the auction at the maximum starting price for the product. For each product in the auction, the number of tranches specified in the indicative offer at the minimum starting price cannot exceed the number of tranches specified in the indicative offer at the maximum starting price.

Indicative offers are important in two respects. First, the Independent Evaluator may use the indicative offers to inform the setting of the starting price for each product (i.e., round 1 announced price). Second, the total number of tranches in the Qualified Bidder's indicative offer at the maximum starting prices is used to determine the Qualified Bidder's initial eligibility (i.e., the maximum total number of tranches the Qualified Bidder can bid across all products in round 1 of the auction): the Qualified Bidder's initial eligibility is set to the total number of tranches across all products in the Qualified Bidder's indicative offer at the maximum starting prices. During the auction, bidders are free to switch their tranches among products in response to changes in announced prices (subject to any bidding restrictions). However, a bidder will never be able to bid a total number of tranches across products that exceeds the bidder's initial eligibility. Thus, the number of tranches for each product in the Qualified Bidder's indicative offer at the maximum starting prices does not limit the number of tranches the Qualified Bidder can bid on a particular product, but the total number of tranches across all products in the indicative offer at the maximum starting prices must be equal to the Qualified Bidder's desired initial eligibility across all products in the auction.

Restrictions on the Indicative Offer

Each Qualified Bidder will be subject to a load cap that limits the number of tranches the bidder can bid on and win. Thus, the Qualified Bidder's indicative offer at the maximum starting prices across all products in the auction is not allowed to exceed the load cap. The load cap will be 75 percent on an aggregated load basis across all products in each auction such that no bidder may bid on and win more tranches than the load cap. The load cap will be implemented by ensuring that each bidder's initial eligibility does not exceed the load cap in an auction.

Pre-Bid Security

Each Qualified Bidder must post pre-bid security sufficient for its indicative offer at the maximum starting prices. Each Qualified Bidder must post pre-bid security in an amount specified in the Part 2 Application for all products included in the bidder's indicative offer at the maximum starting prices. Either cash or a pre-bid letter of credit will be accepted as pre-bid security. Interest will not be paid on cash posted as pre-bid security. The standard form of the pre-bid letter of credit that is acceptable to the Companies will be posted to the Information Website.

If a draft pre-bid letter of credit submitted by the prospective bidder with the Part 1 Application does not conform to the standard form, the prospective bidder shall indicate clearly any and all modifications in electronic, redlined format from the standard form. The Companies will assess, in their sole and exclusive discretion, whether such modifications are acceptable. Modifications that are accepted by the Companies will be posted on the Website. Subsequently in its Part 2 Application, a Qualified Bidder must provide the required executed pre-bid letter of credit that either is the standard form or is the version that incorporates only those modifications to the standard form accepted by the Companies upon review of the bidder's Part 1 Application.

The following is an example calculation of the pre-bid security.

Example 1. Pre-Bid Security

A Qualified Bidder submits an indicative offer of 5 tranches for the Met-Ed 24-month residential product at the minimum starting price and 10 tranches for the Met-Ed 24-month residential product at the maximum starting price, 3 tranches for the Penelec 12-month residential product at the minimum starting price and 6 tranches for the Penelec 12-month residential product at the maximum starting price, and 2 tranches for the Penn Power 3-month commercial product at the minimum starting price and 4 tranches for the Penn Power 12-month commercial product at the maximum starting price. The Qualified Bidder must submit with this indicative offer of 20 tranches at the maximum starting prices cash or a pre-bid letter of credit of \$250,000 per tranche (as specified in the Part 2 Application). The Qualified Bidder thus posts cash or a pre-bid letter of credit of \$5 million (20 tranches X \$250,000 per tranche).

For a Part 2 Application to be accepted, it must be complete and include the Qualified Bidder's indicative offers and pre-bid security (either a pre-bid letter of credit or cash). After its Part 2 Application is accepted, a Qualified Bidder becomes a Registered Bidder. The Independent Evaluator will send each Registered Bidder a summary of its indicative offers, pre-bid security amount, and the Registered Bidder's initial eligibility.

The Independent Evaluator also will send simultaneously to each Registered Bidder, and to those other parties as necessary to oversee the proper conduct of the auction, a list of Registered Bidders, and the total initial eligibility aggregated across all Registered Bidders. The list of Registered Bidders and the total initial eligibility will not be released publicly. Qualified Bidders, in their Part 2 Applications, will have undertaken to maintain the confidentiality of the list of Registered Bidders and the total initial eligibility, and to destroy documents including electronic files with this information provided by the Independent

Evaluator within five (5) days following the conclusion of the auction, as explained further in the Part 2 Application.

Pre-bid security will remain in full force, at a minimum, until the fifth calendar day after the conclusion of the auction. Subsequently, a bidder's pre-bid security will be cancelled and returned:

- As soon as practicable if the bidder has won no tranches.
- After the bidder has signed the SMA and has complied with all creditworthiness requirements of the SMA for the tranches that it has won.

The Companies can collect on the pre-bid security of bidders that win tranches but that fail to sign the SMA or fail to comply with the creditworthiness requirements immediately following the close of the auction.

4.2.3 Sanctions for Failing to Comply with the Part 1 and Part 2 Applications

Sanctions can be imposed on a bidder for failing to disclose information relevant to determining associations, for coordinating with another bidder, or for failing to abide by any of the certifications that it will have made in its Part 1 and Part 2 Applications. Such sanctions can include, but are not limited to, termination of the SMA, loss of all rights to provide supply for the Companies to serve any load won by such bidder, forfeiture of financial guarantees and other fees posted or paid, prosecution under applicable state and federal laws, debarment from participation in future solicitations, and other sanctions that may be appropriate. For any failure to disclose information or for any violation of the certifications, the Independent Evaluator will make a recommendation on a possible sanction.

4.3 Starting Prices (Round 1 Prices)

No later than three (3) days before bidding starts for an auction, the Independent Evaluator will inform all Registered Bidders of the starting price for each product in the auction, which is the announced price that will be in effect for round 1. For each product, the starting price will be no higher than the maximum starting price and no lower than the minimum starting price for the product. The Independent Evaluator will set the starting prices.

4.4 Extraordinary Events

The Independent Evaluator, in consultation with the Companies, may determine that, due to extraordinary events, the minimum starting prices and the maximum starting prices require revision. In this event, the schedule for the auction process also may be revised. If the indicative offers have already been received, the Independent Evaluator will request that the Registered Bidders (or the Qualified Bidders if the Part 2 Application process had not been completed) revise their indicative offers on the basis of the revised minimum starting prices and the revised maximum starting prices.

For such a revision to be necessary, an extraordinary event must occur between the time at which the minimum starting prices and the maximum starting prices are announced and the day on which bidding starts. An extraordinary event must be agreed to by the Companies and the Independent Evaluator. Such events could include, but are not limited to, the advent of war, the disruption of a major supply source for potentially extended periods, or other events that could affect significantly the cost of supply.

If an extraordinary event occurs during that time, the Independent Evaluator in consultation with the Companies will determine revised minimum starting prices and revised maximum starting prices. New indicative offers based on these prices will be required from bidders. To the extent practicable, the determination of new minimum and maximum starting prices, the submission of new indicative offers, and if necessary the announcement of new starting prices, will be carried out so as to afford bidders sufficient time. If an extraordinary event occurs during that time that causes a possible change in the schedule, the Independent Evaluator in consultation with the Companies and Commission Staff, will determine a revised schedule.

5. BIDDING FORMAT

In order to participate in the auction, bidders must have been successful in the Part 1 Application process and the Part 2 Application process. Only Registered Bidders are permitted to participate in the auction. Registered Bidders will bid in the auction by accessing the Independent Evaluator's secure Bidding Website.

5.1 Descending-Price Clock Format

The auction format is a simultaneous, multiple-round, descending-price clock format for "N" rounds. The number of rounds "N" for the auction is not pre-determined. Instead, it is determined by the closing rule for the auction (described below). All products are available to bid on simultaneously in the auction. Bids are submitted during bidding rounds. Prices are announced for the products prior to each bidding round, and during a bidding round, a bidder submits for each product the number of tranches it would supply at the product's announced price. If the total number of tranches bid on a product exceeds the product's tranche target — i.e., the product is over-subscribed — the announced price for the product will be reduced for the next round. Announced prices will tend to decline round by round until the number of tranches bid falls sufficiently so that no product is over-subscribed and the auction closes.

An important rule is that a bidder cannot reduce the number of tranches it bids on a product if the product's announced price does not fall from one round to the next; in this case, the bidder can only maintain or increase the number of tranches it bids on the product (subject to other rules).

5.1.1 Rounds

Each bidding round has a specified start time and a specified end time. These start and end times are enforced by the Bidding Website. Prior to the start of the auction, the initial schedule of rounds will be available on the Bidding Website. As the auction progresses, the Independent Evaluator will keep bidders informed of the start and end times of subsequent rounds through the Bidding Website. The Independent Evaluator retains the option of pausing a round, delaying the start or end of a round, or otherwise adjusting the round times. The Independent Evaluator will inform bidders through the Bidding Website if it exercises this discretion to change the start time or end time of a round.

Bidders submit bids only during a round. When a round ends, the bids submitted during that round are processed and results of that round are reported to all bidders as explained in the section "Reporting Round Results" below. Each bidder then prepares to submit a bid for the next round if the auction remains open.

5.1.2 The Announced Prices and a Bid

Prior to the start of each round, the Independent Evaluator announces the price that will be in effect for each product for the round. The announced prices are specified in dollars per MWh or \$/MWh. The price announced by the Independent Evaluator for a product applies to all of the product's tranches. Each bidder decides how many tranches it is willing and able to supply for each product at the product's announced price. A bid by a bidder is, for each product, the number of tranches that the bidder is willing to supply at that announced price for the product. All bids are irrevocable and binding upon the bidders.

At sufficiently high announced prices there will be excess supply for a product causing it to be oversubscribed; that is, the number of tranches bid on the product will exceed the product's tranche target. Excess supply for a product is measured as the total number of tranches bid across all bidders on the product in the round minus the product's tranche target.

5.1.3 Reservation Prices and Starting Prices

There are reservation prices for the auction. The reservation price for a product is the price above which tranches for the product will not be purchased. If, at the conclusion of the auction, the reservation price for a product has not been met, no tranches for that product will be awarded. At the conclusion of the auction, the Independent Evaluator will inform bidders through the Bidding Website if the reservation price for a product has not been met.

Starting prices for the auction are determined after reservation prices are determined. The starting price for a product will be no lower than the reservation price for the product. The starting price may be the same as or higher than the reservation price for the product. The Independent Evaluator will not announce the reservation prices to bidders in advance of an auction.

5.1.4 Restrictions on What a Bidder Can Bid

The total number of tranches a bidder bids across all products in a round cannot exceed the bidder's eligibility for that round. That is, a bidder's eligibility to bid in a round is the maximum number of tranches it is allowed to bid across all products in that round. A bidder's eligibility for a round simply is the number of tranches the bidder bid across all products in the preceding round. Thus, a bidder cannot increase its eligibility from round to round; its eligibility can only stay the same or decrease from round to round.

A bidder is not allowed to bid more tranches on a product in a round than the product's tranche target.

A bidder is not allowed to bid a number of tranches that would violate any applicable load cap.

If the announced price for a product has been reduced from one round to the next round, the bidder can reduce the number of tranches it bid on that product.

If the announced price for a product has not been reduced from one round to the next round, the bidder cannot reduce the number of tranches it bid on that product.

Subject to the rules above, in each round a bidder is free to bid its tranches of eligibility across products however it would like to. Thus, subject to the rules above, bidders are free to reduce the tranches they bid and/or to switch tranches across products from round to round in response to changes in the announced prices for the products.

As discussed above, a bidder's initial eligibility is its eligibility for round 1 of the auction and is determined by the total number of tranches across products at the maximum starting prices in the bidder's indicative offer. During the course of the auction, the bidder's eligibility will decline or remain unchanged depending on the total number of tranches bid by the bidder across all products in each round of the auction.

If a bidder's eligibility falls to zero tranches, it will not be allowed to bid in any more rounds of the auction.

5.1.5 Multiple Bids by a Bidder

Because a bidder may decide to change a bid it submitted previously within the current open round, a bidder is allowed to make multiple bid submissions in a round as long as the round remains open for bidding, with each new confirmed bid fully replacing any prior bids it submitted in the round. If a bidder submits multiple bids in a round, the only bid considered in the round for that bidder is the last confirmed bid it submitted in the round.

5.1.6 Default Bid

After the end of a round, a default bid is submitted automatically on behalf of a bidder if the bidder:

- Entered the round with positive eligibility, and
- Did not submit a confirmed bid in the round.

If the announced price for a product declined from the prior round, then zero tranches will be the default bid for that product.

If the announced priced for a product did not decline from the prior round, then the number of tranches that the bidder bid on the product in the prior round as determined by the end-of-round ("EOR") procedure following the prior round will be the default bid for the product.

Each bidder is solely responsible for ensuring it submits a confirmed bid prior to the end of the round in order to avoid a default bid of being submitted on the bidder's behalf.

5.1.7 The EOR Procedure

At the end of each round, the EOR procedure is used to process the confirmed bids submitted during the round. The EOR procedure includes the following steps.

- (a) The supply for each product is measured by summing up across the confirmed bids for all bidders the number of tranches bid for each product.
- (b) The subscription level for each product is measured by comparing the supply for the product to the tranche target for the product. A product is over-subscribed, subscribed, or under-subscribed if supply (i.e., the number of tranches bid) is greater than, equal to, or less than the product's tranche target, respectively.
- (c) If a product has become under-subscribed in a round after being over-subscribed or subscribed in the preceding round, then tranches will be rolled back to the point that the product is subscribed. That is, at least some of the tranches that were bid on the product in the preceding round but that were not bid on the product this round will be deemed to still be bid on the product. The price at which a rolledback tranche is deemed to have been bid simply is the announced price at which the bidder had bid the tranche. There is a priority for selecting tranches to roll back: tranches that otherwise would no longer be bid on any product in the auction and therefore would be reductions in bidders' eligibilities are rolled back first (referred to as "eligibility reduction tranches"), and then if needed, tranches that were switched from being bid on the product to being bid on another product are selected next for rollbacks (referred to as "switched tranches"). Eligibility reduction tranches are selected for rollback proportionally tranche by tranche, not bidder by bidder. Likewise, switched tranches are selected for rollback proportionally tranche by tranche, not bidder by bidder. More precisely, because integer tranches are needed, the actual selection mechanism uses a random number generator to select rollbacks tranche by tranche (first for eligibility reduction tranches and then for switched tranches), but on average the selection process results in proportional rollbacks (with priority given to rolling back eligibility reduction tranches first and then switched tranches second). All tranches that are rolled back maintain their eligibility for the bidder. Any bidder subjected to a rollback will be notified through the Bidding Website that a rollback has taken place and will be informed about the number of tranches deemed bid on each product and the price at which those tranches have been deemed bid.

For example, suppose a bidder bids five tranches on a product and no tranches on other products in round 8, and the price for that product is reduced for round 9 and the bidder bids only 1 tranche on the product and no tranches on other products for round 9. Absent any EOR rollbacks following round 9, the bidder's eligibility would fall from 5 tranches to 1 tranche. But during the EOR procedure, suppose two of the bidder's 4 "eligibility reduction tranches" are rolled back on the product, so after the EOR procedure the bidder is deemed to have bid 3 tranches on the product — one at the announced price of the round just ended and two at the announced price of the preceding round — and therefore the bidder is deemed to have 3 tranches of eligibility for round 10.

- (d) "Free eligibility tranches" are determined as follows. A product's "bid stack" is a list of the tranches currently deemed bid on the product and the price at which each tranche was bid for the product. Because of rollbacks, a product's bid stack could have tranches bid at two different prices: some tranches bid at the earlier, higher announced price and some tranches bid at the current, lower announced price. Any new tranche bid on such a product necessarily will be bid at the current, lower announced price. This new tranche will displace a tranche in the product's bid stack at the earlier, higher announced price. The displaced tranche becomes a "free eligibility tranche". The free eligibility tranche counts as eligibility for the bidder and the bidder can bid the tranche on any product next round, or the bidder can choose not to bid the tranche at all. But if the bidder does not bid the free eligibility tranche next round, the tranche will be withdrawn from the auction permanently and will reduce the bidder's eligibility by one tranche after the next round.
- (e) In some cases, the Independent Evaluator may reduce the tranche targets. The criteria that could lead to such a reduction will be determined prior to the auction but will not be announced to bidders. Once certain pre-specified criteria related to excess supply and related to the reservation price have been met, the discretion to reduce a product's tranche target because of insufficient supply will be eliminated. Thus, any tranche target reduction would more likely occur in the earlier rounds of the auction. If the Independent Evaluator reduces the tranche target for a product, bidders will be informed of the revised tranche target. Any bidder that otherwise would have eligibility exceeding the new tranche targets will have its eligibility reduced so as not to exceed the new tranche targets.
- (f) The closing rule determines whether the auction has concluded. The closing rules is that the auction concludes if either case (1) or case (2) holds as follows:
 - (1) If no product is over-subscribed and no bidder has free eligibility tranches, then the auction has concluded. Note that it is possible for the auction to continue with no reductions in announced prices: if no product is over-subscribed there will be no reductions in announced prices but if there are free eligibility tranches (which "expire" after one round), the auction will remain open for one more round (subject to case (2) described next), allowing bidders with free eligibility to bid those tranches.
 - (2) If this is the Nth consecutive round in which no product is over-subscribed, and the number of tranches of free eligibility across all bidders as a percentage of the sum of the tranche targets across all products is less than or equal to X percent, then the auction has concluded. The parameter values for N and X will be determined before the auction. The likelihood that this case (2) would occur in a particular auction is expected to be low.
- (g) If the auction has concluded, the winning tranches, winning bidders, and winning prices are determined as described below.
- (h) If the auction has not concluded, then each bidder's eligibility is determined for the next round and the price decrement (if any) is determined for each product for the next round.

5.1.8 Price Decrements

The announced prices will decrease round by round by a price decrement for over-subscribed products. Pre-specified price guidelines are used to determine the price decrements. Generally the price decrement for a product will be larger for the earlier rounds in the auction and when the excess supply for the product is greater. The price decrement is expected to be between 0.5 percent and 5 percent of the announced price for the most recently completed round.

The Independent Evaluator reserves the right to override the price decrement guidelines. The exercise of that right is expected to occur rarely and only if doing so is believed to facilitate timely progression of the bidding process.

5.2 Determination of Winning Tranches, Winning Bidders, and Winning Prices

At the close of the auction, the winning tranches, winning bidders, and winning prices will be determined as follows.

As a result of the EOR procedure as described above, there are two possible scenarios for a product at the close of the auction.

5.2.1 Bid Stack for a Product has All Tranches at the Same Price

In this scenario, there are no rolled-back tranches in the product's bid stack: all tranches in the bid stack were bid at the last announced price, including any tranches bid on the product in the last round of the auction as determined by the EOR procedure. That announced price is the product's clearing price, and all tranches in the product's bid stack are winning tranches if the clearing price satisfies the product's reservation price. Bidders who bid those tranches are winning bidders for those tranches, and all bidders with winning tranches on a product are paid the same price — i.e., the clearing price — for each winning tranche on the product. Note that this scenario includes the case in which a product was over-subscribed at some point in the auction and later became subscribed, as well as the case in which a product was always under-subscribed in the auction (i.e., it was never subscribed or over-subscribed in the auction).

5.2.2 Bid Stack for a Product has Tranches at Two Different Prices

In this scenario, there are rolled-back tranches in the product's bid stack: some tranches in the bid stack were bid at the last announced price (including any tranches bid on the product in the last round of the auction as determined by the EOR procedure), and some tranches in the bid stack were bid at the next most recent announced price. In this case, the product's clearing price is the next most recent announced price — which necessarily is higher than the last announced price for the product. All tranches in the product's bid stack are winning tranches if the clearing price satisfies the product's reservation price. Bidders who bid those tranches are winning bidders for those tranches, and all bidders with winning tranches on a product are paid the same price — i.e., the clearing price — for each winning tranche on the product.

5.3 Example of Round-by-Round Bidding

Appendix A provides an illustrative example of round-by-round bidding.

5.4 Reporting Round Results

During a round, a bidder can see the current status of the auction and the status of the current round including the announced price for each product as well as the bidder's own bidding status. A bidder will not see information about other bidders.

Between rounds the Bidding Website will report the results for the most recently completed round. Results for all prior rounds also will be accessible. The round results for each completed round in the auction will show:

- The announced price for each product and a range of total supply across all bidders and all products (that is, a range that includes the total number of tranches bid). The range of total supply will be defined by two different integers. Actual total supply will not be reported but will be at least as high as the lower of the two integers and no higher than the higher of the two integers. There is an exception to reporting total supply as a range of two integers: if and when total supply has declined below a pre-determined level, total supply will be reported simply as being below that level. The reporting ranges will be made available to bidders in advance of each auction.
- For each bidder, that bidder's bid for the round i.e., the number of tranches bid on each product —
 and the bidder's eligibility for the next round. (Each bidder does not see information about other
 bidders.)
- The announced price for each product for the next round if the auction will continue with the next round.

5.5 Frequency of Rounds

The early rounds of bidding may be longer in duration than later rounds. The duration of a bidding round will be at least five (5) minutes.

The time between early rounds of bidding may be longer in duration than for later rounds. The time between bidding rounds will be at least five (5) minutes.

The schedule of rounds and any changes to the schedule will be made available to bidders through the Bidding Website.

5.6 Auction Pause Declared by Independent Evaluator

At any time during the auction, the Independent Evaluator may decide to pause the auction. This is not expected to happen often if at all. If the Independent Evaluator pauses the auction or changes the round schedule in any way, bidders will be notified.

6. AFTER THE AUCTION CLOSES

6.1 Notification of Results

At the close of the auction, the Independent Evaluator will notify the Companies, the Commission, and the bidders as follows.

- The Independent Evaluator will notify the Companies and the Commission of the identities of the
 winning bidders, the number of tranches won by each winning bidder, the prices for the tranches won,
 and other aggregated information on the bidding process.
- The Independent Evaluator will notify each winning bidder of how many tranches the bidder has won and at what prices. The Independent Evaluator also will notify the unsuccessful bidders that they have not won any tranches.

The names of the winning bidders, the number of tranches won by each bidder, and the winning prices will remain confidential until released publicly by the Commission or as required by law.

The auction results are tentative subject to Commission approval.

After the conclusion of the auction and provision of the auction results to the Commission by the Independent Evaluator, the Commission will have one business day to approve or reject the auction results.

6.2 Execution of SMA

The winning bidders and the Companies will execute the SMA within three (3) business days following the Commission's approval of the auction results. Each winning bidder must demonstrate compliance with the creditworthiness requirements set forth in the SMA.

6.3 Sanctions for Failure to Execute the SMA

A winning bidder's pre-bid security posted with its Part 2 Application may be forfeited if the winning bidder does not execute the SMA within three (3) business days following the Commission's approval of the auction result, if it fails to demonstrate compliance with the creditworthiness requirements set forth in the SMA, or if it fails to agree to any of the terms of the SMA. In addition, the winning bidder will be liable for damages incurred by the Companies, which will be determined in accordance with the terms of the SMA as though the winning bidder were a defaulting party to the SMA.

7. USE OF THE BIDDING WEBSITE

Bidders will bid in the auction by accessing the Independent Evaluator's secure Bidding Website. A bidder will access the Bidding Website using their own Web browser. The URL address for the Bidding Website, as well as usernames and passwords, will be provided to Registered Bidders prior to the start of the auction.

The Bidding Website allows a Registered Bidder to submit and confirm bids, to verify its status, to view results from prior rounds, to view the schedule of rounds, and to view messages from the Independent Evaluator.

7.1 Importance of Confirmed Bids

Submitting a bid on the Bidding Website involves three steps:

- (1) Web page for entry and submission of the bid quantities. The bidder enters its desired bid and then submits the bid in order to proceed to the next step.
- (2) Web page for validation of the bid. The bidder is asked to review the bid it submitted in the first step before proceeding to the confirmation step.
- (3) Web page showing confirmation of the bid. The bidder receives a unique confirmation ID for the bid and the time-stamp at which the bid was recorded by the Bidding Website server.

It is important to note that a bid is not accepted and recorded as an accepted bid until and unless the bidder reaches the third step in which the bid confirmation Web page displays the unique confirmation ID and time-stamp for the bid.

7.2 Requirements for Using the Bidding Website

Access to the Bidding Website requires all of the following:

- Username and password provided by the Independent Evaluator.
- Access to the Internet.
- Use of one of the more recent versions of a standard Web browser.
- Status as a Registered Bidder.

A bidder loses access to the Bidding Website after it no longer is possible for the bidder to win tranches in the auction.

7.3 Messaging

The Bidding Website displays messages from the Independent Evaluator. These messages from the Independent Evaluator are displayed for all bidders with access to the Bidding Website.

8. BACKUP BIDDING PROCEDURE

In case a bidder has technical difficulties, and as a result is not able to submit a bid via the Bidding Website in a round, a backup bidding procedure will be provided as follows. The bidder uses the Backup Bidding Fax Number to submit its bid via facsimile. It is recommended that the bidder call the Help Desk and inform the operator that it has submitted a bid using the backup bidding procedure. Reasonable efforts will be made to contact the bidder if the backup bid is not received via facsimile in the time expected. Once the backup bid is received via facsimile, a member of the Independent Evaluator team will attempt to enter the bid on the Bidding Website on behalf of the bidder.

Prior to the auction, bidders will be provided with the Backup Bidding Fax Number and with forms to use for faxing a bid using the backup bidding procedure.

Bidders must be aware and understand that there is no guarantee or other assurance that if it submits a bid using the backup bidding procedure that its bid will be submitted and confirmed on its behalf by the Independent Evaluator team consistent with the intentions of the bidder and in time before the round ends.

If a backup bid submitted by a bidder is not accepted and confirmed by the Bidding Website because the round has ended, a default bid will be entered for the bidder as described above in the sections on default bids.

If a backup bid submitted by a bidder is not accepted and confirmed by the Bidding Website for other reasons (e.g., the number of tranches bid is greater than a bidder's eligibility or violates the bidder's credit-based tranche limit or applicable load cap), the Independent Evaluator team will use reasonable efforts to inform the bidder that a new bid must be submitted.

If a backup bid submitted by a bidder is confirmed by the Bidding Website, the Independent Evaluator team will contact the bidder by faxing confirmation of the accepted bid to the bidder.

Bidders use the backup bidding procedure at their own risk. In all cases involving backup bids, the Independent Evaluator team does not accept any responsibility, obligation, or liability for errors, omissions, timeliness, or otherwise, related to whether a backup bid is entered into and confirmed by the Bidding Website on behalf of the bidder or as intended by the bidder.

9. WHO TO CONTACT IN CASE OF PROBLEMS DURING THE AUCTION

A bidder should contact the Help Desk if it has questions or problems. The phone number for the Help Desk will be provided to bidders prior to the start of the auction.

10. CONTINGENCY PLAN

There is a contingency plan to cover two scenarios:

- At least one of the products in an auction is not fully subscribed.
- At least one of the winning suppliers defaults prior to the start of the delivery period or at any time during the delivery period.

10.1 If an Auction is Not Fully Subscribed

In the event that an auction is not fully subscribed, the Companies will re-bid the unfilled tranches from that auction provided the start of the delivery period for the tranches is more than 30 calendar days away. If the delivery period is more than 30 calendar days away:

- The unfilled tranches will be re-bid in the next scheduled auction if there is sufficient calendar time
 to include the unfilled tranches where supply is sought with the same delivery start date as the
 unfilled tranches.
- If there is no such scheduled auction, then the unfilled tranches will be re-bid in a separate solicitation no later than 30 calendar days before the original delivery start date.

For any remaining unfilled tranches, the Companies will purchase the necessary physical supply through PJM administered markets and meet any AEPS compliance requirements through purchases at market prices.

10.2 If a Winning Bidder Defaults

If a winning bidder defaults prior to the start of or during the delivery period, the Companies will offer the unfilled tranches to the other Registered Bidders who participated in the most recent solicitation. The Companies will enter into an agreement with the Registered Bidder or Bidders offering the best terms for the unfilled tranches resulting from the default, provided the prices offered by such bidder or bidders are consistent with the original prices under which the unfilled tranches were procured and changes in market conditions from the time when the original tranches were procured. If the Companies are not able to enter into such agreement and a minimum of 30 calendar days exists prior to the start of the delivery period, the Companies will seek to bid the defaulted tranches in the next scheduled solicitation for supply with the same start date as the unfilled tranches or in a separate supplemental competitive solicitation. As with other unfilled tranches described above, if insufficient time exists to conduct an additional competitive solicitation, or if the supplemental solicitation is unsuccessful, the Companies will supply the tranches using PJM-administered markets. In addition to damages to which the Companies may be entitled, costs incurred by the Companies in implementing this contingency plan for supply and AEPS requirements will be assessed against the defaulting supplier's credit security, to the extent available.

11. COMMUNICATIONS PROTOCOLS

The communications protocols described here are intended to promote a fair, open, transparent, objective, and non-discriminatory auction. These protocols also are intended to protect proprietary information of participants and information that, should it be released, would be detrimental to the outcome of the auction process or future solicitations.

11.1 The Companies and Affiliates

11.1.1 Internal Communications

The Companies will designate individuals to work on the auction process. These individuals directly or indirectly will not have communication with, or exchange information with, any individuals of an affiliate of the Companies that may bid in the auction process where such communication or information is related directly or indirectly to this auction process.

11.1.2 Communications with Bidders

The Companies will not communicate with bidders prior to the selection of winning bids. When the Independent Evaluator informs the Companies about the prices and tranches of the winning bids and the identity of winning bidders in accordance with Section 6.1 of the Bidding Rules, representatives from the Companies then will communicate with the winning bidders in order to execute the necessary documents.

If a bidder attempts to contact the Companies regarding the auction process by phone call, email, fax, or other means, the Companies will direct the bidder to the Information Website and/or to the Independent Evaluator.

11.1.3 Part 1 Application Process

For the Part 1 Application process, the Independent Evaluator will need to provide the names of applicants to the Companies' credit department for purposes of confirming the applicants' credit requirements.

11.1.4 Part 2 Application Process

For the Part 2 Application process, the Independent Evaluator will need to provide the aggregate eligibility and other information from the Part 2 Applications to the Companies with the names of applicants redacted.

11.2 General Public and Media

While bidding is in progress, there is to be no communication with the media or the public. After the auction process is completed, results are determined, and bidders have been notified, all media inquiries will be forwarded to the Companies.

11.2.1 The Information Website

The central source of information made available publicly and to bidders is the Information Website. The Independent Evaluator will manage the information flow on the Information Website and will be designated on the Website as the contact for any questions or inquiries from parties. Any party will have access to the public sections of the Information Website.

11.2.2 Frequently Asked Questions

Among other information and resources on the Information Website, there will be an FAQ (frequently asked questions) section with posted questions and answers. As inquiries are received, they will be converted into an FAQ and posted on the Information Website without revealing the identity of the party posing the inquiry.

Inquiries to be answered by the Companies will be forwarded by the Independent Evaluator to the Companies. Inquiries to be answered by the Independent Evaluator will be forwarded to the Companies with a draft response. Any inquiry or draft response forwarded by the Independent Evaluator to the Companies will not identify the party posing the inquiry. Both the Companies and the Independent Evaluator will review any inquiry and response before the FAQ is posted to the Information Website.

11.2.3 Registered Users

If a party wishes to receive notices and updates regarding public information and new postings to the Information Website, then the party can register through the Information Website to become a Registered User.

Any information the Independent Evaluator has concerning the auction process that is relevant and that can be disclosed publicly will be made available equally to all Registered Users in a timely manner. The method of such communication likely will be via the Information Website and/or emails to Registered Users using the BCC email field so identification of Registered Users is not disclosed to other Registered Users.

11.2.4 Press Releases

The Companies and/or the Independent Evaluator may issue one or more press releases or may place news items in the trade press with the intent to disseminate information about the auction process in an efficient, fair, and timely manner.

11.2.5 Answering Inquiries from the General Public or Media

Inquiries from the general public or the media to the Independent Evaluator will be directed to the Information Website.

11.3 Bidders

11.3.1 Communications Among Bidders

Bidders are prohibited from communicating with each other in ways that would compromise the integrity and competitiveness of the auction process. Sanctions will be applied if these rules are violated.

11.3.2 Communications between the Independent Evaluator and Bidders

The central source of information made available to bidders is the Information Website. The Website facilitates making information available equally to bidders in a timely manner.

Bidders are encouraged to become Registered Users of the Information Website to receive ongoing information about the auction process. As discussed above, once registered through the Information Website, Registered Users will receive notifications from the Independent Evaluator about updates to the auction process and to the Information Website.

If the Independent Evaluator receives an inquiry from a party and prepares a response that would be relevant for other parties, the Independent Evaluator will ensure the information will be made available equally to all Registered Users in a timely manner and will post the information on the Information Website and/or will email the Registered Users without revealing the identity of parties.

In addition to posting information to the Information Website, the Independent Evaluator may contact bidders directly in order to seek or provide information about the auction process in a way that does not advantage any bidder.

Any communications from the Independent Evaluator to a bidder will not reveal the identity of other bidders.

11.3.3 Bidding Process

During the auction, the Independent Evaluator, the Commission, and Companies' personnel may monitor the bidding process.

The Independent Evaluator will ensure the bids submitted by bidders conform to the rules of the auction process.

The Bidding Rules and pre-determined bid selection criteria will be applied to determine which bids, if any, are winning bids.

11.3.4 Limitations on Disclosures by Bidders

Bidders are not allowed to disclose they are participating in the Fixed-Price Auction or the Hourly-Priced Auction, and winning bidders are not allowed to disclose that they have won any tranches in the Fixed-Price Auction or the Hourly-Priced Auction until the Commission publicly reports the results of the auction. Such limitation on public disclosure by bidders is waived if disclosure is required by law.

11.4 The Commission

11.4.1 Communications with the Independent Evaluator

During the bidding process, the identity of bidders, prices, and the number of tranches bid will be kept confidential. This information may be released to the Commission after the auction results are finalized.

11.4.2 Communications with the Companies

The Commission may communicate with the Companies regarding the auction process. However, the Companies will not disclose any proprietary information until after the final round of the auction is completed and bidders are informed of the results of the auction.

11.4.3 Communications with Bidders

The Commission will not communicate with bidders about the auction process prior to the determination of winning bids. If a bidder attempts to contact the Commission by phone call, email, fax, or other means, the Commission will direct the bidder to the Information Website and/or to the Independent Evaluator.

11.4.4 Information on Auction Participation

In order to maintain confidential and proprietary information provided by bidders as part of the auction process, the identity of all bidders that submitted Part 1 and/or Part 2 Applications in the auction and the indicative offers will be kept confidential until released publicly by the Commission. The Commission may elect to keep these data confidential at its sole discretion.

11.4.5 Round-by-Round Bids

Round-by-round bids by bidders will be kept confidential pursuant to the confidentiality provisions of the Bidding Rules and the SMA for as long as the Companies continue to procure Default Service.

12. CONFIDENTIAL INFORMATION, CERTIFICATIONS, AND SANCTIONS

12.1 Confidential Information

Confidential Information relative to bidding strategy means information relating to a bidder's bid(s) in the auction, whether transmitted in writing or verbally, which if it were to be made public likely would have an effect on any of the bids that another bidder would be willing to submit. Confidential Information relative to bidding strategy includes (but is not limited to): a bidder's strategy; a bidder's indicative offer; the quantities that a bidder wishes to supply; the bidder's estimation of the value of a tranche; the bidder's estimation of the risks associated with serving the load for the auction; and a bidder's contractual arrangements for purchasing power to serve such load were the bidder to win tranches in the auction.

Confidential Information regarding the auction means information that is not released publicly by the Commission, the Companies or the Independent Evaluator and that a bidder acquires as a result of participating in the auction, whether transmitted in writing or verbally, which if it were to be made public could impair the integrity of current or future solicitations, impair the ability of the Companies to hold future solicitations, or harm consumers, bidders or applicants. Confidential Information regarding the auction includes (but is not limited to): the list of Qualified Bidders, the list of Registered Bidders, the initial eligibility, the status of a bidder's participation, and all non-public reports of results and announcements made by the Independent Evaluator to any or all bidders in this auction.

Confidential Information may not receive continued confidential or protected treatment should: (a) a bidder publicly disclose Confidential Information relating solely to that bidder; or (b) public disclosure is required or compelled by the Commission, a court or otherwise by law. The Independent Evaluator, the Commission, and the Companies shall not be liable for such public disclosures or, so long as reasonable measures have been taken to keep such information confidential, any other public disclosure of Confidential Information. By participating in this auction process, each bidder acknowledges and agrees to the confidentiality provisions set forth herein, as well as any limitations thereto.

In addition, the bidder agrees the bidder's data and information submitted in this auction process will be disclosed if required by any federal, state or local agency (including, without limitation, the Commission) or by a court of competent jurisdiction. However, the Companies will endeavor to notify the bidder in advance of such disclosure. In any event, neither the Companies nor the Independent Evaluator, nor any of their employees or agents, will be responsible to the bidders or any other party, or liable for any disclosure of such designated materials before, during or subsequent to this auction. Notwithstanding the above, the Companies and the Independent Evaluator reserve the right to use and communicate publicly and/or to third parties any and all information/data submitted as part of this auction process in any proceedings before FERC, the Commission, and any other regulatory body and the courts, if necessary, without the prior consent/approval of, or notice to, any such bidder. The bidder expressly agrees that the Companies may provide bidder information on a confidential basis to the Commission, the Pennsylvania Office of the Consumer Advocate, and the Office of Small Business Advocate as necessary for compliance with any default service procurement reporting obligations.

12.2 Certifications and Disclosures to Be Made

A prospective bidder will be required in its Part 1 Application to disclose any bidding agreement or any other arrangement in which the prospective bidder may have entered and that is related to its participation in the auction. A prospective bidder that has entered into such an agreement or arrangement must name the entities with which the prospective bidder has entered into a bidding agreement, or a joint venture for the purpose of participating in the auction, or a bidding consortium, or any other arrangement pertaining to participating in the auction. A bidding consortium is a group of separate businesses or business people joining together to submit joint bids in the auction.

In addition, a prospective bidder will be required to make the certifications listed in the Part 1 and Part 2 Applications.

The Commission may publicly release the winning prices and the names of the winning bidders from the auction. The Commission may choose to release additional information. After the auction, a winning bidder itself may release information regarding the number of tranches it has won, and a non-winning bidder itself may release information only regarding the fact that it participated in the auction. The winning bidders and the non-winning bidders otherwise continue to be bound by their certifications as described previously. In particular, no winning bidder and no non-winning bidder itself can reveal the winning prices of the auction prior to these being publicly released by the Commission.

12.3 Actions to Be Taken if Certifications Cannot Be Made

If a bidder cannot make all the certifications above, the Independent Evaluator will decide within five (5) days following the deadline to submit the Part 2 Application on a course of action on a case-by-case basis. To decide on this course of action, the Independent Evaluator may make additional inquiries and information requests to understand the reason for the inability of the bidder to make the certification.

If Qualified Bidders do not comply with additional information requests by the Independent Evaluator regarding certifications required in the Part 2 Application, the Independent Evaluator may reject the application.

12.4 Sanctions for Failure to Comply

Sanctions may be imposed on a bidder for failing to properly disclose information relevant to determining associations, for coordinating with another bidder, for failure to abide by any of the certifications made in its Part 1 Application or Part 2 Application, for releasing Confidential Information or disclosing information during the auction (aside from only specific exceptions provided with respect to entities explicitly named in the Part 1 Application as entities that are part of a bidding agreement or other arrangement), and in general for failing to abide by any of the communications protocols in the section, "Communications Protocols," of these Bidding Rules. Such sanctions can include, but are not limited to, any one or more of the following:

- Termination of the SMA.
- The loss of all rights to provide tranches won by such bidder.
- The forfeiture of letters of credit and other fees posted or paid.
- Action (including prosecution) under applicable state and/or federal laws.
- Attorneys' fees and court costs incurred in any litigation that arises out of the bidder's improper disclosure.
- Debarment from participation in future solicitations.
- And/or other sanctions that may be appropriate.

Should such an event occur, the Independent Evaluator will make a recommendation to the Companies regarding sanctions. The imposition of such sanctions will be at the discretion of the Companies.

13. BIDDER ASSOCIATIONS

A Qualified Bidder is associated with another Qualified Bidder if the two bidders have ties that could allow them to act in concert or that could prevent them from competing actively against each other.

The competitiveness of the auction and the ability of the auction to produce competitive prices may be harmed by the coordinated or collusive behavior that associations among bidders may facilitate. As a result, the Independent Evaluator has developed standards that apply when associated parties apply to participate in FP and/or HP auctions. The following sections outline the specific protocols that will be followed when associated entities submit Part 1 and/or Part 2 Applications to participate in an auction for the Companies.

13.1 Procedure Followed by the Independent Evaluator

Potential associations among participants may come to the attention of the Independent Evaluator at different points in the bidder qualification application process. In order to improve the process efficiency and minimize the risk of disclosure of potentially confidential information, the Independent Evaluator will approach each case as described below.

13.1.1 Following the Receipt of the Part 1 Applications

Potential associations among applicants may become apparent after the Part 1 Applications are submitted but before Qualified Bidders are required to disclose such associations as part of their Part 2 Applications. The Independent Evaluator will take no action related to potential associations until each party submits their completed Part 1 Application. In cases where there is an apparent relationship among applicants, the Independent Evaluator will initiate a request for additional information regarding the relationship among the potentially associated parties, the structure of their organization, and the independence of the respective bidding teams.

In such cases, the Independent Evaluator will notify representatives of the Companies and Commission Staff that there is a potential association among applicants.

In addition, as outlined in the Part 2 Application, the Independent Evaluator reserves the right to request additional information from each party including, but not necessarily limited to:

- (a) Information on how the entity maintains its independence from the associated party including any available supporting documentation such as a Corporate Separation Agreements, Codes of Conduct, and/or organization charts.
- (b) A list of individuals within the organization who have played or will play a material role in the auction(s).
- (c) Information regarding the nature of any work done in conjunction with or on behalf of the associated party.
- (d) Information describing the organizational structure of the associate(s), identifying common management and oversight among the associated entities as well as the management involved in or responsible for bid approval.
- (e) The internal process or protocol related to determining indicative offers submitted as part of the Part 2 Application.
- (f) Disclosure of whether the entity is bidding on behalf of itself or acting as an agent for other entities.

Any responses to the above will be treated as confidential if labeled as such.

13.1.2 Following the Receipt of the Part 2 Applications

In some cases, the potential relationship among Qualified Bidders will not be known to the Independent Evaluator until the Qualified Bidders submit final certifications along with their Part 2 Applications. In such cases, the Independent Evaluator will initiate the steps outlined above, upon receipt of the completed Part 2 Applications.

After the Independent Evaluator has requested and received additional information from each associated bidder, the Independent Evaluator will work with representatives of the Companies and Commission Staff to determine:

- (a) Whether each of the associated bidders will be allowed to participate independently in the auction(s); and
- (b) Any restrictions that may be applied as a result of the participation by associated bidders.

Any restrictions will be based on the information provided by the associated bidders as part of the Part 1 Application, the Part 2 Application, and the additional information that was provided at the request of the Independent Evaluator.

13.2 Remedies and Actions Related to Participation by Associated Bidders

This section summarizes the potential restrictions that will be considered by the Independent Evaluator, the Companies, and Commission Staff in relationship to associated participation. Restrictions on participation may include, but may not be limited to, the following:

- (a) Indicative offers may be restricted such that any applicable load cap may apply across the associated bidders:
- (b) Pre-bid security or collateral requirements may be altered for the associated bidders to ensure that associated bidders do not gain a competitive advantage over other bidders; and,
- (c) In some cases, one or more associated bidders may not be allowed to participate in the auction(s).

13.3 Handling of Confidential Information

In order to execute the process of gathering information on associated entities and executing the remedies outlined above, there may be situations that require the Independent Evaluator to share, directly, certain confidential information among the associated parties, the Companies, and the Commission and its Staff.

In addition, as part of the remedies outlined in above, an associated party may gain access to or be able to ascertain certain confidential information of the other associated entities. While access to such information otherwise may be counter to certifications in the Part 2 Application, access to such information acquired through the data gathering and remedies related to associated bidders will not be considered a violation of the auction rules.

Confidential information includes but may not be limited to the initial eligibility for each associated bidder based on indicative bids submitted with the Part 2 Application. The Independent Evaluator will make reasonable efforts to minimize the disclosure of any such confidential information.

14. MISCELLANEOUS

14.1 Warranty on Information

The information provided for the auction, including but not limited to information provided on the Information Website, has been prepared to assist bidders in evaluating the auction process. It does not purport to contain all the information that may be relevant to a bidder in satisfying its due diligence efforts. Neither the Companies nor the Independent Evaluator make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information, and shall not, either individually or as a corporation, be liable for any representation expressed or implied in the auction process or any omissions from the auction process, or any information provided to a bidder by any other source. A bidder should check the Information Website frequently to ensure it has the latest documentation and information. Neither the Companies, nor the Independent Evaluator, nor any of their representatives, shall be liable to a bidder or any of its representatives for any consequences relating to or arising from the bidder's use of information.

14.2 Hold Harmless

Bidder shall hold the Companies and the Independent Evaluator harmless of and from all damages and costs, including but not limited to legal costs, in connection with all claims, expenses, losses, proceedings or investigations that arise in connection with the auction process or the award of a bid pursuant to the auction process.

14.3 Bid Submissions Become the Companies' Property

All bids submitted by bidders participating in the auction will become the exclusive property of the Companies upon conclusion of the auction process.

14.4 Bidder's Acceptance

Through its participation in the auction process, a bidder acknowledges and accepts all the terms, conditions and requirements of the auction process and the SMA.

14.5 Permits, Licenses, Compliance with the Law and Regulatory Approvals

Bidders shall obtain all licenses, permits and status that may be required by any governmental body, agency or organization necessary to conduct business or to perform hereunder. Bidders' subcontractors, employees, agents and representatives of each in performance hereunder shall comply with all applicable governmental laws, ordinances, rules, regulations, orders and all other governmental requirements.

14.6 Auction Intellectual Property

All title, interests and other intellectual property rights in and to the auction design, the auction format and methodology, the auction software, the source code (including all modifications, enhancements, customization, adaptations and derivative works made by the Independent Evaluator) and associated documentation, including but not limited to these Bidding Rules, and the screen formats and forms designed by the Independent Evaluator (the "Auction Software"), are proprietary to the Independent Evaluator and all rights, title, and interest to the Auction Software remain with the Independent Evaluator. The Independent Evaluator grants Qualified Bidders a non-exclusive, non-transferable, limited license to use the Auction Software, solely for use in connection with the auction, subject to the terms and conditions set forth herein, and not for copying, relicensing, sublicensing, distribution or marketing by the Qualified Bidder. No other interest is conveyed to the Qualified Bidder other than the license expressly granted herein. The foregoing use license shall immediately terminate upon disqualification of the Qualified Bidder or upon termination or completion of the auction process. If at any time it is determined in the Independent Evaluator's sole discretion that the Qualified Bidder is in breach of this Section 13.6, the Independent Evaluator shall be entitled to terminate the Qualified Bidder's access rights to the Auction Software.

Notwithstanding anything herein to the contrary, and without limiting the Qualified Bidder's other obligations herein, the Qualified Bidder shall not, nor shall it permit any third party to: (i) modify, translate or otherwise create derivative works of the Auction Software; (ii) reverse engineer, decompile, decode, disassemble or translate any Auction Software, or output thereof, or otherwise attempt to reduce to human readable form or derive the source code, protocols or architecture of any Auction Software; (iii) use or study any Auction Software, or output thereof, for the purpose of developing any software that is intended to replace, or that has functions, structure or architecture similar to, such Auction Software, or any part thereof; (iv) publish, or otherwise make available to any third party, any benchmark or other testing information or results concerning the Auction Software; (v) permit any other person who is not authorized to access or use all or any part of the Auction Software or (vi) copy the Auction Software, distribute the Auction Software, remove or obscure any proprietary labeling on or in the Auction Software, create any derivative works based on the Auction Software, or modify the Auction Software, in each case, except to the extent expressly permitted by the Independent Evaluator in writing.

In using the Auction Software, a Qualified Bidder shall take steps to prevent any virus, worm, built-in or use-driven destruction mechanism, algorithm, or any other similar disabling code, mechanism, software, equipment, or component designated to disable, destroy or adversely affect the Auction Software from being introduced into the systems.

APPENDIX A — EXAMPLE OF ROUND-BY-ROUND BIDDING

The illustrative example below shows for two bidders (BidderA and BidderB) and two products (Product-1 and Product-2) the confirmed bids (pre-EOR) and the post-EOR results for each round. In the example, the auction closes after round 4.

Round 1

For round 1, the announced prices are \$75.00 and \$82.00 for Product-1 and Product-2, respectively. At those announced prices, BidderA bids 55 tranches and 85 tranches on Product-1 and Product-2, respectively. BidderB bids 80 tranches and 27 tranches on Product-1 and Product-2, respectively.

When the round closes the EOR procedure is executed. Each product is over-subscribed: 135 tranches were bid on Product-1 which has a tranche target of 100, and 112 tranches were bid on Product-2 which has a tranche target of 100.

The announced price for Product-1 will be reduced from \$75.00 to \$72.50 for round 2. The announced price for Product-2 will be reduced from \$82.00 to \$78.60 for round 2.

BidderA will have eligibility of 55+85 = 140 tranches for round 2, and BidderB will have eligibility of 80+27 = 107 tranches for round 2.

Round 2

At the announced prices for round 2, BidderA bids 40 tranches and 85 tranches on Product-1 and Product-2, respectively. Thus, BidderA reduced its tranches bid on Product-1 from 55 to 40 tranches. BidderB bids 50 tranches and 57 tranches on Product-1 and Product-2, respectively. Thus, BidderB switched 30 tranches from Product-1 to Product-2.

When the round closes the EOR procedure is executed. Product-1 is under-subscribed by 10 tranches: only 90 tranches bid against the tranche target of 100 tranches: BidderA's bid represents a reduction in its eligibility by 15 tranches, while BidderB's bid maintained its eligibility. Thus, 10 of the 15 eligibility reduction tranches of BidderA are rolled back on Product-1. Those 10 tranches are priced at the announced price for Product-1 at which they were bid in round 1: \$75.00. The announced price for Product-1 will remain at \$72.50 for round 3.

Product-2 is over-subscribed by 42 tranches. The announced price for Product-2 will be reduced from \$78.60 to \$76.10 for round 3.

BidderA will have eligibility of 50+85 = 135 tranches for round 3 (including the 10 tranches rolled back on Product-1), and BidderB will have eligibility of 50+57 = 107 tranches for round 3.

Round 3

At the announced prices for round 3, BidderA bids 99 tranches and 36 tranches on Product-1 and Product-2, respectively. Thus, BidderA is switching 49 of the tranches bid from Product-2 to Product-1. BidderB bids 50 tranches and 35 tranches on Product-1 and Product-2, respectively. Thus, BidderB is reducing its tranches bid on Product-2 from 57 to 35 tranches.

When the round closes the EOR procedure is executed. Product-1 is over-subscribed by 49 tranches. Product-2 is under-subscribed by 29 tranches: only 71 tranches bid against the tranche target of 100 tranches: BidderA's bid maintained its eligibility while BidderB's bid represents a reduction in its eligibility by 22 tranches. Thus, all 22 of the eligibility reduction tranches of BidderB are rolled back on Product-2. Those 22 tranches are priced at the announced price for Product-2 at which they were bid in round 2: \$78.60. Even after rolling back those 22 eligibility reduction tranches of BidderB, Product-2 still is undersubscribed — by 7 tranches. So 7 tranches that BidderA had switched from Product-2 to Product-1 are rolled back to Product-2. Those 7 tranches are priced at the announced price for Product-2 at which they were bid in round 2: \$78.60.

After rolling back 7 tranches from Product-1 to Product-2 for BidderA, BidderA still has increased the number of tranches it is bidding on Product-1: from 50 tranches bid in round 2 (10 tranches at \$75.00 and 40 tranches at \$72.50) to 92 tranches bid in round 3 (10 tranches at \$75.00 and 82 tranches at \$72.50). Product-1 is over-subscribed as a result, so higher-priced tranches in Product-1's bid stack can be removed. All 10 of BidderA's higher-priced tranches are removed from Product-1's bid stack, and these 10 tranches become BidderA's free eligibility for round 4. In round 4, BidderA can bid any of the 10 tranches on any product, but to the extent those 10 tranches are not bid on a product in round 4, those free eligibility tranches and their associated eligibility for BidderA will be permanently removed from the auction after round 4.

Because Product-1 is over-subscribed, the announced price for Product-1 will be reduced from \$72.50 to \$70.15 for round 4. Because Product-2 is not over-subscribed, the announced price for Product-2 will remain at \$76.10 for round 4.

BidderA will have eligibility of 82+43+10 = 135 tranches for round 4, and BidderB will have eligibility of 50+57 = 107 tranches for round 4 (including the 22 tranches rolled back on Product-2).

Round 4

At the announced prices for round 4, BidderA bids 46 tranches and 43 tranches on Product-1 and Product-2, respectively. Thus, BidderA reduced its tranches bid on Product-1 from 82 to 46 tranches. BidderB bids 32 tranches and 57 tranches on Product-1 and Product-2, respectively. Thus, BidderB reduced its tranches bid on Product-1 from 50 to 32 tranches.

When the round closes the EOR procedure is executed. Product-1 is under-subscribed by 22 tranches: only 78 tranches bid against the tranche target of 100 tranches: BidderA's bid represents a reduction in its eligibility by 36 tranches, while BidderB's bid represents a reduction in its eligibility by 18 tranches. Of the 54 fewer tranches bid on Product-1, 36 were eligibility reductions from BidderA and 18 were eligibility reductions from BidderB. Of those 54 fewer tranches bid, 100-78 = 22 tranches need to be rolled back on Product-1. The selection of which tranches are rolled back is done by assigning random numbers tranche by tranche (not bidder by bidder) to each of the 54 fewer tranches bid on Product-1. On average, the selection of the rolled back tranches will be proportional based on the number of tranches by which each bidder reduced its bid on the product. Thus, if the assignment of random numbers and selection of rolled back tranches were repeated many times, the number of rolled back tranches for BidderA on Product-1 would be expected to be 15 on average or (82-46)/(132-78)*(100-78) = 36/54*22, rounded, and the number of rolled back tranches for BidderB on Product-1 would be expected to be 7 on average: (50-32)/(132-78)*(100-78) = 18/54*22, rounded.

Auction Close

After the rollback is done for Product-1, it is determined that no product is over-subscribed and no bidder has free eligibility tranches. Thus, the criteria are met for closing the auction.

Product-1's bid stack has tranches bid at \$72.50 and tranches bid at \$70.15. So Product-1's clearing price is the higher of the two, or \$72.50. BidderA wins 61 tranches and BidderB wins 39 tranches for Product-1. All 100 tranches procured for Product-1 are paid the price of \$72.50.

Product-2's bid stack has tranches bid at \$78.60 and tranches bid at \$76.10. So Product-2's clearing price is the higher of the two, or \$78.60. BidderA wins 43 tranches and BidderB wins 57 tranches for Product-2. All 100 tranches procured for Product-2 are paid the price of \$78.60.

Example 2. Round-by-Round Bidding with Pre-EOR and Post-EOR Results

			Product-1					Product-2				Round ibility
Round	Announced Price	Tranche Target	Tranches Bid	@ Price	Excess Supply	Announced Price	Tranche Target	Tranches Bid	@ Price	Excess Supply	Free	Total
1	\$75.00					\$82.00						
Pre-EOR		100	135		35		100	112		12		
BidderA			55	@ \$75.00				85	@ \$82.00			140
BidderB			80	@ \$75.00				27	@ \$82.00			107
Post-EOR		100	135		35		100	112		12		
BidderA			55	@ \$75.00				85	@ \$82.00		_	140
BidderB			80	@ \$75.00				27	@ \$82.00		_	107
		-	_		_		_	_	-	_		
2	\$72.50					\$78.60						
Pre-EOR		100	90		(10)		100	142		42		
BidderA			40	@ \$72.50				85	@ \$78.60		_	125
BidderB			50	@ \$72.50				57	@ \$78.60		_	107
Post-EOR		100	100		0		100	142		42		
BidderA			50	10 @ \$75.00 40 @ \$72.50				85	@ \$78.60		_	135
BidderB			50	@ \$72.50				57	@ \$78.60			107

			Product-1					Product-2				Round ibility
Round	Announced Price	Tranche Target	Tranches Bid	@ Price	Excess Supply	Announced Price	Tranche Target	Tranches Bid	@ Price	Excess Supply	Free	Total
3	\$72.50					\$76.10						
Pre-EOR		100	149		49		100	71		(29)		
BidderA			99	10 @ \$75.00 89 @ \$72.50				36	@ \$76.10		_	135
BidderB			50	50 @ \$72.50				35	@ \$76.10			85
Post-EOR		100	132		32		100	100		0		
BidderA			82	@ \$72.50				43	7 @ \$78.60 36 @ \$76.10		10	135
BidderB			50	@ \$72.50				57	22 @ \$78.60 35 @ \$76.10		_	107
4	\$70.15					\$76.10						
Pre-EOR		100	78		(22)		100	100		0		
BidderA			46	@ \$70.15				43	7 @ \$78.60 36 @ \$76.10		_	89
BidderB			32	@ \$70.15				57	22 @ \$78.60 35 @ \$76.10		_	89
Post-EOR		100	100		0		100	100		0		
BidderA			61	15 @ \$72.50 46 @ \$70.15				43	7 @ \$78.60 36 @ \$76.10		_	104
BidderB			39	7 @ \$72.50 32 @ \$70.15				57	22 @ \$78.60 35 @ \$76.10		_	96

		Product-1		Product-2		
	Clearing Price	Tranche Target	Tranches Won	Clearing Price	Tranche Target	Tranches Won
Results	\$72.50	100	100	\$78.60	100	100
BidderA			61			43
BidderB			39			57

Part 1 Application

For Fixed-Price and Hourly-Priced Auctions

To Procure Default Service Products

Under Default Service Program DSP-V for

Metropolitan Edison Company ("Met-Ed")

Pennsylvania Electric Company ("Penelec")

Pennsylvania Power Company ("Penn Power")

West Penn Power Company ("West Penn")

Appendix 1 to Bidding Rules

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products

Name of Applicant

PART 1 APPLICATION AUCTIONS TO PROCURE DEFAULT SERVICE PRODUCTS FOR MET-ED / PENELEC / PENN POWER / WEST PENN

INSTRUCTIONS

There are two parts to the application process.

- Part 1 Application: Applicants submit the Part 1 Application and all documents required therein to become Qualified Bidders for the fixed-price auction ("FP Auction") and/or the hourly-priced auction ("HP Auction") used to procure default service products for Met-Ed, Penelec, Penn Power, and West Penn ("Companies"). A Qualified Bidder for an auction need not submit a new Part 1 Application for subsequent auctions in the same calendar year unless the information in the Qualified Bidder's Part 1 Application has changed. In any case, a Qualified Bidder must submit its most recent financial statements during the Part 1 Application process before each auction.
- Part 2 Application: Qualified Bidders for the FP Auction and/or the HP Auction submit the Part 2 Application in which they will: (a) agree to comply with the Bidding Rules, (b) agree to accept the terms of the Supplier Master Agreement ("SMA") should they become a winning supplier, (c) make certifications regarding associations and handling of Confidential Information, (d) submit Indicative Offers, and (e) post Pre-Bid Security to become Registered Bidders.

This document is the Part 1 Application.

For further information, consult the Information Website.

Unless otherwise defined, capitalized terms in this document have the definitions provided in the SMA. "Communications Protocols" refers to the section "Communications Protocols" and related sections in the Bidding Rules.

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products

Name of Applicant

PART 1 APPLICATION SUBMISSION

To become a Qualified Bidder for the FP Auction and/or the HP Auction, Applicants must submit the following to the Independent Evaluator electronically through the Secure Online Application Process or in hardcopy format to the address below by the Part 1 Application Due Date:

- Electronic Application Form: Completed Part 1 Application submitted online;
- Hardcopy Application Form: One (1) printed Part 1 Application document with original signatures, notarized signatures where applicable, and the name of the Applicant on every page of the Application;
- Supporting Documentation: One (1) copy of required financial statements and other requested documents supporting the Application as specified in Appendix A; and
- Changes to Pre-Bid Letter of Credit (Optional): Any suggested modifications to the template for the Pre-Bid Letter of Credit must be provided to the Independent Evaluator in an electronic, red-lined version.

Proposed modifications to the Pre-Bid Security Letter of Credit and any other inquiries may be directed to the Independent Evaluator by email at fepaauction@crai.com. Inquiries can also be made through the Information Website.

Photocopies and facsimiles of completed documents will not be accepted under any circumstances.

It is in your interest to seek independent legal and financial advice before deciding to participate in the FP Auction and/or the HP Auction.

Part 1 Application:	FE-PA Fixed-Price and Hourly-Price	ced Auctions to Procure Default Service Products
Name of Applicant		

The completed Part 1 Application and any proposed modifications to the Pre-Bid Security Letter of Credit MUST be received by the Independent Evaluator no later than 12:00 p.m. noon prevailing Eastern Time on the Part 1 Application Due Date as posted in the timeline on the Information Website.

Any hardcopies must be addressed to:

Independent Evaluator c/o Brad Miller, Vice President CRA International, Inc. 200 Clarendon Street, T-9 Boston, MA 02116-5092 Phone: 617.425.3384

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Part 1 Application:	FE-PA Fixed-Price and Hourly-Price	ced Auctions to Procure Default	Service Products
Name of Applicant	t	-	

CONFIDENTIALITY OF PART 1 APPLICATION SUBMISSIONS

Confidentiality requirements specific to the Part 1 Application are provided below.

CONFIDENTIALITY OF CREDIT INFORMATION

Any information and materials that you submit in this Part 1 Application may be provided on a confidential basis to the Independent Evaluator Team and the Pennsylvania Public Utility Commission ("Commission") and their representatives. Information that you provide in this Part 1 Application, except for information regarding bidding agreements provided in Section 1.11, may be provided on a confidential basis to representatives of the Companies for a creditworthiness assessment.

CONFIDENTIALITY OF QUALIFIED BIDDERS

Upon completion of the Part 1 Application process, the names of Qualified Bidders will be provided to other Qualified Bidders on a confidential basis. As part of this Part 1 Application, you are required to certify that you agree to release your name to other Qualified Bidders and that you will keep confidential the list of Qualified Bidders that is provided to you.

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products

Name of Applicant

PART 1 APPLICATION Fixed-Price Auction and Hourly-Priced Auction To Procure Default Service Products

This Part 1 Application is the application form to become a Qualified Bidder in the FP Auction and/or the HP Auction.

Background Information

Before completing this application, please review the Bidding Rules document, the SMA, and other documents posted on the Information Website so that you understand the conditions under which the FP Auction and HP Auction will be conducted.

Confirmation of Receipt

Online Delivery: If your Part 1 Application is submitted online through the Secure Online Application Process, an email will be sent to the Authorized Representative and Delegate of the Applicant to confirm receipt. You will not be required to submit a hardcopy of the Part 1 Application.

<u>Delivery by Post or Hand Delivery</u>: If your Part 1 Application is received by post or hand delivery, an email will be sent to the Authorized Representative and Delegate to confirm receipt.

Incomplete Applications

If your Part 1 Application is incomplete or requires clarification, the Independent Evaluator will send a deficiency notice to your Authorized Representative by email. You will have until 12:00 p.m. noon prevailing Eastern Time on the Part 1 Application Due Date, or until 5:00 p.m. prevailing Eastern Time on the Business Day following the Business Day during which a deficiency notice is sent to you, whichever comes later, to respond. If you do not correct or adequately explain the deficiency within the time allowed, your Part 1 Application may be rejected and you may be unable to participate in the FP Auction or the HP Auction. All corrections to remedy deficiencies within an Applicant's Part 1 Application must be submitted online. The Authorized Representative needs to sign and date next to the correction(s) to the Part 1 Application and send a copy as an email attachment to the Independent Evaluator at fepaauction@crai.com or through the Secure Online Application Process.

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products

Name of Applicant

Late Applications

Part 1 Applications received after the Part 1 Application Due Date will NOT be accepted under any circumstances.

Notification to Qualified Bidders

If you become a Qualified Bidder for the FP Auction and/or the HP Auction, the Independent Evaluator will send a Notification of Qualification to your Authorized Representative by email after the Part 1 Application Due Date.

Part 1 Application: FE-PA Fixed-Price	and Hourly-Priced Auction	ns to Pro	cure Default Service Products
Name of Applicant			
PART 1 APPLICATION FORM	s		
1.1. Applicant Basic Inform	ation		
Name of Applicant (Company Name)			
Legal Name of Applicant (if different from a	above)		
	_		
Place of Incorporation, if applicable	Federal Tax I.D.		D&B DUNS #
Please state whether the Applicant is a corporation, partnership, etc.	Years in Business		URL for Applicant's Website
Has the Applicant participated in a prior Met-Ed, Penelec, Penn Power, or West Penn Power Default Service solicitations?	If yes, indicate the most recent auction date (month, year):		

Part 1 Application:	FE-PA Fixed-Price and Hourly-Price	ced Auctions to Procure Default S	Service Products
Name of Applicant		_	
Name of Applicant		-	

1.2. Authorized Representative

The Authorized Representative is authorized to represent the Applicant in the FP Auction and/or the HP Auction. The Authorized Representative will receive all documentation related to the relevant auction(s) if and when the Applicant becomes a Qualified Bidder and subsequently a Registered Bidder, including any auction procedures and Confidential Information required for the submission of bids in any trial auction(s) and in the actual auction(s). The Authorized Representative must ensure that only authorized persons act on behalf of the Applicant in the FP Auction and/or the HP Auction. The Authorized Representative is the only person authorized to distribute auction procedures and Confidential Information and should do so in accordance with the Communications Protocols. The integrity of the FP Auction and the HP Auction depends upon each Authorized Representative safeguarding Confidential Information and passwords used in the auctions.

The person designated below is the Applicant's Authorized Representative.

Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Title		
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell F	Phone No. Fax No.	Email Address

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Pro-	ocure Default Service Products				
Name of Applicant					
Communications with the Authorized Representative for Application are typically done via email and courier.	or purposes of the Part 1				
The Applicant hereby acknowledges that any notification or other communication given by the Independent Evaluator to the Applicant with respect to the Part 1 Application shall be delivered by courier to the address provided above or emailed to the email address above and shall be deemed received by the Applicant at the time of delivery, provided that where delivery occurs after 5:00 p.m. prevailing Eastern Time on a Business Day or on a day which is not a Business Day, receipt shall be deemed to occur at 8:00 a.m prevailing Eastern Time on the following Business Day.					
This certification must be signed by the Authorized Repsignature must be notarized.	resentative and the				
I hereby certify that I am authorized by the Applicant to serve as Authorized Representative, to represent the Applicant both (i) in the FP Auction and/or the HP Auction, and (ii) for purposes of this Part 1 Application. I further certify that I will be responsible for all Confidential Information regarding the FP Auction and/or the HP Auction and I will distribute Confidential Information only to other individuals who are authorized to act on behalf of the Applicant according to the Communications Protocols.					
Signature of Authorized Representative	 Date				
Signature and Seal from Notary Public	Date				

Part 1 Application: FE-PA Fixed-Pi	rice and Hourly-Priced Auctions	to Procure Default Service Products
Name of Applicant		
The person designated in the Delegate serves as a secon Independent Evaluator.		
Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Company Name	Ti	itle
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell Phone	No. Fax No.	Email Address

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to	o Procure Default Service Products
Name of Applicant	
1.3. Designation of the Applicant's Authorized Rep for the FP Auction and/or the HP Auction	resentative and Delegate
This certification should be signed by an officer or deshould either be notarized or attested with the corpor this certification cannot be either the Authorized Rep	ate seal. The person making
I certify that I am an officer or director of the Application contracts and bind the Applicant. I have read and a provisions contained in the SMA, and the provisions of the pertaining to bidders in the FP Auction and/or the HP Auction.	ccept the Bidding Rules, the he Communications Protocols
All the information contained in this Application is true knowledge. If there are material changes to the Applican Part 1 Application, I agree to notify the Independent Evaluact as the Authorized Representative of the Applicant in Auction and to act as Delegate for the Aunot designating myself as Authorized Representative or I	nt's information provided in this ator. I designate to the FP Auction and/or the HF thorized Representative. I am
Signature of Officer or Director of the Applicant	Date
Printed Name	
Title	
Signature and Seal from Notary Public	Date

Part 1 Applicat	tion: FE-PA Fixed-Price a	and Hourly-Priced Au	ictions to Prod	cure Default Service Products		
Name of Applie	cant					
1.4. Appli	Applicant's Legal Representative in Pennsylvania					
	ck here if the App Legal Representati		ized Repre	sentative is also the		
be a linehave	nt's Legal Representa legal counsel or a rep an address in Penns uthorized and agree to	resentative agen ylvania; and	t;	on the Applicant's behalf.		
The person Representa	designated below intive Agent.	s the Applicant'	s Legal Re	presentative or		
Last Name		Given Name(s)		Mr/Mrs/Ms/Dr/(other)		
Company Name	•		Title			
Street Address	1					
Street Address 2	2					
City		State		Zip Code		
Telephone No.	Cell Phone No.	Fax No.		Email Address		
releptione rec				Than 7 daileas		
This certific		ed by the Legal	Represen	tative and the signature		
-	erve as Legal Repres ervice of process on t		•	m authorized and I agree		
Signature of	Legal Representativ	e	Date			
Signature ar	nd Seal from Notary F	Public	Date			

Name of Applicant				
1.5. Applica	nt's Credit Repres	entative		
who can answ	Credit Representater questions or pre equirements for the	ovide information	about the Applica	•
The person de	signated below is	the Applicant's C	redit Representat	tive.
Last Name		Biven Name(s)	Mr/N	/Irs/Ms/Dr/(other)
Title				
Street Address 1				
Street Address 2				
City		State		Zip Code
Telephone No.	Cell Phone No.	Fax No.	Email Address	<u> </u>

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products

Part 1	Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name	of Applicant
1.6.	General Requirements to Participate in the Auctions to Procure Default Service Products
	 If the Applicant already is a Transmission Customer of PJM who has executed the applicable PJM Agreements as that term is defined in the SMA, please check and please provide a copy of the signature page of the PJM Agreements.
	Otherwise, please certify that there exist no known impediments for the Applicant to execute the applicable PJM Agreements prior to the start of the supply period.
	Signature of Authorized Representative Date
	 If the Applicant already has PJM E-Accounts necessary to provide Defaul Service supply, please check ☐ and please provide documentation from PJM that the Applicant has a PJM E-Account.
	Otherwise, please certify that there exist no known impediments for the Applicant to establish the PJM E-Accounts necessary to provide Defaul Service Supply and execute the PJM E-Account contract(s) for the supply period prior to the beginning of the supply period.
	Signature of Authorized Representative Date
	3. If the Applicant already is a PJM Market Participant and a Load Serving Entity in PJM, please check and please provide documentation from PJM that the Applicant is a Market Participant.
	Otherwise, please certify that there exist no known impediments for the Applicant to become a PJM Market Participant and a Load Serving Entity in PJM by the start of the supply period.
	Signature of Authorized Representative Date

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
4. Further, please certify that:
 (a) The Applicant and its corporate officers have no indictments or pending criminal litigation in any federal, state or local jurisdiction relating to the Applicant;
(b) The Applicant and its corporate officers have no criminal convictions;
(c) The Applicant has no civil penalties, judgments, sanctions or consent decrees arising out of the violation of any law, rule, regulation or ordinance in connection with its business activities;
(d) The Applicant has not had any permit or authority to do business in any jurisdiction revoked or suspended; and
(e) The Applicant has never been barred from public bidding or sanctioned for unauthorized disclosure of Confidential Information.
Signature of Authorized Representative Date
If you are unable to make these certifications in Section 1.6, subsections (1) to (4), please state which certifications you are unable to make and explain all reasons in the space given below.

Part 1 Application:	FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant	

1.7. Financial and Credit Information for the Applicant

Please provide the following information for the Applicant:

- (a) If the Applicant is not an SEC registrant, provide the most recent Annual Report;
- (b) If the Applicant is an SEC registrant, provide the Form 10-Q or Form 10-K, whichever was filed most recently with the SEC. If unavailable, please provide the most recent audited quarterly or annual financial information (including a balance sheet, income statement, and cash flow statement);
- (c) If the Applicant is an SEC registrant and if both the Form 10-K and Form 10-Q most recently filed with the SEC are not available, please provide the most recent annual or quarterly financial data accompanied by an attestation by the Applicant's Chief Financial Officer that the information submitted is true, correct and a fair representation of the Applicant's financial condition;
- (d) The following financial information along with page references to the relevant financial filings submitted:

	Amount (\$)	Financial Document Page Number	Financial Document Source	Date of Financial Document Source
Goodwill				
Shareholders' Equity				
Net Intangible Assets				

Part 1 Application:	FE-PA Fixed-Price and Hourly-Price	iced Auctions to Procure Default Service Pro	ducts
Name of Applicant		_	

(e) Applicant's senior unsecured debt ratings from the following three rating agencies if available, and the date of the rating, along with documentation showing the name of the rating agency, the type of rating, and the rating of the Applicant:

	Rating	Date of the Rating
Moody's		
Standard & Poor's		
Fitch		

If senior unsecured debt ratings are unavailable, but corporate issuer ratings are available, please provide the corporate issuer ratings, and the date of the rating, along with documentation showing the name of the rating agency, the type of rating, and the rating of the Applicant:

	Rating	Date of the Rating
Moody's		
Standard & Poor's		
Fitch		

- (f) If the Applicant has not been incorporated or otherwise formed under the laws of the United States, the Applicant is asked to provide in addition to (a)-(f) above:
 - i. A legal opinion acceptable to the Companies of counsel qualified to practice in the foreign jurisdiction in which the Applicant is incorporated or otherwise formed that the SMA will become the binding obligation of the Applicant in the jurisdiction in which it has been incorporated or otherwise formed.
 - ii. Any additional information that the Applicant wishes to include that could provide comparable credit assurances to those that are provided by other Applicants that have been incorporated or otherwise formed under the laws of the United States.

An Applicant that has not been incorporated or otherwise formed under the laws of the United States and that does not provide this information or any information that could provide comparable assurances of creditworthiness will be required to post the maximum Pre-Bid Security with its Part 2 Application.

Part 1 Application:	FE-PA Fixed-Price and Hourly-Pr	iced Auctions to Procure Defa	ault Service Products
Name of Applicant		_	

Further, if such Applicants become Default Service Suppliers, they will be required to submit additional documents as detailed in Article 6 of the SMA, including:

- A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Default Service Supplier is incorporated or otherwise formed that this Agreement is, or upon the completion of execution formalities will become, the binding obligation of the Default Service Supplier in the jurisdiction in which it has been incorporated or otherwise formed;
- The sworn certificate of the corporate secretary (or similar officer) of such Default Service Supplier that the person executing the Agreement on behalf of the Default Service Supplier has the authority to execute the Agreement and that the governing board of such Default Service Supplier has approved the execution of the Agreement; and
- The sworn certificate of the corporate secretary (or similar officer) of such Default Service Supplier that the Default Service Supplier has been authorized by its governing board to enter into agreements of the same type as the SMA.

Is the Applicant and/or its parent:

	Appl Yes	icant No	<u>Par</u> Yes	<u>ent</u> No
Operating under federal bankruptcy laws or bankruptcy laws in any jurisdiction?				
Subject to pending litigation or regulatory proceedings (in state court, or in federal court, or from regulatory agencies, or in any other jurisdiction) which could materially impact the Applicant's and/or parent's financial condition?				
Subject to collection lawsuits or outstanding judgments that could impact solvency?				

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
Please provide a statement disclosing any existing, pending or past adverse rulings, judgments, litigation, contingent liabilities, revocations of authority, administrative, regulatory (state, FERC, SEC or DOJ) investigations and any other matters relating to financial or operational status for the past three years that arise from the sale of electricity or natural gas, or that materially affect current financial or operational status.

Part 1 Application: FE-PA Fixed-Price	e and Hourly-Priced Auctions to Proc	ure Default Service Products
Name of Applicant		
1.8. Guarantor Information		
The Guarantor information is react as a Guarantor should the A	• • • • • • • • • • • • • • • • • • • •	
Please check here ☐ and proapply to you because you wil		
Basic Information for the Gua	arantor	
Name of Guarantor		
Legal Name of Guarantor (if different from	above)	
Place of Incorporation, if applicable	Federal Tax I.D.	D&B DUNS #
Please state whether the Guarantor is a corporation, partnership, etc.	Years in Business	
to a corporation, partitioning, etc.	Todae in Basinoss	
Guarantor's Contact Informat		
Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Title		
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell Phone No	. Fax No. E	mail Address

Part i Application: FE-PA Fixeo-F	Price and Hourly-Priced Auctions t	to Procure Default Service Products
Name of Applicant		
The Guarantor's Credit Re	presentative	
	nation about the Guaranto	e individual who can answer r's credit with respect to the
The person designated be	low is the Guarantor's Cre	dit Representative.
Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Title		
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell Phone	e No. Fax No.	Email Address

Part 1 Application: FE-PA Fixed	-Price and Hourly-Priced Aud	ctions to Procure Default Service Products
Name of Applicant		

Please provide the following information for the Guarantor:

- (a) If the Guarantor is not an SEC registrant, provide the most recent Annual Report;
- (b) If the Guarantor is an SEC registrant, provide the Form 10-Q or Form 10-K, whichever was filed most recently with the SEC. If unavailable, please provide the most recent audited quarterly or annual financial information (including a balance sheet, income statement, and cash flow statement);
- (c) If the Guarantor is an SEC registrant and if both the Form 10-K and Form 10-Q most recently filed with the SEC are not available, please provide the most recent annual or quarterly financial data accompanied by an attestation by the Guarantor's Chief Financial Officer that the information submitted is true, correct and a fair representation of the Applicant's financial condition;
- (d) The following financial information along with page references to the relevant financial filings submitted:

	Amount (\$)	Financial Document Page Number	Financial Document Source	Date of Financial Document Source
Goodwill				
Shareholders' Equity				
Net Intangible Assets				

Part 1 Application:	FE-PA Fixed-Price	and Hourly-Priced	Auctions to Procu	re Default Service	Products

(e) Guarantor's senior unsecured debt ratings from the following three rating agencies if available, and the date of the rating, along with documentation showing the name of the rating agency, the type of rating, and the rating of the Guarantor:

	Rating	Date of the Rating
Moody's		
Standard & Poor's		
Fitch		

If senior unsecured debt ratings are unavailable, but corporate issuer ratings are available, please provide the corporate issuer ratings, and the date of the rating, along with documentation showing the name of the rating agency, the type of rating, and the rating of the Guarantor:

	Rating	Date of the Rating
Moody's		
Standard & Poor's		
Fitch		

- (f) If the Guarantor has not been incorporated or otherwise formed under the laws of the United States, the Guarantor is asked to provide in addition to a)-f) above:
 - i. A legal opinion acceptable to the Companies of counsel qualified to practice in the foreign jurisdiction in which the Guarantor is incorporated or otherwise formed that the Guaranty will become the binding obligation of the Guarantor in the jurisdiction in which it has been incorporated or otherwise formed.
 - ii. Any additional information that the Guarantor wishes to include that could provide comparable credit assurances to those that are provided by other Guarantors that have been incorporated or otherwise formed under the laws of the United States.

An Applicant whose Guarantor has not been incorporated or otherwise formed under the laws of the United States and that does not provide this information or any information that could provide comparable assurances of creditworthiness will be required to post the maximum Pre-Bid Security with its Part 2 Application.

Part 1 Application:	FE-PA Fixed-Price and Hourly-Pr	iced Auctions to Procure Defau	ılt Service Products
Name of Applicant		_	

Further, if an Applicant with such a Guarantor becomes a Default Service Supplier, the Guarantor will be required to submit additional documents as detailed in Article 6 of the SMA, including:

- A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Guarantor is incorporated or otherwise formed that this Guaranty is, or upon the completion of execution formalities will become, the binding obligation of the Guarantor in the jurisdiction in which it has been incorporated or otherwise formed;
- The sworn certificate of the corporate secretary (or similar officer) of such Guarantor that the person executing the Guaranty on behalf of the Guarantor has the authority to execute the Guaranty and that the governing board of such Guarantor has approved the execution of the Guaranty; and
- The sworn certificate of the corporate secretary (or similar officer) of such Guarantor that the Guarantor has been authorized by its governing board to enter into agreements of the same type as the Guaranty.

Is the Guarantor and/or its parent (if applicable):

	Guai Yes	antor No	Par Yes	ent No
Operating under federal bankruptcy laws or bankruptcy laws in any jurisdiction?				
Subject to pending litigation or regulatory proceedings (in state court, or in federal court, or from regulatory agencies, or in any other jurisdiction) which could materially impact the Guarantor's and/or parent's financial condition?				
Subject to collection lawsuits or outstanding judgments that could impact solvency?				

Part 1 A	Application: FE-PA Fixed-Price and Hourly-Priced Auction	ons to Procure Default Service Products
Name o	of Applicant	
1.9.	Additional Certifications	
	idding Rules, the SMA, and the Information Weln Applicant should understand prior to participal action.	
(a)	Please certify that you have read the Bidding you intend to participate (the FP Auction and/o comply with these rules.	
	Signature of Authorized Representative	Date
(b)	Please certify that you have read the SMA and also certify that if you become a winning bidde three (3) Business Days following the date of auction results:	r, you will execute the SMA within
	Signature of Authorized Representative	Date

Name o	of Applicant					
(c)	Please certify that if you qualify to participate in the FP Auction and/or the Auction, you will not disclose at any time information regarding the list of Qualif Bidders in the FP Auction and/or the HP Auction, including but not limited to number of Qualified Bidders, the identity of any one of the Qualified Bidder (including yourself), or the fact that an entity has not qualified for participation the FP Auction and/or the HP Auction. Further, please certify that you will destrany document distributed by the Independent Evaluator that lists the Qualif Bidders within five (5) days of the close of the bidding, or earlier if so instruct by the Independent Evaluator.					
	Signature of Authorized Representative	Date				
(d) No Qualified Bidder in the FP Auction and/or the HP Auction shall sub another party, transfer its rights to another party, or otherwise assign its sta a Qualified Bidder to another party. Any such substitutions, transfe assignments shall be null and void and will result in the exclusion of the Qu Bidder from the FP Auction and/or the HP Auction. Please certify that you to the limitation set forth in this paragraph.						
	Signature of Authorized Representative	Date				
of Con Confid	idding Rules and Communications Protocols inc offidential Information. For purposes of the follow dential Information relative to bidding strategy is Bidding Rules.	ving certifications, the definition of				
(e)	Please certify that you agree not to disclose an to bidding strategy to any party that may have another bidder, prospective bidder, or on any would be willing to submit.	e an effect on the participation of				
	Signature of Authorized Representative	Date				

Part 1 A	Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products			
Name o	of Applicant			
(f)	Please certify that, to the extent Confidential Information relative to bidding strategy is disclosed within your organization or to a third party, you will ensure that sufficient precautions are taken to ensure that such Confidential Information is not made public or made available to another bidder. Such precautions include, but are not limited to confidentiality agreements, non-disclosure agreements, firewalls, and other contractual or structural protections that would maintain the confidential nature of a bidder's bidding strategy.			
	Signature of Authorized Representative Date			
need t	ole to make the certifications requested above please identify the nature of your to disclose Confidential Information without sufficient precautions to ensure that Confidential Information is not made public or made available to another bidder.			

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
1.10. Alternate Guaranty Form
A prospective Default Service Supplier that wishes to rely on a Guarantor upon becoming a Default Service Supplier can use the standard form of guaranty (Appendix G to the SMA) and be assured that the standard form of guaranty is acceptable to the Companies. Alternatively, the Companies will consider alternate forms of guaranty if they are submitted with this Part 1 Application. Also, you may submit an alternate form of guaranty that was previously approved by the Companies in a prior solicitation.
The Alternate Guaranty Form must be a financial guaranty for unlimited liability. Additional requirements are specified in Appendix B of this Part 1 Application.
Please check here \square and proceed to the next section if this section does not apply to you because you are not submitting an alternate form of guaranty. Otherwise please read Appendix B and complete this section.
The Authorized Representative acknowledges by signing below that he/she has read the requirements of Appendix B and that he/she believes that the proposed Alternate Guaranty Form complies with these requirements:
Signature of Authorized Representative Date
Please check below to show that you are including all required documents.
The proposed form of alternate guaranty;
 Certification that the alternate guaranty has been in general use by the Applicant in its ordinary course of business over the past twelve months;
 An enforceability opinion with respect to the alternate form of guaranty from counsel; and
Previously approved alternate form of guaranty.

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Produc	:ts
Name of Applicant	
1.11. Bidding Agreements	
Please note that the Companies will not review information provided in this section.	

Please check here \square and proceed to the next section if you will be bidding independently and not as a party to any bidding agreement with another party or through any other arrangement involving joint or coordinated bidding with any other party.

Otherwise, please indicate below whether you are a party to or a part of a bidding agreement, a joint venture, a bidding consortium, or other arrangements for purposes of participating in the FP Auction and/or the HP Auction or pertaining to bidding in the FP Auction and/or the HP Auction. On the next page, please also provide the names of the other parties to the bidding agreement or other arrangement.

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to F	Procure Default Service Products
Name of Applicant	
Other parties to the arrangement:	
	-
	-
	_
☐ Bidding Agreement ☐ Bidding Consort ☐ Joint Venture ☐ Other (define)	ium
If you are part of a bidding agreement, bidding consortiur nominate a single party to the bidding agreement, bidding of fulfill the creditworthiness requirements. This party may indicate below which party from the bidding agreement, venture will be fulfilling the creditworthiness requirements:	consortium or joint venture to have a Guarantor. Please
Name of the single party fulfilling the creditworthiness requ	irements:
The Authorized Representative of the party named acknowledge the fact that this party has agreed to requirements:	•
Signature of Authorized Representative Date)

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
1.12. Justification of Omissions
If you are unable to provide all documents or all information requested in this Part 1 Application, please justify fully any omissions in the space provided below.

Part 1 Ap	oplication: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of	Applicant
Appen	dix A – Enclosures to the Part 1 Application
	a checklist of documents to be enclosed with this Part 1 Application. Please only one copy of required supporting documents to the application unless noted se.
	copy of the completed Part 1 Application with original signatures and original ed signatures of Sections 1.2, 1.3 and 1.4 [Instructions Part 1]
For the	Applicant:
	A copy of the signature page of the applicable PJM Agreements as that term is defined in the SMA [Section 1.6]
	If the Applicant is not an SEC registrant, provide the most recent Annual Report [Section 1.7]
	If the Applicant is an SEC registrant, provide the Form 10-Q or Form 10-K, whichever was filed most recently with the SEC. If unavailable, please provide the most recent audited quarterly or annual financial information (including a balance sheet, income statement, and cash flow statement) [Section 1.7]
	If the Applicant is an SEC registrant and if both the Form 10-K and Form 10-Q most recently filed with the SEC are not available, please provide the most recent annual or quarterly financial data accompanied by an attestation by the Applicant's Chief Financial Officer that the information submitted is true, correct and a fair representation of the Applicant's financial condition [Section 1.7]
	Senior unsecured debt ratings or, if unavailable, corporate issuer ratings [Section 1.7]
	If the Applicant has not been incorporated or otherwise formed under the laws of the United States, (i) a legal opinion acceptable to Companies of counsel qualified to practice in the foreign jurisdiction in which the Applicant is incorporated or otherwise formed that the SMA will become the binding obligation of the Applicant in the jurisdiction in which it has been incorporated or otherwise formed, and (ii) any additional information that the Applicant wishes to give that could provide comparable credit assurances to those that are provided by other Applicants that have at least two credit ratings from accepted credit ratings agencies. [Section 1.7]

Part 1 Ap	plication: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of	Applicant
For the	Guarantor:
	If the Guarantor is not an SEC registrant, provide the most recent Annual Report [Section 1.8]
	If the Guarantor is an SEC registrant, provide the Form 10-Q or Form 10-K, whichever was filed most recently with the SEC. If unavailable, please provide most recent audited quarterly or annual financial information (including a balance sheet, income statement, and cash flow statement) [Section 1.8]
	If the Guarantor is an SEC registrant and if both the Form 10-K and Form 10-Q most recently filed with the SEC are not available, please provide most recent annual or quarterly financial data accompanied by an attestation by the Guarantor's Chief Financial Officer that the information submitted is true, correct and a fair representation of the Applicant's financial condition [Section 1.8]
	Senior unsecured debt ratings or, if unavailable, corporate issuer ratings [Section 1.8]
	If the Guarantor has not been incorporated or otherwise formed under the laws of the United States, (i) a legal opinion acceptable to the Companies of counsel qualified to practice in the foreign jurisdiction in which the Guarantor is incorporated or otherwise formed that the Guaranty will become the binding obligation of the Guarantor in the jurisdiction in which it has been incorporated or otherwise formed, and (ii) any additional information that the Guarantor wishes to give about the Guarantor's financial standing that could provide comparable credit assurances to those that are provided by other Guarantors that have at least two credit ratings from accepted credit rating agencies. [Section 1.8]
If the Ap	oplicant is proposing an Alternate Guaranty Form:
	Proposed form of alternate guaranty [Section 1.10]
	Certification that the alternate guaranty has been in general use by the Applicant in its ordinary course of business over the past twelve months [Section 1.10]
	An enforceability opinion with respect to the alternate form of guaranty from counsel [Section 1.10]
	Proposed form of alternate guaranty [Section 1.10]

Name of Applicant		

Appendix B – Alternate Guaranty Form (Optional)

The criteria used to review the alternate form of guaranty are as follows:

- 1. The alternate guaranty must be a financial guaranty; performance guarantees are not acceptable.
- 2. The Companies will consider alternate forms of guaranty only if the guaranty is for unlimited liability.
- 3. The alternate guaranty must be an unconditional guaranty of payment of all amounts due by the Default Service Supplier to the Companies under the SMA. The SMA must be expressly identified and the satisfaction of obligations through performance may not be authorized.
- 4. The alternate guaranty may be terminated upon not less than thirty (30) days advance written notice to the Companies and termination shall not discharge liabilities and obligations of the Guarantor that have been incurred before the effective date of the termination.
- 5. The alternate guaranty must not be subject to any monetary limit.
- 6. The alternate guaranty must be accompanied by a certification that this form of guaranty, subject to changes needed to conform to the specific requirements of the Companies, has been in general use by the submitting party in its ordinary course of business over the past twelve months.
- 7. The alternate guaranty must be a guaranty of payment and not of collection.
- 8. Assignment of the alternate guaranty shall not be permitted except with the prior written consent of the Companies.
- 9. The Applicant must provide an enforceability opinion with respect to the alternate form of guaranty from its counsel. The accompanying enforceability opinion must be from a law firm of national (i.e., United States) standing, must not be weaker than would be industry norm and must contain only those qualifications that would be typical. The opinion shall name the Companies and explicitly state that the Companies are entitled to rely on the opinion.

The alternate forms of guaranty will be reviewed in accordance with the following process:

 Upon receipt of the Part 1 Application, the Independent Evaluator will redact the proposed alternate form of guaranty to remove any information identifying the Applicant. The Independent Evaluator will then forward the redacted version to a credit and legal representative of the Companies.

- The credit and legal representative will determine whether the alternate form of quaranty provides sufficient assurances of payment, taking into account the following considerations:
 - (i) whether the alternate form of guaranty conforms with the specific requirements identified by the Companies (listed above);
 - (ii) whether the alternate form of guaranty provides substantially similar credit protections to the credit protections provided to Companies by the standard form of quaranty; and
 - (iii) whether the alternate form of guaranty includes defenses in favor of the Guarantor not found in the standard form of guaranty. The Companies representative may also identify specific changes that would permit the alternate form of guaranty to be acceptable, if such changes are of a limited nature.
- The credit and legal representative shall inform the Independent Evaluator of its decision no later than seven (7) Business Days following the Part 1 Application Due Date.
- Upon receipt of the Companies' decision, the Independent Evaluator will notify the Applicant of the Companies' decision. The Companies' decision will state one of the following:
 - (i) The proposed alternate guaranty is acceptable to the Companies in the form in which it was submitted.
 - (ii) The proposed alternate guaranty is not acceptable to the Companies in the form in which it was submitted, but would be acceptable subject to specific changes of a minor nature. The correspondence from the Independent Evaluator will set forth the required changes.
 - (iii) The proposed alternate guaranty is not acceptable to the Companies.
- If specific changes are required to the proposed alternate guaranty, the Applicant will be required to resubmit the alternate guaranty form with changes identified by the Companies on the Business Day following the Business Day during which the Independent Evaluator notified the Applicant of the Companies' decision. No later than three (3) Business Days after the Applicant's resubmission, the Independent Evaluator will notify the Applicant of the Companies' final decision.

A potential bidder that had secured approval for an alternate form of guaranty from any previous Default Service procurement auction held by one or more of the Companies and wishes to use the same alternate form of guaranty can renew this by submitting the following:

The alternate form of guaranty from any previous Default Service

procurement auction by the Companies;

- 2. The enforceability opinion from any previous Default Service procurement auction by the Companies;
- 3. A certification that the text of the alternate form of guaranty is exactly the same as the alternate form of guaranty that had been previously approved from any previous Default Service procurement auction by the Companies;
- 4. A certification that the text of the enforceability opinion is exactly the same as the enforceability opinion that had been previously approved from any previous Default Service procurement auction by the Companies.

If a potential bidder submits the materials as specified above, the alternate form of guaranty will be approved for the FP Auction and/or the HP Auction without further re-evaluation. If a potential bidder had secured approval for an alternate form of guaranty from any previous Default Service procurement auction by the Companies but is unable to provide the materials as specified above, the potential bidder must resubmit the alternate form of guaranty and all supporting documentation as specified in the Alternate Form of Guaranty section above and these materials will be re-evaluated according to the criteria set forth in this document.

All proposing parties that become Qualified Bidders under the Part 1 Application process, but whose alternate guaranty is rejected by the Companies, are required to submit with their Part 2 Application a supplemental certification that the Applicant unconditionally accepts all terms and conditions of the SMA.

Appendix C – Proposing Changes to the Pre-Bid Security Letter of Credit (Optional)

The standard form of the Pre-Bid Security Letter of Credit that is acceptable to the Companies will be posted to the Information Website. However, an Applicant has the option to propose changes to the Pre-Bid Security Letter of Credit during the Part 1 Application process by clearly identifying the proposed changes in an electronic, redlined version. This version may be submitted by email to fepaauction@crai.com or as an attachment through the Secure Online Application.

The Companies will assess, in their sole and exclusive discretion, whether such modifications are acceptable. The Qualified Bidder, in its Part 2 Application, must provide the required executed Pre-Bid Security Letter of Credit that either uses the standard form or incorporates only those modifications to the standard form accepted by the Companies upon review of the Part 1 Application. The draft Pre-Bid Security Letter of Credit will be reviewed in accordance with the following process:

- Upon receipt of the Part 1 Application, the Independent Evaluator will redact the draft Pre-Bid Security Letter of Credit to remove any information identifying the Applicant. The Independent Evaluator will then forward the redacted version to a credit and legal representative of the Companies.
- The credit and legal representative will determine whether such modifications are acceptable. The credit and legal representative shall inform the Independent Evaluator of its decision no later than seven (7) Business Days following the Part 1 Application Due Date.
- Upon receipt of the Companies' decision, the Independent Evaluator will notify the Applicant of the Companies' decision. The Companies' decision will either state:
 - (i) The proposed changes to the Pre-Bid Security Letter of Credit are acceptable to the Companies in the form in which they were submitted.
 - (ii) The proposed changes to the Pre-Bid Security Letter of Credit are not acceptable to the Companies in the form in which they were submitted, but would be acceptable subject to specific changes of a minor nature. The correspondence from the Independent Evaluator will set forth the required changes.
 - (iii) The proposed changes to the Pre-Bid Security Letter of Credit are not acceptable to the Companies.
- If specific changes are required pursuant to (ii) above, the Applicant will be required to resubmit the draft Pre-Bid Security Letter of Credit with changes identified by the Companies on the Business Day following the Business Day during which the Independent Evaluator notified the Applicant of the Companies' decision. No later

Part 1 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service			cure Default Service Products
Name of Applicant			
than three (3	3) Business Days after th	e Applicant's resub	mission, the Independen

than three (3) Business Days after the Applicant's resubmission, the Independent Evaluator will notify the Applicant of the final decision.

End of Part 1 Application

Part 2 Application

For Fixed-Price and Hourly-Priced Auctions

To Procure Default Service Products

Under Default Service Program DSP-V for

Metropolitan Edison Company ("Met-Ed")

Pennsylvania Electric Company ("Penelec")

Pennsylvania Power Company ("Penn Power")

West Penn Power Company ("West Penn")

Appendix 2 to Bidding Rules

Name of Applicant

rtaine or Applicant

PART 2 APPLICATION AUCTIONS TO PROCURE DEFAULT SERVICE PRODUCTS FOR MET-ED / PENELEC / PENN POWER / WEST PENN

INSTRUCTIONS

There are two parts to the application process.

- Part 1 Application: Applicants submit the Part 1 Application and all documents required therein to become Qualified Bidders for the fixed-price auction ("FP Auction") and/or the hourly-priced auction ("HP Auction") used to procure default service products for Met-Ed, Penelec, Penn Power, and West Penn ("Companies"). A Qualified Bidder for an auction need not submit a new Part 1 Application for subsequent auctions in the same calendar year unless the information in the Qualified Bidder's Part 1 Application has changed. In any case, a Qualified Bidder must submit its most recent financial statements during the Part 1 Application process before each auction.
- Part 2 Application: Qualified Bidders for the FP Auction and/or the HP Auction submit the Part 2 Application in which they will: (a) agree to comply with the Bidding Rules, (b) agree to accept the terms of the Supplier Master Agreement ("SMA") should they become a winning supplier, (c) make certifications regarding associations and handling of Confidential Information, (d) submit Indicative Offers, and (e) post Pre-Bid Security to become Registered Bidders.

This document is the Part 2 Application.

For further information, consult the Information Website.

Unless otherwise defined, capitalized terms in this document have the definitions provided in the SMA. "Communications Protocols" refers to the section "Communications Protocols" and related sections in the Bidding Rules.

Name of Applicant

PART 2 APPLICATION SUBMISSION

To become a Registered Bidder for the FP Auction and/or the HP Auction, Applicants must submit the following to the Independent Evaluator electronically through the Secure Online Application Process or in hardcopy format to the address below by the Part 2 Application Due Date:

- Electronic Application Form: Completed Part 2 Application submitted online;
- Hardcopy Application Form: One (1) printed Part 2 Application document with original signatures, notarized signatures where applicable, and the name of the Applicant on every page of the Application;

In addition to the completed Part 2 Application Forms, each Qualified Bidder must:

- Submit an Indicative Offer for each auction either the FP Auction, the HP Auction, or both auctions;
- Submit a Pre-Bid Security Letter of Credit and/or cash to support the Indicative Offers; and
- Make required certifications on Applicant Associations and Confidential Information and, if unable to do so, make required information disclosures.

Please note that interest will not be paid by the Companies for cash posted as Pre-Bid Security.

It is in your interest to seek independent legal and financial advice before deciding to participate in the FP Auction and/or the HP Auction.

Part 2 Application:	FE-PA Fixed-Price and Hourly-Price	ced Auctions to Procure Default	Service Products
Name of Applicant		-	

The completed Part 2 Application and Pre-Bid Security MUST be received by the Independent Evaluator no later than 12:00 p.m. noon prevailing Eastern Time on the Part 2 Application Due Date as posted in the timeline on the Information Website.

Any hardcopies must be addressed to:

Independent Evaluator c/o Brad Miller, Vice President CRA International, Inc. 200 Clarendon Street, T-9 Boston, MA 02116-5092 Phone: 617.425.3384

Part 2 Application:	FE-PA Fixed-Price and Hourly-Pri	ced Auctions to Procure Defaul	t Service Products
Name of Applicant	t	_	

CONFIDENTIALITY OF PART 2 APPLICATION SUBMISSIONS

Confidentiality requirements specific to the Part 2 Application are reiterated below.

CONFIDENTIALITY OF CREDIT INFORMATION

Any information and materials that you submit in this Part 2 Application may be provided on a confidential basis to the Independent Evaluator Team and the Pennsylvania Public Utility Commission (the "Commission") and their representatives. Representatives from the Companies will decide whether the form of Pre-Bid Security submitted is acceptable; Pre-Bid Security documents will be redacted prior to the closing of the bidding process so as not to reveal an Applicant's identity or the amount of the Applicant's Indicative Offer.

CONFIDENTIALITY OF REGISTERED BIDDERS AND INITIAL ELIGIBILITY

Upon completion of the Part 2 Application process, the names of Registered Bidders will be provided to other Registered Bidders on a confidential basis for each auction independently, as well as the total Initial Eligibility aggregated across all Registered Bidders for each auction. As part of this Part 2 Application, you are required to certify that you agree to release your name to other Registered Bidders and that you will keep confidential the list of Registered Bidders and total Initial Eligibility that is provided to you.

Name of Applicant

PART 2 APPLICATION Fixed-Price Auction and Hourly-Priced Auction To Procure Default Service Products

This Part 2 Application is the application form to become a Registered Bidder in the FP Auction and/or the HP Auction.

Background Information

Before completing this application, please review the Bidding Rules document, the SMA, and other documents posted on the Information Website so that you understand the conditions under which the FP Auction and HP Auction will be conducted.

Confirmation of Receipt

Online Delivery: If your Part 2 Application is submitted online through the Secure Online Application Process, an email will be sent to the Authorized Representative and Delegate of the Applicant to confirm receipt. You will not be required to submit a hardcopy of the Part 2 Application.

<u>Delivery by Post or Hand Delivery</u>: If your Part 2 Application is received by post or hand delivery, an email will be sent to the Authorized Representative and Delegate to confirm receipt.

Incomplete Applications

If your Part 2 Application is incomplete or requires clarification, the Independent Evaluator will send a deficiency notice to your Authorized Representative by email. You will have until 12:00 p.m. noon prevailing Eastern Time on the Part 2 Application Due Date, or until 5:00 p.m. prevailing Eastern Time on the Business Day following the Business Day during which a deficiency notice is sent to you, whichever comes later, to respond. If you do not correct or adequately explain the deficiency within the time allowed, your Part 2 Application may be rejected and you may be unable to participate in the FP Auction or the HP Auction. All corrections to remedy deficiencies within an Applicant's Part 2 Application must be submitted online. The Authorized Representative needs to sign and date next to the correction(s) to the Part 2 Application and send a copy as an email attachment to the Independent Evaluator at fepaauction@crai.com or through the Secure Online Application Process.

Name of Applicant

Late Applications

Part 2 Applications received after the Part 2 Application Due Date will NOT be accepted under any circumstances.

Changes to Part 1 Application

If changes to the Part 1 Application are warranted in order to fulfill the requirements of the Part 2 Application, those changes to the Part 1 Application must be received by the Independent Evaluator no later than 12:00 p.m. noon prevailing Eastern Time seven (7) Business Days prior to the Part 2 Application Due Date. All changes to an Applicant's Part 1 Application must be signed and dated by the Authorized Representative and sent as an email attachment to the Independent Evaluator at fepaauction@crai.com or through the Secure Online Application Process.

Deficient Pre-Bid Security

If your Pre-Bid Security Letter of Credit is not in a form acceptable to the Companies, your Authorized Representative will be emailed a deficiency notice. You will have until 12:00 p.m. noon prevailing Eastern Time on the Part 2 Application Due Date or 5:00 p.m. prevailing Eastern Time of the second Business Day following the Business Day during which you are notified, whichever comes later, to submit a revised Pre-Bid Security Letter of Credit. If you fail to meet this deadline, your Part 2 Application will be rejected.

If your Pre-Bid Security amount is insufficient for your Indicative Offer, your Authorized Representative will be emailed a deficiency notice. You will have until 12:00 p.m. noon prevailing Eastern Time on the Part 2 Application Due Date or 5:00 p.m. prevailing Eastern Time of the second Business Day following the Business Day during which you are notified, whichever comes later, to submit acceptable Pre-Bid Security. If you cannot correct the deficiency, your Part 2 Application may be rejected or your Initial Eligibility may be reduced by the Independent Evaluator so that your Pre-Bid Security is sufficient to cover your Indicative Offer.

Certifications Regarding Associations

You may be required to provide additional information to the Independent Evaluator and to the Commission and its representatives if you are unable to make the certifications in this Part 2 Application.

Name of Applicant

Notification to Registered Bidders

If you become a Registered Bidder for the FP Auction and/or the HP Auction, the Independent Evaluator will send your Authorized Representative a Notice of Registration by email after the Part 2 Application Due Date. The Notice of Registration also will be sent to your Authorized Representative by courier. If there are material changes to the Applicant's information provided in this Part 2 Application, you are obligated to notify the Independent Evaluator.

Prior to the auction date, Registered Bidders will receive information on how to participate in the auction(s) using the Independent Evaluator's secure Bidding Website.

Part 2 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products				
Name of Applicant	_			
Please select one of the following. This application is for:				
The Fixed-Price Auction				
The Hourly-Priced Auction				
Both Auctions				

Part 2 Application: FE-PA Fixed-F	rice and Hourly-Priced Auct	ions to Procure Default Service Products
Name of Applicant		
PART 2 APPLICATION FOR	RMS	
Applicant Information		
Name of Applicant (Compa	ny Name)	
Authorized Representative		
Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Title		
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell Phone	No. Fax No.	Email Address

Part 2 Application: FE-PA Fixe	ed-Price and Hourly-Priced Auctions	to Procure Default Service Products
Name of Applicant		
Delegate's Contact Info	mation	
Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Company Name		itle
Street Address 1		
Street Address 2		
City	State	<u>Z</u> ip Code
Telephone No. Cell Ph	one No. Fax No.	Email Address

NOTE: The contact information for the Authorized Representative and Delegate in the Part 2 Application should be the same contact information that was provided in the Part 1 Application. Please email fepaauction@crai.com if there are any changes to this information prior to the deadline for making changes as outlined in the section above, "Changes to Part 1 Application."

Name of Applicant

Indicative Offers and Pre-Bid Security

Provide your Indicative Offers in Table 1 and Table 2 below. For each auction that you are applying for, you will provide an Indicative Offer at the Minimum Starting Prices and you will provide an Indicative Offer at the Maximum Starting Prices for the products in the auction. For each auction, your Indicative Offer should be the maximum number of tranches that you would be willing to supply at the applicable starting prices subject to the limitations of any applicable load cap for the auction. In each auction itself, you are not required to bid the number of tranches in your Indicative Offer. However, your Initial Eligibility to bid in each auction will be determined by the total number of tranches across the products in your Indicative Offer at the Maximum Starting Prices for that auction.

For the FP Auction, you are required to submit Pre-Bid Security in the form of cash or a Pre-Bid Security Letter of Credit for an amount equal to \$250,000 multiplied by the total number of tranches in your Indicative Offer at the Maximum Starting Prices for the FP Auction.

For the HP Auction, you are required to submit Pre-Bid Security in the form of cash or a Pre-Bid Security Letter of Credit for an amount equal to \$250,000 multiplied by the total number of tranches in your Indicative Offer at the <u>Maximum</u> Starting Prices for the HP Auction.

If using a Pre-Bid Security Letter of Credit for your Pre-Bid Security, it should be in the form provided on the Information Website or as approved in modified form during the Part 1 Application process.

After completing Tables 1 and 2, complete Table 3 to include the amount of the cash deposit or Pre-Bid Security Letter of Credit that you are providing in support of this Part 2 Application.

lame of Applicant								
able 1. Indicative Offer at N	<u>/linimum</u> Start	ting Prices (price	s in \$/MWh)				
FP Auction	N	let-Ed	P	enelec	Pen	n Power	We	st Penn
Product	Min Starting Price	Possible Interest (# tranches)						
Residential X-months								
Commercial X-months								
HP Auction		of the tranches a		m Starting Prices enelec		oroducts. In Power	We	est Penn
	Min	Possible Interest	Min Starting Price	Possible Interest (# tranches)	Min Starting Price	Possible Interest (# tranches)	Min Starting Price	Possible Interest
Product	Starting Price	(# tranches)	1 1100	(# lianches)		,		(# tranches)
Product Industrial X-months	•	(# tranches)	THEC	(# tranches)		,		(# tranches)
	Price							(# tranches)

ame of Applicant								
able 2. Indicative Offer at N	<u>//aximum</u> Star	ting Prices (price	es in \$/MWh)				
FP Auction	N	let-Ed	P	enelec	Pen	n Power	We	st Penn
Product	Max Starting Price	Possible Interest (# tranches)	Max Starting Price	Possible Interest (# tranches)	Max Starting Price	Possible Interest (# tranches)	Max Starting Price	Possible Interest (# tranches)
Residential X-months								
Commercial X-months								
In Box [A] Enter Your Indic	ative Offer for	the FP Auction a	t the Maximu	ım Starting Price	s:			
In Box [A] Enter Your Indic	[A] < Do	oes not need to b	e the sum of	-	ove at the Ma	aximum Starting s the products.	Prices. This	can be less
In Box [A] Enter Your Indic	[A] < Do than the	oes not need to b	pe the sum of nes at the Ma	the tranches ab	ove at the Ma Prices across			can be less st Penn
	[A] < Do than the	pes not need to be sum of the tranct	pe the sum of nes at the Ma	the tranches aboximum Starting I	ove at the Ma Prices across	s the products.		st Penn Possible Interest
HP Auction	[A] < Do than the	pes not need to be sum of the tranched let-Ed Possible Interest	pe the sum of thes at the Ma Pe Max Starting	the tranches aboximum Starting I	ove at the Maren ove at the Maren over at the Ma	n Power Possible Interest	We Max Starting	st Penn Possible
HP Auction Product	[A] < Do than the	pes not need to be sum of the tranch	Pe the sum of the sat the Max Starting Price	enelec Possible Interest (# tranches)	Pen Max Starting Price	n Power Possible Interest	We Max Starting	st Penn Possible Interest

Part 2 Application:	FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products	
Name of Applicant		
•	ble, indicate the amount of cash deposit or the amount of the Pre-Bid Security Letter of Credit to amount must be equal to \$250,000 multiplied by your Indicative Offer in box [A], plus \$250,000 Table 2 above.	
Table 3. Pre-Bid Se	curity Amount	
\$	Cash	
¢	Pre-Bid Security Letter of	

Part 2 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
If you are submitting a Pre-Bid Security Letter of Credit, in the space below please provide instructions for returning the Pre-Bid Security Letter of Credit once it can be cancelled.
If you are submitting a cash deposit, you must attach a copy of your W9 (for tax ID) and a copy of your banking information on your company's letterhead, signed and dated. Furthermore, in the space below, please provide wiring instructions for returning your cash deposit.

Part 2 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
Certifications by Authorized Representative
Please consult the list of Qualified Bidders for the FP Auction and/or the list of Qualified Bidders for the HP Auction provided to you upon qualification. The following certifications are those contained in the "Association and Confidential Information Rules" of the Bidding Rules. Please consult the criteria for associations and the definition of Confidential Information in the Bidding Rules.
Please make the following certifications. All Qualified Bidders, including each party to a Bidding Consortium, Bidding Agreement or Joint Venture for the purpose of bidding in the FP Auction and/or the HP Auction, must make these certifications. The following certifications (1) to (8) will apply from the time of qualification until the results of the Default Service Auctions, are finalized. Completion of the following certifications also signifies your acknowledgement that you do not know of or cannot reasonably anticipate, at the time of this Part 2 Application, any events that might cause these certifications to become untrue during the period to which each certification applies. If you cannot make one or more of these certifications, please disclose the necessary information to explain why you cannot make these certifications. (1) Please certify that you are not associated with another Qualified Bidder according to the criteria as defined in the Bidding Rules.
Signature of Authorized Representative Date
If unable to make certification (1) requested above, please identify the Qualified Bidder(s) in the FP Auction and/or the HP Auction, with whom you are associated along with the nature of the association.

Name o	of Applicant	
(2)	Please certify that, other than parties explicitly named in Section 1.11 of y Part 1 Application as parties with whom you have entered into a Bidd Agreement, Joint Venture, Bidding Consortium, or other arrangement pertain to bidding in the FP Auction and/or the HP Auction, you have not entered any agreement with another Qualified Bidder, directly or indirectly, regarding to in the FP Auction and/or the HP Auction, including, but not limited to, the amount to bid at certain prices, and when or at what prices bids are to be withdrawn.	ding ning into oids ount
	Signature of Authorized Representative Date	
(3)	Please certify that any person who will be advising or assisting you with bidd strategy in the FP Auction and/or the HP Auction, with estimation of the value tranches, or with the estimation of the risks associated with serving Def Service Load (an advisor), will either (i) not provide any similar advice assistance to any other Qualified Bidder; or (ii) if such person will provide simadvice or assistance to another Qualified Bidder, or if such person will be p to Confidential Information relative to any other Qualified Bidder's bidd strategy, that appropriate protections have been put into place to ensure that advisor does not serve as a conduit of information among, or as a coordinate the bidding strategies of, multiple bidders, and please describe such appropriate protections in the space below.	e of ault or nilar rivy ding the or of
	Signature of Authorized Representative Date	
	ble to make certification (3) requested above, please name the advisor(s) and ied Bidder(s) concerned.	the

Name o	of Applicant	
(4)	Please certify that you are not a party to any that might be used as a source of supply for require the disclosure of any Confidential II relative to the bidding strategy or Confidential II and the counciliative to the bidding strategy or Confidential III that would require the disclosure of any Confidential interest that would require the bidding strategy of the FP Auction and/or the HP Auction) to provide instructions, direct financial incents Bidder to act in a way determined by the counconcert with any other Bidder in the FP Notwithstanding the above, you may, during and/or the HP Auction for contractual arrangements with the counterparty to such arrangements to be purchased, the volume, and buy these products, so long as such arrangements.	or Default Service, and that (i) would information (Confidential Information ential Information regarding the FP interparty under such a contract; or confidential Information (Confidential or Confidential Information regarding any other party; or (iii) that would ives, or other inducements for the interparty in the agreement and/or in a Auction and/or the HP Auction. In a negotiations prior to the FP Auction gements for power to serve Default in FP Auction and/or the HP Auction, gements the nature of the standard the price at which you are willing to
	Signature of Authorized Representative	Date
that p applic	ole to make certification (4) requested above prevent you from making the certification. Pleable, the party to whom information disclosuintract.	ease identify the counterparty and if

Part 2	Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name	of Applicant
(5)	Please certify that you do not have any knowledge of Confidential Information that is relevant to the bidding strategy of any other Qualified Bidder.
	Signature of Authorized Representative Date
	able to make certification (5) requested above please name the other Qualified r(s) and the nature of the Confidential Information
(6)	Please certify that you will not disclose Confidential Information relative to your bidding strategy except to bidders that were explicitly named in your Part 1 Application as parties with whom you have entered into a Bidding Agreement, Joint Venture, or Bidding Consortium, or other arrangement pertaining to bidding in the FP Auction and/or the HP Auction, Bidders with which you are associated as disclosed through certification (1), to your advisors, and to your financial institution.
	Signature of Authorized Representative Date
If una	ble to make certification (6) requested above, please explain.

Name	of Applicant
(7)	Please certify that, other than entities with which you are affiliated and other than bidders with which you have entered a Bidding Agreement, or Joint Venture, or Bidding Consortium, or other arrangement pertaining to the FP Auction and/or the HP Auction, no party has agreed to defray any of the costs of participating in the FP Auction and/or the HP Auction, including the cost of preparing the bid, the cost of any financial guarantees, the cost to be paid upon winning a tranche, and any other participation cost.
	Signature of Authorized Representative Date
If una	ble to make certification (7) requested above, please explain.
(8)	Please certify your agreement that the submission of any bid in the FP Auction and/or the HP Auction creates a binding and irrevocable offer to provide service under the terms set forth in the SMA and that a binding and enforceable contract to provide service with respect to the number of tranches for which you were a winner in the FP Auction and/or the HP Auction shall arise under the SMA. Please note that failure to execute the SMA within three (3) Business Days following the date of the Commission's approval of the auction results may result in the forfeiture of the Pre-Bid Security Letter of Credit.
	Signature of Authorized Representative Date
If una	ble to make certification (8) requested above, please explain.

Part 2 A	Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Pr	ocure Default Service Products
Name o	of Applicant	
	ollowing certifications (9), (10) and (11) will apply fr the certifications.	om the date on which you
(9)	Please certify that if you are registered to participate in the Auction, you will not disclose at any time information Eligibility in the FP Auction and/or the HP Auction Bidders, including the number of Registered Bidders all entities that have been registered, or the fact the registered for participation in the FP Auction and/or the second s	mation regarding the Initial n or the list of Registered s, the identity of any one or nat an entity has not been
	Signature of Authorized Representative	Date
(10)	Please certify that you will not disclose any Confidenthe FP Auction and/or the HP Auction to any party Bidders with which you are associated as disclosed in	except your advisors and
	Signature of Authorized Representative	Date
If unal	ole to make certification (10) requested above, please	explain.

of Applicant	
Please certify that you will continue to above certifications. You will not disclose any Configer P Auction and/or the HP Auction to any party of with which you are associated. Please certify the written or electronic, provided by the Inde Confidential Information regarding the FP Auctive (5) days of the close of the bidding, of Independent Evaluator	idential Information regarding the except to your advisor and Bidders hat you will destroy all documents, ependent Evaluator that contain ction and/or the HP Auction within
Signature of Authorized Representative	Date
ble to make certification (11) requested above, p	please explain.
	Please certify that you will continue to ab certifications. You will not disclose any Conf FP Auction and/or the HP Auction to any party with which you are associated. Please certify the written or electronic, provided by the Inde Confidential Information regarding the FP Auction (5) days of the close of the bidding, of Independent Evaluator Signature of Authorized Representative

Ongoing Obligations

Please note that all obligations, terms and conditions set forth in the Bidding Rules and SMA remain in effect and apply to the certifications made herein, including but not limited to the following:

Section 4.2.3 of the Bidding Rules - Sanctions may be imposed on a Bidder for failing to abide by any of the certifications that it will have made in its Part 1 and Part 2 Applications. Such sanctions can include, but are not limited to, termination of the SMA, loss of all rights to provide supply for the Companies to serve any load won by such bidder, forfeiture of financial guarantees and other fees posted or paid, prosecution under applicable state and federal laws, debarment from participation in future solicitations, and other sanctions that may be appropriate.

Part 2 Application: FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products
Name of Applicant
Justification of Omissions
If you are unable to provide all documents or all information requested in this Part 2 Application, please justify fully any omissions in the space provided below.

Part 2 Application:	FE-PA Fixed-Price and Hourly-Priced Auctions to Procure Default Service Products				
Name of Applicant					
Appendix A –	Enclosures to the Part 2 Application				
This is a check	list of documents to be enclosed with this Part 2 Application.				
	one copy of completed Part 2 Application forms (with original signatures)				
	ne copy of W9 Form (for Tax ID) and one copy of banking information				
0	n your company's letterhead (signed and dated) (if submitting cash				
d	eposit as Pre-Bid Security) [Section 2.2]				
□ P	re-Bid Security Letter of Credit (if applicable) [Section 2.2]				
	End of Part 2 Application				

METROPOLITAN EDISON COMPANY PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY, AND WEST PENN POWER COMPANY

DEFAULT SERVICE SUPPLIER MASTER AGREEMENT

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PENNSYLVANIA DEFAULT SERVICE SUPPLIER MASTER AGREEMENT

THIS DEFAULT SERVICE SUPPLIER MASTER AGREEMENT, made and entered into this _____ day of _____ ("Effective Date"), by and between [Applicable EDC listed here - Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company or West Penn Power Company] (the "Company" and "Buyer"), a corporation and a public utility organized and existing under the laws of the Commonwealth of Pennsylvania [INSERT NAME OF SUPPLIER] ("DS Supplier"), the Company and the DS Supplier hereinafter sometimes referred to collectively as the "Parties", or individually as a "Party",

WITNESSETH:

WHEREAS, the Company is an electric public utility engaged, <u>inter alia</u>, in providing retail electric service within its service territory located in the Commonwealth of Pennsylvania; and

WHEREAS, the Pennsylvania Public Utility Commission ("PaPUC" or "Commission") Orders issued pursuant to the Electricity Generation Customer Choice and Competition Act, 66 Pa.C.S. §§ 2801-2812, direct Buyer to supply electric service to Default Service Load within Buyer's Pennsylvania franchise service territory; and

WHEREAS, the PaPUC has found that, for periods further identified in Appendix C it would serve the public interest for the Company to secure Default Service Supply ("DS Supply") through a competitive procurement process ("DS Solicitation") and the PaPUC has approved such a process; and

WHEREAS, the Company has conducted and completed a successful DS Solicitation for the provision of DS Supply, and the DS Supplier was one of the winning bidders in the DS Solicitation; and

WHEREAS, pursuant to the competitive bidding procedures of the DS Solicitation, the Company and the DS Supplier desire to enter into this Agreement setting forth their respective rights and obligations concerning the provision of DS Supply.

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth below, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby covenant, promise and agree as follows:

ARTICLE 1: DEFINITIONS

Any capitalized or abbreviated term not elsewhere defined in this Agreement shall have the definition set forth in this Article.

AEPS Act – The Pennsylvania Alternative Energy Portfolio Standards Act, 73 P.S. §§ 1648.1-1648.8.

Affiliate - means, with respect to any entity, any other entity that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such entity. For this purpose, "control" means the direct or indirect ownership of fifty percent (50%) or more of the outstanding capital stock or other equity interests having ordinary voting power.

Allocated AECs – Shall mean the types and amounts of AECs specified on Appendix E.

Alternative Energy Credit or "AEC" – Shall have the meaning ascribed thereto in the AEPS Act.

Alternative Energy Portfolio Standards or "AEPS" – Standards requiring that a certain amount of electric energy sold to retail electric customers in the Commonwealth of Pennsylvania be comprised of electricity generated from alternative energy sources, as measured by AECs, in accordance with the requirements of the AEPS Act and provisions

of the Electricity Generation Customer Choice and Competition Act, 66 Pa.C.S. §§ 2812-14, in effect on the Effective Date including, without limitation, any subsequent increases in Tier I requirements under 66 Pa.C.S. § 2814.

Ancillary Services – Shall have the meaning ascribed thereto in the PJM Agreements.

Applicable Legal Authorities – Those federal and Pennsylvania statutes and administrative rules and regulations that govern the electric utility industry in Pennsylvania, as they may be amended from time to time.

Auction Revenue Rights or "ARR" – The current or any successor congestion management mechanisms as may be employed by PJM (whether set forth in the PJM Agreements or elsewhere) for the purpose of allocating financial congestion hedges or financial transmission auction revenue rights. As currently defined by PJM, ARRs are entitlements allocated annually by PJM which entitle the holder to receive an allocation of the revenues from the annual auction of financial transmission rights conducted by PJM pursuant to the PJM Agreements.

Bankruptcy Code – Those laws of the United States of America related to bankruptcy, codified and enacted as Title 11 of the United States Code, entitled "Bankruptcy" and found at 11 U.S.C. § 101 <u>et seq.</u>, as such laws may be amended, modified, replaced or superseded from time to time.

Billing Line Item Transfers - "Billing Line Item Transfers" shall have the meaning ascribed to it in Section 2.4 (PJM Services).

Billing Month – Each calendar month during the term of this Agreement.

Business Day – Any day on which the Company's and PJM's corporate offices are open for business and commercial banks are not authorized or required to close in New York, New York.

Capacity – "Unforced Capacity" as set forth in the PJM Agreements, or any successor, measurement of the capacity obligation of a Load Serving Entity as may be employed in PJM (whether set forth in the PJM Agreements or elsewhere).

Charge – Any fee, charge or other amount that is billable by the Company to the DS Supplier under this Agreement.

Commercial Class – Group of Rate Schedules that comprise the Commercial Class for DS Supply and itemized in Appendix C.

Costs – With respect to the Non-Defaulting Party, brokerage fees, commissions and other similar transaction costs and expenses reasonably incurred by such Party either in terminating any arrangement pursuant to which it has hedged its obligations or entering into new arrangements which replace this Agreement; and all reasonable attorneys' fees

and expenses incurred by the Non-Defaulting Party in connection with the termination of this Agreement.

Customer – Any person or entity who enters a contractual agreement with the Company to receive retail electric service including, without limitation, all persons or entities taking service under a retail tariff, eligible to receive competitive electricity supply from an EGS or DS, respectively, in accordance with the Applicable Legal Authorities.

Damages – Financial compensation from the Defaulting Party to the Non-Defaulting Party associated with the occurrence of an Event of Default or an Early Termination of this Agreement. This compensation shall be assessed pursuant to Article 5 of this Agreement.

Default Allocation Assessment – shall have the meaning ascribed to it under the PJM Agreements.

Defaulting Party – A Party to this Agreement that has caused or precipitated an Event of Default or an Early Termination of this Agreement.

Default Service or "DS" – Electric generation service that is provided at retail pursuant to the Applicable Legal Authorities under the Company's retail electric tariffs and under any other agreements or arrangements between the Company and Customers, to any Customer that is not being served by an EGS.

Default Service Supply or "DS Supply" – All necessary Energy, Capacity, AECs for AEPS Act compliance, Ancillary Services, and transmission services including Network Integration Transmission Service, all transmission and distribution losses and congestion and imbalance costs associated with the provision of such services, and such other services or products that the DS Supplier may be required, by PJM or any governmental body having jurisdiction, to provide in order to meet the DS Supplier Responsibility Share for serving DS Load under this Agreement and as detailed in Appendix C. For the avoidance of doubt, any reference in this Agreement to any other agreement for DS Supply shall include any agreement between the Parties for the provision of Energy to serve DS Load, even if such other agreement does not require delivery of additional products (e.g., Capacity).

Delivery Period – The delivery period specified in Appendix C.

Delivery Point – Means the applicable zone of the Company as designated by PJM.

DS Customer(s) – Retail customers who are provided Default Service pursuant to the terms of this Agreement, the Applicable Legal Authorities and the Company's retail tariffs.

DS Fixed Percentage – The percentage of DS Supply provided at a fixed price, as set forth in Exhibit 1.

DS Fixed Price – The price in dollars per MWh, as set forth in Exhibit 1 hereto, as determined pursuant to the DS Solicitation.

DS Load – The aggregate load of DS Customers being provided DS Supply.

DS Solicitation – The competitive bidding processes, procedures and rules employed by the Company to competitively procure DS Supply for purposes of this Agreement.

DS Supplier – An entity that (i) has been selected through the DS Solicitation and has accepted the obligations and associated rights to provide DS Supply to the Company for retail customers in accordance with the Applicable Legal Authorities, (ii) has entered into this Agreement with the Company as a Party, and (iii) is a PJM Member and registered with PJM as a LSE.

DS Supplier Representative – Any officer, director, employee, consultant, contractor, or other agent or representative of the DS Supplier in connection with the DS Supplier's activity under this Agreement. To the extent the DS Supplier is a division or group of a company, the term DS Supplier Representative does not include any person in that company who is not part of the DS Supplier division or group.

DS Supplier Responsibility Share – The fixed percentage share of the Company's DS Load for which the DS Supplier is responsible as set forth in Appendix C.

DS Tariff – The Company's existing schedules of rates and services provided to retail customers as currently on file with the Commission and on the Company's website at https://www.firstenergycorp.com/content/customer/customer_choice/pennsylvania/penns ylvania_tariffs.html, as they may be amended from time to time.

DS Variable Percentage – The percentage of DS Supply provided at a variable price, as set forth in Exhibit 1 hereto.

DS Variable Price – The price in dollars per MWh, as set forth in Exhibit 1 hereto.

Early Termination – Termination of this Agreement prior to the end of the term due to the occurrence of an Event of Default as specified in Article 5.2 of this Agreement and the declaration of Early Termination.

Early Termination Date – The date upon which an Early Termination becomes effective as specified in Article 5.2 of this Agreement.

Electric Distribution Company or "EDC" – A public utility providing facilities for the transmission and distribution of electricity to retail customers in Pennsylvania.

Electric Generation Supplier or "EGS" – A person or entity that is duly certified by the Commission to offer and provide competitive electric supply to retail customers located in the Commonwealth of Pennsylvania.

Emergency – (i) an abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property; or (ii) a condition that requires implementation of Emergency Operations Procedures as defined in the PJM Agreements or PJM manuals; or (iv) any other condition or situation that the Company or PJM deems imminently likely to endanger life or property or to affect or impair the Company's electrical system or the electrical system(s) of other(s) to which the Company's electrical system is directly or indirectly connected (a "Connected Entity"). Such a condition or situation may include, but shall not be limited to, potential overloading of the Company's transmission and/or distribution circuits, PJM minimum generation ("light load") conditions, or unusual operating conditions on either the Company's or a Connected Entity's electrical system, or conditions such that the Company is unable to accept Energy from the DS Supplier without jeopardizing the Company's electrical system or a Connected Entity's electrical system. Other additional emergencies can only be declared by PJM, FERC, or the PaPUC.

Energy – Three-phase, 60-cycle alternating current electric energy, expressed in units of kilowatt-hours or megawatt-hours.

Event of Default – A Party's breach of obligations under this Agreement as set forth in Article 5 of this Agreement.

FERC – The Federal Energy Regulatory Commission.

Final Monthly Energy Allocation or "FMEA" – A quantity of Energy which, for any Billing Month, is the PMEA adjusted for any billing or metering data received subsequent to the calculation of PMEA of which PJM is notified within 60 days.

Force Majeure - Means an event or circumstance which prevents one Party from performing its obligations under one or more transactions, such as riots or revolutions, demands or embargoes of the United States Government, fire, flood, drought, insurrection, acts of God which are not within the reasonable control of, or the results of the negligence of the affected Party and which, by the exercise of due diligence, the Party is unable to mitigate or avoid or cause to be avoided. Notwithstanding the foregoing, under no circumstance shall an event of Force Majeure be based on: (i) the loss or failure of DS Supplier's supply; (ii) DS Supplier's ability to sell the DS Supply at a price greater than that received under any Transaction; (iii) curtailment by a utility transmitting DS Supply; (iv) the Company's ability to purchase the DS Supply at a price lower than paid under any Transaction; (v) any change in requirements of any governmental authority; or (vi) labor stoppage or lockout.

Forward Market Price – The price for On-peak Energy Forward Price and Off-peak Energy Forward Price as determined by averaging concurrent broker quotes obtained by the Company for the Market Price Hub as available.

Gains – With respect to any Party, an amount equal to the present value of the economic benefit to it, if any (exclusive of Costs), resulting from an Early Termination of this Agreement, determined in a commercially reasonable manner.

Generator Attribute Tracking System or "GATS" - the system owned and operated by PJM Environmental Services, Inc. to provide reporting and tracking services to its subscribers in support of the AEPS Act, or any successor credit registry selected by the PaPUC. (As specified in Appendix E)

Guarantor – Any party having the authority and agreeing to guarantee the DS Supplier's financial obligations under this Agreement, recognizing that such party shall be obligated to meet the Company's creditworthiness requirements specified in this Agreement for such DS Supplier.

Guaranty – A guaranty, suretyship, hypothecation agreement, margins or security agreement or any other document in the form attached to this DS Supplier Master Agreement or other form approved by the Company.

Industrial Class - Group of Rate Schedules that comprise the Industrial Class for the DS Supply and itemized in Appendix C.

Interest Index – The average Federal Funds Effective Rate for the period of time the funds are on deposit. The Federal Funds Effective Rate is published daily on the Federal Reserve website (http://www.federalreserve.gov/releases/h15/update/).

Kilowatt or "kW" – Unit of measurement of useful power equivalent to 1000 watts.

Kilowatt-hour or "kWh" – One kilowatt of electric power used over a period of one hour.

Load Serving Entity or "LSE" – An entity that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electricity to retail customers located within the PJM Control Area as that term is defined in the PJM Agreements or in successor, superseding or amended versions of the PJM Agreements that may take effect from time to time over the term of this Agreement.

Losses – With respect to any Party, an amount equal to the present value of the economic loss to it, if any (exclusive of Costs), resulting from an Early Termination of this Agreement, determined in a commercially reasonable manner.

Margin – The amount by which the Total Exposure Amount exceeds the DS Supplier's, or Guarantor's, credit limit as defined in Section 6.4.

Mark-to-Market ("MtM") Exposure Amount – An amount calculated daily for each DS Supplier reflecting the total MtM credit exposure to the Company due to fluctuations in market prices for Energy minus amounts due pursuant to this Agreement to such DS Supplier for the delivery of DS Supply. The methodology for calculation of the MtM credit

exposure is illustrated in Appendix B.

Market Price Hub - A liquid pricing point located within PJM's geographic footprint, as specified in Appendix B.

Maximum Credit Limit – The lesser of the applicable percentage of TNW or the applicable credit limit cap as specified in Section 6.4 of this Agreement.

Megawatt or MW – One thousand kilowatts.

Megawatt-hour or MWh – One megawatt of electric power used over a period of one hour.

Merger Event – When a DS Supplier consolidates or amalgamates with, or merges into or with, or transfers all or substantially all of its assets to another entity and either (i) the resulting entity fails to assume all of the obligations of such DS Supplier hereunder in the sole discretion of the Company or (ii) the benefits of any credit support provided pursuant to Article 6 of this Agreement fail to extend to the performance by such resulting, surviving or transferee entity of the DS Supplier's obligations hereunder, and the resulting entity or its guarantor fails to meet the creditworthiness requirements of this Agreement in the sole discretion of the Company.

Minimum Rating – A minimum senior unsecured debt rating as defined in Appendix A of this Agreement.

Minimum Transfer Amount - \$100.000.

NERC – The North American Electric Reliability Council or its successor.

Network Integration Transmission Service or "NITS" – "Network Integration Transmission Service" under the PJM Agreements in effect as of the date of this Agreement, or its successor, superseding or amended versions of the PJM Agreements that may take effect from time to time over the term of this Agreement. In the event the PJM Agreements are modified such that "Network Integration Transmission Service" is no longer offered, Network Integration Transmission Service shall mean the type of transmission service offered under the PJM Agreements that is accorded the highest level of priority for scheduling and curtailment purposes.

Non-Defaulting Party - A Party to this Agreement who, at the time an Event of Default occurs, is not itself in default of this Agreement and has not otherwise caused or precipitated an Event of Default or Early Termination of this Agreement.

Off-Peak Energy Forward Price - Means the price for Off-Peak Hours for each billing month of the delivery period stated in terms of \$/MWh as based on the most recent publicly available information and/or quotes from reference market makers on forward energy transactions occurring at the Market Price Hub. In the event that the Market Price Hub is

no longer available or no longer representative of a transparent trading hub, the Parties will negotiate in good faith to agree upon an alternate liquid price.

On-Peak Energy Forward Price – Means the price for On-Peak Hours for each billing month of the delivery period stated in terms of \$/MWh as based on the most recent publicly available information and/or quotes from reference market makers on forward energy transactions occurring at the Market Price Hub. In the event that the Market Price Hub is no longer representative of a transparent trading hub, the Parties will negotiate in good faith to agree upon an alternate liquid price.

PaPUC or Commission – The Pennsylvania Public Utility Commission or its successor.

PJM – PJM Interconnection L.L.C. or its successor.

PJM Agreements – The PJM OATT, PJM RAA, PJM OA and all other PJM agreements, procedures, manuals and documents applicable to the Transactions covered by or relating to this Agreement.

PJM Control Area – That certain Control Area encompassing electric systems in parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia, as may be modified from time to time, and which is recognized by the North American Electric Reliability Council as the "PJM Control Area".

PJM Member – A member in good standing of PJM that satisfies the requirements to conduct business with PJM.

PJM OA – The PJM Operating Agreement or the successor, superseding or amended version of the PJM Operating Agreement that may take effect from time to time.

PJM OATT – The PJM Open Access Transmission Tariff or the successor, superseding or amended version of the PJM Open Access Transmission Tariff that may take effect from time to time.

PJM OI – The PJM Office of Interconnection, the system operator for the PJM Control Area.

PJM RAA – The PJM Reliability Assurance Agreement or the successor, superseding or amended version of the PJM Reliability Assurance Agreement that may take effect from time to time.

PMEA/FMEA Adjustment Amount – For any Billing Month, the monetary amount due to the DS Supplier or the Company, as the case may be, in order to reconcile any difference between the PMEA used for the purpose of calculating estimated payments made to DS Supplier for a given month and the FMEA used for calculating the final payments due to the DS Supplier for such month as more fully described in Article 9 hereof.

Preliminary Monthly Energy Allocation or "PMEA" – A quantity of Energy which, for any Billing Month, is the preliminary calculation of the DS Supplier's DS Supplier Responsibility Share.

Rate Schedule(s) – Shall mean the specified existing, and modified or successor customer rate schedule(s) in the electric service tariff of the Company filed with the Commission.

Reliability First Corporation or "RFC" – The approved regional NERC entity with responsibility for the Commonwealth of Pennsylvania.

Residential Class – Group of Rate Schedules that comprise the Residential Class for the DS Supply and itemized in Appendix C

Rounding Amount - \$100,000

Settlement Amount – With respect to a Non-Defaulting Party, the net amount of the Losses or Gains, and Costs, expressed in U.S. Dollars, which such Party incurs as a result of Early Termination, as set forth in Section 5.4(a) of this Agreement. For the purposes of calculating the Termination Payment, the Settlement Amount shall be considered an amount due to the Non-Defaulting Party under this Agreement if the total of the Losses and Costs exceeds the Gains and shall be considered an amount due to the Defaulting Party under this Agreement if the Gains exceed the total of the Losses and Costs.

Statement – A monthly report prepared by the Company for the DS Supplier indicating the amount due to the DS Supplier by the Company as compensation for DS Supply supplied to DS Customers by the DS Supplier during the current Billing Month, in accordance with DS Supplier's obligations under this Agreement.

Supply Day – Any calendar day during the term of this Agreement on which the DS Supplier is providing, or is obligated by this Agreement to provide, DS Supply to the Company's DS Customers.

Tangible Net Worth or "TNW" – Total assets less intangible assets and total liabilities. Intangible assets include benefits such as goodwill, patents, copyrights and trademarks.

Termination Payment – An amount paid by the Defaulting Party due to Early Termination.

Tier I AEC – Shall mean an AEC generated by a non-solar photovoltaic energy source that will satisfy the non-solar Tier I requirements of the AEPS Act applicable to the Company. (As specified in Appendix E)

Tier I (Solar) AEC – Shall mean an AEC generated by a solar photovoltaic energy source that will satisfy the Tier I solar photovoltaic requirements of the AEPS Act applicable to the Company. (As specified in Appendix E)

Tier II AEC - Shall mean an AEC generated by a non-solar photovoltaic energy source that will satisfy the non-solar Tier II requirements of the AEPS Act applicable to the Company. (As specified in Appendix E)

Total Exposure Amount – An amount calculated daily for the DS Supplier reflecting the total credit exposure to the Company and consisting of the sum of (i) the Mark-to-Market Exposure Amount arising under this Agreement; (ii) any amount(s) designated as the "Mark-to-Market Exposure Amount" arising under any other DS Supply agreements providing for "DS Supply" or similar default service; and (iii) the amount designated as the "credit exposure" under any other DS Supply agreements providing for DS Supply or similar default service; provided that in the event the amount calculated for any day is a negative number, it shall be deemed to be zero for such day.

Tranche – A fixed percentage share of the Company's DS Load, as specified in Appendix C.

Transaction – Means a particulate agreement by which the Company purchases and the DS Supplier sells DS Supply pursuant to this Agreement, the details of which are more fully set forth in Exhibit 1 – Transaction Confirmation.

Transaction Confirmation – Shall have the meaning ascribed to it in Appendix C and Exhibit 1 of this Agreement.

ARTICLE 2: GENERAL TERMS AND CONDITIONS

2.1 Capacity In Which Company Is Entering Into This Agreement

The DS Supplier agrees and acknowledges that the Company is contracting for the provision of DS Supply from such DS Supplier for Customers receiving Default Service on the Company's electric system pursuant to the authorizations provided to the Company. The DS Supplier further agrees and acknowledges that the Company will administer and monitor the DS Supplier's performance in providing DS Supply under this Agreement and that the Company shall be entitled to enforce the DS Supplier's obligations related to the provision of DS Supply. The DS Supplier hereby permanently, expressly and irrevocably waives any claim that Company is not entitled to seek enforcement of this Agreement on behalf of Customers. It is the specific intention of the Parties hereto that Customers and Customer groups are not third party beneficiaries of this Agreement and that no Customer or Customer group shall seek enforcement of this Agreement against the DS Supplier on their own behalf, either independently or by joining in any legal proceeding brought by the Company.

The Parties acknowledge that the Agreement is a forward contract and, accordingly, the Parties hereto are entitled to the protections of Section 556 of the Bankruptcy Code. The Parties therefore agree that the Agreement may be terminated by either Party upon the commencement of a proceeding by the other Party under any chapter of the Bankruptcy Code in accordance with Article 5.2 of this Agreement.

2.2 Parties' Obligations

(a) Obligations of DS Supplier

The DS Supplier hereby agrees as follows:

- (i) DS Supplier shall provide service on a firm and continuous basis such that the supply delivered for the term of the Agreement meets the terms and conditions set forth in Appendix C;
- (ii) To provide sufficient quantities of DS Supply on an instantaneous basis at all times and supplied to the Delivery Point to meet the DS Supplier Responsibility Share;
- (iii) To procure those services provided by the PJM OI and to perform such functions as may be required by the PJM OI that are necessary for the delivery of DS Supply required hereunder;
- (iv) To cooperate with the Company in any regulatory compliance efforts that may be required to maintain the ongoing legitimacy and enforceability of the terms of this Agreement and to fulfill any regulatory reporting requirement associated with the provision of DS Supply, before the PaPUC, FERC or any other regulatory body asserting jurisdiction;
- (v) To become the Load Serving Entity ("LSE") with respect to the provision of DS Supply for the DS Supplier Responsibility Share and to comply with all requirements of a LSE with respect to such DS Supplier Responsibility Share;
- (vi) To pay to the Company the PMEA/FMEA Adjustment Amount for any Billing Month in which the PMEA exceeds the FMEA, as more fully described in Article 9 of this Agreement;
- (vii) To accept assignment of and to fulfill all obligations of a LSE that are assigned to it by this Agreement;

- (viii) To comply in a timely manner with all obligations under this Agreement imposed upon the DS Supplier; and
- (ix) To comply with the AEPS requirements of the Company's Default Service

 Plan, as detailed in Appendix E.

(b) Obligations of the Company

The Company hereby agrees as follows:

- (i) To pay to each DS Supplier every month an amount due, resulting from the calculations, as detailed in Article 9 of this Agreement, subject to the adjustments as expressed therein;
- (ii) Pay to the DS Supplier the PMEA/FMEA Adjustment Amount for any Billing Month in which the FMEA exceeds the PMEA, as more fully described in Article 9 of this Agreement;
- (iii) To provide to the DS Supplier its estimated aggregate load obligation (capacity MW value) for each Supply Day no less than five (5) calendar days prior to the day of delivery. Further, this information will be posted in the DS Supplier's specific PJM eMTR account, or successor system or process;
- (iv) To comply in a timely manner with all obligations under this Agreement imposed upon the Company;
- (v) Accept the delivery of DS Supply necessary to meet the DS Load; and
- (vi) Be responsible (as between the Company and the DS Supplier) for the provision of the Allocated AECs to satisfy AEPS requirements.

2.3 Congestion and Congestion Management

The DS Supplier is responsible for any congestion costs incurred to meet the DS Supplier Responsibility Share. The Company shall transfer or assign to the DS Supplier the Company's rights to Auction Revenue Rights (ARRs) to which the Company is entitled as an LSE pursuant to the PJM Agreements, including the rights to ARRs, provided that such rights are related to the service being provided to meet the DS Supplier Responsibility Share and such rights are for the Delivery Period. All rights, liabilities and obligations associated with such ARRs will accrue and be assumed by the DS Supplier through the transfer or assignment from the Company to the DS Supplier including the responsibility and ability of the DS Supplier to request or nominate such ARRs when applicable and feasible. Should the conditions above not be met, the entity recognized by PJM as having the right to make the nominations will nominate such ARRs for the upcoming PJM planning period and such ARRs will be allocated to the DS Supplier in accordance with the PJM Agreements based upon its DS Supplier Responsibility Share.

2.4 PJM Services

The DS Supplier shall make all necessary arrangements for the delivery of DS Supply through the PJM OI. The Company will advise the PJM OI of the magnitude and location of each DS Supplier's actual DS Supplier Responsibility Share, as required by the PJM OI, for the purpose of calculating such DS Supplier's appropriate DS Supply requirements related to the provision of service under this Agreement by DS Supplier arising under the PJM Agreements. The DS Supplier shall remain responsible to PJM for the performance of its LSE obligations associated with the provision of DS Supply under this Agreement until the effective date of the transfer of such LSE obligations.

The Company shall generate and provide to DS Supplier PJM shortname(s) associated with supplier's unique contract type(s), as necessary. Unique shortname(s) may be generated for each differing contract type. DS Supplier shall complete all required forms and processing to PJM to create shortname(s) within the PJM system.

For the period of time that this Agreement is in effect, both Buyer and DS Supplier agree that PJM Settlement, Inc, shall transfer the applicable billing line item charges and/or credits as designated between the Buyer and DS Supplier in EXHIBIT D. Buyer will be responsible for initiating and/or maintaining Billing Line Item Transfers utilizing the PJM Billing Line Item Tool. DS Supplier agrees to confirm/approve Billing Line Item Transfers by the last business day of the month prior to the Delivery Period of the first Transaction under the Agreement.

2.5 PJM Agreement Modifications

- (a) If the PJM Agreements are amended or modified so that any schedule or section references herein to such agreements is changed, such schedule or section references herein shall be deemed to automatically (and without any further action by the Parties) refer to the new or successive schedule or section in the PJM Agreements which replaces that originally referred to in this Agreement.
- (b) If the applicable provisions of the PJM Agreements referenced herein, or any other PJM rules relating to the implementation of this Agreement, are changed materially from those in effect on the Effective Date, both Parties shall cooperate to make conforming changes to this Agreement to fulfill the purposes of this Agreement, including the DS Supplier's responsibility for changes in PJM products and pricing during the Term.

2.6 PJM Member Default Cost Allocation

In the event PJM imposes a Default Allocation Assessment upon the Company relating to a default during the Term, the Company shall invoice DS Supplier and DS Supplier shall pay an amount equal to the product of (i) DS Supplier Responsibility Share, and (ii) the Default Allocation Assessment, less the amounts of any types of charges allocated to the Company under this Agreement that are used by PJM in calculating such Default Allocation Assessment.

2.7 Other Fines and Penalties

If fees, fines, penalties, or costs are claimed or assessed against the Company by any Applicable Legal Authority or PJM due to noncompliance by the DS Supplier with this Agreement, any other requirements of law, or the PJM Agreements, the DS Supplier shall indemnify and hold the Company harmless against any and all losses, liabilities, damages, and claims suffered or incurred by the Company, including claims for indemnity or contribution made by third parties against the Company, except to the extent the Company recovers any such losses, liabilities or damages through other provisions of this Agreement.

2.8 Communications and Data Exchange

The DS Supplier and the Company shall supply to each other in a thorough and timely manner all data, materials or other information that is specified in this Agreement, or that may otherwise reasonably be required by DS Supplier or by the Company in connection with the provision of DS Supply by the DS Supplier to DS Customers, if required.

The DS Supplier shall be equipped with the communications capabilities necessary

to comply with the communications and data exchange standards that are set by and as may, from time to time, be modified by PJM, and shall exclusively bear the costs of installing, maintaining, testing, and operating all required information technology systems that will enable it to send to and receive data from the Company and PJM and to satisfy its obligations under this Agreement, the PJM Agreements and all other relevant agreements.

2.9 Record Retention

The Company shall retain necessary records for the longer of two years or as required under applicable PaPUC requirements so as to permit DS Supplier to confirm the validity of payments due to DS Supplier hereunder; provided that if a DS Supplier has provided notice pursuant to this Agreement that it disputes the validity of any payments, the Company agrees that it shall retain all records related to such dispute until the dispute is finally resolved.

2.10 Verification

In the event of a good faith dispute regarding any invoice issued or payment due under this Agreement, and provided that a mutually acceptable confidentiality agreement is executed by the Parties, each Party will have the right to verify, at its sole expense, the accuracy of the invoice or the calculation of the payment due by obtaining copies of relevant portions of the books and records of the other Party.

2.11 Forward Contract Merchant

The Parties agree that the Agreement is a "forward contract merchant" within the meaning of the United States Bankruptcy Code, all setoffs, netting and liquidations contemplated hereunder constitute "settlement payments" as set forth in Sections 101 and

741 of the United States Bankruptcy Code and each payment or transfer of Performance Assurance is a "margin payment", "settlement payment" or transfer within the meaning of Section 101 of the United States Bankruptcy Code for the purposes of and as used in such Code.

ARTICLE 3: REPRESENTATIONS AND WARRANTIES

3.1 DS Supplier's Representations and Warranties

The DS Supplier hereby represents, warrants and covenants to the Company on the Effective Date and throughout the term of this Agreement as follows:

- a) It is a corporation, partnership, limited liability company or other legal entity, duly organized, validly existing and in good standing under the laws of the Commonwealth of Pennsylvania or, if another jurisdiction, under the laws of such jurisdiction and, in such case, is duly registered and authorized to do business in such other jurisdiction;
- b) It has all requisite power and authority to execute and deliver this Agreement and to carry on the business to be conducted by it under this Agreement and to enter into and perform its obligations hereunder, including satisfaction of all applicable FERC requirements;
- DS Supplier's obligations hereunder have been duly authorized by all necessary action on the part of the DS Supplier and do not and will not conflict with, or constitute a breach of or default under, any of the terms, conditions, or provisions of the DS Supplier's certificate of incorporation or bylaws or other constituent instruments or any indenture, mortgage, other evidence of indebtedness, or other agreement or instrument or any statute or rule,

regulation, order, judgment, or decree of any judicial or administrative body to which the DS Supplier is a party or by which the DS Supplier or any of its properties is bound or subject;

- d) All necessary and appropriate action that is required on the DS Supplier's part to execute this Agreement has been completed;
- e) This Agreement is the legal, valid and binding obligation of the DS Supplier, enforceable in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency or similar laws from time to time in effect that affect creditors' rights in general or by general principles of equity;
- f) There are no actions at law, suits in equity, proceedings or claims pending or, to the DS Supplier's knowledge, threatened against the DS Supplier before any federal, state, foreign or local court, tribunal or governmental agency or authority that might materially delay, prevent or hinder the DS Supplier's performance of its obligations hereunder;
- g) It has entered into this Agreement with a full understanding of the material terms and risks of the same, and it is capable of assuming those risks;
- h) It is in good standing as an LSE in PJM, is a signatory to all applicable PJM Agreements, and is in compliance with, and will continue to comply with, all obligations, rules and regulations, as established and interpreted by the PJM OI, that are applicable to LSEs as defined by the PJM Agreements; provided that the DS Supplier shall not be obligated to become an LSE in PJM until the date it begins providing DS Supply;
- i) It has made its trading and investment decisions (including regarding the suitability thereof) based upon its own judgment and any advice from such advisors as it

has deemed necessary and not in reliance upon any view expressed by the Company;

- j) It will comply with any and all information and data transfer protocols that may be adopted by the Company or that are set by, and from time to time modified by, the PaPUC; provided that DS Supplier shall be entitled to exercise its reserved right to challenge any such protocols in the appropriate forum.
- k) It is not Bankrupt or insolvent and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or becoming Bankrupt or insolvent;
- 1) There are no pending, or to its knowledge threatened, actions, suits or proceedings against it or any of its Affiliates, or any legal proceedings before any Governmental Authority, that could materially adversely affect its ability to perform its obligations under this Agreement;
- m) No Event of Default with respect to it has occurred and is continuing and no such event or circumstance would occur as a result of its entering into or performing its obligations under this Agreement;
- n) It is not relying upon the advice or recommendations of the other Party in entering into this Agreement, it is capable of understanding, understands and accepts the terms, conditions and risks of this Agreement, and the other Party is not acting as a fiduciary for or advisor to it in respect of this Agreement;
- o) It has entered into this Agreement in connection with the conduct of its business and it has the capacity or ability to provide or take delivery of DS Supply as required by this Agreement; and it is an "eligible contract participant" as defined in Section 1a(12) of the Commodity Exchange Act.

3.2 Company's Representations and Warranties

The Company hereby represents, warrants and covenants to the DS Supplier as follows:

- a) The Company is an electric utility corporation duly organized, validly existing and in good standing under the laws of the Commonwealth of Pennsylvania;
- b) The Company has all requisite power and authority to carry on the business to be conducted by it under this Agreement and to enter into and perform its obligations hereunder;
- Company's obligations hereunder have been duly authorized by all necessary action on the part of the Company and do not and will not conflict with, constitute a breach of or default under, any of the terms, conditions, or provisions of the Company's certificate of incorporation or bylaws or any indenture, mortgage, other evidence of indebtedness, or other agreement or instrument or any statute or rule, regulation, order, judgment, or decree of any judicial or administrative body to which the Company is a party or by which the Company or any of its properties is bound or subject;
- d) All necessary and appropriate action that is required on the Company's part to execute this Agreement has been completed;
- e) This Agreement is the legal, valid and binding obligation of the Company, enforceable in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency or similar laws from time to time in effect that affect creditors' rights in general or by general principles of equity and the Commission's power under section 508 of the Public Utility Code, 66 Pa.C.S. § 508, to amend or modify the

contracts of public utilities;

- f) The ability of the Company to pay any and all amounts due and payable under this Agreement, or upon any potential breach thereof, is not conditioned upon any governmental or administrative appropriation by the Commission, the Commonwealth of Pennsylvania or any other governmental authority;
- g) There are no actions at law, suits in equity, proceedings or claims pending or, to the Company's knowledge, threatened against the Company before any federal, state, foreign or local court, tribunal or governmental agency or authority that might materially delay, prevent or hinder the Company's performance of its obligations under this Agreement;
- h) It has entered into this Agreement with a full understanding of the material terms and risks of the same, and it is capable of assuming those risks;
- i) The Company's performance under this Agreement is not contingent upon the performance of Customers or the ability of Customers to pay rates;
- j) The Company shall have sole responsibility for metering and billing with respect to Customers; and
- k) The Company shall be responsible for electric distribution services and the
 DS Supplier shall not be responsible for distribution charges.

3.3 Survival of Obligations

All representations and warranties contained in this Article are of a continuing nature and shall be maintained during the term of this Agreement or until all amounts due hereunder, including all obligations, have been paid or performed in full. If a Party learns that any of the representations, warranties or covenants in this Agreement are no longer

true during the term of this Agreement, the Party shall immediately notify the other Party via facsimile, with a hard copy of the notice delivered by overnight mail.

ARTICLE 4: COMMENCEMENT AND TERMINATION OF AGREEMENT

4.1 Commencement and Termination

The term of this Agreement shall commence upon the Effective Date. Unless otherwise agreed upon by the Company and the DS Supplier, this Agreement shall continue in full force and effect from the Effective Date until the end of all Transaction(s) executed under this Agreement, unless the Agreement is terminated prematurely pursuant to the provisions of this Agreement.

4.2 Termination of Right to Supply

The DS Supplier agrees that termination of this Agreement for reason of an Event of Default shall terminate any right of the DS Supplier to provide DS Supply to the DS Customers and nullify any of the entitlements to which the DS Supplier became entitled as a result of being selected as a winning bidder in the DS Solicitation.

4.3 Survival of Obligations

Termination of this Agreement for any reason shall not relieve the Company or the DS Supplier of any obligation accrued or accruing prior to such termination. Applicable provisions of this Agreement shall continue in effect after termination to the extent necessary to provide for final billings.

4.4 Mutual Termination

The Company and the DS Supplier may agree at any time during the term of this Agreement to terminate their respective rights and obligations hereunder on such terms and

under such conditions that they mutually deem to be appropriate as set forth in a mutual termination agreement acceptable in form and substance to the Company and the DS Supplier ("Mutual Termination Agreement"); provided that Company agrees that it shall enter into such a Mutual Termination Agreement, which will discharge the terminating DS Supplier (the "Terminating DS Supplier") with respect to liabilities arising after the effective date of the Mutual Termination Agreement if the following conditions precedent are met: (i) the Terminating DS Supplier identifies a replacement DS Supplier willing to assume all obligations of the Terminating DS Supplier hereunder for the remaining term of this Agreement (the "Replacement DS Supplier"); (ii) the Replacement DS Supplier demonstrates its compliance with Article 6 of this Agreement, "Creditworthiness", as of the effective date of the Mutual Termination Agreement, that determination to be made in the sole discretion of Company; (iii) the Replacement DS Supplier executes a counterpart signature page to this Agreement and thereby becomes a Party under this Agreement, effective immediately following the effective date of the Mutual Termination Agreement; and (iv) the Terminating DS Supplier is not, to the belief or knowledge of the Company, subject to an Event of Default as of the effective date of the Mutual Termination Agreement or, if the Company believes that the Terminating DS Supplier may be subject to an Event of Default, either (a) the Company has determined that, as of the effective date of the Mutual Termination Agreement, it has not incurred any Damages as a result of the Event of Default or (b) if the Company has determined, as of the effective date of the Mutual Termination Agreement, that it may have incurred Damages as a result of the Event of Default, that the Replacement DS Supplier has agreed in writing to be responsible for the payment of such Damages or to otherwise cure the Event of Default, in either case to the satisfaction of the Company in its sole discretion.

ARTICLE 5: BREACH AND DEFAULT

5.1 Events of Default

An Event of Default under this Agreement shall occur if a Party (the "Defaulting Party"):

- (i) Is the subject of a voluntary bankruptcy, insolvency or similar proceeding;
- (ii) Makes an assignment for the benefit of its creditors;
- (iii) Applies for, seeks consent to, or acquiesces in the appointment of a receiver, custodian, trustee, liquidator or similar official to manage all or a substantial portion of its assets;
- (iv) Is dissolved (other than pursuant to a consolidation, amalgamation or merger) or is the subject of a Merger Event;
- (v) Has a secured party take possession of all or substantially all of its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all of its assets;
- (vi) Has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger);
- (vii) In the case of a DS Supplier, PJM terminates the DS Supplier's ability to make purchases from PJM markets or PJM holds the Company responsible for the provision of DS Supply under this Agreement and PJM does not rescind such termination or assignment of responsibility within seven (7) Business Days;
 - (viii) Fails to comply with the creditworthiness requirements as set forth in

Article 6 of this Agreement, including, without limitation, compliance with the creditworthiness requirements to cover the Margin calculated under Section 6.5 or post any Margin due under Section 6.5 of this Agreement, within the time frames set forth in this Agreement;

- (ix) Is declared by PJM to be in default of any provision of any PJM Agreement, which default prevents a Party's performance hereunder if such failure is not remedied within three (3) Business Days after written notice;
- (x) Failure to make, when due, any payment required pursuant to this Agreement if such failure is not remedied within two (2) Business Days after written notice:
- (xi) Violates any federal, state or local code, regulation or statute applicable to the supply of Energy and/or AECs in a manner that materially, and adversely, affects the Party's performance under this Agreement, including by way of failure to continually satisfy all applicable FERC requirements, or, in the case of the DS Supplier, by way of failure to maintain any other governmental approvals required for participation in the Pennsylvania retail Energy market, or defaults on any obligation or other failure to comply with PJM requirements under the PJM Agreements;
 - (xii) Is the subject of an involuntary bankruptcy or similar proceeding;
- (xiii) Subject to Section 5.3 (b) of this Agreement, in the case of the Company, fails to accept DS Supply properly tendered by the DS Supplier under this Agreement;
- (xiv) Failure to perform any material covenant or obligation set forth in this Agreement, if such failure is not remedied within three (3) Business Days after written notice;

- (xv) Makes a materially incorrect or misleading representation or warranty under this Agreement or under any response to the DS Solicitation; or
- (xvi) Commits an act or makes an omission that constitutes an "Event of Default" under any other agreement(s) for the provision of DS Supply between the Company and the DS Supplier; and fails to remedy such condition, event or delinquency herein above described such that the other Party (the "Non-Defaulting Party") is completely made whole with respect to such condition, event or delinquency, within three (3) Business Days of receipt of written notice thereof from such Non-Defaulting Party; provided, however, that an Event of Default shall be deemed to have occurred immediately, without any need for the provision of notice thereof by the Non-Defaulting Party and without any right of cure on the part of the Defaulting Party, in the event of the occurrence of a condition, event or delinquency described in subsections "i", "ii", "iii", "iv", "v", "vi", "vii" or "viii" above. Termination of this Agreement by the PaPUC, other regulatory authority or court of law does not constitute an Event of Default under this Agreement.

(xvii) With respect to the DS Supplier's Guarantor, if any:

- any representation or warranty made by the Guarantor in connection with this Agreement is false or misleading in any material respect when made or when deemed made or repeated;
- Guarantor fails to make, when due, any payment required or to perform any other material covenant or obligation in any guaranty made in connection with this Agreement and such

failure shall not be remedied within two (2) Business Days after written notice;

- 3. Guarantor's guaranty fails to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to the satisfaction of all obligations of such Party under this Agreement without the written consent of the other Party; or
- 4. Guarantor repudiates, disaffirms, disclaims, or rejects, in whole or in part, or challenges the validity of any guaranty.

5.2 Rights upon Default

Upon and during the continuation of an Event of Default, the Non-Defaulting Party shall have the right to suspend performance, provided that such suspension shall not continue for longer than ten (10) Business Days. At any time during or subsequent to the temporary suspension of performance, the Non-Defaulting Party may proceed with the steps outlined in Article 5.7. In addition to any other remedies available at law or in equity to the Non-Defaulting Party, if an Event of Default has occurred and is continuing, the Non-Defaulting Party shall have the right to implement all of the following remedies:

(i) Declare an Early Termination Date of this Agreement with respect to the obligations of the Defaulting Party without any liability or responsibility whatsoever except for obligations arising prior to the date of termination, by providing written notice to the Defaulting Party; provided, however, that this Agreement shall immediately terminate automatically and without notice in the case of any Event of Default in which a DS Supplier

is the Defaulting Party occurring under subsections (i), (ii), (iii), (iv), (v), (vi), (vii) or (viii) of Article 5.1 of this Agreement and such date of automatic termination shall be deemed the Early Termination Date of this Agreement with respect to such Supplier; and

(ii) Receive Damages in accordance with Section 5.3 of this Agreement.

The Non-Defaulting Party shall be entitled to elect or pursue one or more of the above remedies.

5.3 Damages Resulting From an Event of Default

- Early Termination By Company: Damages resulting from (i) the DS Supplier's failure to (A) provide DS Supply in conformance with Article 2.2 hereof or (B) pay PJM for purchases of any products or services from PJM, or other failure to comply with PJM requirements, such that PJM holds the Company responsible for the provision of DS Supply to meet the DS Supplier's DS Supplier Responsibility Share under this Agreement or (ii) the occurrence of any Event of Default attributable to the DS Supplier resulting in Early Termination, shall include all Costs incurred by the Company, acting in a commercially reasonable manner consistent with any statutory or regulatory requirements imposed by the Applicable Legal Authorities, in obtaining replacement services or in obtaining a replacement supplier, which Costs exceed the amounts that would have been payable to the defaulting DS Supplier under this Agreement. Costs incurred by the Company for the purpose of calculating Damages hereunder will consist of:
- (i) The cost of DS Supply allocated to the Company by the PJM OI due to the failure of the DS Supplier to meet obligations owing to the PJM OI in connection with its obligations under this Agreement;

- (ii) The costs of DS Supply purchased by the Company to replace DS Supply that a DS Supplier was obligated to supply under this Agreement during the term hereof;
- (iii) Administrative and legal costs associated with procuring replacement DS Supply; and
- (iv) Financial hedging costs incurred by the Company on behalf of DS Customers as a result of having to procure DS Supply not provided by the DS Supplier.

The Parties further recognize and agree that the final calculation of Damages hereunder may not be known for some time since the level of such Damages may be dependent upon the arrangements made by the Company to obtain replacement services or a replacement DS Supplier. The Company and the DS Supplier agree that, until the calculation of Damages under this provision is completed, the amount and payment to the Company of the Settlement Amount on behalf of DS Customers in the event of an Early Termination as set forth in Article 5.4 of this Agreement shall be immediately due and owing as an estimate of all Damages ultimately determined to be due and owing. After Damages have been finally determined under this Article 5.3, the amounts of Damages due and owing will be reconciled with payments already made by the DS Supplier under Section 5.4 of this Agreement.

Supply Tendered By DS Supplier: Damages resulting from the failure of the Company on behalf of Customers to accept DS Supply tendered by the DS Supplier necessary to meet the DS Supplier Responsibility Share of DS Load under this Agreement shall consist of the positive difference (if any) between (i) the amounts that would have been payable to the DS Supplier hereunder had the Company accepted the DS Supply tendered by the DS

Supplier necessary to meet the DS Supplier Responsibility Share of DS Load under this Agreement and (ii) the amount realized by the DS Supplier in disposing, in a commercially reasonable manner, of the DS Supply not accepted by the Company; provided, however, that the Company shall not be required to accept on behalf of any Customer, quantities of DS Supply utilized by Customers on an instantaneous basis as a function of electrical load, in excess of such Customer's instantaneous consumption of such component of DS Supply; and further provided that the Company shall not be liable for any Damages if this Agreement is terminated by the PaPUC, other regulatory authority or a court of law.

- of Default Attributable To the Company: Damages resulting from Early Termination due to an Event of Default attributable to the Company shall be as set forth in Section 5.4 of this Agreement. Damages calculated in accordance with said Article 5.4 shall be the exclusive remedy available to the DS Supplier in the event of Early Termination resulting from an Event of Default attributable to the Company.
- **Satisfy it AEPS Obligations**: Damages resulting from the DS Supplier's failure to continuously meet and satisfy all or any portion of its obligations under Section 2.2 (a)(viii) of this Agreement shall include, but not be limited to, the amount of all penalties, costs associated with the procurement of additional AECs, etc. including, without limitation, interest and other charges, if any, levied against the Company related to AEPS regulations, due to such DS Supplier's conduct or inaction.
- (e) Other Damages: Damages for Events of Default not specified above shall consist of the direct Damages incurred by the Non-Defaulting Party.

and the Non-Defaulting Party is the Company, then unless the Event of Default was a failure by the DS Supplier to meet any or all of its DS Supply obligations, the Company may elect, at its sole discretion, to offer to waive the default on such terms and conditions as the Company, at its sole discretion, may deem appropriate to propose a special remedy. Any such special remedy can only be offered to the DS Supplier if it first is specifically approved by the PaPUC in accordance with Commission Orders.

5.4 Declaration of an Early Termination Date and Calculation of Settlement Amount and Termination Payment

Defaulting Party shall have occurred and be continuing, the Non-Defaulting Party shall have the right (i) to designate a day, no earlier than the day such notice is effective and no later than twenty (20) days after such notice is effective, as a date for Early Termination ("Early Termination Date") to accelerate all amounts owing between the Parties and to liquidate and terminate the undertakings set forth in this Agreement, (ii) to withhold any payments due to the Defaulting Party under this Agreement, and (iii) to suspend performance; provided however, that an Early Termination Date shall be deemed to occur automatically and concurrently with the Event of Default, without any requirement for the provision of notice by the Non-Defaulting Party, with respect to an Event of Default under subsections (i), (ii), (iii), (iv), (v), (vi), (vii), and (viii) of Article 5.1 of this Agreement. The Non-Defaulting Party shall calculate, in a commercially reasonable manner, a Settlement Amount with respect to the obligations under this Agreement.

The DS Supplier may, in its sole discretion, select the notional quantity in the following subsection 5.4(a)(i) by checking the box below. If the DS Supplier does not select subsection 5.4(a)(i) by checking the box, it will be deemed to be excluded from this Agreement.

- (i) For the purposes of such determination, the DS Supply provided for under this Agreement for the period following the Early Termination Date through the remainder of the term of this Agreement shall be deemed to be those quantity amounts that would have been delivered on an hourly basis, had this Agreement been in effect during the previous calendar year adjusted for such DS Load changes as may have occurred since the previous calendar year.
- (b) Net Out of Settlement Amounts. The Non-Defaulting Party shall calculate a Termination Payment by aggregating all Settlement Amounts due under this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply into a single amount by netting out (a) all Settlement Amounts that are due or will become due to the Defaulting Party, plus at the option of the Non-Defaulting Party, any cash or other form of security then available to the Non-Defaulting Party and actually received, liquidated and retained by the Non-Defaulting Party, plus any or all other amounts due to the Defaulting Party under this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply against (b) all Settlement Amounts that are due or will become due to the Non-Defaulting Party, plus any or all other amounts due to the Non-Defaulting Party under this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply, so that all such amounts shall be netted out to a single liquidated amount; provided,

however, that if the DS Supplier is the Defaulting Party and the Termination Payment is due to the DS Supplier, the Company shall be entitled to retain a commercially reasonable portion of the Termination Payment, which may be equal to the entire amount of the Termination Payment, as security for additional amounts that may be determined to be due and owing by the DS Supplier as Damages and further provided that any previously attached security interest of the Company in such retained amounts shall continue. The Termination Payment shall be due to or due from the Non-Defaulting Party as appropriate. If the Termination Payment has been retained by the Company as security for additional amounts that may be determined to be due and owing by the DS Supplier, and if, upon making a final determination of Damages, the Termination Payment, or any portion thereof, is to be made to the DS Supplier, the Company will pay simple interest on the Termination Payment amount being made to the DS Supplier. Simple interest will be calculated at the lower of the Interest Index or six (6) percent per annum.

- (c) <u>Notice of Termination Payment</u>. As soon as practicable after calculation of a Termination Payment, notice shall be given by the Non-Defaulting Party to the Defaulting Party of the amount of the Termination Payment and whether the Termination Payment is due to or due from the Non-Defaulting Party. The notice shall include a written statement explaining in reasonable detail the calculation of such amount. Subject to Article 5.4(b) above, the Termination Payment shall be made by the Party that owes it within three (3) Business Days after such notice is effective.
- (d) <u>Disputes With Respect to Termination Payment</u>. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Termination Payment, in whole or in part, the Defaulting Party shall, within three (3) Business Days of

receipt of Non-Defaulting Party's calculation of the Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute; provided, however, that if the Termination Payment is due from the Defaulting Party, the Defaulting Party shall first transfer collateral to the Non-Defaulting Party in an amount equal to the Termination Payment, such collateral to be in a form acceptable to the Non-Defaulting Party as specified in the Termination Payment Dispute Notice.

(e) <u>Multiple DS Supply Agreements</u>. It is the intention of the Company and the DS Supplier that, in the event the DS Supplier is a party to other agreements with the Company for the provision of DS Supply that existed prior to the Effective Date of this Agreement or are entered into after the Effective Date of this Agreement, the Company will calculate a single Termination Payment applicable to all such agreements as set forth herein.

5.5 Step-up Provision

The Company may ask other DS Suppliers whether they wish to assume all or part of the delivery obligations on the same terms and price contained herein, but any DS Supplier shall not be obligated to assume any such step-up requests. Any agreement to make additional supply available shall be termed a "Step-Up", and is subject to compliance with the creditworthiness provisions of Article 6 of this Agreement and the DS Supplier's load cap as per the Company's approved default service procurement plan. For the avoidance of doubt, in the event that the DS Supplier does not respond to the Company's Step-Up request within the relevant timeframe, then the DS Supplier shall be deemed to have rejected the Company's request in full.

5.6 Setoff of Payment Obligations of the Non-Defaulting Party

Any payment obligations of the Non-Defaulting Party to the Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply shall be set off: (i) first, to satisfy any payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply that are unsecured and not subject to any Guaranty; (ii) second, to satisfy any payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply that are unsecured, but which are subject to a Guaranty; and (iii) third, to satisfy any remaining payment obligations of the Defaulting Party to the Non-Defaulting Party pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply.

5.7 Preservation of Rights of Non-Defaulting Party

The rights of the Non-Defaulting Party under this Agreement, including without limitation Article 5.4 and 5.7 of this Agreement, shall be supplemental to, and not in lieu of, any right of recoupment, lien, or set-off afforded by applicable law, and all such rights are expressly preserved for the benefit of the Non-Defaulting Party.

a. <u>Duty to Mitigate</u>. Each Party agrees that it has a duty to mitigate damages and covenants that it will use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's failure to perform pursuant to this Agreement.

b. Return of Auction Revenue Rights. When the DS Supplier is the Defaulting Party, the DS Supplier will make best efforts to facilitate the transfer or reassignment to the entity which is the replacement DS Supplier on the Early Termination Date, any and all of the replacement DS Supplier's rights to Auction Revenue Rights (ARRs) to which the replacement DS Supplier is entitled as a LSE pursuant to the PJM Agreements, which were transferred or assigned to the DS Supplier under Section 2.3 (Congestion and Congestion Management).

ARTICLE 6: CREDITWORTHINESS

6.1 Applicability

The DS Supplier agrees that it shall meet the creditworthiness requirements of this Article 6 at all times during the term of this Agreement and shall inform the Company immediately of any changes in its credit rating or financial condition. Without limitation of the foregoing, the DS Supplier shall, upon written request, affirmatively demonstrate to the Company, its compliance with the creditworthiness requirements set forth hereunder. The Company may establish less restrictive creditworthiness requirements under this Article 6 in a non-discriminatory manner.

6.2 Creditworthiness Determination

The DS Supplier may submit and maintain a security deposit in accordance with Section 6.4 of this Agreement in lieu of submitting to or being qualified under a creditworthiness evaluation. The DS Supplier shall have the opportunity to request that the Company re-evaluate its creditworthiness whenever an event occurs that the DS Supplier believes would improve the determination made by the Company of its

creditworthiness. The Company's credit re-evaluation must be completed as soon as possible but no longer than thirty (30) days after receiving a fully documented request. The Company must provide the rationale for its determination of the credit limit and any resulting security requirement. The Company must perform its credit re-evaluation and associated security calculation in a non-discriminatory manner. DS Supplier shall provide the Company and its agent's unrestricted access to audited financial statements; provided that if audited financial statements are not available, the Company, in its sole discretion, may specify other types of financial statements that will be accepted.

6.3 Credit Exposure Methodology

The credit exposure per tranche that will be required of the DS Supplier under this agreement will be determined by the DS Customer Group as stated on the Transaction Confirmation(s).

For the Industrial class, the credit exposure under this Agreement shall be \$140,000 times the number of tranches shown on the Transaction Confirmation(s). If the DS Supplier meets the Minimum Rating in Section 6.4, no security will be required as long as the Total Exposure Amount does not exceed the maximum credit limit of the DS Supplier or its Guarantor.

To calculate the daily exposure for each DS Supplier for the Residential and Commercial classifications as stated on the Transaction Confirmation(s), the MtM credit exposure methodology will be used. The "mark" for each Billing Month will be determined at the time the auction is completed based on the available Forward Market Prices and for the remaining Billing Months will be derived based on historical data. At the time the auction is completed, the MtM credit exposure for each DS Supplier shall be

equal to zero. Subsequently, the differences between the available Forward Market Prices on the valuation date and the "mark" prices for the corresponding Billing Months will be used to calculate the daily credit exposures for each DS Supplier. The total MtM credit exposure will be equal to 1.1 times the sum of the MtM credit exposures for each Billing Month. The methodology for calculation of the MtM credit exposure is illustrated in the example (using hypothetical numbers) set forth in Appendix B hereto.

6.4 Credit Limit

The following criteria constitute the Company's creditworthiness requirements for the DS Supplier to cover the Total Exposure Amount. In all instances, the most current senior unsecured debt rating (or, if unavailable, the most current corporate issuer rating) will be used.

(i) For a DS Supplier to be granted an unsecured line of credit, the DS Supplier must be rated by at least two of the following rating agencies: S&P, Moody's, or Fitch. The methodology for determining the credit rating to use is set forth in Appendix A of this Agreement. The Maximum Credit Limit to cover the Total Exposure Amount will be determined based on the credit matrix table in Appendix A of this Agreement.

The DS Supplier will be required to post cash or a letter of credit in an acceptable form as defined in Section 6.7 (b) of this Agreement (see standard format in Appendix F) for the Margin due the Company as set forth in Section 6.5 of this Agreement; or

(ii) For a DS Supplier having a Guarantor, in the case of a Guarantor organized under the laws of the United States, the Guarantor (1) must be rated by at least two of the following rating agencies: S&P, Moody's, or Fitch, and (2) must have a

minimum senior unsecured debt rating (or, if unavailable, corporate issuer rating) equal to the Minimum Rating. If the Guarantor is rated by only two rating agencies, and the ratings are split, the rating will be established based on the methodology outlined in Appendix A of this Agreement. The Maximum Credit Limit to cover the Total Exposure Amount that could be provided through the Guaranty (see standard format in Appendix G) will be determined based on the credit matrix table for Guarantors on Appendix A. The DS Supplier will be granted a credit limit equal to the lesser of (i) the amount of the Guaranty as provided to the Company at the time this Agreement is executed as such amount may be modified in any amended or substitute Guaranty provided to the Company during the term of this Agreement, or (ii) the Supplier's Maximum Credit Limit. The DS Supplier, however, may not increase or substitute its Guaranty for the purpose of increasing its applicable credit limit during the time period after the Company has made a Margin call but before the DS Supplier has posted the required Margin. Notwithstanding anything herein to the contrary, the DS Supplier may increase the limit of its Guaranty after satisfying a Margin call from the Company and upon the Company's receipt of an amended or substitute Guaranty increasing the limit of the Guaranty, the DS Supplier may request a return of Margin in accordance with Section 6.5 of this Agreement. The DS Supplier will be required to post cash or a letter of credit in an acceptable form as defined in Section 6.7(b) of this Agreement (see standard format in Appendix F) for the Margin due the Company as set forth in Section 6.5 of this Agreement; or

(iii) For a DS Supplier or Guarantor that has not been incorporated or otherwise formed under the laws of the United States and whose financial data is not denominated in United States currency and does not conform to generally accepted

accounting principles ("GAAP") in the United States, they shall supply the following additional information:

- a. A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the DS Supplier or Guarantor is incorporated or otherwise formed that this Agreement is, or upon completion of execution formalities will become, the binding obligation of the DS Supplier or Guarantor in the jurisdiction in which it has been incorporated or otherwise formed; and
- b. The sworn certificate of the corporate secretary (or similar officer) of such DS Supplier or Guarantor that the person executing this Agreement on behalf of the DS Supplier has the authority to execute the Agreement and that the governing board of the DS Supplier or Guarantor has approved the execution of this Agreement;
- c. The sworn certificate of the corporate secretary (or similar officer) of such DS Supplier or Guarantor that the DS Supplier or Guarantor has been authorized by its governing board to enter into agreements of the same type as this Agreement; and
- d. Such other documents and certificates as may be required by the Company in its sole discretion.
- (iv) The posting of cash or a letter of credit as defined in Section 6.7 (b) below for the entire Total Exposure Amount as set forth in Section 6.5 of this Agreement.

6.5 Posting Margin and Return of Surplus Margin

(a) If at any time and from time to time during the term of this Agreement, the Total Exposure Amount, rounded by the Rounding amount, exceeds the DS Supplier's

or the Guarantor's credit limit by the Minimum Transfer Amount (MTA), then the Company on any Business Day, may request that the DS Supplier provide cash or a letter of credit in an acceptable form as defined in Article 6.7(b) of this Agreement (see standard format in Appendix F), in an amount equal to the Margin (less any Margin posted by the DS Supplier and held by the Company pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply).

If the DS Supplier receives written notice for Margin from the Company by 1:00 p.m. New York time on a Business Day, then the DS Supplier shall post Margin the next following Business Day, if posting cash, and by the second Business Day following the date of notice, if posting a letter of credit, unless the Company agrees in writing to extend the period to provide Margin. If the DS Supplier receives notice for Margin from the Company after 1:00 p.m. New York time on a Business Day, whether posting cash or a letter of credit, then the DS Supplier must post Margin the second Business Day following the date of notice unless the Company agrees in writing to extend the period to provide Margin. The Company will not unreasonably deny a request for a one-day extension of such period. In the event that the DS Supplier fails to post Margin when due in accordance with this Article 6.5, then an Event of Default under Article 5 of this Agreement will be deemed to have occurred and the Company will be entitled to the remedies set forth in Article 5 of this Agreement.

(b) Surplus Margin being held by the Company that is not needed to satisfy the Total Exposure Amount, as determined above, will be returned to the DS Supplier upon receipt of a written request by the DS Supplier. Surplus Margin means cash or a letter of credit posted by the DS Supplier as a result of a request by the Company pursuant to Article

6.5(a) that exceeds the Total Exposure Amount less the DS Supplier's or the Guarantor's credit limit (rounded by the Rounding Amount). If the resulting Surplus Margin amount is more than the Minimum Transfer Amount, it will be returned to the DS Supplier. If the DS Supplier posted cash and notice is received by 1:00 p.m. New York time on a Business Day, the surplus Margin will be returned by the next following Business Day and if the DS Supplier posted cash and notice is received by the Company after 1:00 p.m. New York time on a Business Day, the surplus Margin shall be returned by the second Business Day following the date of notice, unless the DS Supplier agrees in writing to extend the period to return the surplus Margin. If the DS Supplier posted a letter of credit, the surplus Margin shall be returned on the next Business Day following the Business Day on which the amendment to the letter of credit is received from the issuing bank, unless the DS Supplier agrees in writing to extend the period to return the surplus Margin. The DS Supplier will not unreasonably deny a request for a one-day extension of such period. In the event that the Company fails to return the surplus Margin when due in accordance with this Article, then an Event of Default under Article 5 of this Agreement will be deemed to have occurred and the DS Supplier will be entitled to the remedies set forth in Article 5 of this Agreement.

6.6 Grant of Security Interest/Remedies

To secure its obligations under this Agreement and to the extent that the DS Supplier posted Margin/collateral hereunder, the DS Supplier hereby grants to the Company a present and continuing security interest in, and lien on (and right of setoff against), and assignment of, all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, the Company, and the DS Supplier and the Company

agree to take such action as is reasonably required to perfect the secured Party's first priority security interest in, and lien on (and right of setoff against), such collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence or deemed occurrence and during the continuation of an Event of Default or an Early Termination Date, the Company may do any one or more of the following: (i) exercise any of the rights and remedies of the Company with respect to all collateral, including any such rights and remedies under law then in effect; (ii) exercise its rights of setoff against any and all property of the DS Supplier in the possession of the Company whether held in connection with this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply; (iii) draw on any outstanding letter of credit issued for its benefit; and (iv) liquidate all security held by or for the benefit of the Company free from any claim or right of any nature whatsoever of the DS Supplier, including any equity or right of purchase or redemption by the DS Supplier. The Company shall apply the proceeds of the collateral realized upon the exercise of such rights or remedies to reduce the DS Supplier's obligation under this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply (the DS Supplier remaining liable for any amounts owing to the Company after such application), subject to the Company's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

All notices, demands or requests regarding credit requirements and credit related security or deposit transfers shall be in writing and shall be personally delivered or sent by overnight express mail, courier service or facsimile transmission (with the original transmitted by any of the other aforementioned delivery methods) addressed as follows:

If to a DS Supplier to:

Copy to:

If to the Company to:

FirstEnergy Corp.
341 White Pond Drive
Akron, OH 44320

Attn: Credit Risk Management

Phone: (330) 315-6984 Facsimile: (330) 777-6582

Email: Credit_Risk@firstenergycorp.com

Copy to:

FirstEnergy Corp. P.O. Box16001 Reading, PA 19612-6001

Attn: Tori Giesler

Associate General Counsel

Phone: (610) 921-6658 Facsimile: (610) 939-8655

Email: tgiesler@firstenergycorp.com

Notice received after the close of the Business Day shall be deemed received on the next Business Day; provided that notice by facsimile transmission shall be deemed to have been received by the recipient if the recipient confirms receipt telephonically or in writing.

6.7 Security Instruments

At each DS Supplier's choice, the following are deemed to be acceptable methods for posting security, if required:

- (a) Cash; or
- (b) A standby irrevocable letter of credit acceptable to the Company, in its sole discretion, issued by a bank or other financial institution with a minimum "A"

senior unsecured debt rating (or, if unavailable, corporate issuer rating discounted one notch) from S&P and "A2" from Moody's (see standard format in Appendix F). The letter of credit shall state that it shall renew automatically for successive one-year or shorter periods, until terminated upon at least ninety (90) days prior written notice from the issuing financial institution. If the Company receives notice from the issuing financial institution that the letter of credit is being cancelled, the DS Supplier will be required to provide a substitute letter of credit from an alternative bank satisfying the minimum requirements. The receipt of the substitute letter of credit must be effective as of the cancellation date and delivered to the Company thirty (30) days before the cancellation date of the original letter of credit. If the DS Supplier fails to supply a substitute letter of credit as required, then the Company will have the right to draw on the existing letter of credit and to hold the amount as Margin.

If the credit rating of a bank or other financial institution from which a DS Supplier has obtained a letter of credit falls below the levels specified in Article 6 of this Agreement, the DS Supplier shall have two (2) Business Days following written notice by the Company to obtain a suitable letter of credit from another bank or other financial institution that meets those standards, unless such period is extended in writing by the Company. The Company shall have no obligation under this Agreement or otherwise to make or grant such extension.

6.8 Maintenance of Creditworthiness

(a) Reporting of Changes.

The DS Supplier shall promptly notify the Company of any change in its credit rating or financial condition or that of its Guarantor. The DS Supplier or Guarantor shall

also furnish evidence of an acceptable credit rating or financial condition upon the request of the Company.

(b) <u>Change in Credit Standing</u>.

The Company will re-evaluate the creditworthiness of a DS Supplier whenever it becomes aware of an adverse change, through the provision of notice by the DS Supplier or otherwise, in the DS Supplier's or Guarantor's credit standing. If the lowest credit rating (whether senior unsecured debt rating or corporate issuer rating) used to determine the DS Supplier's Maximum Credit Limit or its credit limit adversely changes, the Company will require additional security from the DS Supplier in accordance with Sections 6.4 of this Agreement. The additional security must be in a form acceptable to the Company in its sole discretion, as specified in Article 6.7 of this Agreement and must be posted as set forth in Section 6.5 of this Agreement.

6.9 Calling on Security

The Company may call upon the security posted by the DS Supplier if the DS Supplier fails to pay amounts due to the Company pursuant to this Agreement or any other agreement(s) between the Company and the DS Supplier for the provision of DS Supply after all of the following events occur:

- (a) Written Notice of Default is provided to the DS Supplier; and
- (b) Any applicable cure period associated with the written Notice of Default ends.

The foregoing notwithstanding, the security posted by the DS Supplier shall become due automatically without prior notice or right of cure in the case of any Event of Default arising under subsections (i), (ii), (iii), (iv), (v), (vi), (vii) and (viii) of Section 5.1

of this Agreement.

6.10 Interest on Cash Held by Company

The Company will pay simple interest calculated at the lower of the Interest Index or six (6) percent per annum on all cash held by the Company pursuant to this Agreement. Each Billing Month, the Company will prepare a statement of interest amounts due to the DS Supplier. The statement will be sent to the DS Supplier within three (3) Business Days after the end of the Billing Month via overnight mail or other expeditious means. The Company shall make interest payments on the first Business Day after the 5th day of each calendar month.

6.11 No Endorsement of DS Supplier

The Company's determination that a DS Supplier is creditworthy pursuant to the process set forth above, shall not be deemed to constitute an express or implied warranty or guarantee of any kind with respect to the financial or operational qualifications of the DS Supplier. The Company will treat all DS Suppliers in a non-discriminatory manner and shall provide no preference to any DS Supplier.

6.12 Multiple DS Supply Agreements

It is the intention of the Company and the DS Supplier that, in the event the DS Supplier is a party to other agreements with the Company for the provision of DS Supply that existed prior to the effective date of this Agreement or is entered into after the effective date of this Agreement, the Company will calculate the Margin applicable to all such agreements as set forth herein. Each DS Supplier that is a party to such other agreements with the Company for the provision of DS Supply hereby agrees that such other agreements are deemed amended by this Agreement for the purpose of calculating the Margin as

described herein.

ARTICLE 7: PROCEDURES FOR ENERGY SCHEDULING, CAPACITY RESOURCE SUBMISSION AND TRANSMISSION PROCUREMENT

7.1 Load Obligations

The Company and the DS Supplier acknowledge and agree that (1) the Company shall determine the DS Load, (2) the Company shall allocate the DS Supply obligation using the DS Supplier Responsibility Share, (3) the Company shall provide the DS Supplier's DS Supply obligation to PJM, and (4) the DS Supplier shall be responsible for meeting its DS Supply obligations as a LSE under the PJM Agreements.

7.2 Data Transmission

The procedures for transmitting load obligation data to PJM for DS Supplier's DS Load shall be as set forth by PJM.

7.3 Energy Scheduling

The Company is not obligated to provide any day ahead scheduling services. If the Company chooses to provide such services, the information provided is not guaranteed by the Company.

ARTICLE 8: THE ENERGY SETTLEMENT/RECONCILIATION PROCESS

8.1 Energy Settlement By PJM

The settlement process occurs at PJM to reflect the DS Supplier's actual Energy obligations in a supply/usage reconciliation process. The Energy obligations for each DS Supplier will be determined based on the DS Supplier Responsibility Share of the DS Load.

The reconciled total DS Energy obligation will be based on the final total Energy loads for the Customers receiving DS service, including duration adjustments for marginal losses.

Any adjustments for billing and metering errors reported subsequent to the calculation of FMEA will be proportionally allocated by the Company to the DS Suppliers based on the respective DS Supplier Responsibility Share.

8.2 Energy Settlement by the Company

In the event that actual DS Customer consumption data is not available until after the PJM deadline for conducting the final settlement, the Company will conduct the settlement process with the DS Supplier. In the event PJM imposes penalties against the Company as a result of the DS Supplier's Transactions or failure to meet PJM requirements, such penalties shall be passed through by the Company, to the DS Supplier as part of this settlement process. In addition, all other applicable charges from PJM, including any billing adjustments, will be appropriately allocated to the DS Supplier.

ARTICLE 9: BILLING AND PAYMENT

9.1 The Company Payment of Obligations to the DS Supplier

The Company shall pay all amounts due to the DS Supplier hereunder in accordance with the following provisions:

(a) Each Billing Month, the Company will prepare a Statement of amounts due to the DS Supplier. This Statement will show the aggregate amounts due based on the DS Fixed Price multiplied by the hourly Energy requirements of DS Supply used to determine the PMEA multiplied by the DS Fixed Percentage as shown on the Transaction Confirmation(s) for each hour of the Billing Month, plus the aggregate amounts due based on the DS Variable Price multiplied by the hourly Energy requirements

of DS Supply used to determine the PMEA multiplied by the DS Variable Percentage, if applicable, as shown on the Transaction Confirmation(s) for each hour of the Billing Month.

- (b) The Statement will be sent to the DS Supplier within eight (8) Business Days after the end of the Billing Month via overnight mail or other expeditious means.
- (c) The Company shall make payment on the first Business Day after the 19th day of each calendar month.
- (d) To the extent that the FMEA differs from the PMEA, the Company shall pay or charge the DS Supplier for the PMEA/FMEA Adjustment Amount within the PJM deadline for conducting the final settlement.
- (e) If each Party owes an amount to the other Party pursuant to this Agreement, including any related interest, payments or credits, the Parties may satisfy their respective obligations to each other by netting the aggregate amounts due to one Party against the aggregate amounts due to the other Party, with the Party, if any, owing the greater aggregate amount paying the other Party the difference between the amounts owed.
- (f) Payments shall be subject to adjustment for any arithmetic errors, computation errors, meter reading errors, or other errors, provided that the errors become known within one (1) year of the termination of this Agreement.
- (g) The Company shall make payments of funds payable to the DS Supplier by electronic transfer to a bank designated by the DS Supplier.
- (h) If a good faith dispute arises between the Company and the DS Supplier regarding a Statement, the disputing Party shall be obligated to pay only the

undisputed portion of the Statement, if any, and shall present the dispute in writing and submit supporting documentation to the non-disputing Party within one hundred twenty (120) calendar days from the date of the Statement in dispute. Statement disputes shall be addressed promptly, and in accordance with the dispute resolution procedures set forth in Article 11 of this Agreement. Upon resolution of a Statement dispute, any payments made to either Party will include simple interest on the payment at the lower of the Interest Index or six (6) percent per annum payable from the date that notice of a Statement dispute was received by the non-disputing Party.

(i) If payment is made to the DS Supplier after the due date shown on the Statement, a late fee will be added to the unpaid balance until the entire Statement is paid. This late fee shall be the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in The Wall Street Journal under "Money Rates" on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) or (b) the maximum rate permitted by applicable law.

9.2 Billing for DS Supplier's Obligations to Other Parties

The Company shall have no responsibility for billing between the DS Supplier and PJM; the DS Supplier and any Energy or Capacity source; or the DS Supplier and any other third party. The Company will be solely responsible for billing DS Customers for Default Service.

9.3 The DS Supplier Payment of Obligations to the Company

The DS Supplier shall pay all Charges it incurs hereunder in accordance with the following provisions:

- (a) Each Billing Month, the Company shall submit an invoice to the DS Supplier for all Charges owed by the DS Supplier under this Agreement. The DS Supplier shall make payment for Charges shown on the invoice. The due date will be on the first Business Day after the 19th day of each calendar month. The invoice will be sent to the DS Supplier within eight (8) Business Days after the end of the Billing Month via overnight mail or other expeditious means.
- (b) Invoices shall be subject to adjustment for any arithmetic errors, computation errors, meter reading errors, or other errors, provided that the errors become known within one (1) year of the termination of this Agreement.
- (c) The DS Supplier shall make payments of funds payable to the Company by electronic transfer to a bank designated by the Company.
- (d) If a good faith dispute arises between the Company and the DS Supplier regarding an invoice, the disputing Party shall pay only the undisputed portion of the invoice, if any, and shall present the dispute in writing and submit supporting documentation to the non-disputing Party within one hundred twenty (120) calendar days from the due date of the invoice in dispute. Billing disputes shall be addressed promptly, and in accordance with the dispute resolution procedures set forth in Article 11 of this Agreement. Upon resolution of a billing dispute, any payments made to either Party will include simple interest on the payment at the lower of the Interest Index or six (6) percent per annum payable from the date that notice of a bill dispute was received by the non-disputing Party.
- (e) If payment is made to the Company after the due date shown on the invoice, a late fee will be added to the unpaid balance until the entire invoice is paid. This

late fee shall be the lesser of (a) the per annum rate of interest equal to the prime lending rate as may from time to time be published in The Wall Street Journal under "Money Rates" on such day (or if not published on such day on the most recent preceding day on which published), plus two percent (2%) or (b) the maximum rate permitted by applicable law.

ARTICLE 10: SYSTEM OPERATION

The Parties shall adhere to any applicable operational requirements of PJM necessary to protect the integrity of the transmission system within the PJM Control Area and the transmission systems of interconnected control areas, and shall satisfy any and all PJM, RFC and NERC criteria, when applicable. The DS Supplier shall also adhere to any applicable operational requirements of the Company necessary to protect the integrity of the Company's local distribution system.

10.1 Disconnection and Curtailment By the Company

The Company shall have the right, without incurring any liability to the DS Suppliers, to disconnect (or otherwise curtail, interrupt or reduce deliveries from) the DS Suppliers or to disconnect (or otherwise curtail, interrupt or reduce deliveries to) any Customer whenever the Company determines in the exercise of its good faith discretion, or when the Company is directed by PJM, that such a disconnection, curtailment, interruption or reduction is necessary to facilitate construction, installation, maintenance, repair, replacement or inspection of any of the Company's facilities; or due to any other reason affecting the safe and reliable operation of the Company's or a Customer's facilities, including, without limitation, an Emergency, forced outage or potential overloading of the Company's transmission and/or distribution circuits, potential damage to any Customer's facilities or any risk of injury to persons or property.

10.2 Inadvertent Loss of Service to DS Customers

The Parties agree and acknowledge that service to DS Customers may be inadvertently lost due to storms, weather, accidents, breakage of equipment or other events beyond the reasonable control of the Company affecting the transmission and distribution system of the Company. Neither Party will have any liability to the other Party for the occurrence of such events except for the Company's obligation to pursue steps for the resumption of the disrupted service as set forth in Section 10.3 below. In no event will an inadvertent loss of service affect a Party's obligation to make any payments then due or becoming due with respect to performance rendered prior to such inadvertent loss of service.

10.3 Good Faith Efforts

The Company shall use good faith efforts to: (a) minimize any curtailment, interruption or reduction in service to DS Customers to the extent reasonably practicable under the circumstances; (b) provide the DS Supplier with prior notification of any curtailment, interruption or reduction in service to DS Customers, to the extent reasonably practicable; and (c) resume service to DS Customers as promptly as reasonably practicable.

10.4 PJM Requirements

The DS Supplier acknowledges and agrees that, as a member of PJM, the Company is bound by all PJM operating instructions, policies and procedures as are currently set forth in the PJM Operating Manual, which are available through the Internet on the PJM Home Page (http://www.pjm.com), as may be revised from time to time, which are needed to maintain the integrity of the PJM system. The DS Supplier acknowledges and agrees that it will cooperate with the Company so that the Company will be in compliance with all PJM Emergency Operations Procedures, which include, but are not limited to, those

procedures pertaining to minimum and maximum generation Emergencies, and measures requiring involuntary Customer participation, such as supply voltage reduction or full interruption of Customer load by either manual or automatic means.

10.5 Compliance with Governmental Directives

The DS Supplier also acknowledges and agrees that the Company may need to act in response to governmental or civil authority directives which may affect DS Customer load. The DS Supplier agrees to cooperate with the Company in order to comply with said directives.

ARTICLE 11: DISPUTE RESOLUTION

11.1 Informal Resolution of Disputes

Before pursuing resolution of any dispute arising out of this Agreement (other than an Event of Default under Article 5.1(i)-(ix), (xii), or (xvi)), the disputing Party shall provide written notice to the other Party setting forth the nature of the dispute, the amount involved, if any, and the remedies sought. The Parties shall use good faith and reasonable commercial efforts to informally resolve such dispute. Such efforts shall last for a period of at least thirty (30) calendar days from the date that the notice of the dispute is first delivered from one Party to the other Party. Any amounts that are owed by one Party to the other Party as a result of resolution of a dispute pursuant to this Article 11.1 (Informal Resolution of Disputes), shall be paid within two (2) Business Days of such resolution and the payment shall include interest calculated at the Interest Index from the original due date through the date of payment.

11.2 Recourse to Agencies or Courts of Competent Jurisdiction

After the requirements of Article 11.1 (Informal Dispute Resolution) have been

satisfied, all unresolved disputes, except as noted below, between the Parties shall be submitted to the appropriate authority. Nothing in this Agreement shall restrict the rights of either Party to file a complaint with the FERC under relevant provisions of the Federal Power Act ("FPA"), with the PaPUC under relevant provisions of the Applicable Legal Authorities, with a Pennsylvania State court or a federal court of competent jurisdiction and within reasonably close proximity to the Company. The Party's agreement hereunder is without prejudice to any Party's right to contest the jurisdiction of the agency or court to which a complaint is brought.

The Parties hereby acknowledge and agree that both Parties have negotiated and entered into this Agreement freely and in good faith and that the terms of this Agreement have not been affected in any way, either directly or indirectly, by (A) any fraud, duress, unfairness, or any inequity in the relative bargaining power of the Parties or (B) any manipulation, unlawful activity, disruption, anomaly, dysfunction, or other adverse market conditions of any type or description.

To the extent permitted by law and absent agreement to the contrary, each Party, for itself and its successors and assigns, hereby expressly and irrevocably waives its rights (i) to argue before any governmental authority that any review, modification, or rescission of this Agreement should be considered under any standard of review other than the "public interest" standard set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956), affirmed by Morgan Stanley Capital Group, Inc. v. Public Utility District No. 1 of Snohomish County, Washington, et al., 554 U.S. 527 (2008) (the "Mobile-Sierra Doctrine"), and (ii) to argue before any governmental authority that any terms of this

Agreement should be modified or rescinded based on (A) any claim of fraud, duress, unfairness, bad faith, or inequity in the relative bargaining power of the Parties or (B) any claim of market manipulation, unlawful activity, disruption, anomaly, dysfunction, or other adverse market conditions of any type or description.

ARTICLE 12: REGULATORY AUTHORIZATIONS AND JURISDICTION

12.1 Compliance with Applicable Legal Authorities

The Company and the DS Supplier are subject to, and shall comply with, all existing or future applicable federal, State and local laws, all existing or future duly-promulgated orders or other duly-authorized actions of PJM or of Applicable Legal Authorities.

12.2 FERC Jurisdictional Matters

The inclusion herein of descriptions of procedures or processes utilized by PJM or otherwise subject to the jurisdiction of FERC is intended solely for informational purposes. If anything stated herein is found by the FERC to conflict with or be inconsistent with any provision of the FPA, or any rule, regulation, order or determination of the FERC under the FPA or if any existing procedures or processes utilized by PJM are duly modified, the applicable FERC rule, regulation, order, determination or modification shall control. To the extent required under any provision of the FPA, or any rule, regulation, order or determination of the FERC under the FPA, the Company and/or the DS Supplier, if applicable, shall use reasonable commercial efforts to secure, from time to time, all appropriate orders, approvals and determinations from the FERC necessary to support this Agreement.

12.3 Energy Efficiency, Conservation, and Retail Market Programs

DS Supplier acknowledges that DS Customers may participate in energy efficiency and conservation programs offered by the Company (required by Applicable Legal Authorities or otherwise offered by the Company whether voluntarily or not), by PJM, or by other third parties and, for the avoidance of doubt, any programs offered or conducted by the Company or other entities relating to or arising from the PaPUC's Investigation of Pennsylvania's Retail Electricity Market, PaPUC Docket No. I-2011-2237952 (including legislation enacted to address the Commission's Final Order in Docket No. I-2011-2237952), and that such participation may reduce or change the amount of DS Supply that DS Supplier is required to provide and the amount of monies it may receive under this Agreement. The Company shall have no obligation whatsoever to DS Supplier with respect to the effect, if any, of such programs. DS Supplier is solely responsible for determining the effect, if any, of such programs on future load requirements.

ARTICLE 13: LIMITATION OF REMEDIES, LIABILITY AND DAMAGES

13.1 Limitations on Liability

Except as set forth in this Agreement, there is no warranty of merchantability or fitness for a particular purpose, and any and all implied warranties are disclaimed. The Parties confirm that the express remedies and measures of Damages provided in this Agreement satisfy the essential purposes hereof. For breach of any provision for which an express remedy or measure of Damages is provided, such express remedy or measure of Damages shall be the sole and exclusive remedy, the obligor's liability shall be limited as set forth in such provision and all other remedies or Damages at law or in equity are waived. If no remedy or measure of Damages is expressly provided herein, the obligor's liability

shall be limited to direct actual Damages only, such direct actual Damages shall be the sole and exclusive remedy and all other remedies or Damages at law or in equity are waived. Unless expressly herein provided, neither Party shall be liable for consequential, incidental, punitive, exemplary or indirect Damages, lost profits or other business interruption Damages, by statute, in tort or contract, under any indemnity provision or otherwise. It is the intent of the Parties that the limitations herein imposed on remedies and the measure of Damages be without regard to the cause or causes related thereto, including the negligence or any Party, whether such negligence by sole, joint or concurrent, or active or passive. To the extent any Damages required to be paid hereunder are liquidated, the Parties acknowledge that the Damages are difficult or impossible to determine, or otherwise obtaining an adequate remedy is inconvenient and the Damages calculated hereunder constitute a reasonable approximation of the harm or loss.

13.2 Risk of Loss

Solely for purposes of determining risk of loss and for determining the indemnity obligations under Article 14 of this Agreement, the Company shall be deemed to have custody and control of the electric Energy delivered by the DS Supplier upon receipt thereof into the Company's distribution system and until delivery thereof at the retail electric meter of the Customer; and the DS Supplier shall be deemed to have custody and control of the DS Supply at all times prior to receipt thereof by the Company. The Party deemed to have custody and control of DS Supply shall be responsible for all loss or damage to property or injury or death to persons arising in connection with such DS Supply while in its custody and control and shall indemnify the other Parties with respect to same as set forth in Article 14 of this Agreement.

ARTICLE 14: INDEMNIFICATION

14.1 Indemnification

- third party claims and/or liabilities for losses, penalties, expenses, damage to property, injury to or death of any person including a Party's employees or any third parties, that were caused by or occur in connection with an act or omission of the DS Supplier with respect to an obligation arising under or in connection with this Agreement, or for which the DS Supplier has otherwise assumed liability under the terms of this Agreement, the DS Supplier shall defend (at the Company's option), indemnify and hold harmless the Company, its shareholders, board members, directors, officers and employees, from and against any and all such third party claims and/or liabilities, except to the extent that a court of competent jurisdiction determines that the losses, penalties, expenses or damages were caused wholly or in part by the gross negligence or willful misconduct of the Company. The Company may, at its own expense, retain counsel and participate in the defense of any such suit or action.
- (b) Should the DS Supplier (the "Indemnified DS Supplier") become the defendant in, or obligor for, any third party claims and/or liabilities for losses, penalties, expenses, damage to property, injury to or death of any person including a Party's employees or any third parties, that were caused by or occur in connection with an act or omission of the Company with respect to an obligation arising under or in connection with this Agreement, or for which the Company has otherwise assumed liability under the terms of this Agreement, the Company shall defend (at the option of the Indemnified DS Supplier), indemnify and hold harmless the Indemnified DS Supplier, its shareholders,

board members, directors, officers and employees, from and against any and all such third party claims and/or liabilities, except to the extent that a court of competent jurisdiction determines that the losses, penalties, expenses or damages were caused wholly or in part by the gross negligence or willful misconduct of the Indemnified DS Supplier. The Indemnified DS Supplier may, at its own expense, retain counsel and participate in the defense of any such suit or action.

(c) If either Party intends to seek indemnification under Article 14.1(a) or 14.1(b), as applicable, from the other Party, the Party seeking indemnification shall give the other Party notice of such claim within ninety (90) days of the later of the commencement of, or the Party's actual knowledge of, such claim or action. Such notice shall describe the claim in reasonable detail, and shall indicate the amount, estimated if necessary, of the claim that has been, or may be, sustained by said Party. To the extent that the other Party will have been actually and materially prejudiced as a result of the failure to provide such notice, such notice will be a condition precedent to any liability of the other Party under the provisions for indemnification contained in this Agreement. Neither Party may settle or compromise any claim without the prior consent of the other Party; provided, however, said consent shall not be unreasonably withheld, conditioned or delayed.

14.2 Survives Agreement

The obligation of a Party to defend, indemnify, and hold harmless another Party under this Article shall survive termination of this Agreement, and shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for either Party under any statutory scheme, including any Worker's Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts.

ARTICLE 15: FORCE MAJEURE

15.1 Force Majeure

Notwithstanding anything in this Agreement to the contrary, the Parties shall be excused from performing their respective obligations under this Agreement (other than the obligation to make payments with respect to performance prior to the event of Force Majeure) and shall not be liable for damages or otherwise due to their failure to perform, during any period that one Party is unable to perform due to an event of Force Majeure, provided that the Party declaring an event of Force Majeure shall: (i) act expeditiously to resume performance; (ii) exercise all commercially reasonable efforts to mitigate or limit damages to the other Party; and (iii) fulfills the requirements set forth in Article 15.2 (Notification).

15.2 Notification

A Party unable to perform under this Agreement due to an event of Force Majeure shall: (i) provide prompt written notice of such event of Force Majeure to the other Party, which shall include an estimate of the expected duration of the Party's inability to perform due to the event of Force Majeure; and (ii) provide prompt notice to the other Party when performance resumes.

ARTICLE 16: MISCELLANEOUS PROVISIONS

16.1 Notices

Unless otherwise stated herein, all notices, demands or requests required or permitted under this Agreement shall be in writing and shall be personally delivered or sent by overnight express mail or courier service. Notice may also be provided via e-mail or facsimile transmission (with the original transmitted by any of the other delivery methods

specified in the previous sentence) addressed per the notification information for the DS Supplier and Company as set forth in Exhibit 2 hereto.

Such notices, demands or requests shall also be provided to such other person at such other address as a Party may designate by like notice to the other Party. Notice received after the close of the Business Day shall be deemed received on the next Business Day.

16.2 No Prejudice of Rights

The failure of a Party to insist on any one or more instances upon strict performance of any provisions of this Agreement, or to take advantage of any of its rights hereunder, shall not be construed as a waiver of any such provisions or the relinquishment of any such right or any other right hereunder, which shall remain in full force and effect. No term or condition of this Agreement shall be deemed to have been waived and no breach excused unless such waiver or consent to excuse is in writing and signed by the Party claimed to have waived or consented to excuse.

16.3 Assignment

Parties shall not assign any of their rights or obligations under this Agreement without obtaining the prior written consent of the non-assigning Party, which consent shall not be unreasonably withheld. The Company agrees that it shall grant its consent to a proposed assignment by the DS Supplier if the proposed assignee meets all of the Company's creditworthiness requirements then in effect under this Agreement and any applicable load cap restrictions. No assignment of this Agreement shall relieve the assigning Party of any of its obligations under this Agreement until such obligations have been assumed by the assignee and all necessary consents have been obtained. Any assignment in violation of this Section 16.3 shall be void; provided, however, the Company

may assign any or all of its rights and obligations under this Agreement notwithstanding anything contained herein to the contrary, without the DS Supplier's consent, to any entity succeeding to all or substantially all of the assets of the Company, if such assignee agrees, in writing, to be bound by all of the terms and conditions hereof and all necessary regulatory approvals are obtained. The DS Supplier may, with prior written notice to the Company but without obtaining the approval of the Company, assign the accounts, revenues or proceeds under this Agreement to a third party. The Company agrees that, following receipt of such notice of the assignment of accounts, revenues or proceeds and such other documentation that the Company may reasonably request, the Company will pay amounts becoming due to the assigning DS Supplier under this Agreement directly to the designated assignee; provided, however, that nothing herein shall enlarge or expand the rights of such designated assignee beyond the rights granted to the DS Supplier and the right of such designated assignee to receive payments shall be subject to all defenses, offsets and claims of the Company arising under this Agreement.

16.4 Governing Law and Venue

To the extent not subject to the jurisdiction of the FERC, questions including those concerning the formation, validity, interpretation, execution, amendment, termination and construction of this Agreement shall be governed by the laws of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law. Except for matters jurisdictional to FERC, the PUC or the appellate courts having jurisdiction over the PUC or FERC matters, all disputes hereunder shall be resolved in the Pennsylvania State court or Federal court of competent jurisdiction and within reasonably close proximity to the Company. Each Party hereby waives its respective rights to any jury trial with respect to

any litigation arising under or in connection with this Agreement.

16.5 Regulatory Approvals

DS Supplier agrees to cooperate, to the fullest extent necessary, to obtain any and all required State, Federal or other regulatory approvals of the Agreement and/or Transaction Confirmations hereunder. The commencement of the Delivery Period and the obligations hereto are subject to (i) the receipt or waiver by Company of all Company required regulatory approvals, (ii) the receipt or waiver by DS Supplier of all DS Supplier required regulatory approvals, and (iii) Pennsylvania PUC approval.

16.6 Headings

The headings and subheadings contained in this Agreement are used solely for convenience and do not constitute a part of the Agreement between the Parties hereto, nor should they be used to aid in any manner in the construction of this Agreement.

16.7 Third Party Beneficiaries

This Agreement is intended solely for the benefit of the Parties hereto and nothing in this Agreement shall be construed to create any duty, or standard of care with reference to, or any liability to, any person not a Party to this Agreement.

16.8 General Miscellaneous Provisions

- (a) This Agreement shall not be interpreted or construed to create an association, joint venture, or partnership between the Parties, or to impose any partnership obligation or liability upon any Party. No Party shall have any right, power, or authority to enter into any agreement or undertaking for, or on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.
 - (b) Cancellation, expiration or Early Termination of this Agreement shall not

relieve the Parties of obligations that by their nature survive such cancellation, expiration or termination, including warranties, remedies, promises of indemnity and confidentiality.

- (c) Should any provision of this Agreement be held invalid or unenforceable, such provision shall be invalid or unenforceable only to the extent of such invalidity or unenforceability without invalidating or rendering unenforceable any other provision hereof unless it materially changes the agreement of the Parties; provided that in such event the Parties shall use commercially reasonable efforts to amend this Agreement or any Transaction in order to give effect to the original intention of the Parties.
- (d) Each of the Parties acknowledges that it has read this Agreement, understands it, and agrees to be bound by its terms. This Agreement is intended by the Parties as a final expression of their agreement. The Parties further agree that this Agreement is the complete and exclusive statement of agreement and supersedes all proposals (oral or written), understandings, representations, conditions, warranties, covenants and all other communications between the Parties relating thereto. This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof. Each Party further agrees that it will not assert, or defend itself, on the basis that any applicable tariff is inconsistent with this Agreement or any Transaction.

16.9 Taxes

As between the Parties: (i) The DS Supplier is responsible for the payment of all taxes imposed by all present and future federal, state, municipal or other taxes imposed by any taxing authority on the wholesale sales of DS Supply under this Agreement; and (ii)

The Company is responsible for the payment of all taxes imposed by all present and future federal, state, municipal or other taxes imposed by any taxing authority on retail sales of DS Supply under this Agreement. Should the DS Supplier be required to remit any Pennsylvania State Sales and Use Taxes directly to the applicable taxing authority, other than taxes previously collected by the DS Supplier on behalf of the Company, the Company will defend and indemnify the DS Supplier for such Sales and Use Taxes and will pay to the DS Supplier all such tax amounts upon demand. If any Transaction is exempt from the payment of any such taxes, the affected DS Supplier will, if requested, provide the Company with valid tax exemption certificates. Should the Company be required to remit any such taxes directly to any applicable taxing authority, other than taxes previously collected by the Company directly from the DS Supplier, the DS Supplier will defend and indemnify the Company and will pay to the Company all such tax amounts upon demand.

16.10 Audit

Each Party has the right on at least three (3) Business Days prior written notice, at its sole expense and during normal working hours, to examine the records of the other Party to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement. If any such examination reveals any inaccuracy in any statement, the necessary adjustments in such statement and the payments thereof will be made in accordance with Article 9 (Billing) and 9.1 (i) (Interest on Unpaid Balances) of this Agreement.

16.11 Rules of Interpretation

The following principles shall be observed in the interpretation and construction of this Agreement:

- (a) Unless otherwise stated, the terms "include" and "including" when used in this Agreement shall be interpreted to mean by way of example only and shall not be considered limiting in any way;
- (b) All titles and headings used herein are for convenience and reference purposes only, do not constitute a part of this Agreement and shall be ignored in construing or interpreting the obligations of the parties under this Agreement;
- (c) References to the singular include the plural and vice versa;
- (d) References to Articles, Sections, Clauses and the Preamble are, unless the context indicates otherwise, references to Articles, Sections, Clauses and the Preamble of this Agreement;
- (e) In carrying out its rights, obligations and duties under this Agreement, each Party shall have an obligation of good faith and fair dealing; and
- (f) If any payment due under this Agreement would be, by operation of the terms and conditions of any provision hereof, due and payable on a day other than a Business Day, such payment shall be made on the next following Business Day.

16.12 Confidentiality

(a) Each Party shall hold in confidence and not release or disclose any document or information furnished by the other Party in connection with this Agreement, unless:
(i) compelled to disclose such document or information by judicial, regulatory or administrative process or other provisions of law; (ii) such document or information is generally available to the public; (iii) such document or information was available to the receiving Party on a non-confidential basis; (iv) such document or information was available to the receiving Party on a non-confidential basis from a

third-party, provided that the receiving Party does not know, and, by reasonable effort, could not know that such third-party is prohibited from transmitting the document or information to the receiving Party by a contractual, legal or fiduciary obligation or (v) such disclosure is made to PJM or Pa PUC and is necessary in order for the Transactions contemplated by this Agreement to be consummated or to otherwise comply with the provisions of this Agreement.

- (b) Notwithstanding any other provision of this Section 16.12, a Party may disclose to its employees, representatives and agents all documents and information furnished by the other Party in connection with this Agreement, provided that such employees, representatives and agents have been advised of the confidentiality provisions of this Section 16.12, and further provided that in no event shall a document or information be disclosed in violation of the standard of conduct requirements established by FERC.
- (c) A Party receiving notice or otherwise concluding that any confidential document or information furnished by the other Party in connection with this Agreement is being sought under any provision of law, to the extent it is permitted to do so under any applicable law, shall: (i) promptly notify the other Party; and (ii) use reasonable efforts in cooperation with the other Party to seek confidential treatment of such confidential information.
- (d) The Parties agree that monetary damages may be inadequate to compensate a Party for the other Party's breach of its obligations under this Section 16.12. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the receiving Party breaches or threatens to breach its

obligations under this Article 16.12, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law.

16.13 Federal Acquisition Regulation

If any of the following clauses prescribed by the Federal Acquisition Regulation ("FAR"), 48 Code of Federal Regulations Chapter 1, should be deemed to apply to this Agreement, the DS Supplier shall comply with the requirements of such clause(s), and shall include the terms or substance of such clause(s) in its subcontracts, as and to the extent required by the FAR:

- 1) Clean Air and Water: § 52.223-2;
- Contract Work Hours and Safety Standards Act-Overtime Compensation: § 52.222-4;
- 3) Equal Opportunity: § 52.222-26;
- 4) Affirmative Action for and Employment Reports on Special Disabled and Vietnam Era Veterans: § 52.222-35 and § 52.222-37;
- 5) Affirmative Action for Handicapped Workers: § 52.222-36;
- Oncerns and Small Business Concerns and Small Disadvantaged Business

 Concerns and Small Business and Small Disadvantaged Business

 Subcontracting Plan: § 52.219-8 and § 52-219-9.

In case of a conflict between the provisions of the FAR and the balance of this Agreement, the requirements of the FAR shall prevail.

16.14 Binding Terms

This Agreement and the rates, terms and conditions herein shall remain in effect for

the entire term hereof and each Party agrees not to seek any change to such rates, terms and conditions pursuant to the FPA, if the FPA is deemed to have jurisdiction over this Agreement, including on the grounds that they are not just and reasonable.

16.15 Amendment

This Agreement, including the appendices hereto, cannot be amended without the written agreement of all Parties prior to such amendment becoming effective. Except as provided in Appendix C and the Transaction Confirmation(s), the rates, terms and conditions contained in this Agreement are not subject to change under Sections 205 or 206 of the Federal Power Act absent the mutual written agreement of the Parties. Absent the agreement of all parties to the proposed change, the standard of review for changes to this Agreement proposed by a Party, a non-Party or the FERC acting *sua sponte* shall be the "public interest" standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956), affirmed by Morgan Stanley Capital Group, Inc. v. Public Utility District No. 1 of Snohomish County, Washington, et al., 554 U.S. 527 (2008) (the "Mobile-Sierra Doctrine").

16.16 Counterparts

This Agreement may be executed in counterparts, each of which will be considered an original, but all of which shall constitute one instrument.

16.17 Successors

This Agreement and all of the provisions hereof are binding upon, and inure to the benefit of, the Parties and their respective successors and permitted assigns.

IN WITNESS WHEREOF, the Parties here	eto have caused this Agreement to be executed
by their duly authorized representatives as o	f the date first set forth above.
ATTEST:	[Applicable EDC]
By:	By:

IN WITNESS WHEREOF, the Parties her	reto have caused this Agreement to be executed
by their duly authorized representatives as of	of the date first set forth above.
ATTEST:	DS Supplier
Dv.	D ₁₀
By:	By:
Name:	Name:
Title	Title:

APPENDIX A- MAXIMUM UNSECURED CREDIT

Credit Rating of the DS Supplier			num Credit Limit (ca percentage of TNW	lculated as the lesser or the Credit Limit
		Cap be	. •	
S&P	Moody's	Fitch	Percentage of TNW	Credit Limit Cap
A- and above	A3 and above	A- and above	16%	\$75MM
BBB +	Baa1	BBB +	16%	\$75MM
	Daai	DDD +		·
BBB	Baa2	BBB	10%	\$50MM
BBB-	Baa3	BBB-	8%	\$25MM
BB+	Ba1	BB+	4%	\$15MM
BB	Ba2	BB	3%	\$10MM
BB-	Ba3	BB-	2%	\$5MM
Below BB-	Below Ba3	Below BB-	0%	\$0MM

Credit Rating Determination Methodology

The DS Supplier or it Guarantor must have a minimum senior unsecured debt rating (or, if unavailable, corporate issuer rating) equal to the Minimum Rating. If the DS Supplier or its Guarantor is rated by only two rating agencies, and the ratings are split, the higher rating will be used. If the DS Supplier or its Guarantor is rated by three rating agencies, and the ratings are split, the lower of the two highest ratings will be used; provided, however, that in the event that the two highest ratings are common, such common rating will be used. The maximum level of the credit limit to cover the Total Exposure Amount will be determined based on the above table.

Minimum Rating – The lowest credit rating for a DS Supplier, as set forth in this Appendix A, that can obtain unsecured credit.

APPENDIX B – MTM EXPOSURE AMOUNT CALCULATION INFORMATION

Table 1 contains the initial marks¹ for each month of the DS auction period. Monthly marks (example only,) are provided for a twelve month period. For the months, two-month blocks² or quarterly blocks³ where broker quotes are available, broker quotes will be used for those months. For all the remaining months the EDCs will be using a proprietary method that reflects forward market conditions. The initial mark for each Billing Month is the initial mark that was calculated on the date that the DS auction closes and will not change over the life of the contract.

After the close of the DS auction On-Peak Energy Forward and Off-Peak Energy Forward prices will change. In addition, the on-peak and off-peak loads used to calculate the MtM Exposure Amount will be adjusted monthly to reflect the most current changes. On-Peak and Off-Peak Energy Forward prices for the months, two-month blocks or quarterly blocks where at least two broker quotes are available will be equal to the broker quotes. In case quotes for a component of a block and for the block are both available, the EDCs reserve the right not to use both the component of a block and the block if they are inconsistent with each other. However, when this inconsistency occurs the EDC must use either the component or the block. On-Peak and Off-Peak Energy Forward prices for the months, two-month blocks or quarterly blocks where broker quotes are unavailable will be equal to the last available broker quotes or in case they have not been quoted on the broker sheets since the DS auction closed, they will be equal to the marks set at the close of the DS auction.

¹ Initial marks represent Market Price Hub on-peak prices.

² For two-month and quarterly blocks for which the average for the block and a component of the block are both quoted, the component will be equal to its quoted price and the other months in the block will be constructed so that the weighted average (weighted by on-peak hours in each month) of the block equals the quote for the block; e.g., Q4 2013 = \$50 and Oct 2013 = \$40; therefore, Oct 2013 = \$40 and Nov-Dec 2013 = \$55 (\$50*(336+336+368)-\$40*336)/(336+368)=\$54.77. If only the block is quoted, that price will be used for all relevant months; e.g., Jan/Feb 2014 = \$35, then Jan 2014 = \$35 and Feb 2014 = \$35.

MtM Calculation Example

Parameters

On the closing day of the auction, the following parameters are set

- 1. The expected monthly On-Peak Load per tranche for each EDC.
- 2. The expected monthly Off-Peak Load per tranche for each EDC.
- 3. The monthly on-peak forward prices (to be used as the inception price "initial mark" for each month of the supply period).
- 4. The monthly off-peak forward prices (to be used as the inception price "initial mark" for each month of the supply period)

Indicative on-peak and off-peak loads per tranche for each EDC will be made available 14 days prior to the auction.

All Energy Prices are based on a Market Price Hub that the Company will specify as follows: PJM Western Hub

Table 1 - Data set on the Closing Day of the Auction (MWh/tranche)*

	On-Peak Volume ³	Off-Peak Volume ⁴	Initial Mark On- Peak Price ⁵	Initial Mark Off- Peak Price ⁶
Month 1				
Month 2				
Month 3				
Month 4				
Month 5				
Month 6				
Month 7				
Month 7				
Month 8				
Month 9				
Month 10				
Month 11				
Month 12				

^{*} Table 1 can be found at the FirstEnergy Pennsylvania Default Service Program website at http://www.fepaauction.com/Documents/MarkToMarketCalculations.aspx.

EXAMPLE

Table 2 – Post Auction Close MTM Calculation (MWh/tranche)**

	On-Peak	Off-Peak	Initial	Initial	On-Peak	Off-Peak	
	Load per	Load per	Mark On-	Mark Off-	Energy	Energy	MtM ⁹
	Tranche	Tranche	Peak	Peak	Forward	Forward	IVILIVI
	(MWh)	(MWh)	Price	Price	Price ⁷	Price ⁸	
Month 1							_
Month 2							
Month 3							
Month 4							
Month 5							
Month 6							
Month 7							
Month 8							
Month 9							
Month 10							
Month 11							
Month 12							

Total

^{**} Table 2 can be found at the FirstEnergy Pennsylvania Default Service Program website at http://www.fepaauction.com/Documents/MarkToMarketCalculations.aspx.

³ On-peak and off-peak volumes will be adjusted monthly.

⁴ On-peak and off-peak volumes will be adjusted monthly.

⁵ Initial Mark On-peak price set at day auction closes, Remains constant through term of agreement

⁶ Initial Mark Off-peak price set at day auction closes. Remains constant through term of agreement.

⁷ On-peak Energy Forward as available and quoted by referenced market makers.

⁸ Off-peak Energy Forward as available and quoted by referenced market makers.

⁹ MTM = (On Peak Load * (On Peak Energy Forward Price - Initial Mark On Peak Price) + (Off Peak Load

^{*(}Off Peak Energy Price- Initial Mark Off Peak Price)

APPENDIX C - DS SUPPLY SPECIFICATIONS

The following DS Supply specifications will be specified in Transaction Confirmations to this Agreement.

Product:

DS Supply: All necessary Energy, Capacity, AECs for AEPS Act compliance, Ancillary Services, transmission services -including Network Integration Transmission Service, all transmission and distribution losses, and congestion and imbalance costs associated with the provision of such services, as well as such other services or products that the DS Supplier may be required, by PJM or any governmental body having jurisdiction, to provide in order to meet the DS Supplier Responsibility Share for serving DS Load.

<u>Appendix D</u> - describes Company and DS Supplier responsibilities for PJM Billing Statement Line Item Credits and Charges associated with the Product. In addition, any unaccounted for energy and historical tie line, generation, and retail customer meter charges not set forth in Appendix D shall be the responsibility of the Company through each EDC's respective non-bypassable Default Service Support Rider.

<u>Appendix E</u> - further describes DS Supplier responsibilities for compliance with the AEPS Act in the product specification.

DS Customer Group:

Each Transaction Confirmation shall be associated with DS Supply to one of the following DS Customer categories as defined in the DS Tariff:

Residential – Met-Ed and Penelec (Rate RS, Rate RT, and Rate GS – Volunteer Fire Company, Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate)

Penn Power (Rate Schedules RS; RS Optional Controlled Service Rider; RH; RH Water Heating Option; WH; and GS Special Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-Profit Rescue Squads, and Non-Profit Ambulance Services)

West Penn (Rate Schedule 10)

<u>Commercial</u> – **Met-Ed** (Rate GS-Small, Rate GS-Medium (PTC), Rate MS, Borderline Service, Street Lighting Service, Ornamental Street Lighting, and Outdoor Lighting Service)

Penelec (Rate GS-Small, Rate GS-Medium (PTC), Rate H, Borderline Service, High Pressure Sodium Vapor Street Lighting Service, Municipal Street Lighting Service, and Outdoor Lighting Service)

Penn Power (Rate Schedules GS (excluding GS Special Rule GSDS), GS Optional Controlled Service Rider, PNP, GM (PTC), GM Optional Controlled Service Rider, PLS, SV, SVD, and SM, OH With Cooling Capabilities, OH Without Cooling Capabilities, and WH Non-Residential)

West Penn (Rate Schedules 20, 22, 23, 24, 30 (PTC), 51, 52, 53, 54, 55, 56, 57, 58, and 71 and 72)

<u>Industrial</u> – **Met-Ed** (Rate Schedules <u>GS-Medium (HP)</u>, GS-Large, GP, and TP)

Penelec (Rate Schedules GS-Medium (HP), GS-Large, GP, and LP)

Penn Power (Rate Schedules <u>GM (HP), GS-(Large), GP, GT</u>, or GS if such GS Customers also are under Special Rule GSDS)

West Penn (Rate Schedules 30 (<u>HP</u>), <u>35</u>, 40, 41, 44, 46, and 86, Tariff No. 37 – Pennsylvania State University)

Delivery Point: [METED_RESID_AGG, PENELEC_RESID_AGG,
PENNPOWER_RESID_AGG, APS_RESID_AGG as applicable for the appropriate
EDC]

Delivery Period: The term of the Company's Default Service Plan is from June 1, 2019 to May 31, 2023. The applicable Delivery Period for awarded contracts will be as identified on each Transaction Confirmation within the Default Service Plan date range.

Number of Tranches and Percentage for Each Tranche:

Residential — For Metropolitan Edison Company there are [TBD] total Residential tranches available. Each tranche represents [TBD]% of the Residential DS Load. For Pennsylvania Electric Company there are [TBD] total Residential tranches available. Each tranche represents [TBD]% of the Residential DS Load. For Pennsylvania Power Company there are [TBD] total Residential tranches available. Each tranche represents [TBD]% of the Residential DS Load. For West Penn Power Company there are [TBD] total Residential tranches available. Each tranche represents [TBD]% of the Residential DS Load. Tranches won for the applicable Delivery Period will be specified on the Transaction Confirmation.

Commercial – For **Metropolitan Edison Company** there are [TBD] total Commercial tranches available. Each tranche represents approximately [TBD]% of the Commercial DS Load. For **Pennsylvania Electric Company** there are [TBD] total Commercial tranches available. Each tranche represents approximately [TBD]% of the Commercial DS Load. For **Pennsylvania Power Company** there are [TBD] total Commercial tranches available. Each tranche represents approximately [TBD]% of the Commercial DS Load. For West **Penn Power Company** there are [TBD] total Commercial tranches available. Each tranche represents approximately [TBD]% of the Commercial DS Load. Tranches won for the applicable Delivery Period will be specified on the Transaction Confirmation. Industrial – For **Metropolitan Edison Company** there are [TBD] total Industrial tranches available. Each tranche represents [TBD]% of the Industrial DS Load. For **Pennsylvania** Electric Company there are [TBD] total Industrial tranches available. Each tranche represents [TBD]% of the Industrial DS Load. For Pennsylvania Power Company there are [TBD] total Industrial tranches available. Each tranche represents [TBD]% of the Industrial DS Load. For West Penn Power Company there are [TBD] total Industrial tranches available. Each tranche represents [TBD]% of the Industrial DS Load. Tranches won for the applicable Delivery Period will be specified on the Transaction Confirmation.

DS Supplier Responsibility Share:

Fixed percentage share of DS Load for DS Customer Group associated with Transaction Confirmation. Typically, number of tranches won x Tranches Percentage for the DS Customer Group.

DS Fixed Percentage/DS Variable Percentage:

The percentage of DS Supply provided at a fixed price and the percentage of DS Supply provided at a variable price. For each Transaction Confirmation, DS Fixed Percentage + DS Variable Percentage specified shall add to 100%.

APPENDIX D – RESPONSIBILITIES FOR PJM BILLING LINE ITEMS AS DEFINED IN APPLICABLE PJM AGREEMENT OR MANUAL

		Respo	nsible Party
ID#	PJM Billing Statement Line Items	Buyer	DS Supplier
ID#	CHARGES		
1000	Network Integration Transmission Service		X
1102	Network Integration Transmission Service (exempt)		X
1104	Network Integration Transmission Service Offset		X
1108	Transmission Enhancement	X	
1110	Direct Assignment Facilities		X
1115	<u>Transmission Enhancement Settlement</u> (EL05-121-009)	X	
1120	Other Supporting Facilities		X
1130	Firm Point-to-Point Transmission Service		X
1133	Firm Point-to-Point Transmission Service Resale Charge		X
1140	Non-Firm Point-to-Point Transmission Service		X
1143	Non-Firm Point-to-Point Transmission Service Resale Charge		X
1200	Day-ahead Spot Market Energy		X
1205	Balancing Spot Market Energy		X
1210	Day-ahead Transmission Congestion		X
1215	Balancing Transmission Congestion		X
1218	Planning Period Congestion Uplift		X
1220	Day-ahead Transmission Losses		X

1225	Balancing Transmission Losses		X
1230	Inadvertent Interchange		X
1240	Day-ahead Economic Load Response		X
1240	Day-anead Economic Load Response		Λ
1241	Real-time Economic Load Response		X
1245	Emergency Load Response		X
1250	Meter Error Correction	X	
1260	Emergency Energy		X
1301	PJM Scheduling, System Control and		X
	Dispatch Service – Control Area		
	Administration		
1302	PJM Scheduling, System Control and		X
	Dispatch Service – FTR Administration		
1303	PJM Scheduling, System Control and		X
	Dispatch Service –Market Support		
1304	PJM Scheduling, System Control and		X
	Dispatch Service – Regulation Market		
	Administration		
1305	PJM Scheduling, System Control and		X
	Dispatch Service – Capacity		
	Resource/Obligation Mgmt.		
1306	PJM Scheduling, System Control and		X
	Dispatch Service – Advanced Second		
	Control Center		
1308	PJM Scheduling, System Control and		X
	Dispatch Service Refund – Control Area		
1000	Administration		
1309	PJM Scheduling, System Control and		X
	Dispatch Service Refund – FTR		
1010	Administration		
1310	PJM Scheduling, System Control and		X
1011	Dispatch Service Refund – Market Support		**
1311	PJM Scheduling, System Control and		X
	Dispatch Service Refund –Regulation		
1212	Market Administration		N/
1312	PJM Scheduling, System Control and		X
	Dispatch Service Refund – Capacity		
1214	Resource/Obligation Mgmt.		V
1314	Market Monitoring Unit (MMU) Funding		X

1315	FERC Annual Charge Recovery	X
1316	Organization of PJM States, Inc. (OPSI) Funding	X
1317	North American Electric Reliability Corporation (NERC)	X
1318	Reliability First Corporation (RFC)	X
1320	Transmission Owner Scheduling, System Control and Dispatch Service	X
1330	Reactive Supply and Voltage Control from Generation and Other Sources Service	X
1340	Regulation and Frequency Response Service	X
1350	Energy Imbalance Service	X
1360	Synchronized Reserve	X
1365	Day-ahead Scheduling Reserve	X
1370	Day-ahead Operating Reserve	X
1371	Day-ahead Operating Reserve for Load Response	X
1375	Balancing Operating Reserve	X
1376	Balancing Operating Reserve for Load Response	X
1377	Synchronous Condensing	X
1378	Reactive Services	X
1380	Black Start Service	X
1400	Load Reconciliation for Spot Market Energy	X
1410	Load Reconciliation for Transmission	X
1420	Load Reconciliation for Transmission Losses	X
1430	Load Reconciliation for Inadvertent	X
1440	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service	X
1420 1430	Load Reconciliation for Transmission Congestion Load Reconciliation for Transmission Losses Load Reconciliation for Inadvertent Interchange Load Reconciliation for PJM Scheduling,	X X

1441	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund	X
1445	Load Reconciliation for FERC Annual Charge Recovery	X
1446	Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding	X
1447	Load Reconciliation for North American Electric Reliability Corporation (NERC)	X
1448	Load Reconciliation for Reliability First Corporation (RFC)	X
1450	Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service	X
1460	Load Reconciliation for Regulation and Frequency Response Service	X
1470	Load Reconciliation for Synchronized Reserve	X
1475	DASR Load Reconciliation	X
1478	Load Reconciliation for Operating Reserve	X
1480	Load Reconciliation for Synchronous Condensing	X
1490	Load Reconciliation for Reactive Services	X
1500	Financial Transmission Rights Auction	X
1600	RPM Auction	X
1610	Locational Reliability	X
1650	Non-Unit Specific Capacity Transaction	X
1660	Demand Resource and ILR Compliance Penalty	X
1661	Capacity Resource Deficiency	X
1662	Generation Resource Rating Test Failure	X
1663	Qualifying Transmission Upgrade Compliance Penalty	X
1664	Peak Season Maintenance Compliance Penalty	X
1665	Peak-Hour Period Availability	X

1710	PJM/MISO Seams Elimination Cost		X
	Assignment		
1720	RTO Start-up Cost Recovery		X
1730	Expansion Cost Recovery	X	
1900	Unscheduled Transmission Service		X
1910	Ramapo Phase Angle Regulators		X
1920	Station Power		X
1930	Generation Deactivation and RMR Generating Unit Declarations Before PaPUC Approval of the Company's Default Service Program in PaPUC Docket Nos. P- 2013-2391368 <i>et al.</i>		X
1930	Generation Deactivation and RMR Generating Unit Declarations After PaPUC Approval of the Company's Default Service Program in PaPUC Docket Nos. P-2013- 2391368 et al.	X	
1950	Virginia Retail Administrative Fee		X
1980	Miscellaneous Bilateral		X
1995	PJM Annual Membership Fee		X
ID#	CREDITS		
2100	Network Integration Transmission Service		X
2102	Network Integration Transmission Service (exempt)		X
2104	Network Integration Transmission Service Offset		X
2106	Non-Zone Network Integration Transmission Service		X
2108	Transmission Enhancement	X	
2110	Direct Assignment Facilities		X
2115	<u>Transmission Enhancement Settlement</u> (EL05-121-009)	<u>X</u>	
2120	Other Supporting Facilities		X
		1	

2130	Firm Point-to-Point Transmission Service	X
2132	Internal Firm Point-to-Point Transmission Service	X
2133	Firm Point-to-Point Transmission Service Resale Credit	X
2140	Non-Firm Point-to-Point Transmission Service	X
2142	Internal Non-Firm Point-to-Point Transmission Service	X
2143	Non-Firm Point-to-Point Transmission Service Resale Credit	X
2210	Transmission Congestion	X
2211	Day Ahead Transmission Credit (Formerly BLI 2210)	<u>X</u>
2215	Balancing Transmission Congestion Credit	<u>X</u>
2217	Planning Period Excess Congestion	X
2218	Planning Period Congestion Uplift	X
2220	Transmission Losses	X
2240	Day-ahead Economic Load Response	X
2241	Real-time Economic Load Response	X
2245	Emergency Load Response	X
2260	Emergency Energy	X
2320	Transmission Owner Scheduling, System Control and Dispatch Service	X
2330	Reactive Supply and Voltage Control from Generation and Other Sources Service	X
2340	Regulation and Frequency Response Service	X
2350	Energy Imbalance Service	X
2360	Synchronized Reserve	X
2365	Day-ahead Scheduling Reserve	X
2370	Day-ahead Operating Reserve	X

2371	Day-ahead Operating Reserve for Load Response	X
2375	Balancing Operating Reserve	X
2376	Balancing Operating Reserve for Load Response	X
2377	Synchronous Condensing	X
2378	Reactive Services	X
2380	Black Start Service	X
2415	Balancing Transmission Congestion Load Reconciliation Credit	<u>X</u>
2420	Load Reconciliation for Transmission Losses	X
2500	Financial Transmission Rights Auction	X
2510	Auction Revenue Rights	X
2600	RPM Auction	X
2620	Interruptible Load for Reliability	X
2630	Capacity Transfer Rights	X
2640	Incremental Capacity Transfer Rights	X
2650	Non-Unit Specific Capacity Transaction	X
2660	Demand Resource and ILR Compliance Penalty	X
2661	Capacity Deficiency Resource	X
2662	Generation Resource Rating Test Failure	X
2663	Qualifying Transmission Upgrade Compliance Penalty	X
2664	Peak Season Maintenance Compliance Penalty	X
2665	Peak-Hour Period Availability	X
2710	PJM/MISO Seams Elimination Cost Assignment	X
2720	RTO Start-up Cost Recovery	X

2730	Expansion Cost Recovery	X	
2910	Ramapo Phase Angle Regulators		X
2930	Generation Deactivation and RMR Generating Unit Declarations Before PaPUC Approval of the Company's Default Service Program in PaPUC Docket Nos. P- 2013-2391368 <i>et al.</i>		X
2930	Generation Deactivation and RMR Generating Unit Declarations After PaPUC Approval Of the Company's Default Service Program in PaPUC Docket Nos. P- 2013-2391368 <i>et al.</i>	X	
2950	Virginia Retail Administrative Fee		X
2980	Miscellaneous Bilateral		X
2996	Annual PJM Cell Tower		X
2997	Annual PJM Building Rent		X

^{**}Any PJM fees or charges not specifically identified as being the responsibility of the EDC shall be the responsibility of the EGS. Line Items 2100, 2102, and 2104 are Transmission Owner Revenues.

APPENDIX E – DS SUPPLIER'S OBLIGATIONS FOR AEPS COMPLIANCE

To satisfy AEPS with respect to the DS Supplier's Responsibility Share, DS Supplier shall fulfill the following obligations:

- 1. Providing sufficient AECs for each tranche awarded via the DS Solicitation less the Allocated AECs;
- 2. Paying any AEPS penalties, costs, charges, etc. assessed against the DS Supplier and/or the Company associated with the DS Supplier's non-performance with AEPS requirements;
- 3. Submitting to the Company proof of AEPS compliance under this Agreement in such form and manner as may be required by the Company.
- 4. Provide to the Company all information the Company may require to comply with the AEPS Act and its implementing regulations and other Requirements of Law, including, but not limited to the price paid per AEC required by 73 Pa.C.S. §1648.3(e)(8).

This Appendix E shall confirm the Alternative Energy Portfolio Standards Obligation of the Transaction Date as defined in the Transaction Confirmation.

Alternative Energy Portfolio Standards Obligations for the period beginning June 1, 2019 based on the total MWh supplied by DS Supplier:

<u>Tier I</u>	<u>Tier I Solar</u>	<u>Tier II</u>
7.50%	0.44%	8.20%
8.00%	0.50%	10.00%
8.00%	0.50%	10.00%
8.00%	0.50%	10.00%
	8.00% 8.00%	7.50% 0.44% 8.00% 0.50% 8.00% 0.50%

The percentages set forth above are those applicable for the first DS Solicitation and may be revised for future DS Solicitations to reflect changes in law or other applicable regulatory requirements.

The above amounts are estimates and will vary based on actual load served. DS Supplier will need to true-up, higher or lower, actual credits needed based on Monthly Settlement Amount.

If Alternative Energy Portfolio Requirements change by law or any other reason, DS Supplier shall be responsible for providing the credits at its expense in order to comply with its obligations under DS Supply.

EXHIBIT 1

TRANSACTION CONFIRMATION

This Transaction C	onfirmation letter is being	provided pursu	ant to and in ac	cordance with
the Agreement dated	between	("C	ompany") and _	
("DS Supplier"). Terms u	sed but not defined herein	shall have the	meanings ascri	bed to them in
the Agreement. This Tr	ransaction Confirmation	shall confirm	the following	terms of the
Transaction agreed to on _	("Transaction Da	ate").		
Product: DS Supp	oly			
DS Customer Gro	up: Residential			
-	METED_RESID_AGG, PI ESID_AGG, or APS_RESI	_	_	
Delivery Period:	June 1, 2019 through Ma	y 31, 2020 (Ex	cample of a 12	Month
Product)				
DS Supplier Resp	onsibility Share: X Tran	ches won of Y	Total Tranches	
DS Fixed Price = S	XX.XX/MWh as bid by I	OS Supplier		
DS Fixed Percenta	nge = 100%			
Total Allocated AECs: FAEPS solar photovoltaic re West Penn: XX Tier I non-	equirements associated wi- solar AECs and X Tier I s	th the DS Supp solar AECs.	olier Responsibi	lity Share. For
Please confirm that the ter above between DS Suppli Confirmation. The signate Transaction.	er and Company by retu	rning an execu	ited copy of th	is Transaction
Company	· ·	DS SUPPLIER	<u> </u>	
By:		•		
Name:		Name: Title:		
IIIIC.		riue:		

EXHIBIT 1

TRANSACTION CONFIRMATION

This Trans	saction Confirmation letter is b	being provided pursuant to and in accordance	with
the Agreement da	ated between	("Company") and	
("DS Supplier").	Terms used but not defined h	erein shall have the meanings ascribed to the	m in
the Agreement.	This Transaction Confirma	tion shall confirm the following terms of	the
Transaction agree	ed to on ("Transaction	on Date").	
Product:	DS Supply		
DS Custo	omer Group: Commercial		
•	Point: [METED_RESID_AG WER_RESID_AGG, or APS_	· — —	
Delivery	Period: June 1, 2019 through	h May 31, 2020 (Example of a 12 Month	
Product)			
DS Suppl	ier Responsibility Share: X	Tranches won of Y Total Tranches	
DS Fixed	Price = \$XX.XX/MWh as bio	d by DS Supplier	
DS Fixed	Percentage = 100%		
AEPS solar photo		Penn Power: Tier I (Solar) AECs equal 1009 ed with the DS Supplier Responsibility Share. ier I solar AECs.	
above between D	OS Supplier and Company by	curately reflect the agreement reached on the returning an executed copy of this Transaction must have the authority to enter into	ction
Company		DS SUPPLIER	
Ву:		By:	
Name:		Name:	
Title:		Title:	

EXHIBIT 1

TRANSACTION CONFIRMATION

			*.1
		ng provided pursuant to and in accordance	
the Agreement da	ated between	("Company") and	
("DS Supplier").	Terms used but not defined here	ein shall have the meanings ascribed to the	nem in
the Agreement.	This Transaction Confirmatio	on shall confirm the following terms	of the
Transaction agree	ed to on ("Transaction	Date").	
Product:	DS Supply		
DS Custo	mer Group: Industrial		
•	Point: [METED_RESID_AGG, WER_RESID_AGG, or APS_RE		
Delivery	Period: June 1, 2019 through M	May 31, 2020 (Example of a 12 Month	
Product)			
DS Suppl	lier Responsibility Share: X Tr	ranches won of Y Total Tranches	
DS Fixed	Price = \$XX.XX/MWh as bid b	y DS Supplier	
	able Price = The DS Variable Pricery Point, plus a fixed adder of \$4	ice is the real time hourly total LMP for 4.00/MWh.	
which the LMP	for the Delivery Point is calcular this Agreement. The PMEA/	that PJM changes the location or mechaniated, the Company will recalculate a new FMEA Adjustment Amount shall refle	w DS
AEPS solar photo		on Power: Tier I (Solar) AECs equal 10 with the DS Supplier Responsibility Shart I solar AECs.	
above between D	OS Supplier and Company by re	ately reflect the agreement reached on the eturning an executed copy of this Trans on must have the authority to enter in	action
Company		DS SUPPLIER	
By:		By:	
Name:		Name:	
Title		Title	

DS Supplier:

EXHIBIT 2 FORM OF NOTICE

Any notices required under this Agreement shall be made as follows:

All Notices:

FirstEnergy Corp.

P.O. Box 16001

Reading, PA 19612-6001

All Notices:

DS Company

Street

City/State/Zip

Attn: Dean Stathis Attn:

Director Regulated Commodity Sourcing

Phone: (610) 921-6766 Phone:
Facsimile: (330) 777-6441 Facsimile:
Email: dstathis@firstenergycorp.com Email:
Duns: Duns:

Federal Tax ID Number: Federal Tax ID Number:

Copy to:

Buyer:

FirstEnergy Corp. 76 South Main Street 8th Floor Akron, OH 44308

Attn: Eileen M. Mikkelsen

VP Rates & Regulatory Affairs

Phone: (330) 384-5166 Facsimile: (330) 315-4358

Email: mikkelsene@firstenergycorp.com

Invoices: Invoices:

FirstEnergy Corp. P.O. Box 16001

Reading, PA 19612-6001

Attn: Jim Sensenig Attn:

Supervisor, Regulated Commodity Sourcing

Phone: (610) 921-6543 Phone: Facsimile: (330) 777-6441 Facsimile:

Email: jjsensenig@firstenergycorp.com

Scheduling: Scheduling:

FirstEnergy Corp. 800 Cabin Hill Drive Greensburg, PA 15601

Attn: Cindy Teamann Attn:

Manager, Regulated Settlements

Phone: (724) 838-6672 Phone: Facsimile: Facsimile: Email: cteaman@firstenergycorp.com Email:

Payments: Payments:

FirstEnergy Corp. P.O. Box 16001

Reading, PA 19612-6001

Attn: Jim Sensenig Attn:

Supervisor, Regulated Commodity Sourcing

Phone: (610) 921-6543 Phone: Facsimile: (330) 777-6441 Facsimile:

Email: jjsensenig@firstenergycorp.com

Wire Transfer Wire Transfer

BNK: JP Morgan Chase, NY BNK:

FirstEnergy Service Co.

ABA: 021000021 ABA: ACCT: 323-396496 ACCT:

Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-3

Credit and Collections: Credit and Collections:

FirstEnergy Corp. 341 White Pond Drive Akron, OH 44320

Attn: Martin Massie Attn:

Credit Analyst

Phone: (330) 315-6894 Phone:

Facsimile: Facsimile:

Email: massiem@firstenergycorp.com Email:

With additional Notices of an With Additional Notices of an

Event of Default to: Event of Default to:

FirstEnergy Corp. P.O. Box16001

Reading, PA 19612-6001

Attn: Tori Giesler Attn:

Associate General Counsel

Phone: (610) 921-6658 Phone:
Facsimile: (610) 939-8655 Facsimile:
Email: tgiesler@firstenergycorp.com Email:

APPENDIX F - LETTER OF CREDIT DOCUMENTATION

Sample DS Letter of Credit
[Insert Date] Letter of Credit No. [Insert Credit No]
To: [Insert Company Name] ("Beneficiary")

1.	we hereby establish in your favor this irrevocable transferable Letter of Credit (this
	"Letter of Credit") for the account of(the "Applicant"), in
	the amount of \$, effective immediately and available to you at sight
	upon demand at our counters at(Location) and expiring 364
	days from date of issuance or any extension thereof (in the form of Annex 5), unless
	terminated earlier in accordance with the provisions hereof or otherwise extended.
2.	This Letter of Credit is issued at the request of the Applicant, and we hereby irrevocably
	authorize you to draw on us, in accordance with the terms and conditions hereof, up to
	the maximum amount of this Letter of Credit, subject to reduction as provided in
	paragraph 11 hereof. This Letter of Credit may be drawn upon an Event of Default
	under the DS Suppler Master Agreement(s) between the Applicant and you, dated
	and the DS Suppler Supplier Master Agreement(s) between the
	Applicant and you, dated
3.	A partial or full drawing hereunder may be made by you on any Business Day on or
	prior to the expiration of this Letter of Credit by delivering, by no later than 11:00 A.M.

(New York, NY time ¹) on such Business Day to
(Bank), (address), (i) a notice executed by
you in the form of Annex 1 hereto, appropriately completed and duly signed by your
Authorized Officer of the Beneficiary and (ii) your draft in the form of Annex 2 hereto,
appropriately completed and duly signed by your Authorized Officer of the
Beneficiary. Authorized Officer shall mean President, Treasurer, any Vice President or
any Assistant Treasurer.

- 4. We may, but shall not be obligated to, accept any request to issue a substitute Letter of Credit. Such request shall be in an Availability Certificate in the form of Annex 3 hereto by you to us for exchange for a new Letter of Credit in the amount set forth in an Availability Certificate, which amount shall not exceed the present value of this letter of credit. Upon acceptance by us of any such request to issue a substitute Letter of Credit for exchange, the new Letter of Credit shall be issued in the amount as set forth in the Availability Certificate.
- 5.4. We hereby agree to honor a drawing hereunder made in compliance with the terms and provisions of this Letter of Credit by transferring in immediately available funds the amount specified in the draft delivered to us in connection with such drawing to such account at such bank in the United States as you may specify in your draft delivered to us pursuant to Paragraph 3 hereof, by 3:00 P.M. (New York, NY time) on the date of such drawing, if delivery of this requisite document is made prior to 11:00 AM (New York, NY time) on a Business Day pursuant to Paragraph 3 herein above, but at the opening of business on the first Business Day next succeeding the date of such drawing

¹ If the issuer of the Letter of Credit is located in an area that is not in the Eastern time zone, this time and all other times in this Letter of Credit, and the definition of a Business Day should be adjusted accordingly.

if delivery of the requisite document is made on or after 11:00 AM (New York, NY time) on any Business Day pursuant to Paragraph 3 herein above.

6.5. If a demand for payment made by you hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you prompt notice (not exceeding three (3) Business Days following the date of receipt of the documents) that the demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons that the demand for payment was not effected in accordance with such terms and conditions, and that we will upon your instructions hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such non-conforming demand for payment to the extent that you are entitled to do so, provided, however, in such event a conforming demand for payment must be timely made in accordance with the terms of this Letter of Credit. 7.6. This Letter of Credit shall automatically terminate and be delivered to us for cancellation on the earliest of (i) the making by you of the drawings in an amount equal to the maximum amount available to be made hereunder, (ii) the date we issue a new letter of credit in exchange for this Letter of Credit in accordance with Paragraph 4 herein above, (iii) the date we receive from you a Certificate of Expiration in the form of Annex $\underline{34}$ hereto, or (\underline{ii}) will be automatically extended without written amendment for successive additional one (1) year periods from the current or any future extended expiry date, unless at least ninety (90) days prior to such date of expiration, we give written notice to the Beneficiary by registered or certified mail, return receipt

requested, or by overnight courier, at the address set forth above, or at such other

address of which prior written notice has been provided to us, that we elect not to renew this irrevocable standby Letter of Credit for such additional one (1) year period.

7. As used herein:

<u>"Availability Certificate"</u> shall mean a certificate substantially in the form of Annex 3 hereto, appropriately completed and duly signed by your authorized officer.

"Business Day" shall mean any day on which commercial banks are not authorized or required to close in New York, New York and any day on which payments can be effected on the Fed wire system.

8. This Letter of Credit is assignable and transferable, in accordance with Annex 64, to an entity who you certify to us in the form of Annex 64, and we hereby consent to such assignment or transfer, provided that this Letter of Credit may not otherwise be amended or modified without consent from us, you and the Applicant, and except as otherwise expressly stated herein, is subject to the Uniform Customs and Practice for Documentary Credits – 2007 Revision, ICC Publication No. 600, or any successor publication thereto (the "UCP"). Any and all transfer fees, expenses and costs shall be borne by the Applicant. This Letter of Credit shall, as to matters not governed by the UCP, be governed and construed in accordance with New York law, without regard to principles of conflicts of law. Transfers fees shall be borne by the Applicant.

9.

This Letter of Credit sets forth in full our undertaking, and such undertaking shall not in any way be modified, amended, changed, amplified or limited by reference to any document, instrument or agreement referred to herein, except for Annexes 1 through 6 hereto and the notices referred to herein; and any such reference shall not be deemed

İ	to incorporate herein by reference any document, instrument or agreement except as
1	set forth above.
10. 9	O. We certify that as of(date) we
	("Bank") satisfy the senior unsecured debt rating of "A" from Standard & Poor's
	Ratings Services or "A2" from Moody's Investors Service Inc.
11. 1	0. The amount which may be drawn by you under this Letter of Credit shall be
i	automatically reduced by the amount of any drawings paid through us referencing this
	Letter of Credit No Partial drawings are permitted hereunder.
12. 1	1. Faxed document(s) are acceptable. Presentation by fax must be made to fax
:	number confirmed by telephone to
13. 1	2. In the event of act of God, riot, civil commotion, insurrection, war, terrorism or by
i	any strikes or lock outs, or any cause beyond our control, that interrupts our business,
i	and causes the place for presentation of this Letter of Credit to be closed for business
	on the last day of presentation, the expiration date of this Letter of Credit shall be
i	automatically extended without amendment to a date thirty (30) calendar days after the
	place for presentation reopens for business.
14. 1	3. This original Letter of Credit has been sent to the beneficiary EDC located at
	above (as per Applicant's instructions). The aggregate amount
]	paid to the during the validity of this Letter of Credit will not exceed
1	the amount of this Letter of Credit. Any demands or communications in the form of
1	the attached Annexes (except for Annex 5) or other communications directed to us
,	under this Letter of Credit must be signed by an Authorized Officer of the
	Acceptance or rejection of any amendments to this Letter of

Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-3

Credit or any extensions pursuant to An	nex 5-must be signed by an Authorized Officer
of the	
	Very truly yours,
(Bank)	
By:	By:
Name: [Insert Name]	Name: [Insert Name]
Title: [Insert Title]	Title: [Insert Title]
Date: [Insert Date]	Date: [Insert Date]

Annex 1 to Letter of Credit

DRAV	WING UNDER LETTER OF CREDIT	Γ NO. [I	InsertCreditNo.]
[Insert	Date]		
То:	[Insert Bank]		
	[Insert Address]		
	Attention: Standby Letter of Credit	Unit	
Ladies	s and Gentlemen:		
in the	The undersigned is making a drawin amount specified below and hereby co		the above-referenced Letter of Credit to you as follows:
_	oitalized terms used herein that are def	fined her	rein shall have the meanings ascribed
Date], aggreg	rsuant to Paragraph 2 of the Letter of the undersigned is entitled to make a gate amount of \$[Insert Dollars], inast S Supplier Master Agreement between	drawing nuch as	g under the Letter of Credit in the there is an Event of Default under
the Le	acknowledge that, upon your honoring tter of Credit available for drawing shot to this drawing.	-	awing herein requested, the amount of utomatically decreased by an amount
		Very to	ruly yours,
[Insert	t Company Name]		
Ву:		-	
	[Insert Name]		[Insert Name]
Title: Date:	[Insert Title] [Insert Date]		[Insert Title] [Insert Date]

Annex 2 to Letter of Credit	
DRAWING UNDER LETTER OF CREDIT NO. [Ins	ert Credit No.]
[Insert Date]	
ON [Business day immediately succeeding date of pre	esentation]
PAY TO: [Insert· Company Name]	
\$ [Insert Dollars]	
FOR VALUE RECEIVED AND CHARGE TO ACCOUNT [Insert Credit No.]	UNT OF LETTER OF CREDIT NO.
OF	
[Insert Bank]	
[Insert Address]	
The [Insert Company]	
•	sy:
	Jame: [Insert Name]
	itle: [Insert Title]
Date: [Insert Date]	Pate: [Insert Date]

Annex 3 to Letter of Credit

AVAILABILITY CERTIFICATE UNDER LETTER OF CREDIT NO. [Insert Credit No.]

[Insert Date]

Beneficiary

To: [Insert Bank]
[Insert - . Address]

Attention: Standby Letter of Credit Unit

Ladies and Gentlemen:

Each of the undersigned hereby requests that, in exchange for the above referenced Letter of Credit, a new Letter of Credit be issued in the aggregate amount of \$[InsertDollars] (the "New Amount") and to expire on [Insert Date], but otherwise in the form of this Letter of Credit.

Please acknowledge your intention to issue such new Letter of Credit in the New Amount upon the surrender of the above referenced Letter of Credit by signing the attached acknowledgment copy hereof and forwarding it to:

Addresses	
	Very truly yours,
	[Insert Company Name]
By:	By:
Name: [Insert Name]	Name: [Insert Name]
Title: [Insert Title]	Title: [Insert Title]
Date: [Insert Date]	Date: [Insert Date]
APPLICANT NAME	Agreed and Accepted [Insert Bank]
By:	By:
Name: [Insert Name]	Name: [Insert Name]
Title: [Insert Title]	Title: [Insert Title]
Date: [Insert Date]	Date: [Insert Date]

Annex <u>3</u>4 to Letter of Credit

CERTIFICATE OF EXPIRATI	ON
OF LETTER OF CREDIT NO.	[Insert Credit No.]
[Insert Date]	

To: [Insert Bank]

[Insert Address]

Attention: Standby Letter of Credit Unit

Ladies and Gentlemen:

The undersigned hereby certifies to you that the above referenced Letter of Credit may be cancelled without payment. Attached hereto is said Letter of Credit, marked cancelled.

[Insert Company Name]

By:		By:	
Name:	[Insert Name]	Name:	[Insert Name
Title:	[Insert Title]	Title:	[Insert Title]
Date:	[Insert Date]	Date:	[Insert Date]

cc: [InsertApplicantNarne]

NOTICE OF EXTENSION
OF LETTER OF CREDIT NO. [Insert Credit No.]

[Insert Date]

To: [Insert Company Name]

Re: Our Letter of Credit no. [Insert Credit No.] presently in the aggregate amount of USD [Insert Amount] issued for the account of [Insert Company Name] and expiring on [Insert Date].

Very truly yours,

BANK [Insert Bank]

Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-3

By:	
Name: [Insert Name]	
Title: [Insert Title]	
	Date: [Insert Date]
ec: [Insert Applicant Name]	

Annex 46 to Letter of Credit

NOTICE OF TRANSFER OF LETTER OF CREDIT NO. [Insert Credit No.]

[Insert Date]

To: [Insert Bank]

[Insert Address]

To Whom It May Concern:

Re: Credit [Insert Credit No.]
Issued by: [Insert Name]
Advice No.: [Insert Advise No.]

For the value received, the undersigned beneficiary hereby irrevocably transfers to:

[Insert Transferee Name] (Name of Transferee)

[Insert Address] (Address)

All rights of the undersigned beneficiary to draw under the above Letter of Credit in its entirety.

By this transfer, all rights of the undersigned beneficiary in such Letter of Credit are transferred to the transferee and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments whether increases or extensions or other amendments and whether now existing or hereafter made. All amendments are to be advised direct to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

The advice of such Letter of Credit is returned herewith, and we ask you to endorse the transfer on the reverse thereof, and forward it direct to the transferee with your customary notice of transfer.

Enclosed is a certified check in the amount of \$ [Insert Amount] in payment of your transfer commission and in addition we agree to pay to you on demand any expenses that may be incurred by you in conjunction with this transfer.

Very Truly Yours, [Insert Signature of Company] (Signature of the Company)

The above signature with title as stated conforms to that on file with us and is authorized for the execution of said instruments.

(Name of authenticating party)

[Insert Signature of Authenticating Party]
(Authorized signature of authenticating party)

Name: [Insert Name]
Title: [Insert Title]

APPENDIX G - GUARANTY

GUARANTY (this "Guaranty"), dated as of [Insert Date], made by ______ (the "Guarantor"), a corporation organized and existing under the laws of [Insert Law References] in favor of [Insert Company Name] (the "Guaranteed Party"), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania.

Terms not defined herein take on the meaning given to them in the DS Supplier Master Agreement(s). Guarantor enters into this Guaranty in consideration of, and as an inducement for Guaranteed Party having entered into or entering into the "Agreements" with [Insert Name] (Name), a [Insert State] (State) corporation (the "DS Supplier"), which may involve the extension of credit by the Guaranteed Party. Guarantor, subject to the terms and conditions hereof, hereby unconditionally and absolutely guarantees to the Guaranteed Party the full and prompt payment when due, subject to an applicable grace period and upon demand in writing from the Guaranteed Party to the Guarantor's attention at the address for Guarantor set forth in Section 11 hereof of any and all amounts payable by the DS Supplier to the Guaranteed Party arising out of the Agreement(s), and,

- 1. The Guarantor, as primary obligor and not merely as surety, hereby irrevocably and unconditionally guarantees the full and prompt payment when due (whether by acceleration or otherwise) of the principal and interest on any sums due and payable by the BGS Supplier as a result of an Event of Default under the Agreement(s) (including, without limitation, indemnities, damages, fees and interest thereon, pursuant to the terms of the Agreement(s)). Notwithstanding anything to the contrary herein, the maximum aggregate liability of the Guarantor under this Guaranty shall Option 1 (in no event exceed [Insert Limit Amount].) Option 2 (in no event exceed the lesser of [Insert Limit Amount] or the sum of the Total Exposures Amounts under the Agreement(s).) All such principal, interest, obligations and liabilities, collectively, are the "Guaranteed Obligations". This Guaranty is a guarantee of payment and not of collection.
- 2. The Guarantor hereby waives diligence, acceleration, notice of acceptance of this Guaranty and notice of any liability to which it may apply, and waives presentment and all demands whatsoever except as noted herein, notice of protest, notice of dishonor or nonpayment of any such liability, suit or taking of other action by any Guaranteed Party against, and any other notice to, any party liable thereon (including the Guarantor or any other guarantor), filing of claims with a court in the event of the insolvency or bankruptcy of the DS Supplier, and any right to require a proceeding first against the DS Supplier.
- 3. The Guaranteed Party may, at any time and from time to time, without notice to or consent of the Guarantor, without incurring responsibility to the Guarantor and without impairing or releasing the obligations of the Guarantor hereunder, upon or without any terms or conditions: (i) take or refrain from taking any and all actions with respect to the Guaranteed Obligations, any Document or any person (including the DS Supplier) that the Guaranteed Party determines in its sole discretion to be necessary or

- appropriate; (ii) take or refrain from taking any action of any kind in respect of any security for any Guaranteed Obligation(s) or liability of the DS Supplier to the Guaranteed Party; or (iii) compromise or subordinate any Guaranteed Obligation(s) or liability of the DS Supplier to the Guaranteed Party including any security for such Guaranteed Obligation(s) or liability of the DS Supplier to the Guaranteed Party.
- 4. Subject to the terms and conditions hereof, the obligations of the Guarantor under this Guaranty are absolute and unconditional and, without limiting the generality of the foregoing, shall not be released, discharged or otherwise affected by: (i) any extension, renewal, settlement, compromise, waiver, consent, discharge or release by the DS Supplier concerning any provision of the Agreement(s) in respect of any Guaranteed Obligations of the DS Supplier; (ii) the rendering of any judgment against the DS Supplier or any action to enforce the same; (iii) the existence, or extent of, any release, exchange, surrender, non-perfection or invalidity of any direct or indirect security for any of the Guaranteed Obligations; (iv) any modification, amendment, waiver, extension of or supplement to any of the Agreement(s) or the Guaranteed Obligations agreed to from time to time by the DS Supplier and the Guaranteed Party; (v) any change in the corporate existence (including its constitution, laws, rules, regulations or powers), structure or ownership of the BGS Supplier or the Guarantor, or any insolvency, bankruptcy, reorganization or other similar proceedings affecting the DS Supplier or its assets, the Guarantor or any other guarantor of any of the Guaranteed Obligations; (vi) the existence of any claim, set-off or other rights which the Guarantor may have at any time against the DS Supplier, the Guaranteed Party or any other corporation or person, whether in connection herewith or in connection with any unrelated transaction; provided that nothing herein shall prevent the assertion of any such claim by separate suit or compulsory counterclaim; (vii) the invalidity, irregularity or unenforceability in whole or in part of the Agreement(s) or any Guaranteed Obligations or any instrument evidencing any Guaranteed Obligations or the absence of any action to enforce the same, or any provision of applicable law or regulation purporting to prohibit payment by the DS Supplier of amounts to be paid by it under the Agreement(s) or any of the Guaranteed Obligations; and (viii) except for a failure to comply with any applicable statute of limitations, any other act or omission to act or delay of any kind of the DS Supplier, any other guarantor, the Guaranteed Party or any other corporation or person or any other event, occurrence or circumstance whatsoever which might, but for the provisions of this paragraph, constitute a legal or equitable discharge of the Guarantor's obligations hereunder.
- 5. The Guarantor hereby irrevocably waives (a) any right of reimbursement or contribution, and (b) any right of salvage against the DS Supplier of any collateral security or guaranty or right of offset held by the Guaranteed Party.
- 6. The Guarantor will not exercise any rights, which it may acquire by way of subrogation until all Guaranteed Obligations to the Guaranteed Party pursuant to the Agreement(s) have been paid in full.

- 7. Subject to the terms and conditions hereof, this Guaranty is a continuing one and all liabilities to which it applies or may apply under the terms hereof shall be conclusively presumed to have been created in reliance hereon. Except for a failure to comply with any applicable statute of limitations, no failure or delay on the part of the Guaranteed Party in exercising any right, power or privilege hereunder, and no course of dealing between the Guarantor and the Guaranteed Party, shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights, powers and remedies herein expressly provided are cumulative and not exclusive of any rights, powers or remedies, which the Guaranteed Party would otherwise have. No notice to or demand on the Guarantor in any case shall entitle the Guarantor to any other or further notice of demand in similar or other circumstances or constitute a waiver of the rights of the Guaranteed Party to any other or further action in any circumstances without notice or demand.
- 8. This Guaranty shall be binding upon the Guarantor and upon its successors and assigns and shall inure to the benefit of and be enforceable by the Guaranteed Party and its successors and assigns; provided, however, that the Guarantor may not assign or transfer any of its rights or obligations hereunder without the prior written consent of the Guaranteed Party. The assignment rights of the Guaranteed Party will be in accordance with the terms of the underlying Agreement(s).
- 9. Neither this Guaranty nor any provision hereof may be changed, waived, discharged or terminated except upon written agreement of the Guaranteed Party and the Guarantor.
- 10. The Guarantor agrees that its liability as guarantor shall continue and remain in full force and effect in the event that all or any part of any payment made hereunder or any obligation or liability guaranteed hereunder is recovered (as a fraudulent conveyance, preference or otherwise) rescinded or must otherwise be reinstated or returned due to bankruptcy or insolvency laws or otherwise.
- 11. All notices and other communications hereunder shall be made at the addresses by hand delivery, by the next day delivery service effective upon receipt or by certified mail return receipt requested (effective upon scheduled weekday delivery day) or telefacsimile (effective upon receipt of evidence, including telefacsimile evidence, that telefacsimile was received).

If to the Guarantor: [Insert Guarantor]

If to the Guaranteed Party: [Insert Guaranteed Party]

- 12. If claim is ever made upon the Guaranteed Party for repayment or recovery of any amount or amounts received in payment or on account of any of the Guaranteed Obligations and the Guaranteed Party repays all or part of such amount by reason of (a) any judgment, decree or order of any court or administrative body having jurisdiction over such payee or any of its property, or (b) any settlement or compromise of any such claim effected by such payee with any such claimant (including the Guarantor), then and in such event the Guarantor agrees that any such judgment, decree, order, settlement or compromise shall be binding upon it, notwithstanding any revocation hereof or the cancellation of the Agreement(s) or other instrument evidencing any liability of the Guarantor, and the Guarantor shall be and remain liable to the Guaranteed Party hereunder for the amount so repaid or recovered to the same extent as if such amount had never originally been received by any such payee.
- 13. The Guarantor hereby certifies that it satisfies the Minimum Rating as defined in the Agreement(s).
- 14. This Guaranty shall remain in full force and effect until all Guaranteed Obligations have been fully and finally performed, at which point it will expire. The Guarantor may terminate this Guaranty upon thirty (30) days prior written notice to the Guaranteed Party which termination shall be effective only upon receipt by the Guaranteed Party of alternative means of security or credit support, as specified in the Agreement(s) and in a form reasonably acceptable to the Guaranteed Party. Upon the effectiveness of any such expiration or termination, the Guarantor shall have no further liability under this Guaranty, except with respect to the Guaranteed Obligations entered into prior to the time the expiration or termination is effective, which Guaranteed Obligations shall remain guaranteed pursuant to the terms of this Guaranty until finally and fully performed.
- 15. The Guarantor represents and warrants that: (i) it is duly organized and validly existing under the laws of the jurisdiction in which it was organized and has the power and authority to execute, deliver, and perform this Guaranty; (ii) no authorization, approval, consent or order of, or registration or filing with, any court or other governmental body having jurisdiction over the Guarantor is required on the part of the Guarantor for the execution, delivery and performance of this Guaranty except for those already made or obtained; (iii) this Guaranty constitutes a valid and legally binding agreement of the Guarantor, and is enforceable against the Guarantor, except as the enforceability of this Guaranty may be limited by the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditor's rights generally and by general principles of equity; and (iv) the execution, delivery and performance of this Guaranty by the Guarantor have been and remain duly authorized by all necessary corporate or comparable action and do not contravene any provision of its [insert appropriate corporate organizational document, such as Declaration of Trust, Limited Liability Agreement, Articles of Incorporation or bylaws] or any law, regulation or contractual restriction binding on it or its assets.

- 16. This Guaranty and the rights and obligations of the DS Supplier and the Guarantor hereunder shall be construed in accordance with and governed by the laws of the Commonwealth of Pennsylvania. The Guarantor and Guaranteed Party jointly and severally agree to the exclusive jurisdiction of State and federal courts located in the Commonwealth of Pennsylvania over any disputes arising or relating to this Guaranty and waive any objections to venue or inconvenient forum. The Guarantor and Guaranteed Party each hereby irrevocably waive any and all rights to trial by jury with respect to any legal proceeding arising out of or relating to this Guaranty.
- 17. This writing is the complete and exclusive statement of the terms of this Guaranty and supersedes all prior oral or written representations, understandings, and agreements between the Guaranteed Party and the Guarantor with respect to subject matter hereof. The Guaranteed Party and the Guarantor agree that there are no conditions to the full effectiveness of this Guaranty.
- 18. Every provision of this Guaranty is intended to be severable. If any term or provision hereof is declared to be illegal or invalid for any reason whatsoever by a court of competent jurisdiction, such illegality or invalidity shall not affect the balance of the terms and provisions hereof, which terms and provisions shall remain binding and enforceable. This Guaranty may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.
- 19. No Trustee or shareholder of Guarantor shall be held to any liability whatsoever for any obligation under this Guaranty, and such Guaranty shall not be enforceable against any such Trustee in their or his or her individual capacities or capacity. This Guaranty shall be enforceable against the Trustees of Guarantor only as such, and every person, firm, association, trust or corporation having any claim or demand arising under this Guaranty and relating to Guarantor, its shareholders or Trustee shall look solely to the trust estate of Guarantor for the payment or satisfaction thereof.

IN WITNESS WHEREOF, the Guarantor has caused this Guaranty to be executed and delivered as of the date first above written to be effective as of the earliest effective date of any of the Agreement(s).

(GUARANTOR) Accepted and Agreed to:

[Insert Guarantor] [Insert Name]

By: [Insert Company Name]

Name: [Insert Name]Name: [Insert Name]Title: [Insert Title]Title: [Insert Title]

AEPS Requirements by Reporting Year

Reporting \Time Period	Base Tier I*	Solar PV*	Tier II*
1 2/28/07 - 5/31/07	1.50%	0.00%	4.20%
2 6/1/07 - 5/31/08	1.50%	0.00%	4.20%
3 6/1/08 - 5/31/09	2.00%	0.01%	4.20%
4 6/1/09 - 5/31/10	2.50%	0.01%	4.20%
5 6/1/10 - 5/31/11	3.00%	0.02%	6.20%
6 6/1/11 - 5/31/12	3.50%	0.03%	6.20%
7 6/1/12 - 5/31/13	4.00%	0.05%	6.20%
8 6/1/13 - 5/31/14	4.50%	0.08%	6.20%
9 6/1/14 - 5/31/15	5.00%	0.14%	6.20%
10 6/1/15 - 5/31/16	5.50%	0.25%	8.20%
11 6/1/16 - 5/31/17	6.00%	0.29%	8.20%
12 6/1/17 - 5/31/18	6.50%	0.34%	8.20%
13 6/1/18 - 5/31/19	7.00%	0.39%	8.20%
14 6/1/19 - 5/31/20	7.50%	0.44%	8.20%
15 6/1/20 - 5/31/21	8.00%	0.50%	10.00%
16 6/1/21 - 5/31/22	8.00%	0.50%	10.00%
17 6/1/22 - 5/31/23	8.00%	0.50%	10.00%

Notes:

^{*} Percent of Total Electric Sales Bast Tier 1 includes Solar PV

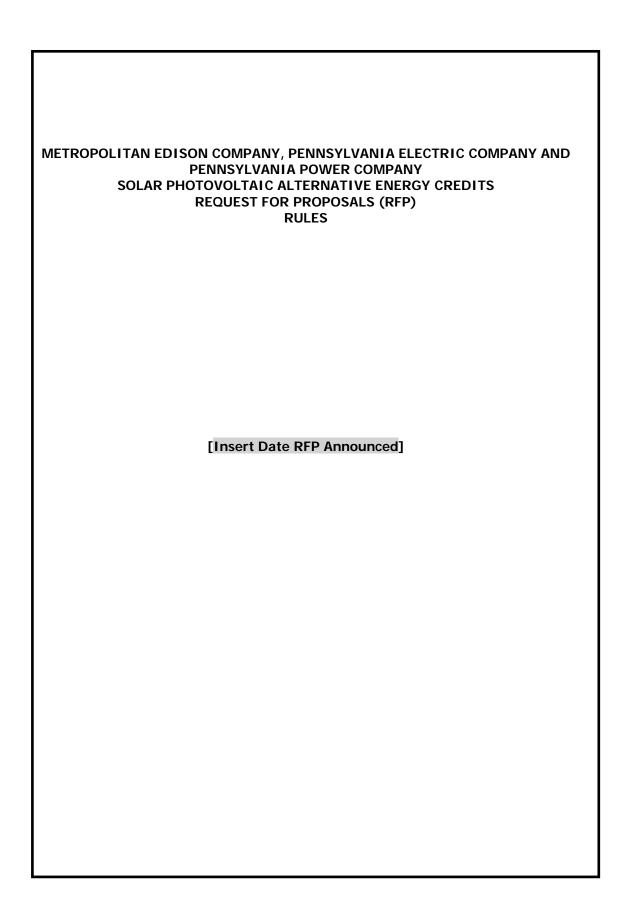


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Article I. Introduction

I.1. Overview

- I.1.1. Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company ("the Companies") seek to procure a portion of their requirements for Solar Photovoltaic Alternative Energy Credits ("SPAECs") under the Alternative Energy Portfolio Standards Act, 73 P.S. §§ 1648.1-1648.8 ("AEPS Act"), as may be amended from time to time. The product will consist of a 2-year "strip" supply of SPAECs, with a Target Quantity of [Insert New Quantity] SPAECs per Reporting Year (June 1 May 31) as defined under the AEPS Act.
- I.1.2. Additional capitalized terms in this document, which are not defined explicitly herein, are defined in the Companies' Solar Photovoltaic Alternative Energy Credit Purchase and Sale Agreement ("SPAECPSA"). The SPAECPSA is attached hereto as Appendix 1. Key defined terms include the following:

Bid Binding offer to supply a portion of the Tranche Target at a

specified price per SPAEC

Bidder A prospective Supplier that submits any part of a Proposal for

the RFP

Evaluation Team Representatives of the Independent Evaluator, one or more

credit representatives from the Companies, and a legal

representative on behalf of the Companies

Independent Evaluator ("IE")

The Brattle Group

PaPUC Pennsylvania Public Utility Commission (also "Commission")

Part 1 Date Date by which Part 1 Proposals must be submitted

Part 2 Date Date by which Part 2 Proposals, which include Bids, must be

submitted

Pre-Bid Security Security in the form of cash or a letter of credit required to be

posted by Qualified Bidders upon submission of Part 2

proposal

Proposal A two part process by which Bidders qualify and bid in the RFP

Qualified Bidder Bidder whose Part 1 Proposal has been accepted by the

Independent Evaluator and the Companies

RFP Request for Proposal process, consisting of a single round of

sealed bids

SPAEC Cap The largest whole number less than or equal to 75% of the

Tranche Target

Target Quantity The number of SPAECs the Companies are seeking per

Reporting Year ([Insert New Quantity] SPAECs)

Tranche 500 SPAECs per Reporting Year under the AEPS Act.

Tranche Target Number of Tranches needed for Target Quantity ([Insert New

Quantity] Tranches)

I.1.3. The Companies will hold two (2) RFPs to procure the Tranche Target to be supplied over2 year periods each.

I.1.4. This RFP was established through a petition of the Companies to the Pennsylvania Public Utility Commission ("PaPUC" or "Commission"). The process consists of a single round of sealed bids, in which prospective suppliers state the prices at which they are willing to supply SPAECs, the number of Tranches that they are willing to supply, and whether their offers are "all-or-nothing," as described below. The evaluation of Bids is on a price-only basis. In the RFP, the winning Bids will be those that minimize the cost of the procurement. The winning Bidders will be paid the prices they Bid for the SPAEC Tranches they win.

I.1.5. This document, entitled the RFP Process and Rules ("RFP Rules"), describes how the RFP will be conducted. The RFP process will consist of two parts: (1) Part 1 - submission of an initial application in which prospective suppliers are qualified as to general creditworthiness and compliance with RFP requirements (after making specified

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representations and agreeing to specified conditions); and (2) Part 2 - the submission by prospective suppliers of Bids to supply a portion of the Tranche Target referenced above at a specified price per SPAEC, accompanied by Pre-Bid Security.

1.1.6. The following documents are appended to, and shall be considered integral parts of, these RFP Rules:

Appendix 1: Solar Photovoltaic Alternative Energy Credit Purchase and Sale Agreement

Appendix 2: Confidentiality Statement

Appendix 3: Standard Form of Pre-Bid Letter of Credit

Appendix 4: Requirements for Attestation of Chief Financial Officer

Appendix 5: Sample Part 1 Form

Appendix 6: Sample Part 2 Form (including Bid Submittal Sheet)

- I.1.7. A Proposal consists of two parts. The first part of the Proposal ("Part 1 Proposal") is the Bidder's response to the qualification standards that are fully described in Article IV of these RFP Rules. A Bidder that fulfills the qualification standards of the Part 1 Proposal becomes a Qualified Bidder, and therefore may submit the second part of the Proposal ("Part 2 Proposal"). The requirements for the Part 2 Proposal are fully described in Article V of these Rules. The requirements for the Part 2 Proposal include the submission of Bids and the posting of financial guarantees. Bidders use standard forms, the Part 1 Form and the Part 2 Form, to submit their Part 1 and Part 2 Proposals respectively. The Part 1 Form and the Part 2 Form are provided as Appendices 5 and 6 to these RFP Rules, respectively.
- I.1.8. The Companies and the Independent Evaluator may advise the Commission to postpone or modify the schedule of the RFP when market conditions warrant or when extraordinary events arise, such as the advent of war, terrorism, or an act of God. The Companies and the Independent Evaluator may also advise the Commission to modify parameters of the RFP, as further explained in Article VIII.

I.2. Products and Bidding Process

- 1.2.1. Qualified Bidders in the RFP can Bid any number of Tranches up to the SPAEC Cap (*i.e.*, the largest whole number less than or equal to 75% of the Tranche Target).
- In the RFP, a Qualified Bidder that presents a Bid will state the price per SPAEC at which it is willing to supply one or more of the Tranches available in the RFP, subject to the SPAEC Cap. Bids are evaluated on a price-only basis.
- 1.2.3. Upon receipt of Bids, the Independent Evaluator will rank all Bids from lowest to highest price. The Independent Evaluator will determine a portfolio of winning Bids that minimizes the overall cost of the procurement.
- 1.2.4. The winning Bidders are those Bidders whose Bids minimize the overall cost of satisfying the Tranche Target. All winners receive the price they Bid. The prices in the RFP are expressed in dollars per SPAEC, rounded off to the nearest cent.
- 1.2.5. A report containing the results of the bidding process will then be submitted to the PaPUC, who will then have three (3) business days to approve the procurement results. If the procurement is approved by the PaPUC, each winning Bidder will then execute the SPAECPSA accompanying this RFP with each of the Companies.
- 1.2.6. If the PaPUC rejects the winning Bids in the RFP, or if some Tranches remain unfilled, the Companies will implement a contingency plan for the unfilled Tranche(s). Under the plan, the Companies propose that they will secure any SPAEC compliance requirements for unfilled tranches at market prices until an alternative contingency plan is approved by the PaPUC. The Companies will consult with the Independent Evaluator, Commission staff, and statutory parties to determine the appropriate alternative contingency plan for the remaining requirement.
- 1.2.7. A Bidder submitting Bids in an RFP must accept the obligations and associated rights to provide SPAECs as defined in the SPAECPSA.

I.3. Supplier Obligations

- 1.3.1. This section contains a general description of each winning Bidder's obligations. This is a summary only and is subject to and qualified in its entirety by the SPAECPSA.
- 1.3.2. Each winning Bidder is responsible for providing 500 SPAECs in each Reporting Year (June 1 to May 31) per tranche that it wins. The delivery period begins on June 1, [Insert Date] and lasts for 2 years.
- 1.3.3. Each winning bidder will execute a SPAECPSA with each of the Companies and will be instructed by the Companies as to how to divide its corresponding SPAEC obligation between the Companies.
- 1.3.4. Suppliers will be expected to deposit their SPAECs quarterly with the Companies throughout the life of their contracts, so that their combined deposits in each Reporting Year equal the number of tranches to which they are obligated, multiplied by 500 SPAECs per tranche.
- 1.3.5. The Companies will only accept SPAECs from sources approved by the PaPUC's AEPS Program Administrator and generated through PJM Environmental Information Services Inc.'s ("PJM-EIS") Generation Attributes Tracking System ("GATS") which the PaPUC has designated under the AEPS Act as the "registry" for issuance of SPAECs. It will be incumbent on the winning supplier to open and maintain, at its own expense, a GATS account in order to satisfy the AEPS Act requirements.
- 1.3.6. A winning supplier must provide GATS-generated certificates so that the Companies may satisfy AEPS reporting requirements. GATS, which was implemented in September 2005, is a regional environmental information tracking system that assists utilities and load serving entities in complying with renewable standards and provides state agencies with proper reporting and verification. This system creates certificates based on actual generation from renewable resource facilities.
- I.3.7. If a supplier fails to provide sufficient SPAECs to the Companies or any of the SPAECs are unable to be used for compliance with the AEPS Act solar photovoltaic requirements, the supplier will be assessed the penalty for non-compliance under the AEPS Act, or the

difference in the price the supplier is paid under the SPAECPSA and the cost of SPAECs that the Companies purchase to make up for the supplier shortfall.

Article II. Information and Schedule

II.1. Information Provided to Potential Bidders

- II.1.1. The Companies and the Independent Evaluator have established a web-based data room (http://www.firstenergycorp.com/[Insert New URL]) that will be the main source of information for the RFP. Prospective Bidders are invited to use this data room for current data and information about all aspects of the RFP and to access all essential RFP documents.
- II.1.2. The web-based data room will provide the information in the following sections:

<u>Home</u>: This section provides announcements of interest to prospective Bidders and to other interested parties regarding the RFP.

<u>Regulatory Information Page</u>: This section provides presentations regarding the RFP prepared by the Companies and the Independent Evaluator, as well as the Orders from the PaPUC.

<u>Supplier Documents</u>: This section provides RFP documents including the RFP Rules and the SPAECPSA. This section also provides all credit instruments necessary for prospective Bidders and for Suppliers, including the standard form for the Pre-Bid Letter of Credit, the standard form for the Letter of Credit for the term of each SPAECPSA, and the standard Guaranty for the term of each SPAECPSA. Any approved modifications to these documents will also be posted in this section.

Ask a Question: In this section, all stakeholders, including prospective Bidders, will be able to ask questions via a web form. The Independent Evaluator will provide an answer to the question via email to the questioner, and the Independent Evaluator will then provide the question and answer to all stakeholders and prospective Bidders through a posting to the web-based data room so that all have access to the same information.

Aspects of the question or answer that might identify the party asking the question will be removed before posting.

<u>FAOs</u>: In this section, the Independent Evaluator posts the questions and answers received.

Register Page: In this section, all stakeholders, including prospective Bidders, will be able to register to receive announcements directly from the Independent Evaluator via email.

Calendar: This section provides prospective Bidders with all crucial dates in the RFP.

II.2. RFP Schedule

The following is a general timetable for the RFP.

Table II-1: Provisional Schedule

Event	Date
The Companies file Default Service Program	TBD
Commission Order Regarding Default Service Program	TBD
RFP web-based data room opens	TBD
The Companies issue Final RFP documents	TBD
Bidder Information Sessions	TBD
Part 1 Date (Bidders submit Part 1 Proposals)	TBD
Bidders are notified of qualification status for submission of Part 2 Proposals	TBD
Part 2 Date (Bidders submit Part 2 Proposals including Bid and executed Pre-Bid Letter of Credit)	TBD
Independent Evaluator (IE) submits report to Commission	TBD
Commission makes decision on results of RFP	TBD
Winning Bidders execute the SPAECPSAs	TBD

Article III. General Requirements for Proposals

- III.1.1. A Proposal is an application to Bid in the RFP. A prospective Supplier that submits any part of a Proposal for the RFP is a Bidder. A Proposal consists of two parts, the Part 1 Proposal and the Part 2 Proposal.
- III.1.2. A Bidder submits a maximum of one (1) Part 1 Proposal. The Bidder must use the Part 1 Form provided as Appendix 5 to these RFP Rules for this purpose. The requirements of the Part 1 Proposal are fully described in Article IV of these RFP Rules.
- III.1.3. A Bidder that fulfills the qualification standards of the Part 1 Proposal may submit a maximum of one (1) Part 2 Proposal. A Bidder must use the Part 2 Form provided as Appendix 6 to these RFP Rules for this purpose. The requirements for the Part 2 Proposal are fully described in Article V of these Rules. The requirements for the Part 2 Proposal include the posting of financial guarantees as well as the Bid.
- III.1.4. Part 1 Proposals must be submitted by noon (12:00 PM)¹ on the Part 1 Date and Part 2

 Proposals must be submitted by noon (12:00 PM) on the Part 2 Date.
- III.1.5. Proposals must adhere to the terms and conditions of these RFP Rules and must fulfill all requirements in Article III, Article IV and Article V of these RFP Rules. Proposals that do not adhere to the terms and conditions of these RFP Rules or that do not fulfill all requirements set forth in Article III, Article IV and Article V of these RFP Rules will not be considered.
- III.1.6. It is the intention, but not the obligation, of the Companies to enter into an SPAECPSA with each winning Bidder to supply a portion of the Tranche Target, in accordance with these RFP Rules.
- III.1.7. The Bidder, at its own cost and expense, shall defend the Companies and their subsidiaries, affiliates, successors and assigns, and each and every one of its past, present, or future officers, directors, trustees, employees, shareholders, executors,

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¹ Unless noted otherwise, all times refer to Eastern Prevailing Time ("EPT").

administrators, successors and assigns, against any and all manner of past, present, or future claims, demands, disputes, controversies, complaints, suits, actions, proceedings, or allegations of any kind which in any manner relate to, arise out of, or result from any false statement in a Proposal or breach of any covenant by the Bidder set forth herein. The Bidder shall indemnify and hold harmless the Companies, their parent companies, subsidiaries, affiliates, successors and assigns, and each and every one of its past, present, or future officers, directors, trustees, employees, shareholders and agents, as well as the heirs, executors, administrators, successors and assigns against any and all liens, judgments, liabilities, losses, injuries, damages, fees, fines, costs or expenses which in any manner relate to, arise out of, or result from any false statement or misrepresentation in the Proposal or breach of any warranty by the Bidder as set forth herein.

- III.1.8. The submission of a Proposal to the Companies constitutes the Bidder's acknowledgement and acceptance of all the terms and conditions of these RFP Rules, regardless of the outcome of any RFP or the ultimate fate of such Proposal.
- III.1.9. An Officer of the Bidder is an individual empowered to undertake contracts and bind the Bidder. The Bidder will be required to provide the name, title, and full contact information (address, phone number, fax number, email address) of the Officer of the Bidder who will be making the representations in the Proposal.
- III.1.10. All information provided and certifications made in the Proposal must remain valid and remain in full force for no less than five (5) business days after close of bidding in the RFP. Regardless of the reason, if any information provided changes or any previous certification fails to remain valid, it is the sole responsibility of the Bidder to notify the Independent Evaluator of such change at least three business days before the Part 2 Date. Failing to do so may result in disqualification of the Bidder and the Proposal. The Independent Evaluator reserves the right to vary the assessment of the Proposal based on the revised information provided by the Bidder.

Article IV. Part 1 Proposal Requirements

IV.1. General

- IV.1.1. To participate in the RFP, a party must meet the qualification requirements as detailed in this Article. These qualification requirements include providing contact information, providing financial information for a creditworthiness assessment, as well as making representations to ensure that the Bidder can perform under the terms of the SPAECPSA.
- IV.1.2. The exclusive method for submitting information related to the Part 1 Proposal is to use the Part 1 Form. One (1) original of the Part 1 Form is required, as well as an electronic submission (by email). Except as otherwise explicitly indicated, a Bidder includes in its Part 1 Proposal one (1) copy of the documents required in this Article IV, either in hard copy or electronically on a CD or by email. All materials for the Part 1 Proposal must be received by the Part 1 Date.

IV.2. Creditworthiness Information

- IV.2.1. Per the SPAECPSA, the Bidder must clearly select one of the following three options: (a) seek an unsecured line of credit by relying on its own financial standing for purposes of submitting to the creditworthiness standards of the SPAECPSA; (b) seek an unsecured line of credit by relying on the financial standing of a guarantor (the "Guarantor") for purposes of submitting to the creditworthiness standards of the SPAECPSA; (c) elect not to apply for an unsecured line of credit and instead stand ready to post cash or a letter of credit acceptable to the Companies for the entire amount of the security due under the SPAECPSA.
- IV.2.2. A Bidder that selects option (a) in Paragraph IV.2.1 must submit the following information and documents in its Part 1 Proposal: (i) The Bidder's most recent Securities and Exchange Commission ("SEC") Form 10-K; if unavailable, the most recent audited annual

financial information (including a balance sheet, income statement, and cash flow statement, and any accompanying notes and schedules); (ii) The Bidder's most recent SEC Form 10-Q; if unavailable, the most recent quarterly or monthly financial data accompanied by an attestation by the Bidder's Chief Financial Officer, satisfying the requirements set out in Appendix 4, that the information submitted fairly presents in all material respects the financial condition and results of the operations of the Bidder; (iii) Any SEC Form 8-K filings by the Bidder, as well as any other public financial disclosures made by the Bidder since the release of the Bidder's most recent financial statements for any matters that are material to the Bidder's financial condition; (iv) A statement, as applicable, of rulings, judgments, litigation, contingent liabilities, revocations of authority, investigations or any other matters relating to the financial status of the Bidder that have had a material impact on the entity's financial status since the release of the Bidder's most recent financial data or most recent public financial disclosure; (v) The Bidder's senior unsecured debt rating from at least two of the following rating agencies: Standard & Poor's Rating Services ("S&P"), Moody's Investors Service, Inc. ("Moody's") or Fitch, Inc. ("Fitch") along with documentation for each rating agency showing the name of the rating agency, the type of rating, and the rating of the Bidder; and (vi) The name, title, and full contact information (address, phone number, fax number, email address) of a credit representative from the Bidder who will be able to answer questions on the documentation provided.

IV.2.3. The RFP Bidder that selects option (b) in Paragraph IV.2.1 must submit the following information and documents in its Part 1 Proposal: (i) The name of the entity serving as RFP Guarantor; (ii) The RFP Guarantor's most recent SEC Form 10-K; if unavailable, the most recent audited annual financial information (including a balance sheet, income statement, and cash flow statement, and any accompanying notes and schedules); (iii) The RFP Guarantor's most recent SEC Form 10-Q; if unavailable, the most recent audited quarterly financial information (including a balance sheet, income statement, and

cash flow statement, and any accompanying notes and schedules); if both the SEC Form 10-Q and audited quarterly financial information are unavailable, the most recent quarterly or monthly financial data accompanied by an attestation by the RFP Guarantor's Chief Financial Officer, in the form of Appendix 4, that the information submitted is true, correct and a fair representation of the RFP Guarantor's financial condition; (iv) Any SEC Form 8-K filings by the RFP Guarantor, as well as any other public financial disclosures made by the RFP Guarantor, since the release of the RFP Guarantor's most recent financial statements for any matters that are material to the entity's financial condition; (v) A statement, as applicable, of rulings, judgments, litigation, contingent liabilities, revocations of authority, investigations or any other matters relating to the financial status of the RFP Guarantor that have had a material impact on its financial status since the release of the entity's most recent financial data or most recent public financial disclosure; (vi) The RFP Guarantor's senior unsecured debt rating from at least two of the following rating agencies: S&P, Moody's, or Fitch along with documentation for each rating agency showing the name of the rating agency, the type of rating, and the rating of the entity; (vii) The name, title, and full contact information (address, phone number, fax number, email address) of a credit representative from the RFP Guarantor who will be able to answer questions on the documentation provided.

- IV.2.4. A Bidder that selects option (c) in Paragraph IV.2.1 must submit the following information and documents in its Part 1 Proposal: (i) a statement, as applicable, of rulings, judgments, litigation, contingent liabilities, revocations of authority, investigations or any other matters relating to the financial status of the RFP Bidder that have had or may have a material impact on its financial status and (ii) the name, title, and full contact information (address, phone number, fax number, email address) of a credit representative from the RFP Bidder who will be able to answer questions on the documentation provided.
- IV.2.5. For all Bidders, the Part 2 Proposal requires Pre-Bid Security in the form of cash or an executed Pre-Bid Letter of Credit established for the account of the Bidder and acceptable

to the Companies. The required amount for the Pre-Bid Security is specified in Article V. The standard form for the Pre-Bid Letter of Credit, provided as Appendix 3, is acceptable to the Companies. A Bidder that will not use exactly the standard form for the Pre-Bid Letter of Credit with its Part 2 Proposal (or a form with only those modifications accepted by the Companies and posted in the data room prior to the Part 1 Date) must submit with its Part 1 Proposal any and all proposed modifications to the standard Pre-Bid Letter of Credit for evaluation. The Bidder must submit a Draft Pre-Bid Letter of Credit electronically in MS-Word format, either saved to a CD or sent via email to the Independent Evaluator. The Draft Pre-Bid Letter of Credit must indicate clearly each and every modification from the standard form requested by the Bidder or its financial institution. The Independent Evaluator and the Companies will assess, in their sole and exclusive discretion, whether such modifications are acceptable. All modifications proposed by a Bidder and found to be acceptable will be posted to the web-based data room for the benefit of all Bidders. A Bidder, in its Part 2 Proposal, must provide cash or an executed Pre-Bid Letter of Credit that either uses the standard form or that incorporates only those modifications to the standard form accepted by the Companies.

IV.2.6. A Bidder that is not incorporated or otherwise formed under the laws of the United States must provide the following additional information: (i) A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Bidder is incorporated or otherwise formed that the SPAECPSA will become, upon the completion of execution formalities, the binding obligation of the Bidder in the jurisdiction in which it has been incorporated or otherwise formed; (ii) The sworn certificate of the corporate secretary (or similar officer) of the Bidder that the person who will be executing the SPAECPSA on behalf of the Bidder has the authority to execute the SPAECPSA and that the governing board of the Bidder has approved the execution of the SPAECPSA; (iii) The sworn certificate of the corporate secretary (or similar officer) of the Bidder that the Bidder has been authorized by its governing board to enter into agreements of the same type as the SPAECPSA.

IV.2.7. The Bidder whose Guarantor is not incorporated or otherwise formed under the laws of the United States must provide the following additional information: (i) A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Guarantor is incorporated or otherwise formed that the standard Guaranty of the SPAECPSA will become, upon the completion of execution formalities, the binding obligation of the Guarantor in the jurisdiction in which it has been incorporated or otherwise formed; (ii) The sworn certificate of the corporate secretary (or similar officer) of the Guarantor that the person executing the Guaranty on behalf of the Guarantor has the authority to execute the Guaranty and that the governing board of the Guarantor has approved the execution of the Guarantor that the Guarantor has been authorized by its governing board to enter into agreements of the same type as the standard Guaranty of the SPAECPSA.

IV.3. Additional Requirements

- IV.3.1. An Officer of the Bidder is an individual empowered to undertake contracts and bind the Bidder. The Bidder must provide the name, title, and full contact information (address, phone number, fax number, email address) of an Officer of the Bidder who will be making the representations in the Part 1 Proposal and in the Part 2 Proposal.
- IV.3.2. The Officer of the Bidder must, in the Part 1 Proposal, certify that the Bidder is a corporation, partnership, limited liability company or other legal entity, duly organized, validly existing and in good standing under the laws of the Commonwealth of Pennsylvania or, if another jurisdiction, that the Bidder is duly registered and authorized to do business and is in good standing in such other jurisdiction.

- IV.3.3. The Officer of the Bidder must, in the Part 1 Proposal, certify that all information provided in the Part 1 Proposal is true and accurate to the best of the Officer's knowledge and belief.
- IV.3.4. The Officer of the Bidder must, in the Part 1 Proposal, certify that the Officer is authorized to submit the Part 1 Proposal on behalf of the Bidder and is authorized to bind the Bidder.
- IV.3.5. The Officer of the Bidder must, in its Part 1 Proposal, certify that the Officer has read the SPAECPSA and that the Bidder accepts all of the terms of the SPAECPSA without modifications.
- IV.3.6. The Officer of the Bidder must, in its Part 1 Proposal, certify that the Officer has read these RFP Rules and that the Bidder accepts all terms of the RFP Rules and agrees to comply with the RFP Rules, including: (i) agreement that if the Bidder becomes a winner, it will execute the SPAECPSA within three (3) business days of approval of the procurement results by the PaPUC and (ii) agreement that if the Bidder becomes a winner, it will comply with the financial security requirements set forth in the SPAECPSA.
- IV.3.7. The Officer of the Bidder must, in its Part 1 Proposal, certify that its Part 1 Proposal will remain in full force until: (i) the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii) the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the SPAECPSA; or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than five (5) business days after the close of bidding for the RFP.
- IV.3.8. The Officer of the Bidder must certify in the Part 1 Proposal that if for any reason or due to any circumstance, any information provided in the Part 1 Proposal changes or any certification fails to remain valid, the Bidder will notify the Independent Evaluator of such changes at least three (3) business days before the Part 2 Date and will provide the updated information at least one (1) business day before the Part 2 Date.

- IV.3.9. An Officer of the Bidder must, in its Part 1 Proposal, certify that the Bidder is not acting and will not act through a partnership, joint venture, limited liability partnership, or other association, organization, or any other arrangement with respect to its Proposal. If unable to make such a certification, the Officer of the Bidder must disclose the members of the partnership, joint venture, or other joint action with respect to its Proposal, as well as the nature of the association, agreement or joint action. A Bidder acting in concert with another Bidder may be disqualified by the Independent Evaluator on behalf of the Companies in their sole and exclusive discretion.
- IV.3.10. An Officer of the Bidder must, in its Part 1 Proposal, certify (i) that there are no actions at law, suits in equity, proceedings or claims pending or, to such Bidder's knowledge, threatened against the Bidder before any federal, state, foreign or local court, tribunal or government agency or authority that might materially delay, prevent or hinder the Bidder's performance of its obligations under the terms of any SPAECPSA; (ii) the Bidder has not had any permit or authority to do business in any jurisdiction revoked or suspended; and (iii) the Bidder and its corporate officers have never been barred from public bidding or sanctioned for unauthorized disclosure of confidential information.
- IV.3.11. An Officer of the Bidder must, in the Part 1 Proposal, certify that if the Bidder qualifies to participate in the RFP, the Bidder will not substitute another entity in its place, transfer its rights to another entity, or otherwise assign its status as Qualified Bidder to another entity.
- IV.3.12. All information provided and certifications made in the Part 1 Proposal must remain valid and remain in full force no less than five (5) business days after the close of bidding for the RFP. Regardless of the reason, if any information provided in the Part 1 Proposal changes or any previous certification fails to remain valid, it is the sole responsibility of the Bidder to notify the Independent Evaluator of such change at least at least three (3) business days before the Part 2 Date and to provide the updated information at least one (1) business day before the Part 2 Date. The Independent Evaluator reserves the right

to vary the assessment of the Part 1 Proposal based on the revised information provided by the Bidder.

Article V. Part 2 Proposal Requirements

V.1. General

- V.1.1. Only a Bidder that has satisfied the qualification requirements of the Part 1 Proposal may submit a Part 2 Proposal. To participate in the RFP, a Bidder must meet all requirements detailed in this Article for the Part 2 Proposal. These requirements include providing a Bid, providing financial guarantees to support that Bid, and making a number of certifications to ensure that the Bidder is bidding independently and is maintaining the confidentiality of information.
- V.1.2. The Part 2 Form is the exclusive method for submitting information required by the Part 2 Proposal. Three (3) originals of the Part 2 form are required. All materials for the Part 2 Proposal, including Pre-Bid Security, must be received by noon (12:00 PM) on the Part 2 Date.
- V.1.3. A Bidder that is associated with another Bidder, as further detailed in Appendix 6, may be subject to additional requirements in its Part 2 Proposal. A qualified Bidder is "associated with" another Bidder if the two Bidders have ties that could allow them to act in concert or that could prevent them from competing actively against each other.

V.2. Bids

- V.2.1. A Bidder submits a Bid with its Part 2 Proposal.
- V.2.2. Bids in the RFP are submitted in both hard copy and electronic copy (via email).
- V.2.3. Bids must be submitted by noon (12:00 PM) on the Part 2 Date exclusively using the Bid Submittal Sheet for the RFP.

- V.2.4. A Bid consists of three elements: (i) a price in dollars per SPAEC in the format \$x.xx, \$xx.xx or \$xxx.xx (rounded to the nearest cent); (ii) a specification of the maximum number of Tranches offered; and, (iii) an indication of whether the bid is "all or nothing." The price per SPAEC applies to all Tranches for which the Bidder is making an offer.
- V.2.5. A Bidder may not Bid on less than a full Tranche. The Bidder may not Bid on fractions, portions or parts of Tranches.
- V.2.6. Every Bid is a binding obligation to provide the supply for SPAECs at the price at which the Bid was made. By placing its Bid, the Bidder is declaring that it stands ready, willing and able to supply the SPAECs represented by the Tranches that it Bid, at the prices indicated.
- V.2.7. The number of Tranches for which a Bidder submits a Bid cannot exceed the SPAEC Cap.

 The SPAEC Cap is intended to promote supplier diversity, consistent with PaPUC policy.
- V.2.8. Unless indicated as an "all-or-nothing" Bid, Bids will be considered an offer to supply any quantity up to and including the number of Tranches specified in the Bid (an "up-to" Bid). Recognizing that the magnitude of SPAEC sales to the Companies may affect financing or other commercial considerations for Qualified Bidders, "all-or-nothing" Bids will be allowed, such that Qualified Bidders will not be bound to supply SPAECs in quantities other than those Bid. However, the designation of a Bid as "all-or-nothing" will apply to no more than 4 Tranches. For any Bids that exceed 4 Tranches and are designated as "all or nothing," the "all or nothing" portion of the Bid will apply to the first 4 Tranches only (i.e., the Bid may be accepted for the supply of 4 or more Tranches "up to" the number of Tranches bid).

Illustrative outcomes of allowing all-or-nothing bidding are shown below. In each scenario, five Bidders are assumed to Bid quantities that aggregate to an amount exceeding a hypothetical Tranche Target of 15 Tranches. Therefore, to result in the lowest-cost combination of Bids that meets the Tranche Target, one or more Bids must

be excluded. All Bids are on an "up-to" basis with the exception of Bid #4, which is allor-nothing.

Illustrative "All-Or-Nothing" Bid Scenarios

		Scenario A: All-or-nothing included in low-cost combination		included in low-cost		Scenario B: F excluded fr combi	om low-cost
Bidder	Bid Type	Quantity	Price	Quantity	Price		
#1	"Up to"	6	\$50	6	\$50		
#2	"Up to"	5	\$60	5	\$60		
#3	"Up to"	2	\$90	2	\$75		
#4	"All-or-nothing"	4	\$100	4	\$100		
#5	"Up to"	2	\$150	2	\$105		
Low Co	ost Combination	15	\$66.67	15	\$64.00		

Excluded bids in each scenario are shaded in gray.

In scenario A, the combination of bids that minimizes the cost of the procurement includes the all-or-nothing Bid, but excludes Bid #3 and Bid #5 (where excluded Bids are shaded in gray). Conversely, in scenario B, the combination of bids that minimizes the cost of the procurement excludes the all-or-nothing Bid.

- V.2.9. In the event of "tied" up-to bids (i.e., bids with the same offer price) that cannot be accepted up to their maximum tranche offers, the available tranches will be divided on a pro-rata basis based on each Bidder's maximum tranche offer, after first subtracting out the tranches requested in any all-or-nothing bids that are part of the tied bids. For example, consider a situation where 6 tranches are to be allocated to two tied bidders, where one bid is "up to" 4 tranches and the other bid is "up to" 8 tranches. In this case, 2 tranches will be assigned to the "up-to-4-tranche" bidder, and 4 tranches will be assigned to the "up-to-8-tranche" bidder.
- V.2.10. All Bidders that win Tranches and are authorized as suppliers receive the price they Bid.
- V.2.11. A Bid that is not expressed in dollars per SPAEC will automatically be rejected.

V.2.12. The number of Tranches stated by the Bidder in its Bid for the RFP determines the amount of Pre-Bid Security that a Bidder must provide with its Part 2 Proposal, as detailed in the next Section.

V.3. Pre-Bid Security

- V.3.1. The Bidder, in its Part 2 Proposal, must provide Pre-Bid Security in the form of cash or an executed Pre-Bid Letter of Credit that either uses the standard form as provided in Appendix 3, or that incorporates only those modifications to the standard form accepted by the Companies. All modifications to the standard form of the Pre-Bid Letter of Credit accepted for the benefit of a single Bidder will be posted to the web-based data room and made available to all Bidders on an optional basis.
- V.3.2. The amount of the Pre-Bid Security must be equal to 10% of the security required under the SPAECPSA relevant to the maximum number of Tranches that Bidders are proposing to supply in the Bids. According to the terms of the SPAECPSA, security requirements per Tranche equal 500 SPAECs (representing the annual SPAEC obligation per Tranche) multiplied by twice the price offer made by the Bidder.

Example: Deposit required upon submission of Bid

A Qualified Bidder submits a Bid of up to 5 Tranches at \$100 per SPAEC. The Bid must be accompanied by a deposit equal to 10% of the associated security requirements under the SPAECPSA at the maximum Tranche offer. The security requirements equal the annual SPAEC supply obligation (i.e., the number of Tranches x 500 SPAECS per Tranche), multiplied by twice the bid price. Therefore, in this case, the required bid deposit is:

$$10\% \times (5 \times 500) \times (2 \times 100) = $50,000.$$

- V.3.3. The Pre-Bid Security for the RFP must be provided no later than the Part 2 Date. The Independent Evaluator holds Pre-Bid Letters of Credit on behalf of the Companies. If a Bidder wishes to post Pre-Bid Security in the form of cash, then it must electronically transfer the cash to the Companies based on instructions emailed to Qualified Bidders.
- V.3.4. If the Bidder submits a Pre-Bid Letter of Credit that does not conform to the standard form provided in Appendix 3 or incorporates modifications to the standard form other than those accepted by the Companies, that Bidder's Part 2 Proposal is considered deficient. The Bidder may not be permitted to submit Bids in the RFP.
- V.3.5. A Bidder will forfeit its Pre-Bid Security if: (i) the Bidder has made a material omission or misrepresentation in its Part 1 Proposal or in its Part 2 Proposal; (ii) the Bidder discloses information relating to its Proposal or its Bids publicly or to any other party before the PaPUC, the Companies, or the Independent Evaluator has disclosed the names of the winning suppliers and the winning Bid prices of the RFP; (iii) the Bidder wins one or more Tranches and fails to execute the SPAECPSA within three (3) business days of the PaPUC's approval of the results of the RFP; or (iv) the Bidder wins one or more Tranches and fails to meet the creditworthiness requirements of the SPAECPSA at the time of its execution.

V.3.6. The Independent Evaluator will release the Pre-Bid Letters of Credit and the Companies will return pre-bid cash security as soon as practicable if the PaPUC rejects the results of the RFP. If the PaPUC accepts the results of the RFP, the Pre-Bid Letter of Credit of a Bidder will be released: (i) the business day after the PaPUC decision if the Bidder does not win any Tranches; or (ii) the business day after the Bidder executes the SPAECPSA and meets the creditworthiness requirements under the SPAECPSA if the Bidder wins Tranches in the RFP.

V.4. Additional Requirements

- V.4.1. An Officer of the Bidder is an individual empowered to undertake contracts and bind the Bidder.
- V.4.2. The Officer of the Bidder must, in the Part 2 Proposal, certify that all information provided in the Part 2 Proposal is true and accurate to the best of the Officer's knowledge and belief.
- V.4.3. The Officer of the Bidder must, in the Part 2 Proposal, certify that the Officer is authorized to submit the Part 2 Proposal on behalf of the Bidder and is authorized to bind the Bidder.
- V.4.4. An Officer of the Bidder must, in the Part 2 Proposal, certify that any Bid submitted for in the RFP creates a binding and irrevocable offer to provide service under the terms set forth in the SPAECPSA. An Officer of the Bidder must further certify that if the PaPUC approves the results of the RFP, a binding and enforceable contract to provide service with respect to the number of Tranches for which the Bidder is a winner will arise under the SPAECPSA at the final RFP prices.
- V.4.5. The Officer of the Bidder must, in the Part 2 Proposal, certify that its Part 2 Proposal will remain in full force and effect until the earliest to occur of: (i) the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii) the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the SPAECPSA;

- or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than five (5) business days after the close of bidding for the RFP.
- V.4.6. The Officer of the Bidder must, in the Part 2 Proposal, certify that it is bidding independently and that it does not have information concerning a Proposal or Bids being submitted by another Bidder in the RFP. Such information includes, but is not limited to: another Bidder's Bids in the RFP; the quantities that another Bidder wishes to serve; another Bidder's estimation of the value of a Tranche; another Bidder's estimation of the risks associated with serving Tranches under the SPAECPSA; and another Bidder's contractual arrangements with a party to serve Tranches were the Bidder to be a winner of the RFP. This certification must be binding and in effect until the Commission has rendered a decision on the RFP results.
- V.4.7. An Officer of the Bidder must, in the Part 2 Proposal, certify that, except for any communication with its financial institution for the purpose of preparing the Pre-Bid Letter of Credit, the Bidder has not disclosed and will not disclose publicly or to any other party any information relating to its Proposal or its Bids, which could have an effect on whether another party submits a Proposal to participate in the RFP, on whether another party submits Bids in the RFP, or on the contents of the Proposal that another Bidder would be willing to submit to participate in the RFP. Such information includes, but is not limited to: the fact that the Bidder is submitting a Proposal to participate in the RFP; the Bidder's Bids in the RFP; the number of tranches that a Bidder wishes to supply; the Bidder's estimation of the value of a Tranche; the Bidder's contractual arrangements for SPAECs with a party to serve Tranches; and, the Bidder's estimation of the risks associated with serving Tranches under the SPAECPSA. Such certification must hold until the PaPUC has disclosed the names of the winning suppliers and the winning Bid prices of that particular RFP.
- V.4.8. An Officer of the Bidder must, in its Part 2 Proposal, certify that it will hold confidential any results or data from the RFP, until such time that the results or data are released by

the PaPUC, the Companies, or the Independent Evaluator and are no longer confidential. Such information includes any information that a Bidder acquires as a result of participating in the RFP process, whether in writing or verbally, and that has not been made public by the PaPUC, the Companies, or the Independent Evaluator. Such information also includes, but is not limited to the status of the Bidder's participation in the RFP, all reports of results and announcements made by the Independent Evaluator to all or any one Bidder during the RFP.

- V.4.9. An Officer of the Bidder must, in the Part 2 Proposal, certify that if the Bidder wins Tranches in the RFP, the Bidder will demonstrate compliance with the creditworthiness requirements set forth in the SPAECPSA within three (3) business days of the PaPUC approval of the results for the RFP.
- V.4.10. An Officer of the Bidder must, in the Part 2 Proposal, certify that the Bidder will not substitute another entity in its place, transfer its rights to another entity, or otherwise assign its status as a Bidder to another entity.
- V.4.11. The Officer of the Bidder must agree that the submission of a Part 1 Proposal or a Part 2 Proposal to the Companies constitutes the Bidder's acknowledgement and acceptance of all the terms and conditions of these RFP Rules, regardless of the outcome of the RFP or the ultimate fate of such Proposal.
- V.4.12. All information provided and certifications made in the Part 2 Proposal must remain valid and remain in full force until: (i) the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii) the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the SPAECPSA; or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than five (5) business days after the close of bidding for the RFP.

Article VI. <u>Instructions for Preparation of Proposals</u>

- VI.1.1. A Bidder must submit its Proposal in various parts, using the Part 1 and Part 2 Forms attached as Appendices 5 and 6 hereto, including the Bid Submittal Sheet provided for the RFP.
- VI.1.2. A Bidder must deliver its Part 1 Proposal by 12 PM (noon) on the Part 1 Date. A Bidder that is qualified pursuant to a successful Part 1 Proposal and that submits a Part 2 Proposal must deliver its Part 2 Proposal by 12 PM (noon) on the Part 2 Date.
- VI.1.3. The Part 1 Proposal consists of one (1) original (hard copy) and one (1) electronic copy of the Part 1 Form, as well as one (1) copy of all documents required by Article IV. A Bidder must deliver any hard copy information or document related to its Part 1 Proposal (see Paragraph IV.1.2) by certified mail, registered mail, hand delivery, or overnight delivery service to the Companies at the following address:

The Brattle Group SPAEC RFP Independent Evaluator 1800 M Street, NW Suite 700 North Washington, DC 20036

- VI.1.4. Oral, telephonic, or faxed Part 1 Proposals will not receive consideration.
- VI.1.5. The Part 2 Proposal consists of one (1) original (hard copy) and one electronic copy of the Part 2 Form as well as Pre-Bid Security as described in Article V. A Bidder must deliver the hard copy portion of its Part 2 Proposal by certified mail, registered mail, hand delivery or overnight delivery service to the Companies at the following address:

The Brattle Group SPAEC RFP Independent Evaluator 1800 M Street, NW Suite 700 North Washington, DC 20036

VI.1.6. A Bidder must assume full responsibility for timely delivery in the manner and to the location specified in these RFP Rules.

VI.1.7. Proposals must be submitted in the complete legal name of the party that will execute the SPAECPSA should the party be a winning Bidder and should the PaPUC approve the RFP results.

Article VII. Evaluation of Proposals

VII.1. Part 1 Proposal Processing and Evaluation

- VII.1.1. The Evaluation Team will consist of representatives of the Independent Evaluator, one or more credit representatives from the Companies, and a legal representative on behalf of the Companies. Not all representatives of the Evaluation Team need participate in the review of a specific aspect of the Part 1 Proposal. A representative from the PaPUC may be present when Part 1 Proposals are processed. Information regarding the content or status of any Part 1 Proposal will not be released publicly or to any individual Bidder during the evaluation process.
- VII.1.2. The Evaluation Team will review Part 1 Proposals upon receipt through noon on the Part 1 Date. The Evaluation Team will assess the Part 1 Proposals for completeness and compliance with the terms and conditions of Article IV of these RFP Rules.
- VII.1.3. A Part 1 Proposal is complete and compliant with the terms and conditions of Article IV if: (i) all financial information specified in Section IV.1 has been provided; (ii) all certifications and other requirements have been provided and are signed by an Officer of the Bidder. Further, unless the Bidder is posting cash for its Pre-Bid Security or is using the standard form for the Pre-Bid Letter of Credit (or a form with modifications accepted by the Companies and posted in the data room prior to the Part 1 Date), the Bidder will submit a draft Pre-Bid Letter of Credit. The Bidder includes, in its Part 1 Proposal, a certification that the Bidder is bidding independently and is not acting in concert with another Bidder. The Independent Evaluator may request additional information to

- ascertain that the Bidder is bidding independently of other Bidders. A Bidder that is not bidding independently of another Bidder may fail to qualify.
- VII.1.4. If the Independent Evaluator determines that any aspect of the Bidder's Part 1 Proposal is deficient because the Bidder's submission is incomplete or is not compliant with the terms of these RFP Rules, the Independent Evaluator will issue a deficiency notice requesting that the Bidder complete or provide additional information with respect to that particular aspect of its Part 1 Proposal. A Bidder will have until noon on the Part 1 Date, or until 6:00 PM on the business day following the business day during which such a notice was issued to the Bidder, whichever is later, to respond to the deficiency notice. The Evaluation Team will evaluate any response to a deficiency notice on the day it is received. If the response is not sufficient to cure the deficiency, the Independent Evaluator may request additional information and provide another opportunity for the Bidder to provide the required clarification or additional information to cure the deficiency.
- VII.1.5. The Evaluation Team reviews draft Pre-Bid Letters of Credit on the business day of receipt. The Independent Evaluator notifies the Bidder within two (2) business days whether modifications incorporated in the draft Pre-Bid Letter of Credit are acceptable.
- VII.1.6. When the evaluation of the Part 1 Proposals is complete, Bidders will be either qualified or disqualified. A Bidder is qualified if the Bidder submitted a Part 1 Proposal, as supplemented or amended in response to deficiency notices issued by the Independent Evaluator, that is complete and compliant will the requirements of these RFP Rules. In all other circumstances, the Bidder will be disqualified. Only Qualified Bidders will be invited to submit Part 2 Proposals.
- VII.1.7. The Independent Evaluator notifies a Bidder whether it has qualified no later than the fifth business day after the Part 1 Date.

VII.2. Part 2 Proposal Processing and Evaluation

- VII.2.1. The Evaluation Team will consist of representatives of the Independent Evaluator, one or more credit representatives from the Companies, and a legal representative on behalf of the Companies. A representative from the PaPUC may be present when Part 2 Proposals are processed or when Bids are evaluated. Information regarding the content or status of any Part 2 Proposal will not be released to any Bidder during the evaluation process.
- VII.2.2. Part 2 Proposals will only be considered for those Bidders that have met the qualification requirements of Article IV.
- VII.2.3. The RFP format considers Bids from Bidders that have met all qualification requirements on a price-determinative basis.
- VII.2.4. The PaPUC Staff will have access to all Bids and will be provided with a report from the Independent Evaluator. The Companies will not, at any time during the RFP, have access to any Bidder's individual Bid.
- VII.2.5. Part 2 Proposals must be received by the Independent Evaluator no later than noon on the Part 2 Date. The Independent Evaluator will assess the Part 2 Proposal for completeness and compliance with the terms and conditions of Article V of these RFP Rules.
- VII.2.6. The Independent Evaluator will assess whether all certifications required in the Part 2 Proposal, as specified in Article V.4, have been submitted. If they have not, the Part 2 Proposal will be rejected.
- VII.2.7. The Independent Evaluator will assess whether the Bidder has provided Pre-Bid Security in the form of cash or an executed Pre-Bid Letter of Credit for the account of the Bidder that either uses the standard form or that incorporates only those modifications to the standard form accepted by the Companies. If the Bidder has submitted a Pre-Bid Letter of Credit that is not acceptable to the Companies, or if it is not for the account of the Bidder, the Part 2 Proposal may be rejected.

VII.2.8. Proposals received from a Bidder may be eliminated from further consideration at any point, in the Independent Evaluator's and the Companies' sole and exclusive discretion, for any of the following reasons including (but not limited to): (i) Failure to provide clarification of, or additional information relating to, any aspect of the Proposal as requested by the Independent Evaluator; (ii) Attempts or the appearance of attempts to improperly influence the consideration of the Proposals; (iii) Failure to honor representations made in a Part 1 Proposal or a Part 2 Proposal; and (iv) Illegal conduct, including a Bidder acting in concert with another Bidder.

VII.3. Commission Approval and Review

- VII.3.1. The Independent Evaluator will prepare a report two (2) business days after the Part 2

 Date. This report will present the results of the RFP. The Independent Evaluator's report will also summarize the most recent processing and evaluation of Proposals. The PaPUC will have three (3) business days after report submission to decide whether to approve the results. If the PaPUC does not issue a decision in three (3) business days, the results are deemed approved. If the results are approved by the PaPUC, the Independent Evaluator will notify all Bidders of the PaPUC's decision. There is no minimum number of bids that must be received in order for the PaPUC to approve the bid results.
- VII.3.2. The report of the Independent Evaluator submitted to the Commission will include a state of the market (i.e., "benchmarking") report on the SPAEC market. As part of its content, the benchmarking report will note the number of potential bidders. At least five (5) business days prior to the date bids close (i.e., the Part 2 Date), the benchmarking report will be provided to the Office of Consumer Advocate ("OCA") and Office of Small Business Advocate ("OSBA") on a confidential basis. The OCA and OSBA will have three (3) business days to review the report and provide comments to the Independent Evaluator on a confidential basis. The Independent Evaluator will append any comments provided

by the OCA and OSBA to the report that the Independent Evaluator provides to the PaPUC.

VII.3.3. The Bidders that have approved Bids will have three (3) business days from the date of the PaPUC's approval to execute the SPAECPSA without modifications with each of the Companies. If a winning Bidder fails to execute the SPAECPSA within three (3) business days from the PaPUC's approval, the winning Bidder may forfeit its Pre-Bid Letter of Credit.

Article VIII. Reserved Rights

VIII.1. Non-Binding RFP

- VIII.1.1. At any time prior to the execution of the SPAECPSA, the PaPUC has the exclusive right to withdraw and terminate the RFP without any liability or responsibility to any Bidder or any other party, for reasonable cause including, but not limited to, adverse statutory changes or interpretations, issuance of new PaPUC orders and/or regulations, market conditions, or any other extraordinary circumstances that preclude these RFP Rules from being implemented in substantially the manner described herein.
- VIII.1.2. Subject to PaPUC approval, the Companies reserve the right to withdraw or terminate the RFP at least two (2) days before the submission of any Bids are due and with notice to Qualified Bidders, without any liability or responsibility to any Bidder or any other party, for reasonable cause including, but not limited to, adverse statutory changes or interpretations, issuance of new PaPUC orders and/or regulations, market conditions, hurricanes, or any other extraordinary circumstances that preclude these RFP Rules from being implemented in substantially the manner described herein.
- VIII.1.3. The Companies will not be liable to any Bidder or any other party for failure to execute an SPAECPSA. Nothing herein may be construed to bind the Companies unless and until the PaPUC has approved winning Bid(s), and each SPAECPSA with a Bidder has been

executed and is effective. Once effective, the SPAECPSA will govern the relationship between and the responsibilities of the parties to that agreement and not the RFP Rules or any documents relating thereto.

VIII.1.4. The Companies and the Independent Evaluator reserve the right to reject Proposals submitted in response to the RFP that are incomplete, or do not conform to the requirements of the these RFP Rules, or are submitted beyond the deadline for submission.

VIII.2. Proposals Become the Companies' Property

VIII.2.1. All Proposals submitted by Bidders in response to the RFP will become the exclusive property of the Companies upon the receipt of such document(s).

VIII.3. Confidentiality

- VIII.3.1. The Companies and the Independent Evaluator will consider all data and information provided by Bidders in response to the RFP to be confidential and will attempt to limit their disclosure to the public in accordance with the provisions of this Article (the "Confidentiality Provisions"). The Companies will also take reasonable action to ensure that their employees, representatives and agents authorized to consider and evaluate all Proposals protect the confidentiality of such data and information. The Evaluation Team will be provided access to the Bidder's Proposals on a need-to-know basis. Each member of the Evaluation team will be required to sign a Confidentiality Statement, in the form attached hereto as Appendix 2, prior to opening any Proposals and commencing the evaluation thereof.
- VIII.3.2. However, absolute protection from public disclosure of the Bidders' data and information filed in response to the RFP cannot be provided and is not intended. For example, the Companies will provide access to the Bidders' data and information to selected personnel/staff from the PaPUC in order to allow the PaPUC to accept or reject the RFP

results. Moreover, the Companies expect to request that the PaPUC permit the public release of information relating to the total number of Proposals received in response to the RFP, the names of the winning Bidders, and the average price per SPAEC for results accepted by the PaPUC. By submitting a Proposal in response to the RFP, a Bidder acknowledges and agrees to the confidentiality provisions set forth herein, as well as any limitations thereto.

VIII.3.3. In addition, the Bidders' data and information filed in response to the RFP will be disclosed if required by any federal, state or local agency (including, without limitation, the PaPUC) or by a court of competent jurisdiction. However, the Companies will notify the Bidder in advance of such disclosure and cooperate with such Bidder, to the extent deemed reasonable by the Companies, and at the expense of the Bidder, to prevent the disclosure of such materials. In any event, the Companies, their employees, and agents will not be responsible to the Bidders or any other party or liable for any disclosure of such designated materials before, during or subsequent to the RFP. Notwithstanding the above, the Companies reserve the right to use and communicate publicly and/or to third parties any and all information/data submitted in any Proposal in all proceedings before the PaPUC and the courts, if necessary, without the prior consent/approval of, or notice to, any such Bidder.

SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT PURCHASE AND SALE AGREEMENT

for

Metropolitan Edison Company,

Pennsylvania Electric Company,

and

Pennsylvania Power Company

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SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT PURCHASE AND SALE AGREEMENT

THIS SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT PURCHASE AND SALE AGREEMENT ("Agreement"), made and entered into as of the Effective Date, by and between the ("Company"), a Pennsylvania public utility company organized and existing under the laws of the Commonwealth of Pennsylvania, and SPAEC Supplier (the "SPAEC Supplier"). The Company and the SPAEC Supplier hereinafter are also sometimes referred to collectively as the "Parties", or individually as a "Party", and are further identified pursuant to Appendix C of this Agreement.

WITNESSETH:

WHEREAS, under the Electricity Generation Customer Choice and Competition Act, 66 Pa.C.S. §2801 et seq., and under the Alternative Energy Portfolio Standards Act, 73 P.S. §§ 1648.1 et seq. (the "AEPS Act" or the "Act" as amended from time to time), the Company is an electric distribution company engaged, *inter alia*, in providing retail electric service within its service territory located within the Commonwealth of Pennsylvania; and

WHEREAS, the Company has conducted and completed a successful competitive bidding process for the procurement of Solar Photovoltaic Alternative Energy Credits ("SPAECs") in which SPAEC Supplier was a successful bidder; and

WHEREAS, SPAEC Supplier owns, or otherwise has the right to sell, the rights to SPAECs from certain Solar Photovoltaic Alternative Energy Sources (the "Projects") associated with the electricity generated by such Projects; and

WHEREAS, SPAEC Supplier desires to sell SPAECs from the Projects to the Company, and the Company desires to purchase such SPAECs from SPAEC Supplier in order to satisfy the Company's obligations under the Act, subject to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual covenants and promises set forth below, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby covenant, promise and agree as follows:

ARTICLE 1 DEFINITIONS

1.1 <u>Definitions.</u> As used in this Agreement, the following terms have the respective meanings set forth below. Other capitalized terms not set forth in this section are defined elsewhere in this Agreement or have the meaning ascribed to them by the Act.

Act or Alternative Energy Portfolio Standards Act has the meaning set forth in the Recitals, and, among other things, requires the Company to obtain alternative energy credits corresponding to electricity generated from Solar Photovoltaic Alternative Energy Sources equal to a stipulated percentage of the total electric energy sold by the Company in each Reporting Year, as measured by Alternative Energy Credits.

Affiliate SPAEC Agreement means an agreement substantially in the form of this Agreement between SPAEC Supplier and any affiliate of the Company for the purchase and sale of SPAECs.

Agreement means all of the provisions, the exhibits incorporated as part of this Agreement, and any other documents incorporated by reference.

Alternative Energy Credit has the meaning ascribed to such term in the Act.

Alternative Energy Portfolio Standards or "AEPS" means those standards established by the Act requiring that a certain amount of electric energy sold from alternative energy sources is to be included as part of the sources of electric generation by electric utilities within the Commonwealth of Pennsylvania in accordance with the Act as it may be amended from time to time.

Alternative Energy Source has the meaning ascribed to such term in the Act, and includes sources for the production of solar photovoltaic or other solar electric energy.

Bankruptcy Code means those laws of the United States of America related to bankruptcy, codified and enacted as Title 11 of the United States Code, entitled "Bankruptcy" and found at 11 U.S.C. § 1101 et seq.

Business Day means a day on which Federal Reserve member banks in New York City are open for business. For purposes of this Agreement, a Business Day shall open or begin at 8:00 a.m. and shall close or end at 5:00 p.m. Eastern Prevailing Time ("EPT").

Confidential Information means all oral and written information exchanged between the Parties which is not otherwise available to the public with respect to the subject matter of this Agreement except (a) information that is or becomes available to the public other than as a result of a disclosure by either Party on a non-confidential basis prior to this Agreement; (b) information that was already known by either Party on a non-confidential basis prior to this Agreement; and (c) information that becomes available to either Party on a non-confidential basis from a source other than the other Party if such source was not subject to any prohibition against disclosing the information to such Party.

Commission means the Pennsylvania Public Utility Commission.

Commodities Exchange Act means the Commodities Exchange Act as amended and codified at 7 U.S.C. § 1 et seq.

Company - Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company or West Penn Power Company as designated in Appendix C.

Credit Exposure Amount has the meaning set forth in Section 5.2 hereof.

Delivery Date means the date on which PJM GATS issues a written, facsimile or electronic confirmation to Company and SPAEC Supplier of the SPAEC Supplier's transfer order instructing PJM GATS to transfer Product to Company's PJM GATS account.

Delivery Period – the delivery period specified in Appendix C.

Effective Date means the date set forth in Appendix C as the effective date.

Event of Default has the meaning set forth in Section 10.1 hereof.

Force Majeure means an event not anticipated as of the Effective Date, which is not within the reasonable control of the Party affected thereby or attributable to such Party's fault or negligence, and which by the exercise of due diligence the affected Party is unable to overcome or obtain or cause to be obtained a commercially reasonable substitute therefore. Force Majeure includes, but is not limited to: acts of God, civil disturbance, sabotage, action or restraint by court order or public or government authority, so long as the affected Party has not applied for, or assisted in, the application for, and has opposed, where and to the extent reasonable, such government action. Force Majeure shall not include a) the SPAEC Supplier's ability to sell SPAECs to a market at a more advantageous price, b) performance failure on the part of one or more Projects, which may be relied upon by the SPAEC Supplier in order to generate SPAECs for sale and delivery hereunder or otherwise, c) increased cost of performance by SPAEC Supplier (including the reduction or elimination of Project Benefits associated with the production of SPAECs by any Project), d) changes in the requirements of any Governmental Authority, including registration requirements for SPAECs; or e) other occurrences to the degree not also constituting a force majeure under the Act; provided, however, that, a determination of force majeure under the Act shall not, in and of itself, alone, constitute an event of Force Majeure under this Agreement.

Forward Contract has the meaning ascribed to such term in Section 101(25) of the Bankruptcy Code.

Forward Contract Merchant has the meaning ascribed to such term in Section 101(26) of the Bankruptcy Code.

Governmental Authority means the federal government, any state or local government or other political subdivision thereof (whether federal, state or local), any court and any administrative agency or other regulatory body, instrumentality, authority or entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government.

Interest Rate means a per annum rate of interest equal to two (2%) percent over the prime lending rate as published from time to time in the Wall Street Journal under "Money Rates" on the date on which any payment or delivery obligation is due (or if not published on such day on the most recent preceding day on which it is published), but in no event to exceed the maximum lawful rate.

Interest Index means the average Federal Funds Effective Rate for the period of time that funds are held on deposit by Company under Section 5.2.4 hereof. The Federal Funds Effective Rate is published daily on the Federal Reserve website www.federalreserve.gov/releases/h15/update/.

Liens means any encumbrance of any nature, including but not limited to, any mortgage, deed of trust, lien, pledge, charge, claim, security interest, easement, covenant, right-of-way, restriction, equity interest, and conditional sales agreement.

Market Price means the market price determined based on the average of prices quoted by three (3) reputable, independent third party leading market dealers, which are regularly engaged in the buying and selling of AECs and SPAECs.

PJM means the PJM Interconnection, a regional transmission organization that coordinates and directs the operation and ensures reliability of the high-voltage electric power system service all or parts of the territory consisting of the states of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

PJM GATS means the environmental registry and information system administered by PJM Environmental Information Services, Inc. or any successor AEPS Alternative Energy Credit registry designated by the Commission.

Product means an SPAEC corresponding to the production of solar photovoltaic electricity as set forth in the AEPS Act; provided, however that the Product does not include: Project Benefits or any item that would otherwise be an environmental benefit or attribute under this definition that is not required for use of the SPAEC for compliance with the Act. The Product is as further defined in Appendix C regarding the SPAEC classification, the SPAEC Quantity and the applicable delivery period.

Project has the meaning set forth in the Recitals hereof.

Project Benefits means production tax credits, investment tax credits, or other direct, third-party federal, state or local subsidies, incentives, grants, credits, rebates or funding for the purchase, ownership, construction or operation of a Project, or the generation of electricity or production of Alternative Energy Credits by a Project.

Quarter means the three month calendar period commencing each June, September, December and March of the Reporting Period during the Term (or any partial three month calendar period in the event the Term commences during such period).

Replacement Price means the lesser of (i) the price at which Company purchases substitute Product to make up for any deficiency in the amount of Product delivered by SPAEC Supplier, or, (ii) the Market Price for such quantity of Product as SPAEC Supplier fails to deliver.

Reporting Period means the twelve month period beginning June 1 through May 31 of the applicable Reporting Year in which such period occurs.

Reporting Year means the year in which May 31 of the twelve month period beginning June 1 and ending May 31 occurs (*e.g.*, the Reporting Period 2020 means June 1, 2019 through May 31, 2020).

Sales Price means the lesser of (i) the price at which SPAEC Supplier resells the Product, which Company has failed to accept or, (ii) the Market Price for such quantity of Product that Company fails to accept.

SPAEC Price means the price in dollars per MWh, set forth in Appendix C hereto, which was bid by the SPAEC Supplier as the delivered price for each SPAEC delivered.

SPAEC Quantity means the quantity of SPAECs purchased by Company under this Agreement, as set forth in Appendix C.

SPAEC Quantity per Quarter means with respect to a Reporting Year one Quarter (1/4) of the SPAEC Quantity.

SPAEC Supplier means the party so identified on Appendix C.

SPAEC Supplier's Account means the SPAEC Supplier financial institution account specified in Appendix C.

Solar Photovoltaic Alternative Energy Credit or "SPAEC" means an Alternative Energy Credit corresponding to the production of solar photovoltaic electricity as set forth in the AEPS Act.

Solar Photovoltaic Alternative Energy Source means a source for the production of solar photovoltaic electricity as set forth in the AEPS Act.

Tangible Net Worth or **"TNW"** means total assets less intangible assets and total liabilities. Intangible assets include benefits such as goodwill, patents, copyrights and trademarks.

Taxes means but is not limited to, any or all ad valorem, property, occupation, severance, first use, conservation, gross receipts, privilege, sales, use, consumption, excise, lease, transaction, and other taxes, governmental charges, licenses, fees, permits and assessments, or increases therein, other than taxes based on net income or net worth. A tax is not a penalty or a fine.

Term has the meaning set forth in Section 2.1 hereof.

Unsecured Credit Limit or "**UCL**" has the meaning set forth in Section 5.1.2 hereof.

1.2 **Construction.** Unless otherwise indicated (a) defined terms include the plural as well as the singular; (b) any agreement defined or referred to herein includes each amendment, modification and supplement thereto and waiver, approval and consent in respect thereof as may become effective from time to time and includes references to all appendices, exhibits, schedules and other attachments thereto and instruments, agreements or other documents incorporated therein; (c) any term defined by reference to any instrument, agreement or other document has such meaning set forth in such document as of the date hereof and such meaning shall remain in effect whether or not such document is subsequently amended, modified or terminated; (d) a reference to any law or regulations includes any amendment, modification or successor thereto; (e) a reference to any Person includes its permitted successors and assigns; (f) all references to appendices, sections, schedules and exhibits shall mean and refer to the respective appendices, sections, schedules and exhibits in or attached to the agreement or document in which such reference appears; (g) the words "include," "includes" and "including" are not limiting and shall be deemed to be followed by the words "without limitation" whether or not in fact followed by such words or words of like import; (h) the terms "hereof," "herein," "hereunder" and comparable terms refer to this entire Agreement with respect to which such terms are used and not to any particular article, Section or subdivision hereof; and (i) references to "termination of this Agreement," "this Agreement is terminated," "this Agreement may be terminated" and similar expressions used in this Agreement refer to the termination of deliveries under this Agreement and related on-going rights and obligations, and does not imply or mean a termination of rights, remedies, obligations and provisions, which by their nature, or as provided elsewhere in this Agreement, survive termination.

ARTICLE 2 TERM OF AGREEMENT

- **2.1** <u>Term.</u> The term of this Agreement shall be for the Delivery Period specified in Appendix C and shall, unless earlier terminated, remain in effect through the end date (the "Termination Date").
- **2.2 Early Termination**. This Agreement may be terminated prior to the Termination Date as follows:
 - 2.2.1 At any time by the mutual consent of the Parties;
- 2.2.2 As provided in, and with such notice as required by, Article 11, by the Non-Defaulting Party if an Event of Default occurs;
- 2.2.3 By either Party in the case of a prolonged Force Majeure event where the Party claiming Force Majeure fails to perform its obligations under this Agreement on account of such Force Majeure event for a period exceeding 180 days after the occurrence of such Force Majeure event, and upon 30 days written notice from the non-claiming Party, unless extended by mutual agreement of the Parties in writing for not more than another 180 days and provided that the claiming party has been and continues to exercise due diligence to remedy the Force Majeure event prior to and after such extension, if any.

2.3 <u>Impact of Termination on Accrued Obligations</u>. Termination of this Agreement for any reason shall not relieve the Parties of any obligation accrued or accruing prior to such termination.

ARTICLE 3 DELIVERY, BILLING AND PAYMENT

- **3.1** Purchase and Sale of Product. Subject to the terms and conditions of this Agreement, during each Reporting Year during the Term, SPAEC Supplier shall sell, and Company shall purchase, all rights, title and interest in the Product up to the SPAEC Quantity specified in Appendix C. Unless otherwise agreed by the Parties, Company shall not be obligated to purchase, or to accept delivery, of any Product in excess of either the SPAEC Quantity per Reporting Year or the SPAEC Quantity per Quarter for any Quarter.
- **3.2** <u>Delivery of Product by SPAEC Supplier</u>. During the Term of this Agreement, SPAEC Supplier shall deliver Product to Company as follows:
- 3.2.1 For each Quarter during the Term, not later than 45 calendar days following the close of each such Quarter, SPAEC Supplier shall issue a transfer order to PJM for the transfer of Product to the Company's PJM GATS account in an amount equal to the SPAEC Quantity per Quarter. The SPAECS must be generated during the associated Reporting Year for each delivery. The date of the issuance of the transfer order by SPAEC Supplier shall be the "Delivery Date."
- 3.2.2 Within 5 Business Days following the Delivery Date, Company shall confirm the transfer order in PJM GATS.
- 3.2.3 Within thirty (30) days of the Delivery Date, SPAEC Supplier shall issue an invoice to Company for the amount of Product delivered during the preceding Quarter. Such invoice shall state the quantity of Product delivered to Company during the preceding Quarter and the amount owed by Company as calculated using the SPAEC Price. Such invoice shall also reflect any interest owed by Company to SPAEC Supplier, if any, as well as any credits owing for any reason from SPAEC Supplier to Company, if any. In the event SPAEC Supplier is a party to any Affiliate SPAEC Agreement, SPAEC Supplier shall issue a single invoice to Company and each applicable Affiliate of Company with the quantity delivered and amounts due under this Agreement and each Affiliate SPAEC Agreement.
- 3.2.4 Within thirty (30) days of the Company's receipt of the SPAEC Supplier's invoice, Company shall, unless disputed, pay the amount set forth in SPAEC Supplier's invoice for the delivered Product under this Agreement owed by Company for such Quarter by wire transfer of immediately available United States dollars to SPAEC Supplier's Account:
- 3.2.5 Amounts not paid when due shall accrue Interest from the due date to the date of payment at the Interest Rate.
- 3.2.6 In the event of a dispute regarding the amount to be paid, Company shall pay the undisputed portion of the SPAEC Supplier's invoice, and, with respect to the disputed portion, shall inform SPAEC Supplier at the time of such payment of the reasons for

withholding the disputed amount. Interest, at the Interest Rate shall be paid on disputed amounts ultimately determined to be owed (whether from Company to SPAEC Supplier or SPAEC Supplier to Company) calculated from the due date to the date of payment or from the date of payment to the date of refund, as the case may be.

3.3 Annual SPAEC Quantity.

- 3.3.1 To the extent that in any Reporting Year during the Term, SPAEC Supplier fails to deliver Product up to the SPAEC Quantity specified in Appendix C, within 45 calendar days following the end of the Reporting Period for any Reporting Year during the Term, SPAEC Supplier shall provide Product sufficient to cure the deficiency for such Reporting Year; provided, however, that if SPAEC Supplier does not so provide, Company, at its option, may (i) obtain substitute Product at the Replacement Price and shall invoice SPAEC Supplier for the positive difference, if any, between the SPAEC Price and the Replacement Price, or (ii) invoice SPAEC Supplier for an amount equal to the alternative compliance payment for each SPAEC that SPAEC Supplier fails to deliver to Company during the Reporting Period for the applicable Reporting Year, which SPAEC Supplier shall pay within 30 calendar days of the date of such invoice; provided further, that if the Commission determines that the alternative compliance payment for such Reporting Year is more or less than the amount invoiced by Company, SPAEC Supplier shall pay Company any deficiency, and Company shall reimburse SPAEC Supplier any overpayment, as the case may be, within 30 calendar days of the Commission's determination.
- 3.3.2 To the extent that in any Quarter of any Reporting Year during the Term, Company fails, without reasonable cause hereunder, to accept delivery of Product up to the SPAEC Quantity per Quarter, and has not cured such failure within 10 Business Days after the Delivery Date, upon 3 calendar days written notice following such failure to cure, SPAEC Supplier shall have the right to sell the unaccepted Product and to invoice Company for the positive difference between the SPAEC Price and the Sales Price, which Company shall pay within 30 calendar days of the date of such invoice.
- **3.4** PJM GATS Responsibilities. SPAEC Supplier and Company are each responsible for their own costs associated with establishing and administering any accounts with PJM GATS sufficient to accomplish the delivery of the Product hereunder during the Term.

3.5 Risk of Loss, Title and Ownership.

- 3.5.1 Subject to Section 3.6 below, (a) prior to, and through the Delivery Date, SPAEC Supplier shall bear any and all risk of loss with respect to the Product, and (b) after the Delivery Date, Company shall assume and bear any and all risk of loss with respect to the Product.
- 3.5.2 Title to the Product shall transfer from SPAEC Supplier to Company as of the Delivery Date for each Quarter, and all SPAECs transferred to Company by SPAEC Supplier on the Delivery Date shall be:
- (a) free and clear of all Liens and Company shall have sole, exclusive and perpetual ownership of all SPAECs delivered to Company by SPAEC Supplier under this

Agreement, including all rights to sell, assign, transfer, apply or retire any SPAEC transferred to Company by SPAEC Supplier;

- (b) only valid SPAECs, which have not been previously retired, claimed or used to satisfy any renewable energy requirements, obligations or voluntary undertaking by any entity in any jurisdiction.
- 3.5.3 After the Delivery Date, Company shall be solely entitled to any benefits that may thereafter arise from the SPAECs.
- 3.5.4 SPAEC Supplier agrees to execute all other documents or instruments, at its expense, necessary to effectuate the delivery of the Product to Company or as may be reasonably requested by Company.
- 3.6 SPAEC Compliance Status. Each SPAEC delivered by SPAEC Supplier hereunder shall be capable as of the Delivery Date to be used by the Company for purposes of compliance with the Act. The Company will make a determination within 30 days of delivery of each SPAEC if, as of the Delivery Date, the SPAEC is unable to be used by the Company for compliance with the Act because of a SPAEC Supplier's failure, whether by act or omission to act, under, or with respect to, this Agreement. Any SPAEC the Company determines it is unable to use shall be immediately returned to the SPAEC Supplier, and the SPAEC Supplier shall deliver to the Company an equivalent SPAEC (of the same vintage as would have been the case for the non-compliant SPAEC), which is capable to be used by the Company for purposes of compliance with the Act. SPAEC Supplier shall be responsible to reimburse the Company for any costs or penalties incurred by the Company with respect to any SPAEC delivered hereunder, which the Company is unable to use for compliance with the Act as of the Delivery Date.
- 3.7 Energy and Capacity Not Included. This Agreement does not include the purchase of, and Company shall not purchase, or have any responsibility for the costs of, any energy or capacity from SPAEC Supplier whatsoever, including any energy or capacity from any Project from which SPAEC Supplier obtains any SPAEC for delivery to Company hereunder. Company shall not be responsible for any costs, including construction, financing, operating or maintenance costs associated with the Projects or with SPAEC Supplier's procurement of SPAECs.

ARTICLE 4 TAXES AND FEES

4.1 Taxes, Fees and Expenses.

4.1.1 SPAEC Supplier shall pay any and all Taxes, costs, fees, and expenses, including any and all Taxes and transaction costs, fees and expenses attributable to or arising from the sale of the Product under this Agreement and in order to (a) obtain certification or verification of the Product, including any inspections of any Project in connection therewith, and (b) provide for the filing and recording of any instrument delivered by SPAEC Supplier to convey the Product to Company.

- 4.1.2 Company shall pay any and all Taxes, costs, fees and expenses incurred in connection with the transfers of Product after the Delivery Date, including with respect to any subsequent sale of the SPAECs acquired from SPAEC Supplier hereunder.
- 4.1.3 If Company is required by law or regulation to remit or pay Taxes, which are SPAEC Supplier's responsibility hereunder, Company may deduct the amount of any such Taxes from the sums due to SPAEC Supplier under this Agreement.
- 4.1.4 Nothing herein shall obligate or cause a Party to pay or be liable to pay any Taxes for which it is exempt under the law and for which it timely asserts and diligently pursues such exemption, until final determination thereof.

ARTICLE 5 CREDIT AND SECURITY

- **5.1** <u>Creditworthiness Determination</u>. The Company will determine whether the SPAEC Supplier is creditworthy, or whether the SPAEC Supplier must post security, throughout the Term of this Agreement as follows:
- 5.1.1 The SPAEC Supplier or its Guarantor will be deemed creditworthy upon meeting the following requirements:
- (a) the SPAEC Supplier is rated by at least two of the following rating agencies: Standard & Poor's Rating Services ("S&P"), Moody's Investors Service, Inc. ("Moody's"), or Fitch, Inc. ("Fitch"), and
- (b) the SPAEC Supplier has a minimum senior unsecured debt rating (or, if unavailable, corporate issuer debt rating discounted one notch) of at least "BBB-" from S&P, "Baa3" from Moody's, or "BBB-" from Fitch (a "Minimum Rating").
 - (i) In case of split ratings, the lowest rating will be used.
- (ii) In all instances, the most current senior unsecured debt rating (or, if unavailable, the most current corporate issuer debt rating discounted one notch) will be used.
- 5.1.2 For so long as the SPAEC Supplier or its Guarantor satisfies the aforementioned criteria during the Term and subject to Section 5.2 below, the SPAEC Supplier will be granted an Unsecured Credit Limit ("UCL").

Credit Rating of the SPAEC Supplier		Max. Unsecured Credit Limit	
S&P	Moody's	Fitch	

A- and above	A3 and above	A- and above	16% of Tangible Net Worth ("TNW")
BBB+	Baa1	BBB+	10% of TNW
BBB	Baa2	BBB	8% of TNW
BBB-	Baa3	BBB-	6% of TNW
Below BBB-	Below Baa3	Below BBB-	0% of TNW

- (a) The UCL sets the SPAEC Supplier's, or its Guarantor's, maximum level of credit exposure up to, but not in excess of, the Credit Exposure Amount as defined in Section 5.2 below (and above which security shall be required), for purposes of the delivery of Product hereunder. The maximum level of the UCL will be determined based on the above table.
- (b) The SPAEC Supplier shall promptly notify the Company of any change in its credit rating or financial condition or that of its Guarantor. The SPAEC Supplier shall also furnish evidence of an acceptable credit rating or financial condition upon the request of the Company.
- 5.1.3 The Company may make alternative credit arrangements with the SPAEC Supplier if the SPAEC Supplier is unable to demonstrate creditworthiness under the criteria set forth in Section 5.1.1 above. Alternative credit arrangements may include any of the following:
- (a) The SPAEC Supplier may submit three years of audited, balance sheet, income, and cash flow statements and associated financial notes to the Company for review.
- (i) If after the Effective Date, upon SPAEC Supplier's submission of such information and during the time of the Company's review, the SPAEC Supplier shall also post cash or a letter of credit (as set forth in subsections (c) and (d) below) to secure the SPAEC Suppliers Credit Exposure Amount as defined in 5.2 below.
- (ii) Within 14 Business Days of receiving the Supplier's financial statements, the Company will perform a credit worthiness assessment based upon minimum credit rating investment grade industry standards and matrices.
- (iii) If the SPAEC Supplier is determined to be creditworthy, it will be granted a UCL of 6% of TNW, and the SPAEC Supplier's cash security or letter of credit will be returned or cancelled.
- (iv) If the SPAEC Supplier is not determined to be creditworthy, then it shall not be granted a UCL, and the SPAEC Supplier's cash or letter of credit will remain in place during the Term or until a subsequent determination of creditworthiness is made by the Company.
- (v) In order to maintain the UCL, the SPAEC Supplier is required to provide to the Company within 30 Business Days after each quarterly financial

reporting period, the balance sheet, income, and cash flow statements and any associated financial notes with a signed attestation of the Chief Financial Officer that the financial statements are true and accurate as of the date thereof. If, during the Term of this Agreement, the SPAEC Supplier does not provide the required financial statements, the SPAEC Supplier will be immediately required to post cash or letter of credit in the amount necessary to cover its Credit Exposure Amount as defined in 5.2 below.

- (b) The SPAEC Supplier may provide a guarantee of payment in an amount equal to Credit Exposure Amount as defined in Section 5.2 below, from a parent Guarantor deemed by the Company to be creditworthy, using the aforementioned criteria in Section 5.1.1 and Section 5.1.2 above, such guarantee to be substantially similar to the form set forth in Appendix A to this Agreement. The SPAEC Supplier shall promptly notify the Company of any change in its Guarantor credit rating or financial condition. The SPAEC Supplier shall also furnish evidence of its Guarantor's acceptable credit rating or financial condition upon the request of the Company.
- (c) The SPAEC Supplier may provide an irrevocable Letter of Credit, in an amount equal to Credit Exposure Amount as defined in Section 5.2 below, issued by a bank or other financial institution with a minimum "A" senior unsecured debt rating (or, if unavailable, corporate issuer rating discounted one notch) from S&P or "A2" from Moody's satisfactory and acceptable in form and substance to the Company, which form is substantially similar to the form set forth in Appendix B to this Agreement.
- (d) The SPAEC Supplier may provide a cash deposit in an amount equal to Credit Exposure as defined in Section 5.2 below.

5.2 <u>Credit Exposure Amount, Total Exposure Amount and Security Calculation.</u>

- 5.2.1 The Company shall calculate the maximum credit limit (the "Credit Exposure Amount") for the SPAEC Supplier in connection with the delivery of Product under this Agreement by multiplying the product of 200% of the SPAEC Price by the SPAEC Quantity per Reporting Year (as set forth in Appendix C).
- 5.2.2 If the SPAEC Supplier or its Guarantor meets the Minimum Rating no security will be required so long as the Credit Exposure Amount does not exceed the SPAEC Supplier's or its Guarantor's UCL Amount.
- 5.2.3 In the event that the SPAEC Supplier's or its Guarantor's Credit Exposure Amount exceeds its UCL Amount, the SPAEC Supplier or its Guarantor, shall be required to post security in the form of cash or letter of credit as set forth in Section 5.1 above, in an amount equal to the positive difference between the Credit Exposure Amount and the UCL Amount.
- 5.2.4 The Company shall pay simple interest calculated at the lower of the Interest Index or six (6) percent per annum on all cash held by the Company pursuant to this Agreement. Each Quarter, the Company shall prepare a statement of interest amounts due to the SPAEC Supplier. The statement shall be sent to the SPAEC Supplier within three (3) Business Days after the end of the Quarter via overnight mail or other expeditious means in order for the SPAEC Supplier to include such amount in its invoice in accordance with Section 3.2.3 hereof.

ARTICLE 6 REPRESENTATIONS AND WARRANTIES

- **6.1** Representations and Warranties of Both Parties. As of the Effective Date, each Party hereby represents and warrants to the other Party that:
- 6.1.1 It is duly organized or formed, validly existing and in good standing under the laws of the jurisdiction of its organization or formation, and is qualified to conduct its business in all jurisdictions necessary to perform its obligations hereunder;
- 6.1.2 The execution, delivery and performance of this Agreement are within its powers, have been duly authorized by all necessary action and do not violate any of the terms or conditions in its governing documents, any agreement to which it is a party or by which it or any of its property is bound, or provisions of law applicable to it;
- 6.1.3 Except as set forth in and as required by this Agreement, no consent, approval, order or authorization of, or registration, declaration or filing with, any Governmental Authority is required by such Party in connection with the execution, delivery or performance of this Agreement;
- 6.1.4 This Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, subject to bankruptcy, insolvency, reorganization and other laws affecting creditors' rights generally, and with regard to equitable remedies, to the discretion of the court before which proceedings to obtain same may be pending;
- 6.1.5 No Event of Default has occurred and there are no bankruptcy, insolvency, reorganization, receivership or other arrangement proceedings pending or being contemplated by it, or to its knowledge threatened against it;
- 6.1.6 To such Party's knowledge, there are no actions, proceedings, judgments, rulings or orders, issued by or pending before any Governmental Authority, that would materially adversely affect its ability to perform its obligations under this Agreement;
- 6.1.7 It is, and will continue to be for the Term, a Forward Contract Merchant both generally and with respect to the Product delivered and purchased under this Agreement;
- 6.1.8 It is acting for its own account, has made its own independent decision to enter into this Agreement and as to whether this Agreement is appropriate or proper for it based upon its own judgment, is not relying upon the advice or recommendations of the other Party in so doing, and is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions and risks of this Agreement.
- **6.2** Forward Contract. The Parties acknowledge that this Agreement is a Forward Contract and the Parties are Forward Contract Merchants, both generally and with respect to the deliveries of the Product pursuant to this Agreement, that each party is an "eligible contract

participant" as set forth in the Commodities Exchange Act; and, accordingly, the Parties are entitled to the protections of the provisions of the Bankruptcy Code with respect to the rights or remedies afforded to non-bankrupt Forward Contract Merchants under Forward Contracts with bankrupt counter-parties. The Parties therefore agree that this Agreement may be terminated and the remedies hereunder exercised by either Party in accordance with Article 2 and Article 11 hereof upon the commencement of a proceeding by the other Party under any chapter of the Bankruptcy Code, and that the automatic stay of Section 362(a) of the Bankruptcy Code shall not apply to such termination.

- **6.3** Representations and Warranties of SPAEC Supplier. On the Effective Date and as of each Delivery Date, SPAEC Supplier hereby represents and warrants to Company that:
- 6.3.1 it has entered into this Agreement in connection with the conduct of its business and it has the capacity or ability to make or take delivery of all Products referred to in the Agreement to which it is a Party, and it is a producer, processor, commercial user or merchant handling the Product, and it is entering into such Agreement for purposes related to its business as such;
- 6.3.2 the Product sold hereunder meets the definition of an Alternative Energy Credit corresponding to the production of solar photovoltaic electricity as set forth in the AEPS Act;
- 6.3.3 it has the right and/or title to sell the Product, which has never been sold, retired, claimed for any other purpose or use, including as part of satisfying compliance with the Alternative Energy Portfolio Standards by any person or entity under the Act or in other states, and such transfer and sale to the Company is not in violation of any applicable law at the time of such transfer and sale, and the Product is free and clear of all Liens or other encumbrances; and, with respect to each Reporting Period, the Product was generated during the eligible Reporting Year.

ARTICLE 7 ASSIGNMENT

Assignment/Delegation. Neither Company nor SPAEC Supplier shall assign this Agreement nor delegate any of its duties hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed; otherwise any such assignment or delegation shall be voidable at the option of the other Party. Notwithstanding the foregoing, either Party may, without the prior consent of the other Party, (i) transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof in connection with any financing or other financial arrangements (and without relieving itself from liability hereunder), (ii) transfer or assign this Agreement to an affiliate of such Party which affiliate's creditworthiness is equal to or higher than that of such Party, or (iii) transfer or assign this Agreement to any person or entity succeeding to all or substantially all of the assets of such Party; provided, however, that in each such case, any such assignee shall agree in writing to be bound by the terms and conditions hereof, including the requirements for creditworthiness and security under Article 5 hereof, and that the transferring Party delivers such tax and enforceability assurance as the non-transferring Party may reasonably request.

7.2 Financing Cooperation. Company agrees, at SPAEC Supplier's sole cost and expense, to (i) cooperate with SPAEC Supplier in responding to or complying with the reasonable requirements or reasonable requests of any Financing Party with respect to information regarding the obligations of Company hereunder; (ii) provide reasonable assistance to SPAEC Supplier in complying with the reporting requirements set forth in any financing agreements of a Financing Party; and (iii) at any time, and from time to time, during the Term, after receipt of a written request by SPAEC Supplier, execute and deliver to SPAEC Supplier and/or any Financing Party, such estoppel statements (certifying, to the extent true and correct, among other things that (1) this Agreement is in full force and effect, (2) no modifications have been made, (3) no disputes or defaults exist, (4) no events have occurred that would, with the giving of notice or the passage of time, constitute a default under this Agreement, and (5) all amounts then due and owing have been paid) or consents to assignments of this Agreement by SPAEC Supplier as collateral security as may reasonably be required. "Financing Party" means any lenders or other third parties providing construction financing, long-term financing or other credit support in connection with this Agreement.

ARTICLE 8 FORCE MAJEURE

- **8.1 Force Majeure.** If either Party is rendered unable by a Force Majeure event to carry out, in whole or in part, its obligations under this Agreement, then, during the pendency of such event of Force Majeure, but for no longer period, the obligations of the affected Party (other than the obligation to make payments hereunder when due) shall, subject to Section 2.2.3 hereof, be suspended to the extent required.
- 8.1.1 The affected Party shall (i) give the other Party written notice within 48 hours of the commencement of the Force Majeure event, with details to be supplied within three (3) Business Days after the commencement of the Force Majeure event further describing the particulars of the occurrence of the Force Majeure event, and (ii) take all reasonable steps to remedy the cause of the Force Majeure event with all reasonable dispatch.
- 8.1.2 Whenever either Party is required to commence or complete any action within a specified period, such period shall be extended by an amount equal to the duration of any event of Force Majeure occurring or continuing during such period; provided, however, that, subject to Section 2.2.3 hereof, in no event will any Force Majeure event extend this Agreement beyond its Term.

ARTICLE 9 CHANGE IN LAW

- **9.1** Change in Law. If any statutes, rules, regulations, permits or authorizations are enacted, amended, granted or revoked which have the effect of changing the transfer and sale procedure set forth in this Agreement so that the implementation of this Agreement becomes impossible or impracticable, or otherwise revokes or eliminates the Alternative Energy Portfolio Standards, the Parties hereto agree to negotiate in good faith to amend this Agreement to conform with such new statutes, regulations, or rules in order to maintain the original intent of the Parties under this Agreement. In the event of federal legislation creating a federal renewable energy credit, Company shall have own and have all rights to any federal renewable energy credit derived from the energy associated with each SPAEC transferred to Company under this Agreement.
- **9.2** Recovery of SPAEC Costs. The Company's obligations under this Agreement are contingent on, and limited by, the Company's ability to recover all costs incurred by it under this Agreement from its retail customers in full and on a current basis. If any statutes, rules, regulations, permits or authorizations are enacted, amended, granted or revoked which have the effect of changing the recovery of costs, the Company may terminate this Agreement upon 45 days written notice. Prior to the effectiveness of such termination, the Parties to this Agreement shall use good faith and reasonable commercial efforts as promptly as practicable to consider an alternative to termination that would provide for full and current cost recovery by the Company.

ARTICLE 10 EVENTS OF DEFAULT

- **10.1 Events of Default.** An "Event of Default" by a Party (the "Defaulting Party") shall mean:
- 10.1.1 Unless otherwise excused or permitted under the terms of this Agreement, a Party's failure to make, when due, any payment required pursuant to this Agreement, regardless of whether a payment or portion thereof may be subject to a billing dispute, shall constitute an Event of Default unless a Party shall have cured the same within three (3) Business Days after receipt of written notice of such payment failure from the other Party; provided, however, that in the event of a billing dispute, the failure to pay the disputed portion of such payment when due shall not constitute an Event of Default so long as the Parties are engaged in good faith efforts to resolve such dispute under Section 3.2.6 hereunder.
- 10.1.2 SPAEC Supplier's failure to meet the Minimum Rating or to comply with the security requirements set forth in Article 5 within the time frames set forth in this Agreement;
- 10.1.3 Unless otherwise excused or permitted under the terms of this Agreement, any of the following events shall constitute an Event of Default unless a Party shall have cured the same within thirty (30) days after receipt of written notice of the occurrence of such event from the other Party:
- (a) Any representation, warranty or covenant made by such Party herein is proven to be false or misleading in any material respect at the time it was made;

- (b) A Party transfers or assigns or otherwise conveys any of its rights or obligations under this Agreement to another entity without the other Party's prior written consent, to the extent such consent is required under this Agreement, or if at the time of such transfer, assignment or conveyance, the resulting, surviving or transferee entity fails to assume all the obligations of such Party under this Agreement by operation of law or pursuant to an agreement reasonably satisfactory to the other Party;
- (c) A Party's unexcused failure to perform any other material covenant or obligation set forth in this Agreement that is not enumerated in this Section 10.1.3; or
- (d) A Party is the subject of a voluntary bankruptcy, insolvency or similar proceeding;
- (e) A Party applies for, seeks consent to, or acquiesces in the appointment of a receiver, custodian, trustee, liquidator or similar official to manage all or a substantial portion of its assets;
- (f) A Party is the subject of an involuntary bankruptcy or similar proceeding, and fails to have such proceeding dismissed within 60 days; or
- (g) A Party commits an act or makes an omission that constitutes an "Event of Default" under any other agreement(s) between Company and the SPAEC Supplier for the provision of AECs or SPAECs.
- 10.1.4 With respect to SPAEC Supplier, unless otherwise excused or permitted under the terms of this Agreement, the following events, without notice or the opportunity to cure, if the SPAEC Supplier:
- (a) is dissolved (other than pursuant to a consolidation, amalgamation or merger);
 - (b) makes an assignment for the benefit of its creditors;
- (c) has a secured party take possession of all or substantially all of its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all of its assets; or
- (d) has a resolution passed for its winding-up, official management or liquidation (other than pursuant to a consolidation, amalgamation or merger).
- **10.2** <u>Integrated Transaction</u>. To the extent that Section 365 of the Bankruptcy Code applies to this Agreement, the Parties agree that all transactions under this Agreement constitute one integrated transaction that can only be assumed or rejected in its entirety.

ARTICLE 11 REMEDIES UPON DEFAULT

- **11.1 Remedies For Default.** Upon and during the continuation of an Event of Default, the Non-Defaulting Party shall be entitled to elect or pursue one or more of the following remedies:
- 11.1.1 terminate the Agreement by providing written notice to the Defaulting Party of an Early Termination, as provided in Section 2.2 hereof;
- 11.1.2 accelerate all amounts then owing by the Defaulting Party to the Non-Defaulting Party;
- 11.1.3 withhold any payments due to the Defaulting Party under this Agreement;
 - suspend its performance under this Agreement; and
- 11.1.5 pursue any other remedies available at law or in equity, except to the extent such remedies are expressly limited by this Agreement.

11.2 Calculation of Damages. Notwithstanding the foregoing,

- (a) in the event of termination by SPAEC Supplier for Company's default, in addition to amounts owed for Product delivered prior to such termination, SPAEC Supplier shall be entitled, as liquidated damages (and not as a penalty), and, provided that such amount is paid by Company within 30 calendar days of SPAEC Supplier's notice of such termination, as its exclusive remedy for Company's default hereunder, to receive cover from Company equal to (i) the positive difference, if any, in price (i.e., SPAEC Price less Sales Price) multiplied by the quantity of Product not delivered due to the termination of the Agreement for the remaining Term of this Agreement, and (ii) actual, reasonable and verifiable third party fees, including broker fees and legal fees and expenses incurred by SPAEC Supplier in the enforcement and protection of its rights under this Agreement;
- (b) in the event of termination by Company for SPAEC Supplier's default, Company shall be entitled, as liquidated damages (and not as a penalty), and, provided that such amount is paid by Seller within 30 calendar days of Company's notice of such termination, as its exclusive remedy for SPAEC Supplier's default hereunder, to receive cover from SPAEC Supplier equal to the sum of (i) the positive difference, if any, in price (i.e., Replacement Price less SPAEC Price) multiplied by the quantity of Product not delivered due to the termination of the Agreement for the remaining Term of this Agreement and for which no alternative compliance payments were required; (ii) actual, reasonable and verifiable third party fees, including broker fees and legal fees and expenses incurred by Company in the enforcement and protection of its rights under this Agreement; and (iii) any alternative compliance payments paid by Company as a result of SPAEC's failure to deliver Product as required under this Agreement.
- **11.3** Exclusive Remedy. The remedies set forth in this Article 11 are the sole and exclusive remedies in the event of a default of a party's obligations to sell or purchase product,

and a party's liability shall be limited as set forth in this article. All other remedies or damages for failure to sell or purchase product at law are hereby waived.

11.4 <u>Limitation of Liability</u>. In the event of a default, the defaulting party's liability shall be limited to direct, actual damages only, and such direct, actual damages shall be the sole and exclusive remedy hereunder. In no event shall any other liability be incurred by either party for any obligations which arise under this agreement, including (but not limited to) consequential, incidental, punitive, exemplary, special, or indirect damages in tort, contract, or otherwise (except to the extent such damages are recovered against a party hereunder by an unaffiliated third party).

ARTICLE 12 INDEMNIFICATION

- **12.1** <u>Indemnification Obligation</u>. Each Party, to the extent permitted by law, shall indemnify, defend and hold harmless the other Party, its affiliated companies, and all of their directors, officers, employees, agents and representatives from and against all claims, liabilities, damages, losses or expenses to the extent arising out of any negligence, willful misconduct, breach of contract or violation of law of, or by, the indemnifying Party, its employees, agents, subcontractors, or assigns in the performance of this Agreement. In the event the Parties are jointly at fault, each Party shall indemnify the other in proportion to its relative fault.
- **12.2** Scope of Indemnification. The claims, liabilities, damages, losses or expenses covered for which indemnification may be sought under this Article 12 include, but are not limited to, settlements, judgments, court costs, attorneys' fees and other litigation expenses, fines, and penalties arising out of actual or alleged (a) injury to or death of any person, including employees of Company or SPAEC Supplier, or (b) loss of or damage to property, including property of the Company or SPAEC Supplier, or (c) breach of contract or (d) damage to the environment.
- **12.3** <u>Notice.</u> A Party seeking indemnification under this Article 12, shall give written notice to the indemnifying Party as soon as reasonably practicable after becoming aware of the facts and circumstances which may give rise to any claims, liabilities, damages, losses or expenses for which indemnification may be sought under this Article 12.

ARTICLE 13 CONFIDENTIALITY

13.1 <u>Confidentiality</u>. Except as provided in this Article 13, neither Party shall publish, disclose, or otherwise divulge Confidential Information to any person at any time during or after the Term of this Agreement, without the other Party's prior express written consent. Each Party shall permit knowledge of and access to Confidential Information only to those of its affiliates and to persons investing in, providing funding to or acquiring it or its affiliates, and to its and the foregoing persons' respective attorneys, accountants, representatives, agents and employees who have a need to know such Confidential Information related to this Agreement.

- 13.2 Required Disclosure. If required by any law, statute, ordinance, decision, order or regulation passed, adopted, issued or promulgated by a Governmental Authority having jurisdiction over a Party, that Party may release Confidential Information, or a portion thereof, to the Governmental Authority, as required by the applicable law, statute, ordinance, decision, order or regulation, and a Party may disclose Confidential Information to accountants in connection with audits, provided that such Party has notified the other Party of the required disclosure, such that the other Party may attempt (if such Party so chooses) to cause that Governmental Authority or accountant to treat such information in a confidential manner and to prevent such information from being disclosed or otherwise becoming part of the public domain.
- 13.3 <u>Tax Treatment Exception</u>. Notwithstanding any provision of this Agreement to the contrary, the legal obligations of confidentiality hereunder do not extend to the U.S. federal or state tax structure or the U.S. federal or state tax treatment of any transaction hereunder. If any U.S. federal or state tax analyses or materials are provided to a Party, such Party is free to disclose any such analyses or materials without limitation.
- **13.4** <u>Survival</u>. The Parties obligations under this Article 13 shall survive for a period of one (1) year following the expiration or termination of this Agreement.

ARTICLE 14 GOVERNING LAW; WAIVER OF TRIAL BY JURY

- **14.1** Governing Law. This Agreement shall be construed, enforced, and performed in accordance with the laws of the Commonwealth of Pennsylvania, without recourse to principles governing conflicts of law.
- 14.2 <u>Waiver of Trial By Jury.</u> As a material inducement to each party to enter into this agreement, the parties each hereby irrevocably waive all right to trial by jury in any action, proceeding or counterclaim arising out of or relating hereto, any product or the transactions contemplated hereby. Each party further waives any right to consolidate any action in which a jury trial has been waived with any other action in which a jury trial cannot be or has not been waived.

ARTICLE 15 MISCELLANEOUS

- **15.1** Entire Agreement. This Agreement, together with any attachments or exhibits specifically referenced herein, constitutes the entire agreement between the SPAEC Supplier and the Company with respect to the subject matter hereof, supersedes all prior oral or written representations and contracts, and may be modified only by a written amendment signed by the Company and the SPAEC Supplier.
- 15.2 <u>Severability</u>. In the event that any provision of the Agreement shall be found to be void or unenforceable, such findings shall not be construed to render any other provision of the Agreement either void or unenforceable, and all other provisions shall remain in full force and

effect unless the provisions which are void or unenforceable shall substantially affect the rights or obligations granted to or undertaken by either Party.

- 15.3 <u>Waiver</u>. No delay or omission by a Party in the exercise of any right under this Agreement shall be taken, construed or considered as a waiver or relinquishment thereof, and any such right may be exercised from time to time and as often as may be deemed expedient. If any of the terms and conditions hereof is breached and thereafter waived by a Party, such waiver shall be limited to the particular breach so waived and is not deemed to waive any other breach hereunder.
- Party may give to the other under or in connection with this Agreement shall be in writing and shall be sent by any of the following methods: hand delivery; reputable overnight courier; certified mail, return receipt requested; or, with respect to communications other than payments, by facsimile transmission, if the original communication is delivered by reputable overnight courier. Communications to the Company and SPAEC Supplier shall be sent to the addresses set forth in Appendix C or to such other person at such other address as a Party may designate by like notice to the other Party. Communication shall be effective when received. Notice received after the close of the Business Day shall be deemed received on the next Business Day.
- 15.5 <u>Netting and Setoff</u>. If Company and SPAEC Supplier are required to pay any amount under this Agreement on the same day or in the same month, then such amounts with respect to each Party may be aggregated and the Parties may discharge their obligations to pay through netting, in which case the Party, if any, owing the greater aggregate amount shall pay to the Party owed the difference between the amounts owed. Each Party reserves to itself all rights, setoffs, counterclaims, combination of accounts, Liens and other remedies and defenses which such Party has or may be entitled to (whether by operation of law or otherwise). The obligations to make payments under this Agreement and/or any other contract between the Company and SPAEC Supplier, if any, may be offset against each other, set off or recouped therefrom. Any setoff shall not be subject to the automatic stay by virtue of Section 362(b) (6) of the Bankruptcy Code.
- **15.6** <u>Disputes.</u> The Company and the SPAEC Supplier shall use good faith and reasonable commercial efforts to informally resolve all disputes arising out of the implementation of this Agreement. Any dispute between the Company and the SPAEC Supplier under this Agreement may be referred to a designated senior representative of each of the Parties for resolution on an informal basis as promptly as practicable.
- 15.7 <u>Compliance with Laws</u>. Except as otherwise expressly provided in this Agreement, each Party shall comply, at its own expense, with the provisions of all laws and any applicable order and/or regulations, or any amendments or supplements thereto, which have been, or may at any time be, issued by a Governmental Authority relating to this Agreement and the transactions hereunder.
- **15.8 Remedies Cumulative.** No right or remedy herein conferred upon or reserved to either Party is intended to be exclusive of any other right or remedy, and each and every right and

remedy shall be cumulative and in addition to any other right or remedy under this Agreement, or under applicable law, whether now or hereafter existing.

- 15.9 <u>Binding Effect; Limitation of Benefits</u>. This Agreement shall be binding upon and shall insure to the benefit of the Parties hereto and, subject to the provisions of Article 7 hereof, their successors and permitted assigns. Nothing in this Agreement is intended to confer benefits, rights or remedies unto any Person other than the Parties and their permitted successors and assigns, and no third party shall have the right to enforce the provisions of this Agreement. The Company does not, nor should it be construed to, extend its credit or financial support for the benefit of any third parties lending money to or having other transactions with SPAEC Supplier.
- 15.10 No Partnership or Joint Venture. This Agreement is not intended to create nor shall it be construed to create any partnership or joint venture relationship between Company and SPAEC Supplier, and neither Party hereto shall have the power to bind or obligate the other Party. Neither Party hereto shall be liable for the payment or performance of any debts, obligations, or liabilities of the other Party, unless expressly assumed in writing herein or otherwise.
- **15.11** Auditing and Records. During the Term, Company may, at reasonable times and on reasonable notice, audit SPAEC Supplier's records pertaining to the Product and this Agreement and SPAEC Supplier shall keep and maintain all reasonable records relating to this Agreement, including with respect to those records necessary for performing and verifying any calculations made hereunder, or necessary to verify SPAEC Supplier's performance hereunder, for a period of three (3) years following termination of this Agreement.
- **15.12** <u>Survival</u>. Except as otherwise expressly provided in this Agreement, obligations, limitations, exclusions and duties which by their nature extend beyond the expiration or termination of this Agreement, as well as any other provisions necessary to interpret the respective rights and obligations of the Parties hereunder, shall survive the expiration or earlier termination of this Agreement.
- **15.13** <u>Counterparts</u>. This Agreement may be executed in any number of counterparts, each of which will be deemed an original, but all of which taken together shall constitute one single agreement between the Parties.

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the date indicated below.

ATTEST:	[Insert Company Name]		
By:	_ By:		
Name: [Insert Name]	Name: [Insert Name]		
Title: [Insert Title]	Title: [Insert Title]		
Date:	Date:		

SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT
PURCHASE AND SALE AGREEMENT

SIGNATURE PAGE

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the date indicated below.

ATTEST:	[Insert SPAEC Supplier Name]		
By:	By:		
Name:	Name:		
Title:	Title:		
Date:	Date:		

SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT
PURCHASE AND SALE AGREEMENT

APPENDIX A – GUARANTY AGREEMENT

GUARANTY (this "Guaranty"), dated as of [Insert Date], made by ______ (the "Guarantor"), a corporation organized and existing under the laws of [Insert Law References] in favor of [Insert Company Name] (the "Guaranteed Party"), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania.

Terms not defined herein take on the meaning given to them in the SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDIT PURCHASE AND SALE AGREEMENT(s). Guarantor enters into this Guaranty in consideration of, and as an inducement for Guaranteed Party having entered into or entering into the "Agreement(s)" with [Insert Name] (Name), a [Insert State] (State) corporation (the "SPAEC Supplier"), which may involve the extension of credit by the Guaranteed Party. Guarantor, subject to the terms and conditions hereof, hereby unconditionally and absolutely guarantees to the Guaranteed Party the full and prompt payment when due, subject to an applicable grace period and upon demand in writing from the Guaranteed Party to the Guarantor's attention at the address for Guarantor set forth in Section 11 hereof of any and all amounts payable by the SPAEC Supplier to the Guaranteed Party arising out of the Agreement(s), and,

- 1. The Guarantor, as primary obligor and not merely as surety, hereby irrevocably and unconditionally guarantees the full and prompt payment when due (whether by acceleration or otherwise) of the principal and interest on any sums due and payable by the SPAEC Supplier as a result of an Event of Default under the Agreement(s) (including, without limitation, indemnities, damages, fees and interest thereon, pursuant to the terms of the Agreement(s)). Notwithstanding anything to the contrary herein, the maximum aggregate liability of the Guarantor under this Guaranty shall Option 1 (in no event exceed [Insert Limit Amount] or the sum of the Credit Exposures Amounts under the Agreement(s).) All such principal, interest, obligations and liabilities, collectively, are the "Guaranteed Obligations". This Guaranty is a guarantee of payment and not of collection.
- 2. The Guarantor hereby waives diligence, acceleration, notice of acceptance of this Guaranty and notice of any liability to which it may apply, and waives presentment and all demands whatsoever except as noted herein, notice of protest, notice of dishonor or nonpayment of any such liability, suit or taking of other action by any Guaranteed Party against, and any other notice to, any party liable thereon (including the Guarantor or any other guarantor), filing of claims with a court in the event of the insolvency or bankruptcy of the SPAEC Supplier, and any right to require a proceeding first against the SPAEC Supplier.
- 3. The Guaranteed Party may, at any time and from time to time, without notice to or consent of the Guarantor, without incurring responsibility to the Guarantor and without impairing or releasing the obligations of the Guarantor hereunder, upon or without any terms or conditions: (i) take or refrain from taking any and all actions with respect to the Guaranteed Obligations, any Document or any person (including the SPAEC Supplier) that the Guaranteed Party determines in its sole discretion to be necessary or appropriate; (ii) take or refrain from taking any action of any kind in respect of any security for any Guaranteed

- Obligation(s) or liability of the SPAEC Supplier to the Guaranteed Party; or (iii) compromise or subordinate any Guaranteed Obligation(s) or liability of the SPAEC Supplier to the Guaranteed Party including any security therefore.
- Subject to the terms and conditions hereof, the obligations of the Guarantor under this 4. Guaranty are absolute and unconditional and, without limiting the generality of the foregoing, shall not be released, discharged or otherwise affected by: (i) any extension, renewal, settlement, compromise, waiver, consent, discharge or release by the SPAEC Supplier concerning any provision of the Agreement(s) in respect of any Guaranteed Obligations of the SPAEC Supplier; (ii) the rendering of any judgment against the SPAEC Supplier or any action to enforce the same; (iii) the existence, or extent of, any release, exchange, surrender, non-perfection or invalidity of any direct or indirect security for any of the Guaranteed Obligations; (iv) any modification, amendment, waiver, extension of or supplement to any of the Agreement(s) or the Guaranteed Obligations agreed to from time to time by the SPAEC Supplier and the Guaranteed Party; (v) any change in the corporate existence (including its constitution, laws, rules, regulations or powers), structure or ownership of the SPAEC Supplier or the Guarantor, or any insolvency, bankruptcy, reorganization or other similar proceedings affecting the SPAEC Supplier or its assets, the Guarantor or any other guarantor of any of the Guaranteed Obligations; (vi) the existence of any claim, set-off or other rights which the Guarantor may have at any time against the SPAEC Supplier, the Guaranteed Party or any other corporation or person, whether in connection herewith or in connection with any unrelated transaction; provided that nothing herein shall prevent the assertion of any such claim by separate suit or compulsory counterclaim; (vii) the invalidity, irregularity or unenforceability in whole or in part of the Agreement(s) or any Guaranteed Obligations or any instrument evidencing any Guaranteed Obligations or the absence of any action to enforce the same, or any provision of applicable law or regulation purporting to prohibit payment by the SPAEC Supplier of amounts to be paid by it under the Agreement(s) or any of the Guaranteed Obligations; and (viii) except for a failure to comply with any applicable statute of limitations, any other act or omission to act or delay of any kind of the SPAEC Supplier, any other guarantor, the Guaranteed Party or any other corporation or person or any other event, occurrence or circumstance whatsoever which might, but for the provisions of this paragraph, constitute a legal or equitable discharge of the Guarantor's obligations hereunder.
- 5. The Guarantor hereby irrevocably waives (a) any right of reimbursement or contribution, and (b) any right of salvage against the SPAEC Supplier or any collateral security or guaranty or right of offset held by the Guaranteed Party therefore.
- 6. The Guarantor will not exercise any rights, which it may acquire by way of subrogation until all Guaranteed Obligations to the Guaranteed Party pursuant to the Agreement(s) have been paid in full.
- 7. Subject to the terms and conditions hereof, this Guaranty is a continuing one and all liabilities to which it applies or may apply under the terms here of shall be conclusively presumed to have been created in reliance hereon. Except for a failure to comply with any applicable statute of limitations, no failure or delay on the part of the Guaranteed Party in

exercising any right, power or privilege hereunder, and no course of dealing between the Guarantor and the Guaranteed Party, shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights, powers and remedies herein expressly provided are cumulative and not exclusive of any rights, powers or remedies, which the Guaranteed Party would otherwise have. No notice to or demand on the Guarantor in any case shall entitle the Guarantor to any other or further notice of demand in similar or other circumstances or constitute a waiver of the rights of the Guaranteed Party to any other or further action in any circumstances without notice or demand.

- 8. This Guaranty shall be binding upon the Guarantor and upon its successors and assigns and shall inure to the benefit of and be enforceable by the Guaranteed Party and its successors and assigns; provided, however, that the Guarantor may not assign or transfer any of its rights or obligations hereunder without the prior written consent of the Guaranteed Party. The assignment rights of the Guaranteed Party will be in accordance with the terms of the underlying Agreement(s).
- 9. Neither this Guaranty nor any provision hereof may be changed, waived, discharged or terminated except upon written agreement of the Guaranteed Party and the Guarantor.
- 10. The Guarantor agrees that its liability as guarantor shall continue and remain in full force and effect in the event that all or any part of any payment made hereunder or any obligation or liability guaranteed hereunder is recovered (as a fraudulent conveyance, preference or otherwise) rescinded or must otherwise be reinstated or returned due to bankruptcy or insolvency laws or otherwise.
- 11. All notices and other communications hereunder shall be made at the addresses by hand delivery, by the next day delivery service effective upon receipt or by certified mail return receipt requested (effective upon scheduled weekday delivery day) or telefacsimile (effective upon receipt of evidence, including telefacsimile evidence, that telefacsimile was received)

If to the Guarantor: [Insert Guarantor]

If to the Guaranteed Party:
[Insert Company Name] c/o FirstEnergy Corp.
Attn: Credit Risk Management & Risk Control

341 White Pond Drive Akron, OH 44320

Telephone: (330) 315-6894 Facsimile: (330) 436-1901

- 12. If claim is ever made upon the Guaranteed Party for repayment or recovery of any amount or amounts received in payment or on account of any of the Guaranteed Obligations and the Guaranteed Party repays all or part of such amount by reason of (a) any judgment, decree or order of any court or administrative body having jurisdiction over such payee or any of its property, or (b) any settlement or compromise of any such claim effected by such payee with any such claimant (including the Guarantor), then and in such event the Guarantor agrees that any such judgment, decree, order, settlement or compromise shall be binding upon it, notwithstanding any revocation hereof or the cancellation of the Agreement(s) or other instrument evidencing any liability of the Guarantor, and the Guarantor shall be and remain liable to the Guaranteed Party hereunder for the amount so repaid or recovered to the same extent as if such amount had never originally been received by any such payee.
- 13. The Guarantor hereby certifies that it satisfies the Minimum Rating as defined in the Agreement(s).
- 14. This Guaranty shall remain in full force and effect until all Guaranteed Obligations have been fully and finally performed, at which point it will expire. The Guarantor may terminate this Guaranty upon thirty (30) days prior written notice to the Guaranteed Party which termination shall be effective only upon receipt by the Guaranteed Party of alternative means of security or credit support, as specified in the Agreement(s) and in a form reasonably acceptable to the Guaranteed Party. Upon the effectiveness of any such expiration or termination, the Guarantor shall have no further liability under this Guaranty, except with respect to the Guaranteed Obligations entered into prior to the time the expiration or termination is effective, which Guaranteed Obligations shall remain guaranteed pursuant to the terms of this Guaranty until finally and fully performed.
- 15. The Guarantor represents and warrants that: (i) it is duly organized and validly existing under the laws of the jurisdiction in which it was organized and has the power and authority to execute, deliver, and perform this Guaranty; (ii) no authorization, approval, consent or order of, or registration or filing with, any court or other governmental body having jurisdiction over the Guarantor is required on the part of the Guarantor for the execution, delivery and performance of this Guaranty except for those already made or obtained; (iii) this Guaranty constitutes a valid and legally binding agreement of the Guarantor, and is enforceable against the Guarantor, except as the enforceability of this Guaranty may be limited by the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditor's rights generally and by general principles of equity; and (iv) the execution, delivery and performance of this Guaranty by the Guarantor have been and remain duly authorized by all necessary corporate or comparable action and do not contravene any provision of its [insert appropriate corporate organizational document, such as Declaration of Trust, Limited Liability Agreement, Articles of Incorporation or by-laws] or any law, regulation or contractual restriction binding on it or its assets.

- 16. This Guaranty and the rights and obligations of the SPAEC Supplier and the Guarantor hereunder shall be construed in accordance with and governed by the laws of the Commonwealth of Pennsylvania. The Guarantor and Guaranteed Party jointly and severally agree to the exclusive jurisdiction of State and federal courts located in the Commonwealth of Pennsylvania over any disputes arising or relating to this Guaranty and waive any objections to venue or inconvenient forum. The Guarantor and Guaranteed Party each hereby irrevocably waive any and all rights to trial by jury with respect to any legal proceeding arising out of or relating to this Guaranty.
- 17. This writing is the complete and exclusive statement of the terms of this Guaranty and supersedes all prior oral or written representations, understandings, and agreements between the Guaranteed Party and the Guarantor with respect to subject matter hereof. The Guaranteed Party and the Guarantor agree that there are no conditions to the full effectiveness of this Guaranty.
- 18. Every provision of this Guaranty is intended to be severable. If any term or provision hereof is declared to be illegal or invalid for any reason whatsoever by a court of competent jurisdiction, such illegality or invalidity shall not affect the balance of the terms and provisions hereof, which terms and provisions shall remain binding and enforceable. This Guaranty may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.
- 19. No Trustee or shareholder of Guarantor shall be held to any liability whatsoever for any obligation under this Guaranty, and such Guaranty shall not be enforceable against any such Trustee in their or his or her individual capacities or capacity. This Guaranty shall be enforceable against the Trustees of Guarantor only as such, and every person, firm, association, trust or corporation having any claim or demand arising under this Guaranty and relating to Guarantor, its shareholders or Trustee shall look solely to the trust estate of Guarantor for the payment or satisfaction thereof.

IN WITNESS WHEREOF, the Guarantor has caused this Guaranty to be executed and delivered as of the date first above written to be effective as of the earliest effective date of any of the Agreement(s).

(GUARANTOR)	Accepted and Agreed to
Unsert Guarantorl	Insert Namel

By: [Insert Company Name]

Name: [Insert Name]
Title: [Insert Title]
Name: [Insert Name]
Title: [Insert Title]

APPENDIX B - LETTER OF CREDIT DOCUMENTATION

Sample Letter of Credit

[Insert Date]
Letter of Credit No. [Insert Credit No]

To: Beneficiary Name ("Beneficiary")

- 1. We hereby establish in your favor this irrevocable transferable Letter of Credit (this "Letter of Credit") for the account of [Insert Applicant Name] (the "Applicant"), in the aggregate amount of \$[Insert Amount], effective immediately and available to you at sight upon demand at our counters at [Insert Location] and expiring 364 days from date of issuance of any extension thereof (in the form of Annex 5), unless terminated earlier or automatically extended, in accordance with the provisions hereof or otherwise extended.
- 2. This Letter of Credit is issued at the request of the Applicant, and we hereby irrevocably authorize you to draw on us, in accordance with the terms and conditions hereof, up to the maximum amount of this Letter of Credit, subject to reduction as provided in paragraph 11 10 hereof. This Letter of Credit may be drawn upon an Event of Default under the Agreement(s) between the Applicant and you, dated [Insert Date]
- 3. A partial or full drawing hereunder may be made by you on any Business Day on or prior to the expiration of this Letter of Credit by delivering, by no later than 11:00 A.M. (New York, NY time¹) on such Business Day to [Insert Bank], [Insert Address] (i) a notice executed by you in the form of Annex 1 hereto, appropriately completed and duly signed by an Authorized Officer of the Beneficiary and (ii) your draft in the form of Annex 2 hereto, appropriately completed and duly signed by an Authorized Officer of the Beneficiary. Authorized Officer shall mean President, Treasurer, any Vice President or any Assistant Treasurer.
- 4. We may, but shall not be obligated to, accept any request to issue a substitute Letter of Credit. Such request shall be in an Availability Certificate in the form of Annex 3 hereto by you to us for exchange for a new Letter of Credit in the amount set forth in an Availability Certificate, which amount shall not exceed the present value of this letter of credit. Upon acceptance by us of any such request to issue a substitute Letter of Credit for exchange, the new Letter of Credit shall be issued in the amount as set forth in the Availability Certificate.
- 5.4—We hereby agree to honor a drawing hereunder made in compliance with the terms and provisions of this Letter of Credit by transferring in immediately available funds the amount specified in the draft delivered to us in connection with such drawing to such account at such bank in the United States as you may specify in your draft delivered to us

¹ If the issuer of the Letter of Credit is located in an area that is not in the Eastern time zone, this time and all other times in this Letter of Credit, and the definition of a business day should be adjusted accordingly

pursuant to Paragraph 3 hereof, by 3:00 P.M. (New York, NY time) on the date of such drawing, if delivery of this requisite document is made prior to 11:00 AM (New York, NY time) on a Business Day pursuant to Paragraph 3 herein above, but at the opening of business on the first Business Day next succeeding the date of such drawing if delivery of the requisite document is made on or after 11:00 AM (New York, NY time) on any Business Day pursuant to Paragraph 3 herein above.

- 65. If a demand for payment made by you hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you prompt notice (not exceeding three (3) Business Days following the date of receipt of the documents) that the demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons therefore and that we will upon your instructions hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such non-conforming demand for payment to the extent that you are entitled to do so, provided, however, in such event a conforming demand for payment must be timely made in accordance with the terms of this Letter of Credit.
- 76. This Letter of Credit will automatically terminate and be delivered to us for cancellation on the earliest of (i) the making by you of the drawings in an amount equal to the maximum amount available to be made hereunder, (ii) the date we issue a new letter of credit in exchange for this Letter of Credit in accordance with paragraph 4 herein above, (iii) the date we receive from you a Certificate of Expiration in the form of Annex 34 hereto, or (iiii+v) will be automatically extended without written amendment for successive additional one (1) year periods from the current or any future extended expiry date, unless at least ninety (90) days prior to such date of expiration, we give written notice to the Beneficiary by registered or certified mail, return receipt requested, or by overnight courier, at the address set forth above, or at such other address of which prior written notice has been provided to us, that we elect not to renew this irrevocable standby Letter of Credit for such additional one (1) year period.

87. As used herein:

"<u>Availability Certificate</u>" shall mean a certificate substantially in the form of Annex 3 hereto, appropriately completed and duly signed by your authorized officer.

"Business Day" shall mean any day on which commercial banks are not authorized or required to close in New York, New York and any day on which payments can be effected on the Fed wire system.

98. This Letter of Credit is assignable and transferable, in accordance with Annex 64, to an entity who you certify to us in the form of Annex 64, and we hereby consent to such assignment or transfer, provided that this Letter of Credit may not otherwise be amended or modified without consent from us, you and the Applicant, and except as otherwise expressly stated herein, is subject to the Uniform Customs and Practice for Documentary Credits – 2007 Revision, ICC Publication No. 600, or any successor publication thereto

(the "<u>UCP</u>"). Any and all transfer fees, expenses and costs shall be borne by the Applicant. This Letter of Credit shall, as to matters not governed by the UCP, be governed and construed in accordance with New York law, without regard to principles of conflicts of law. Transfers fees shall be borne by the Applicant.

This Letter of Credit sets forth in full our undertaking, and such undertaking shall not in any way be modified, amended, changed, amplified or limited by reference to any document, instrument or agreement referred to herein, except for Annexes 1 through 46 hereto and the notices referred to herein; and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except as set forth above.

- <u>109</u>10. We certify that as of [Insert Date] we [Insert Bank] satisfy the senior unsecured debt rating of "A" from Standard & Poor's Rating Service or "A2" from Moody's Investor Service Inc.
- 1011. The amount which may be drawn by you under this Letter of Credit shall be automatically reduced by the amount of any drawings paid through us referencing this Letter of Credit No. [Insert Credit No]. Partial drawings are permitted hereunder.
- 1<u>122</u>. Faxed document(s) are acceptable. Presentation by fax must be made to fax number [Insert Fax] confirmed by telephone to [Insert Phone].
- 1233. In the event of act of God, riot, civil commotion, insurrection, war, terrorism or by any strikes or lock outs, or any cause beyond our control, that interrupts our business, and causes the place for presentation of this letter of credit to be closed for business on the last day of presentation, the expiration date of this letter of credit shall be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.
- 1344. This original letter of credit has been sent to the Company located at [Insert Address] above (as per Applicant's instructions). The aggregate amount paid to the Company during the validity of this Letter of Credit will not exceed the amount of this Letter of Credit. Any demands or communications in the form of the attached Annexes (except for Annex 5) or other communications directed to us under this Letter of Credit must be signed by an Authorized Officer of the Company. Acceptance or rejection of any amendments to this Letter of Credit or any extensions pursuant to Annex 5 must be signed by an Authorized Officer of the Company.

		veryu	ury yours,
(Bank)			
By:		By:	
Name: [Inse	ert Name]	Name:	[Insert Name]
Title: [Inse	ert Title]	Title:	[Insert Title]
Date: [Inse	ert Date]	Date:	[Insert Date]

Annex 1 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO. [Ins

[Insert Date]

To: [Insert Bank]

[Insert Address]

Attention: Standby Letter of Credit Unit

Ladies and Gentlemen:

The undersigned is making a drawing under the above-referenced Letter of Credit in the amount specified below and hereby certifies to you as follows:

- 1. Capitalized terms used herein that are defined herein shall have the meanings ascribed thereto in the Letter of Credit.
- 2. "Pursuant to Paragraph 2 of the Letter of Credit No. [Insert Credit No.], dated [Insert Date],, the undersigned is entitled to make a drawing under the Letter of Credit in the aggregate amount of \$[Insert Dollars], inasmuch as there is an Event of Default under any Agreement between the Applicant and us.
- 3. We acknowledge that, upon your honoring the drawing herein requested, the amount of the Letter of Credit available for drawing shall be automatically decreased by an amount equal to this drawing.

Very truly yours,

[Insert	Beneficiary Name]
By:	
Name:	[Insert Name]
Title:	[Insert Title]
Date:	[Insert Date]

Annex 2 to Letter of Credit
DRAWING UNDER LETTER OF CREDIT NO. [Insert Credit No.]
[Insert Date]
ON [Business Day immediately succeeding date of presentation]
PAY TO: [Insert Beneficiary Name]
\$ [Insert Dollars]
FOR VALUE RECEIVED AND CHARGE TO ACCOUNT OF LETTER OF CREDIT NO [Insert Credit No.]
OF
[Insert Bank] [Insert Address]
The [Insert Company]
By:
Name: [Insert Name] Title: [Insert Title]
Date: [Insert Date]
L

<u>Annex 3 to Letter of Credit</u>
AVAILABILITY CERTIFICATE
UNDER LETTER OF CREDIT NO. [Insert Credit No.]
[Insert Date]
To: [Insert Bank]
[Insert Address]
Ladies and Gentlemen:
Each of the undersigned hereby requests that, in exchange for the above-referenced
Letter of Credit, a new Letter of Credit be issued in the aggregate amount of \$[Insert]

Please acknowledge your intention to issue such new Letter of Credit Amount upon the surrender of the above-referenced Letter of Credit by sig attached acknowledgment copy hereof and forwarding it to: Beneficiary Addresses Very truly yours, [Insert Beneficiary Name] By: Name: [Insert Name] [Insert Title] Date: [Insert Date]	i n the form of
Very truly yours, [Insert Beneficiary Name] By:	
Very truly yours, [Insert Beneficiary Name] By:	
[Insert Beneficiary Name] By: Name: [Insert Name]	
By: Name: [Insert Name]	
•	
	——————————————————————————————————————
APPLICANT NAME Agreed and Accept Bank]	ed: [Insert
By: By: Name: [Insert Name] Name: [Insert Name]	ı e]
Title: [Insert Title] Date: [Insert Date] Title: [Insert Title] Date: [Insert Date]	_

Appendix 1: Solar Photovoltaic Alternative Energy Credit Purchase and Sale Agreement

Annex 34 to Letter of Credit

CERTIFICATE OF EXPIRATION
OF LETTER OF CREDIT NO. [Insert Credit No.]
[Insert Date]

To: [Insert Bank]

[Insert Address]

Attention: Standby Letter of Credit Unit

Ladies and Gentlemen:

The undersigned hereby certifies to you that the above referenced Letter of Credit may be cancelled without payment. Attached hereto is said Letter of Credit, marked cancelled.

[Insert Beneficiary Name]

By: _____

Name: [Insert Name]
Title: [Insert Title]
Date: [Insert Date]

cc: [Insert Applicant Name]

<u>Annex 5 to Letter of Credit</u>
NOTICE OF EXTENSION
OF LETTER OF CREDIT NO. [Insert Credit No.]
[Insert Date]
To: The [Insert Company Name]
Re: Our Letter of Credit no. [Insert Credit No.] presently in the aggregate amount of USE [Insert Amount] issued for the account of [Insert Company Name] and expiring on [Insert Date].
-
On the expiration date of the Letter of Credit no [Insert Credit No.], we will issue a new Letter of Credit No. [Insert Credit No.] to expire on [Insert Date]. This new Letter of

Credit No. [Insert Credit No.] will, aside from the ex	piration date be in the amount and
form of our Letter of Credit No. [Insert Credit No.].	
Very truly yours,	
very truly yours,	
BANK [Insert Bank]	
	By:
	2 , •
_	Name: [Insert Name]
Title: [Insert Title]	
Title: [Insert Title] Date: [Insert Date]	
Date: [Insert Date]	

Annex 46 to Letter of Credit

NOTICE OF TRANSFER

OF LETTER OF CREDIT NO. [Insert Credit No.]

[Insert Date]

To: [Insert Bank]

[Insert Address]

To Whom It May Concern:
Re: Credit[Insert Credit No.]
Issued by: [Insert Name]

Advice No.: [Insert Advise No.]

For the value received, the undersigned Beneficiary hereby irrevocably transfers to:

[Insert Transferee Name] (Name of Transferee)

[Insert Address] (Address)

all rights of the undersigned Beneficiary to draw under the above Letter of Credit in its entirety.

By this transfer, all rights of the undersigned Beneficiary in such Letter of Credit are transferred to the transferee and the transferee shall have the sole rights as Beneficiary thereof, including sole rights relating to any amendments whether increases or extensions or other amendments and whether now existing or hereafter made. All amendments are to be advised direct to the transferee without necessity of any consent of or notice to the undersigned Beneficiary.

The advice of such Letter of Credit is returned herewith, and we ask you to endorse the transfer on the reverse thereof, and forward it direct to the transferee with your customary notice of transfer.

Enclosed is a certified check in the amount of \$ [Insert Amount] in payment of your transfer commission and in addition we agree to pay to you on demand any expenses that may be incurred by you in conjunction with this transfer.

Very Truly Yours,

[Insert Signature of Company] (Signature of the Company)

The above signature with title as stated conforms to that on file with us and is authorized for the execution of said instruments.

(Name of authenticating party)

[Insert Signature of Authenticating Party]
(Authorized signature of authenticating party)
Name: [Insert Name]

Title:[Insert Title]

APPENDIX C – SPAEC TRANSACTION CONFIRMATION

This Transaction Confirmation is being provided pursuant to and in accordance with the "Solar Photovoltaic Alternative Credit Purchase and Sale Agreement" dated [Insert Date] (the "Agreement") between Company and SPAEC Supplier. Terms used but not defined herein shall have the meanings ascribed to them in the Agreement.

Confirmation Effective Date: [Insert Date]

BY AND BETWEEN,

Company Name: [Insert Company Name]

AND

SPAEC Supplier Name: [Insert SPAEC Supplier Name]

Product: Solar Photovoltaic Alternative Energy Credits (SPAEC)

SPAEC Quantity: xxx SPAECs per Reporting Year / xxxx SPAECs for the Delivery Period

Delivery Period: 00:01a.m. On June 01, 2019 to midnight May 31, 2023

SPAEC Price = $\frac{x.xx}{MWh}$ as bid by SPAEC Supplier

SPAEC Supplier Account:

Bank Name: [Insert Bank Name]

(Financial Institution) ABA# [Insert ABA#]

Account # [Insert Account Number]

Account Name: [Insert account name]

Re: SPAEC Purchase

Address for Notices

The address for any notices provided pursuant to the SPAEC Supplier Agreement shall be the following:

If to the Supplier:

Insert Company Name]
[Insert Name]
[Insert Address]
Telephone: [Insert Phone]
Facsimile: [Insert Fax]
Email: [Insert Email]

If to the Company:

FirstEnergy Corp.
Dean Stathis – Director Regulated Commodity Sourcing P.O. Box 16001
Reading, PA 19612-6001
Telephone: (610) 921-6766

Facsimile: (610) 939-8542

Email: dstathis@firstenergycorp.com

Copy to:

FirstEnergy Corp.
Eileen M. Mikkelsen – VP Rates & Regulatory Affairs 76 South Main Street 8th Floor
Akron, OH 44308
Telephone: (330) 384-5166
Facsimile: (330) 315-4358
Email: mikkelsene@firstenergycorp.com

and

FirstEnergy Corp.
Tori L. Giesler
P.O. Box 16001
Reading, PA 19612-6001
Telephone: (610) 921-6658

Facsimile: (610) 939-8655

Email: tgiesler@firstenergycorp.com

APPENDIX 2 TO THE SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDITS REQUEST FOR PROPOSALS (RFP) RULES

CONFIDENTIALITY STATEMENT

I, {name of person}, am employed by {insert name	<u>e of employer</u> . I am a member of the Evaluation
Team reviewing or evaluating i) the Part 1 Proposals	s received from Bidders applying to participate in
Metropolitan Edison Company's, Pennsylvania Electric C	ompany's and Pennsylvania Power Company's Solar
Photovoltaic Alternative Energy Credits Request for Prop	posals ("RFP"); and ii) the Part 2 Proposals received
from Bidders applying to participate in the RFP.	
In this capacity, I hereby acknowledge and understand	the Confidentiality Provisions of the RFP Rules and,
consistent with those rules, agree to take reasonable p	precautions to ensure that all data and information
supplied by Bidders in response to the RFP are mainta	ined in confidence and not disclosed to the public,
except as permitted by the RFP Rules.	
Witness:	
	Name
	Title
Dated:	

APPENDIX 3 TO THE SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDITS REQUEST FOR PROPOSALS (RFP) RULES

Sample Pre-Bid Letter of Credit

[On Issuing Bank's Letterhead]
IRREVOCABLE STANDBY LETTER OF CREDIT

IR	REVOCABLE STANDBY LETTER OF CREDIT
	("Date of Issuance")
Let	tter of Credit No
Me ("t c/c 18 Su	neficiary: he Companies") o <i>The Brattle Group</i> , Independent Evaluator OD M Street, NW dite 700 North dishington, DC 20036
[Ń	plicant: ame of Bidder] ddress]
1.	We,(the "Issuing Bank") hereby establish in your favor this
	irrevocable Letter of Credit (this "Letter of Credit") for the account of, effective
	immediately and available to you at sight upon demand by all of you at our counters a [Location]. This Letter of Credit, unless terminated earlier in accordance
	with the provisions hereof or otherwise extended, shall remain in full force and effect until: (i)
	the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii)
	the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has
	executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the
	SPAECPSA; or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than

five (5) business days after the close of bidding for the RFP.

- 2. This Letter of Credit is issued at the request of the Bidder, and we hereby irrevocably authorize you to draw on us, in accordance with the terms and conditions hereof, up to the maximum amount of this Letter of Credit, subject to reduction as provided in Paragraph 11 hereof. This Letter of Credit may be drawn by presenting your certificate, in the form of Annex 1, stating that
 - a) "the Bidder has made a material omission or misrepresentation in its Part 1 Proposal or in its Part 2 Proposal"; or
 - b) "the Bidder discloses information relating to its Proposal or its Bids publicly or to any other party before the PaPUC has disclosed the names of the winning suppliers and the winning Bid prices of the RFP"; or
 - c) "the Bidder wins one or more Tranches and fails to execute the SPAECPSA within three (3) business days of the PaPUC's approval of the results of the RFP"; or
 - d) "the Bidder wins one or more Tranches and fails to meet the creditworthiness requirements of the SPAECPSA at the time of its execution."
- 3. A partial or full drawing hereunder may be made by you on any Business Day on or prior to the expiration of this Letter of Credit by delivering, by no later than 11:00 A.M. (Eastern Prevailing Time¹) on such Business Day to _______ (Issuing Bank), ______ (address), (i) a notice in the form of Annex 1 hereto executed by an Authorized Officer of the Companies and (ii) your draft in the form of Annex 2 hereto, appropriately completed and duly signed by an Authorized Officer of the Companies. Authorized Officer shall mean President, Treasurer, any Vice President or any Assistant Treasurer.
- 4. We hereby agree to honor a drawing hereunder made in compliance with the terms and conditions of this Letter of Credit by transferring in immediately available funds the amount specified in the draft delivered to us in connection with such drawing to your account at such bank in the United States as you may specify in your draft delivered to us pursuant to Paragraph 3 hereof, by 3:00 PM (Eastern Prevailing Time) on the date of such drawing if delivery of this requisite document is made prior to 11:00 AM (Eastern Prevailing Time) on a Business Day pursuant to Paragraph 3 hereinabove, but at the opening of business on the first Business Day next succeeding the date of such drawing if delivery of the requisite document is made on or

If the issuer of the Letter of Credit is located in an area that is not in the Eastern Time zone, this time, all other times in this Letter of Credit, and the definition of a Business Day should be adjusted accordingly.

after 11:00 AM (Eastern Prevailing Time) on any Business Day pursuant to Paragraph 3 hereinabove.

- 5. If a demand for payment made by you hereunder does not, in any instance, conform to the terms and conditions of this Letter of Credit, we shall give you prompt notice (not exceeding three (3) Business Days following the date of receipt of the documents) that the demand for payment was not effected in accordance with the terms and conditions of this Letter of Credit, stating the reasons why the demand for payment was not so effected, and that we will upon your instructions hold any documents at your disposal or return the same to you. Upon being notified that the demand for payment was not effected in conformity with this Letter of Credit, you may attempt to correct any such non-conforming demand for payment to the extent that you are entitled to do so, provided, however, in such event a conforming demand for payment must be made prior to expiry in accordance with the terms of this Letter of Credit.
- 6. This Letter of Credit shall automatically terminate and be cancelled on the earliest of (i) the making by you and payment by us of the drawings in an amount equal to the maximum amount available to be made hereunder, (ii) the date we receive from you a Certificate of Expiration in the form of Annex 3 hereto, (iii) the above-stated expiration date hereof.

7. As used herein:

"Authorized Officer" shall mean President, Treasurer, any Vice President or any Assistant Treasurer.

"Bidder" shall mean a party that submits a Part 1 Proposal and a Part 2 Proposal to the Companies in response to the Companies' Solar Photovoltaic Alternative Energy Credit Request for Proposals.

"Business Day" shall mean any day on which commercial banks are not authorized or required to close in New York, New York and any day on which payments can be effected on the Fedwire system.

"Alternative Energy Credit Purchase and Sale Agreement" shall mean the agreement by which the Companies will be contracting for the provision of Solar Photovoltaic Alternative Energy Credits.

"PaPUC" shall mean the Pennsylvania Public Utility Commission.

"RFP" shall mean the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company Solar Photovoltaic Alternative Energy Credits Request for Proposals.

"Rules" shall mean the rules that govern the conduct of the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company Solar Photovoltaic Alternative Energy Credits Request for Proposals as filed by the Companies and approved by the PaPUC.

- 8. This Letter of Credit is not transferable, and except as otherwise expressly stated herein, is subject to the Uniform Customs and Practices for Documentary Credits 2007 revision, ICC Publication No. 600, or any successor publication thereto (the "UCP"). All banking charges are for the account of the Bidder. This Letter of Credit shall, as to matters not governed by the UCP, be governed and construed in accordance with New York law, without regard to principles of conflicts of law.
- 9. This Letter of Credit sets forth in full our undertaking, and such undertaking shall not in any way be modified, amended, changed, amplified or limited by reference to any document, instrument or agreement referred to herein, except for Annexes 1 through 3 hereto and the notices referred to herein; and any such reference shall not be deemed to incorporate herein by reference any document, instrument or agreement except as set forth above.
- 10. We certify that as of _______(date) we ______ (Issuing Bank) satisfy the minimum senior unsecured debt rating of at least "A" from Standard & Poor's or Fitch, or "A2" from Moody's.
- 11. The amount which may be drawn by you under this Letter of Credit shall be automatically reduced by the amount of any drawings paid through us referencing this Letter of Credit No.

 _____. Partial drawings are permitted hereunder.
- 12. Faxed document(s) are acceptable. Presentation by fax must be made to fax number _____ and confirmed by telephone to _____.
- 13. In the event of act of God, riot, civil commotion, insurrection, war, terrorism or by any strikes or lock outs, or any cause beyond our control, that interrupts our business, and causes the place for presentation of this Letter of Credit to be closed for business on the last day of presentation, the expiration date of this Letter of Credit shall be automatically extended without

amendment to a date 30 (thirty) calendar days after the place for presentation reopens for business.

14. This original Letter of Credit has been sent to the Independent Evaluator at [] (as per Bidder's instructions, the Independent Evaluator holds the Letter of Credit for the benefit the Companies). The aggregate amount paid to the Companies during the validity of this Letter of Credit will not exceed the amount of this Letter of Credit. Any demands or communications in the form of the attached Annexes or other communications directed to us under this Letter of Credit must be signed by an Authorized Officer of the Companies. Acceptance or rejection of any amendments to this Letter of Credit must be signed by an Authorized Representative of the Independent Evaluator on behalf of the Companies. An Authorized Representative of the Independent Evaluator means any Vice President or Senior Vice President of the Independent Evaluator.

Very truly yours.

(Issuing Bank)				
Ву:				
Name:				
Title:				
Ву:				
<i>,</i>				
Name:				
Title:				

	Annex	1	to	Letter	of	Credit
--	-------	---	----	--------	----	--------

	DRAWING UNDER LETTER OF CREDIT NO	
		, 20
То:	(Issuing Bank) (Address)	
	Attention: Standby Letter of Credit Unit	
Ladies a	and Gentlemen:	
	undersigned is making a drawing under the above-referenced L specified below and hereby certifies to you as follows:	etter of Credit in the
1. thereto	Capitalized terms used herein that are defined herein shall have in the Letter of Credit;	ve the meanings ascribed
\$	Pursuant to Paragraph 2 of the Letter of Credit None undersigned are entitled to make a drawing under the Letter of, inasmuch as the Bidder has ons (a) – (d) of Paragraph 2).	of Credit in the amount of
3. Compar	The amounts to be received by Metropolitan Edison Company and Pennsylvania Power Company are \$	ny, Pennsylvania Electric
4. the Lett	We acknowledge that, upon your honoring the drawing herein ter of Credit available for drawing shall be automatically decrease wing.	•

	Very truly yours,
	Metropolitan Edison Company
	Pennsylvania Electric Company
	Pennsylvania Power Company
	Ву
	Name:
	Title:
	Date:
cc:(Bidder)	

Annex 2 to <u>Le</u>	tter of Credit		
	DRAWING UNDER	LETTER OF CREDIT NO	_
			, 20
ON [Business	Day pursuant to Paragrap	oh 3]	
PAY TO:	Metropolitan Edison Co	mpany	
	Pennsylvania Electric C	ompany	
	Pennsylvania Power Co	mpany	
A	ttn:		
\$			
For credit to t	he account of	·	
	ECEIVED AND CHARGE TO	O ACCOUNT OF LETTER OF CRED	IT NO
OF			
<i>7</i>	5 1)		
	ng Bank)		
(Addr	ess)		
		Metropolitan Edison Company	
		Pennsylvania Electric Company	
		Pennsylvania Power Company	
		Ву	
		Name:	
		Title:	

Annex 3 to Letter of Credit

cc: _____ (Bidder)

		CERT	IFICATE OF EXPIRATION	
		OF LETTE	R OF CREDIT NO	
				, 20
To:	(Issuing B	ank)		
10.	_	alik)		
	(Address)			
	Attention:	Standby Letter of Cr	rodit Unit	
	Attention.	Standby Letter of Gr	edit omt	
Ladies	and Gentler	nen:		
			you that the above referenced lereto is said Letter of Credit, ma	
			Metropolitan Edison Company	
			Pennsylvania Electric Company	
			Pennsylvania Power Company	
			Ву	
			Name:	
			Title:	
			Date:	

APPENDIX 4 TO THE SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDITS REQUEST FOR PROPOSALS (RFP) RULES

Requirements for Attestation of Chief Financial Officer

The attestation by the Chief Financial Officer, if required by Article IV of the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company Solar Photovoltaic Alternative Energy Credits Request for Proposals ("RFP") Rules, must fulfill the following requirements:

- the attestation is a notarized affidavit attached to the financial information provided by the Entity (Bidder or Guarantor);
- the attestation identifies the person making the affidavit as the Chief Financial Officer (or equivalent position);
- the Chief Financial Officer (or equivalent) attests that "of the information contained in the financial statements fairly presents in all material aspects the financial condition and results of the operations of ______(name of Entity)."

PART 1 FORM

METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND PENNSYLVANIA POWER COMPANY SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDITS REQUEST FOR PROPOSALS (RFP)

PART 1 DATE: [Insert Date]

This Part 1 Form is the form to submit the Part 1 Proposal for the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company Solar Photovoltaic Alternative Energy Credits Request for Proposals ("RFP").

Before completing this Part 1 Form, please review the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company (referred to as "the Companies") Solar Photovoltaic Alternative Energy Credits RFP Rules ("RFP Rules") and the Solar Photovoltaic Alternative Energy Credit Purchase and Sale Agreement ("SPAECPSA"), so that you understand the conditions under which the RFP will be conducted. These documents are posted at http://www.firstenergycorp.com/[Insert URL].

The submission of a Part 1 Proposal to the Companies constitutes your acknowledgement and acceptance of all the terms and conditions of the RFP, regardless of the outcome of the RFP or the ultimate fate of such Proposal.

Any information that you provide in this Part 1 Proposal is provided on a confidential basis to the Independent Evaluator, and is subject to the Confidentiality Provisions contained in Section VIII.3 of the RFP Rules. One or more credit representatives from the Companies and a legal representative on behalf of the Companies will participate in the evaluation of the Part 1 Proposal of each Bidder. Information regarding the content or status of any Part 1 Proposal will not be released publicly or to any individual Bidder during the evaluation process.

INSTRUCTIONS FOR PROPOSAL

Bidders submit the Part 1 Form and all documents required therein to respond to the qualification standards for the RFP. A Bidder that is qualified after complying with all qualification standards of the Part 1 Proposal may submit a Part 2 Proposal for the RFP.

This Part 1 Form must be used to submit a Part 1 Proposal in the RFP.

Please complete all sections.

I. Part 1 Proposal Submission

Proposals must be submitted in the complete legal name of the party that will execute the SPAECPSA should the party be a winning Bidder and should the PaPUC approve the RFP results.

Bidders must:

- Submit <u>one (1) original</u> (hard copy) and one electronic copy of the completed Part 1 Form (with original signatures);
- Submit <u>one (1) copy</u> (hard copy <u>or</u> electronic copy on a CD <u>or</u> electronic copy by email) of documents required to support the Part 1 Form as set forth in Article IV of the RFP Rules; and,
- Insert the name of the Bidder on each page of the Part 1 Form.

The completed Part 1 Proposal MUST be received by the Independent Evaluator no later than 12:00 p.m. on the Part 1 Date at:

The Brattle Group SPAEC RFP Independent Evaluator 1800 M Street, NW Suite 700 North Washington, DC 20036

Inquiries may be directed to the Independent Evaluator by:

Telephone 202.419.3330Fax 202.955.5059

• Email [Insert Email Address]

• Through the "Contact Us" page on the website at http://www.firstenergycorp.com/[Insert URL]

Oral, telephonic, or faxed Part 1 Proposals will not receive consideration under any circumstances.²

¹ Unless noted otherwise, all times refer to Eastern Prevailing Time (EPT).

² With the exception of Part 1 Supporting Documents submitted electronically in accordance with the instructions contained herein.

II. Part 1 Proposal Review

Timing of Part 1 Proposal Review

The Part 1 Proposal is due by noon (12:00 PM) on the Part 1 Date, [Insert Date], 2019. If a Part 1 Proposal is received by noon on the Part 1 Date, the Evaluation Team will review the Part 1 Proposal upon receipt. Proposals received after the Part 1 Date are late Proposals and are not processed.

Incomplete Part 1 Proposals

If the Independent Evaluator determines that any aspect of your Part 1 Proposal is incomplete or requires clarification, the Independent Evaluator will issue a deficiency notice to you by fax or email on the business day of receipt (if the Part 1 Proposal is received before noon), or by noon on the following business day (if the Part 1 Proposal is received after noon). A Bidder will have until the close of the Part 1 Date, or until 6:00 PM the business day following the business day during which the notice was sent to the Bidder, whichever comes later, to respond to the deficiency notice. If the response is not sufficient to cure the deficiency, the Independent Evaluator may request additional information and provide another opportunity for the Bidder to provide the required clarification or additional information to cure the deficiency. If a deficiency notice is issued and the Bidder does not respond by the deadline established by the Independent Evaluator or does not address the deficiency in a manner that is deemed satisfactory in the Independent Evaluator's sole discretion, the Bidder's Proposal will be rejected.

Draft Credit Documents

Unless the Bidder is posting cash for its Pre-Bid Security or using the standard form for the Pre-Bid Letter of Credit (or a form with modifications accepted by the Companies and posted on the website, http://www.firstenergycorp.com/[Insert URL], prior to the Part 1 Date), the Bidder will submit a draft Pre-Bid Letter of Credit. The Evaluation Team reviews draft Pre-Bid Letters of Credit. The Independent Evaluator notifies the Bidder within two business days whether modifications incorporated in the draft Pre-Bid Letter of Credit are acceptable.

Late Part 1 Proposals

No late Part 1 Proposals will be accepted under any circumstances. A Bidder must assume full responsibility for timely delivery in the manner and to the location specified in this Part 1 Form.

Notification of Qualification

A Bidder who submits a Part 1 Proposal and who is qualified pursuant to its Part 1 Proposal may submit a Part 2 Proposal. Each Bidder that submits a Part 1 Proposal will be notified whether it has qualified to submit a Part 2 Proposal for the RFP no later than five (5) business days after the Part 1 Date.

PART 1 FORM

1. Contact Information

COMPLETE ALL INFORMATION IN THIS SECTION 1 OF THIS PART 1 FORM.

Please note that fields will expand to accommodate text.
Name and Address of the Bidder
Name of Bidder
Legal Name of Bidder (If Different from Above)
Street Address
SHEEL MAAIESS
City State Zip Code
If the legal or trade name provided above for the Bidder is <u>not</u> expected to change from now until the Commission renders a decisio on the results of the RFP, please check here \Box and please proceed to the next section. Otherwise, please provide the followin information:
New Name of Applicant
Expected Date of Name Change

Please be advised that if you qualify to become a Bidder, you will be required to advise the Independent Evaluator when the change to its name, as disclosed above, has been effected, and to provide evidence of the change. The Bidder is also required to advise the Independent Evaluator if the change to the Bidder's name, as disclosed above, does not occur on the expected date.

Officer of the Bidder

The contact information in this section is the contact information for an individual who is an officer, director or an individual otherwise empowered to undertake contracts and bind the Bidder. The Officer of the Bidder named below must make all representations required in the Part 1 Proposal.

Last Name		Given Name(s)		Mr/Mrs/Ms/Dr/(other)
Tid.				
Title				
Company				
Street Address				
City		State		Zip Code
Telephone No.	Fax No.		Email Address	

Representative of the Bidder

The Officer of the Bidder must name a Representative of the Bidder. The Officer of the Bidder may name himself or herself as the Representative. The Representative is the point of contact if the Independent Evaluator has questions on the documentation provided by the Bidder in response to this RFP or requires additional information. The Independent Evaluator sends all correspondence related to the procurement event to the Representative, including confidential information required to submit bids on the Bid Date. The Independent Evaluator, for the purposes of this RFP, will communicate exclusively with the Representative or the Officer. Below, the Representative is nominated by the Officer of the Bidder.

	(the Officer of the Bidder named above) hereby designates, whose contact information is immediately below, to serve as the Representative of the Bidder.				
	Signature of Office	r Date			
	Printed Name				
Last l	Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other		
Title					
Сотр	oany				
Strago	t Address				
Sireei	Address				
 City		State	Zip Code		
Telep	hone No.	Alternate Telephone No. (If Available)			

COMMUNICATIONS WITH THE REPRESENTATIVE ARE TYPICALLY DONE VIA FAX OR EMAIL OR BY COURIER.
PLEASE PROVIDE BELOW A FAX NUMBER AND EMAIL ADDRESS AT WHICH THE REPRESENTATIVE WILL BE
ABLE TO RECEIVE FAXES OR EMAILS FROM THE INDEPENDENT EVALUATOR IN A SECURE AND TIMELY
MANNER.

Fax No.	Email Address

Any notification or other communication given by the Independent Evaluator to the Bidder will be delivered by courier to the address provided above for the Representative, or sent by fax or email to the Representative. Any such notification or communication will be deemed received by the Bidder at the time of delivery or transmission, provided that where delivery or transmission occurs after 6 p.m. on a business day or occurs on a day that is not a business day, receipt will be deemed to occur at 9 a.m. on the following business day.

2. Creditworthiness Information

PROVIDE ALL INFORMATION REQUESTED IN THIS SECTION 2 OF THIS PART 1 FORM.

Please note that fields will expand to accommodate text.

Name of Entity on Whose Financial Standing the Bidder Relies

The party, called the "Entity" below, upon whose financial standing the Bidder is relying is (check one and fill in the blank with the name of the "Entity"):

fill in the blank with the name of the "Entity"):
Option (a) , the Bidder is the Entity and is seeking an unsecured line of credit
Option (b) , the Guarantor is the Entity
Option (c) , the Bidder is the Entity. The Bidder elects not to apply for an unsecured line of credit and stands ready to post cash or a Letter of Credit for the entire amount of the security due under the SPAECPSA

Credit Representative

The contact information in this section is for a credit representative from the Entity named above who will be able to answer questions on the documentation provided.

Last Name	Given 1	Name(s)		Mr/Mrs/Ms/Dr/(other)
Title				
Company				
Street Address				
City		State		Zip Code
Telephone No. F	Fax No.		Email Address	

Financial Information

THE FINANCIAL INFORMATION REQUESTED IN THIS SECTION MAY BE PROVIDED IN HARD COPY, ELECTRONICALLY IN THE FORM OF A CD, OR ELECTRONICALLY IN THE FORM OF AN EMAIL SENT TO [Insert Email Address]@brattle.com.

If the Bidder has selected **Option** (a) or **Option** (b) above, please provide the following financial information for the Entity named on page 9:

- (1) Most recent SEC Form 10-K; if unavailable, please provide the most recent audited annual financial information (including a balance sheet, income statement, and cash flow statement, and any accompanying notes and schedules).
- (2) Most recent SEC Form 10-Q; if unavailable, please provide the most recent quarterly or monthly financial information accompanied by an attestation by the Entity's Chief Financial Officer, in the form of Appendix 5, that the information submitted fairly presents in all material respects the financial condition and results of the operations of the Entity.
- (3) Any SEC Form 8-K filings made by the Entity, as well as any other public financial disclosures made by the Entity since the release of the Entity's most recent financial statements, for any matters that are material to the Entity's financial condition.

Credit Ratings

If the Bidder has selected **Option** (a) or **Option** (b) above, please submit credit ratings for the Entity from <u>at least two</u> of the following agencies: Standard & Poor's Rating Services ("S&P"), Moody's Investors Service, Inc. ("Moody's"), or Fitch, Inc. ("Fitch"), along with the specified documentation.

WHEN PROVIDING DOCUMENTATION FROM THE RATING AGENCIES, ONE COPY IS SUFFICIENT.

1.	Is the Entity rated by S&P?
	yes no
	If yes, please provide:
	• The Entity's senior unsecured debt rating
	• A print out from S&P's website or other documentation from the agency providing the name of the rating agency, the type of rating , and the rating of the Entity.
2.	Is the Entity rated by Moody's? yes no
	<u>If yes</u> , please provide:

- The Entity's senior unsecured debt rating
- A print out of Moody's website or other documentation from the agency providing the name of the rating agency, **the type of rating**, and the rating of the Entity.

Nai	ne of Bidder	
3.	Is the Entity rated by Fitch?	_
	yes	no

If yes, please provide:

- The Entity's senior unsecured debt rating
- A print out of Fitch's website or other documentation from the agency providing the name of the rating agency, **the type of rating**, and the rating of the Entity.

Statement of Matters Related to Financial Status of the Entity

All Bidders must submit the following information for the Entity named in Section II.2:

A statement, as applicable, of rulings, judgments, litigation, contingent liabilities, revocations of authority, investigations or any other matters relating to the financial status of the Entity that have had a material impact on the Entity's financial status. If the Bidder has selected Option (a) or Option (b) above, this statement need only apply to matters impacting the Entity's financial status since the release of the Entity's most recent financial data or most recent public financial disclosure.

Draft Pre-Bid Letter of Credit

For all Bidders, the Part 2 Proposal requires Pre-Bid Security in the form of cash or an executed Pre-Bid Letter of Credit established for the account of the Bidder and acceptable to the Companies. The standard form for the Pre-Bid Letter of Credit provided as Appendix 3 to the RFP Rules document is acceptable to the Companies. A Bidder that will not use exactly the standard form of the Pre-Bid Letter of Credit (or a form with modifications accepted by the Companies and posted on the website prior to the Part 1 Date) or post cash with its Part 2 Proposal must submit with its Part 1 Proposal any and all proposed modifications to the standard Pre-Bid letter of Credit for evaluation.

Each Bidder must check one of the following options:
☐ The Bidder will submit Pre-Bid Security in the form of cash.
The Bidder will use the standard form of the Pre-Bid Letter of Credit for the RFP provided as Appendix 3 to the RFP Rules document, or a version with approved modifications as posted on the website prior to the Part 1 Date.
The Bidder is submitting electronically in MS-Word format, either saved to a CD or sent via email to the Independent Evaluator at [Insert Email Address]@brattle.com, a draft Pre-Bid Letter of Credit for the RFP indicating clearly each and every modification from the standard form.

The Independent Evaluator and the Companies will assess, in their sole and exclusive discretion, whether any modifications to the standard form, other than those posted on the RFP website are acceptable.

3. Additional Requirements

THESE CERTIFICATIONS MUST BE SIGNED BY THE OFFICER OF THE BIDDER.

Representations of the Officer of the Bidder

I certify that:

- (1) the Bidder is a corporation, partnership, limited liability company or other legal entity, duly organized, validly existing and in good standing under the laws of the Commonwealth of Pennsylvania or, if another jurisdiction, that the Bidder is duly registered and authorized to do business and is in good standing in such other jurisdiction.
- all information provided in the Part 1 Proposal is true and accurate to the best of my knowledge and belief. I certify that I am authorized to submit the Part 1 Proposal on behalf of the Bidder and am authorized to bind the Bidder.
- (3) I have read the SPAECPSA for the products in the RFP and I certify that the Bidder accepts all of the terms of such SPAECPSA without modifications.
- (4) I have read the RFP Rules and I certify that the Bidder accepts all of the terms of the RFP Rules and agrees to comply without modifications.
- (5) the Bidder's Part 1 Proposal will remain in full force and effect until: (i) the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii) the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the SPAECPSA; or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than five (5) business days after the close of bidding for the RFP.
- (6) if the Bidder qualifies to participate in an RFP, the Bidder will not substitute another entity in its place, transfer its rights to another entity, or otherwise assign its status as Qualified Bidder to another entity.
- (7) if for any reason or due to any circumstance, any information provided in the Part 1 Proposal changes or any certification fails to remain valid, the Bidder will notify the Independent Evaluator of such changes at least three (3) business days before the Part 2 Date and will provide the updated information at least one (1) business day before the Part 2 Date.

Signature of Officer	Date

Certification of non-Association

The	Officer	of the	Bidder mus	t sign t	he following	certification,	or provide t	he requested	information.
	~	O				•••••••	01 p10 1100 1		

	Signature of Officer	Date
<u>Or</u>		
of the associa	partnership, joint venture, or other joint action wi	the Officer of the Bidder must disclose the members th respect to its Proposal, as well as the nature of the nature concert with another Bidder may be disqualified by n its sole and exclusive discretion.
Certifi	cation Regarding Ability to Perform	
certif	fy that:	
(1)	knowledge, threatened against the Bidder befor	proceedings or claims pending or, to such Bidder's e any federal, state, foreign or local court, tribunal or materially delay, prevent or hinder the Bidder's of the SPAECPSA;
(2)	the Bidder has not had any permit or autho suspended; and	rity to do business in any jurisdiction revoked or
(3)	the Bidder and its corporate officers have never unauthorized disclosure of confidential information	er been barred from public bidding or sanctioned for ation.
	Signature of Officer	Date

4. Entities not Incorporated Under the Laws of the United States

A Bidder that is not incorporated or otherwise formed under the laws of the United States must provide the following additional information in its Part 1 Proposal:

- 1) A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Bidder is incorporated or otherwise formed that the SPAECPSA will become, upon the completion of execution formalities, the binding obligation of the Bidder in the jurisdiction in which it has been incorporated or otherwise formed:
- 2) The sworn certificate of the corporate secretary (or similar officer) of the Bidder that the person who will be executing the SPAECPSA on behalf of the Bidder has the authority to execute the SPAECPSA and that the governing board of the Bidder has approved the execution of the SPAECPSA;
- 3) The sworn certificate of the corporate secretary (or similar officer) of the Bidder that the Bidder has been authorized by its governing board to enter into agreements of the same type as the SPAECPSA.

A Bidder whose Guarantor is not incorporated or otherwise formed under the laws of the United States must provide the following additional information in its Part 1 Proposal:

- 1) A legal opinion of counsel qualified to practice in the foreign jurisdiction in the which the Guarantor is incorporated or otherwise formed that the standard Guaranty of the SPAECPSA will become, upon the completion of execution formalities, the binding obligation of the Guarantor in the jurisdiction in which it has been incorporated or otherwise formed;
- 2) The sworn certificate of the corporate secretary (or similar officer) of the Guarantor that the person executing the Guaranty on behalf of the Guarantor has the authority to execute the Guaranty and that the governing board of the Guarantor has approved the execution of the Guaranty;
- 3) The sworn certificate of the corporate secretary (or similar officer) of the Guarantor that the Guarantor has been authorized by its governing board to enter into agreements of the same type as the standard Guaranty of the SPAECPSA.

5. Justification of Omissions

Checklist

This is	s a chec	eklist of documents to be enclosed in the Part 1 Proposal.
	1 orig	ginal and 1 electronic copy of the completed Part 1 Form (with original signatures). [Instructions I]
	the sta accep of Cre	electronic copy: If the Bidder will not post cash for its Pre-Bid Security and will not use exactly andard form of the Pre-Bid Letter of Credit with the Part 2 Proposal (or a form with modifications sted by the Companies and posted on the website prior to the Part 1 Date), a draft Pre-Bid Letter edit for the RFP in MS-Word format, either saved to a CD or sent via email to the Independent lator indicating clearly each and every modification from the standard form. [Section 2]
		ginal of the Representations of the Officer of the Bidder, Certification of non-Association, and fication Regarding Ability to Perform (with original signatures). [Section 3]
		copy : For Entities not incorporated under the laws of the United States, the necessary documents e Bidder and/or the Guarantor. [Section 4]
		ng documents of the Entity (the Bidder or the Guarantor) that will be fulfilling the credit al requirements:
		copy (hard copy or electronically on a CD or by email): If the Bidder has selected Option (a) or on (b) on page 9, of each of the following: [Section 2]
	(1)	Most recent SEC Form 10-K; if unavailable, the most recent audited annual financial information (including a balance sheet, income statement, and cash flow statement, and any accompanying notes and schedules).
	(2)	Most recent SEC Form 10-Q; if unavailable, the most recent quarterly or monthly financial data accompanied by an attestation by the Entity's Chief Financial Officer, in the form of Appendix 5, that the information submitted is true, correct and a fair representation of the Entity's financial condition.
	(3)	Any SEC Form 8-K filings made by the Entity, as well as any other public financial disclosures made by the Entity since the release of the Entity's most recent financial statements, for any matters that are material to the Entity's financial condition.
	Optio	(copy (hard copy or electronically on a CD or by email): If the Bidder has selected Option (a) or on (b) on page 9, documentation showing the name of the rating agency, the type of rating, and ting of the Entity [Section 2]
	One o	copy : Statement of Matters Related to the Financial Status of the Entity. [Section 2]
		End of Part 1 Form

PART 2 FORM

METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY AND PENNSYLVANIA POWER COMPANY SOLAR PHOTOVOLTAIC ALTERNATIVE ENERGY CREDITS REQUEST FOR PROPOSALS (RFP)

PART 2 DATE: [Insert Date]

This Part 2 Form is the form to submit the Part 2 Proposal for the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company Solar Photovoltaic Alternative Energy Credits Request for Proposals ("RFP").

Before completing this Part 2 Form, please review the Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company (referred to as "the Companies") Solar Photovoltaic Alternative Energy Credits RFP Rules ("RFP Rules") and the Solar Photovoltaic Alternative Energy Credit Purchase and Sale Agreement ("SPAECPSA"), so that you understand the conditions under which the RFP will be conducted. These documents are posted at http://www.firstenergycorp.com/[Insert URL].

Your submission of a Part 2 Proposal to the Companies constitutes your acknowledgement and acceptance of all the terms and conditions of the RFP, regardless of the outcome of the RFP or the ultimate fate of such Proposal.

Any information that you provide in this Part 2 Proposal is provided on a confidential basis to the Independent Evaluator, and is subject to the Confidentiality Provisions contained in Section VIII.3 of the RFP Rules. One or more credit representatives from the Companies and a legal representative on behalf of the Companies will participate in the evaluation of the Part 2 Proposal of each Bidder. One or more credit representatives from the Companies may review documents provided as pre-bid security with the name of the Bidder and any amounts redacted. Information regarding the content or status of any Part 2 Proposal will not be released to any Bidder during the evaluation process.

INSTRUCTIONS FOR PROPOSAL

Bidders submit the Part 1 Form and all documents required therein to respond to the qualification standards for the RFP. A Bidder that is qualified after complying with all qualification standards of the Part 1 Proposal may submit a Part 2 Proposal for the RFP.

This Part 2 Form must be used to submit a Part 2 Proposal for the RFP.

Please complete all sections.

I. Part 2 Proposal Submission

Proposals must be submitted in the complete legal name of the party that will execute the SPAECPSA should the party be a winning Bidder and should the PaPUC approve the RFP results.

Bidders must:

- Submit <u>one (1) original</u> (hard copy) and one electronic copy of the completed Part 2 Form (with original signatures);
- Submit Pre-Bid Security in the form of <u>one (1) original</u> Pre-Bid Letter of Credit or cash; and
- Manually insert the name of the Bidder <u>on every page</u> of the Part 2 Form.

The completed Part 2 Form MUST be received by the Independent Evaluator no later than 12:00 p.m. on the Part 2 Date at:

The Brattle Group SPAEC RFP IE 1800 M St, NW Suite 700 North Washington, DC 20036

Inquiries may be directed to the Independent Evaluator by:

Telephone 202.419.3330Fax 202.955.5059

• Email [Insert Email Address]

• Through the "Contact Us" page on the website at

http://www.firstenergycorp.com/[Insert URL]

Oral, telephonic, or faxed Part 2 Proposals will not receive consideration under any circumstances.

¹ Unless noted otherwise, all times refer to Eastern Prevailing Time (EPT).

II. Part 2 Proposal Review

Timing of Part 2 Proposal Review

The Part 2 Proposal must be submitted by noon (12:00 PM) on the Part 2 Date, [Insert Date], . When the Part 2 Proposal is received, the Evaluation Team will review the Part 2 Proposal for completeness. Proposals received after the noon (12:00 PM) on the Part 2 Date are late Proposals and are not processed.

Incomplete Part 2 Proposal

If the Independent Evaluator determines that any aspect of your Part 2 Proposal is incomplete or requires clarification, the Independent Evaluator will issue a deficiency notice to you. If a Bidder submits a Pre-Bid Letter of Credit that does not conform to the standard form provided in Appendix 3 or incorporates modifications to the standard form other than those acceptable to the Companies, the Bidder may not be permitted to submit Bids in the RFP.

Late Part 2 Proposal

No late Part 2 Proposals will be accepted under any circumstances. A Bidder must assume full responsibility for timely delivery in the manner and to the location specified in this Part 2 Form.

PART 2 FORM

1. Basic Applicant Information							
Name of Applicant							
Name of Authorized Represen	tative						
Telephone No.	Fax No.	Email Address					
Cell Phone No. (optional)							

2. Bid Security

RFP Pre-Bid Letter of Credit:

The Bidder who is submitting a Part 2 Proposal must provide Pre-Bid Security in the form of cash or an executed Pre-Bid Letter of Credit that either uses the standard form as provided in Appendix 3 to the RFP Rules, or that incorporates only those modifications to the standard form acceptable to the Companies.

The Bidder is submitting Pre-Bid Security in the form of: (check one):
cash;
an executed Pre-Bid Letter of Credit using the standard form; or
an executed Pre-Bid Letter of Credit_incorporating only approved modifications.

Amount of the RFP Pre-Bid Letter of Credit

The amount of the Pre-Bid Security must be equal to 10% of the security required under the SPAECPSA relevant to the maximum number of Tranches that Bidders are proposing to supply in the Part 2 Proposal.

Release of the RFP Pre-Bid Security

The Independent Evaluator or the Companies will release the RFP Pre-Bid Security as soon as practicable if the PaPUC rejects the results of the RFP. If the PaPUC accepts the results of the RFP and the Bidder has won tranches in the RFP, the Pre-Bid Security of a Bidder will be released the business day after the Bidder executes the SPAECPSA and meets the creditworthiness requirements under the SPAECPSA. If the Bidder has not won tranches in the RFP, the Pre-Bid Security will be released the business day after the PaPUC decision.

provide any spe	rovide any special instructions for returning the RFP Pre-Bid Security in the space belo				

3. Additional Requirements

THESE CERTIFICATIONS MUST BE SIGNED BY THE OFFICER OF THE BIDDER

Representations of the Officer of the Bidder

- (1) I certify that I am authorized to submit the Part 2 Proposal on behalf of the Bidder and I am authorized to bind the Bidder.
- (2) I certify that all information provided in the Part 2 Proposal is true and accurate to the best of my knowledge and belief.
- I certify that any Bid submitted in the RFP creates a binding and irrevocable offer to provide service under the terms set forth in the SPAECPSA. If the PaPUC approves the results of the RFP, a binding and enforceable contract to provide service with respect to the number of tranches for which the Bidder is a winner will arise under the SPAECPSA at the final RFP prices.
- (4) I certify that the Bidder's Part 2 Proposal will remain in full force and effect until: (i) the PaPUC has accepted the results of the RFP and the Bidder did not win any Tranches; or (ii) the PaPUC has accepted the results of the RFP, the Bidder won Tranches, the Bidder has executed the SPAECPSA, and the Bidder has satisfied the creditworthiness standards of the SPAECPSA; or (iii) the PaPUC has rejected the results of the RFP; but (iv) in no event less than five (5) business days after the close of bidding for the RFP.
- (5) I certify that the Bidder is bidding independently and does not have information concerning a Proposal or Bids being submitted by another Bidder in the RFP. I acknowledge that this certification must be binding and in effect until the Commission has rendered a decision on the RFP results.
- I certify that except for any communication with its financial institution for the purpose of preparing security for the RFP, the Bidder has not disclosed and will not disclose publicly or to any other party any information relating to its Proposal or its Bids, which could have an effect on whether another party submits a Proposal to participate in the RFP, on whether another party submits Bids in the RFP, or on the contents of the Proposal that another Bidder would be willing to submit to participate in the RFP. I acknowledge that this certification must hold until the PaPUC has disclosed the names of the winning suppliers and the winning bid prices of the RFP.

Date

Name of Bidder

Signature of Officer

- (7) I certify that the Bidder will hold confidential any results or data from the RFP, until such time that the results or data are released by the PaPUC and are no longer confidential. Such information includes any information that a Bidder acquires as a result of participating in the RFP Process, whether in writing or verbally, and that has not been made public by the Independent Evaluator or the PaPUC.
- (8) I certify that if the Bidder wins tranches in the RFP, the Bidder will demonstrate compliance with the creditworthiness requirements set forth in the SPAECPSA within three (3) business days of the PaPUC approval of the results for the RFP.
- (9) I certify that the Bidder will not substitute another entity in its place, transfer its rights to another entity, or otherwise assign its status as a Bidder to another entity.
- (10) I certify that, if for any reason or due to any circumstance, any information provided in the Part 1 Proposal changes or any certification fails to remain valid, the Bidder will notify the Independent Evaluator of such changes at least three (3) business days before the Part 2 Date and will provide the updated information at least one (1) business day before the Part 2 Date.

(11)	I certify that I have read the RFP Rules and I certify that the Bidder accepts all of the terms of the RFP Rules and agrees to comply without modifications.

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Name of Bidder

5. Bid Submittal Sheet

Maximum Number of Tranches Offered by Bidder:	
(Not to Exceed 75% of Tranche Target, i.e., [Insert Quantity] tranches)	
Bid Price in \$/SPAEC (rounded to the nearest cent): \$x.xx	
(SPAEC is Solar Photovoltaic Alternative Energy Credit)	
Is this an All-or Nothing Bid?	
☐ Yes, it is all-or-nothing.	
(An "all or nothing" designation does not apply to more than 4 tranches. For any B 4 tranches and are designated as "all or nothing," the "all or nothing" portion of to the first 4 tranches only. In other words, the Bid may be accepted for the suppletranches "up to" the maximum number of tranches bid.)	the Bid applies
No, this bid applies to any quantity up to the maximum stated quantity.	
Signature of Officer Date	

Name of Bidder

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This is	s a checklist of documents to be enclosed in the Part 2 Proposal.
	<u>1 original</u> (hard copy) and 1 electronic copy of the completed Part 2 Form (with original signatures) [Instructions Part I]
	Pre-Bid Security in the form of cash or an Original Executed RFP Pre-Bid Letter of Credit for the account of the Bidder that either uses the standard form as provided in Appendix 3 of the RFF Rules, or a RFP Letter of Credit that incorporates only those modifications to the standard form acceptable to the Companies. (Required of all Bidders applying to the RFP) [Section 2]
	End of Part 2 Form

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

METROPOLITAN EDISON COMPANY
Docket No. P-2017
PENNSYLVANIA ELECTRIC COMPANY
Docket No. P-2017
PENNSYLVANIA POWER COMPANY
Docket No. P-2017
WEST PENN POWER COMPANY
Docket No. P-2017

For the Period June 1, 2019 to May 31, 2023

DEFAULT SERVICE PROGRAMS

Direct Testimony of James D. Reitzes

List of Topics Addressed

Analysis of Default Service Supply Plans

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1 2 3		DIRECT TESTIMONY OF JAMES D. REITZES
4	I.	INTRODUCTION AND PURPOSE OF TESTIMONY
5	Q.	Please state your name, title, business address, and for whom you are testifying.
6	A.	I am James D. Reitzes, Principal of The Brattle Group ("Brattle"), located at 1800 M
7		Street NW, Suite 700 North, Washington, District of Columbia. I am testifying on behalf
8		of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power
9		Company, and West Penn Power Company ("Met-Ed," "Penelec," "Penn Power," and
10		"West Penn," respectively, or collectively, the "Companies").
11	Q.	What is your educational and professional background?
12	A.	I hold a Ph.D. in economics from the University of Wisconsin and a B.A. in economics
13		and history from Stanford University. My areas of specialization within economics are
14		industrial organization, which includes the examination of firm behavior under various
15		market conditions, and international trade. I also have completed field courses in finance.
16		I have been involved in competition and regulatory matters for over twenty-five years,
17		including five years while working at the Federal Trade Commission and more than
18		twenty years in private consulting practice. Appendix A provides further detail as to my
19		professional and educational experience.
20	Q.	Please summarize your prior professional experience with respect to electric power
21		matters.
22	A.	For nearly twenty years, I have participated in a variety of regulatory and competition
23		matters involving the electric power industry. I have provided testimony at the Federal
24		Energy Regulatory Commission and in state regulatory proceedings addressing such

issues as the competitive implications of mergers and acquisitions and assessing whether energy, transmission rights, renewable energy credits, or other assets were purchased or sold at the best possible price. On several occasions, I have been involved in the design of procurement processes to satisfy default service program ("DSP") obligations (also known as standard offer service ("SOS"), provider of last resort ("POLR"), and other names), including the analysis of costs and risks associated with full-requirements auction-based procurements and portfolio procurement strategies. I have submitted testimony on these issues to state public utility commissions, including previously to the Pennsylvania Public Utility Commission ("Commission").

My past experience also includes the design and management of auctions and request for proposals ("RFP") to purchase or sell various energy-related products, including energy, transmission rights, renewable energy credits, and other products. This includes participating in a working group that evaluated the design of a full-requirements, descending-clock bidding process to procure power supplies for standard-offer service customers in New Jersey. I have authored several articles concerning price determination and competition in general, as well as in electric power markets specifically, which have been published in economics journals and trade journals for the energy sector.

Q. Have you submitted testimony previously to the Commission on behalf of the Companies?

A. Yes, I submitted testimony on behalf of Met-Ed and Penelec regarding their Default

Service Programs and procurement of Solar Photovoltaic Alternative Energy Credits

("SPAECs") in Docket Nos. P-2009-2093053 and P-2009-2093054 ("DSPI").

- My testimony examined least-cost methods of procuring power for default service 2 customers and purchasing SPAECs for meeting requirements under Pennsylvania's Alternative Energy Portfolio Standards ("AEPS") Act. In addition, I submitted rebuttal 3
- testimony on behalf of Penn Power regarding its Interim Default Service Program in 4
- 5 Docket No. P-00072305.

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- 6 More recently, I submitted testimony on behalf of Met-Ed, Penelec, Penn Power, and
- 7 West Penn in Docket Nos. P-2011-2273650, P-2011-2273668, P-2011-2273669, and
- P-2011-2273670 ("DSPII"); in Docket Nos. P-2013-2391368, P-2013-2391372, 8
- 9 P-2013-2391375, and P-2013-2391378 ("DSPIII"); and in Docket Nos. P-2015-2511333,
- 10 P-2015-2511351, P-2015-2511355, and P-2015-2511356 ("DSPIV"). Among other
- 11 topics, my testimony again examined least-cost methods of obtaining power for default
- 12 service customers.

13 Q. Have you prepared any exhibits to accompany your testimony?

- 14 Yes, I prepared Met-Ed/Penelec/Penn Power/West Penn Exhibit JDR-1, which I will A.
- 15 discuss later in this testimony.

16 Q. What is the purpose of your testimony?

- 17 My testimony analyzes the proposed procurement of residential full requirements service, A.
- 18 commercial full requirements service, and hourly priced service by Met-Ed, Penelec,
- 19 Penn Power and West Penn, as further described in the testimony of Witness James H.
- 20 Catanach. I explain why the nature of the products being procured, as well as the
- 21 procurement method itself, will produce the "least cost over time" and satisfy other
- 22 applicable provisions of Pennsylvania's Act 129 of October 15, 2008 ("Act 129"). In so
- 23 doing, I explain why the proposed procurement should be approved by the Commission.

Q. Is Brattle an independent third party?

- Yes. Brattle is not owned, managed, controlled, or directed by any of the Companies or their affiliates. Brattle has no ownership in or control over the Companies or any of the FirstEnergy Corp. ("FirstEnergy") affiliates. Neither the Companies nor any other FirstEnergy affiliate has any ownership in or control over Brattle. We have performed consulting work on a contract basis for the Companies and other regulated affiliates of FirstEnergy in the past, but we have not performed work on behalf of any of its unregulated affiliates.
- 9 II. THE DESIGN OF THE SUPPLY PLAN FOR DEFAULT SERVICE CUSTOMERS
 10 CONFORMS WITH THE REQUIREMENTS OF ACT 129, SUCH THAT IT
 11 WILL RESULT IN THE LEAST COST OVER TIME FOR THOSE CUSTOMERS
- 12 Q. Have you reviewed the description of the Default Service Programs for the
 13 Companies, provided by Witness Catanach?¹
- 14 A. Yes, I have.

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- 15 Q. Can you provide an overview of the "highlights" of the Default Service Programs?
- 16 The Companies propose to acquire full-requirements, load-following A. Yes, I can. 17 generation service for residential and commercial default service customers through 18 descending-clock auctions for the service period beginning June 2019 and ending May 19 2023. Residential default service load will be priced based on an almost even mix of 20 12-month and 24-month full-requirement fixed-price purchases that account for 95% of 21 load; spot-priced purchases account for the remaining 5% of load. As a result, at any 22 point in time during the default service period, roughly 49.5% of the load obligation will

See Met-Ed/Penelec/Penn Power/West Penn Statement No. 2.

effectively be priced based on one-year purchases, while another 45.5% of load will be priced based on two-year purchases. Spot-priced purchases make up the remainder.

The pricing of commercial default service load will differ slightly in that some share (roughly 32%) will be based on 3-month full-requirements fixed-price purchases, though the majority (roughly 68%) will be based on 12-month and 24-month full-requirements fixed-price purchases. The pricing of industrial default service load will be based on 100% spot market purchases.

Under the Companies' proposal, the auction participants will make offers to supply "tranches," where each tranche represents the full-requirements, load-following generation service obligation for a defined slice (*i.e.*, percentage) of load for a particular default service customer class. Each tranche for the residential class will consist of 5% spot-priced energy (plus a \$20/MWh fixed adder intended to offset other cost components of the full-requirements obligation associated with the spot-priced default service load, including capacity, ancillary services, Network Integration Transmission Service ("NITS") costs, AEPS Act compliance, and other costs). The remaining 95% of the residential class and all of the commercial class energy requirements will be supplied at a fixed price per megawatt hour ("MWh") as bid by the winning auction participants. The customers receiving default service will be billed at a fixed price per kilowatt hour that will change quarterly, with the quarters synchronized to PJM Interconnection, LLC's ("PJM") energy year (that begins on June 1 and lasts through May 31).

There will be separate default service products for each electric distribution company ("EDC") and for commercial and residential customer classes, but these products will be procured simultaneously in the same auction. Auctions will be held every

October/November, January, April, and June. The mix of tranches offered in each auction will vary.

Tranches with a 12-month generation service supply obligation will be auctioned every October/November, January, and April, beginning in October/November 2018 and ending in April 2022. Tranches with a 24-month generation service supply obligation will be auctioned in October/November of 2018 and 2020, as well as in January and April of 2019, 2020 and 2021. Tranches with a 3-month generation service supply obligation will be offered in every auction beginning in April 2019 and ending in January 2023; the 3-month commercial tranches will be the only tranches available in the June auctions. Met-Ed/Penelec/Penn Power/West Penn Exhibit JHC-1 provides a timeline showing the auction procurement schedule by load type and the duration of the supply obligation.

The winning bidders for the full-requirements, load-following procurements for the residential, commercial, and industrial classes will be responsible for energy, capacity, ancillary services, relevant PJM fees and administrative expenses, and certain transmission costs associated with their share of default service load (including congestion costs and marginal transmission losses, and NITS costs). They will not be responsible for: Regional Transmission Expansion Plan charges; Expansion Cost Recovery Charges; Reliability Must Run/generation deactivation charges; historical out-of-market adjustments related to tie lines, generation, and retail customer metering costs; unaccounted-for energy costs; or any Federal Energy Regulatory Commission-approved reallocation of PJM Regional Transmission Expansion Plan charges related to Docket No. EL05-121-009 (collectively referred to as "non-market-based charges," or "NMB charges"). The costs associated with NMB charges will be charged to customers directly

through a non-bypassable tariff rider (i.e., the Companies' Default Service Support Riders).

For the industrial class, 100 percent of load will be acquired through an auction process in which suppliers bid on a full requirements, load-following product whose energy price is set at the PJM real-time price. In addition to a fixed adder of \$4/MWh intended to cover capacity, ancillary services, NITS, AEPS Act compliance, and other costs associated with meeting this full-requirements obligation, suppliers may bid an additional adder over the PJM real-time price to cover any remaining costs or provide a potential profit margin. Industrial class auctions for each EDC will be held every January from 2019 to 2022, and these procurements will occur at the same time as the auctions for the residential and commercial classes.

In addition to the above areas of responsibility, suppliers of the full requirements, load-following tranches will bear the costs of complying with AEPS Act requirements. In particular, default service suppliers in the Met-Ed, Penelec, and Penn Power service territories will be responsible for meeting 100% of the non-solar Tier I and Tier II AEPS Act requirements. Met-Ed, Penelec, and Penn Power will procure all necessary SPAEC requirements on behalf of default service suppliers and competitive electric generation suppliers that serve load in their respective service areas. In the West Penn service territory, default service suppliers will be responsible for all Tier I and Tier II AEPS Act requirements (including SPAECs), less any Tier I alternative energy credits ("AECs") and SPAECs that are allocated to the default service suppliers from existing long-term purchases made by West Penn.

Q. In your opinion, does the term length of the procured products satisfy the requirements of Section 3.2 of Act 129, which specifies that the procured electric power for default service customers include a prudent mix of spot market purchases, short-term contracts and long-term purchase contracts?

A. Yes. The procurement design comprises a prudent mix of spot purchases, short-term contracts, and long-term purchases as required by the statute. The use of 12-month and 24-month purchases should provide some measure of cost stability, which is a desired attribute in procuring generation supply for default service. The 5 percent of residential load that is priced according to the PJM real-time market, and the 32% of commercial load that is priced based on quarterly purchases, provides customers some exposure to short-term price signals. The risk associated with purchasing SPAECs, which have exhibited substantial price movements in past years (and have been the subject of recent legislation that changes the definition of solar facilities eligible to produce SPAECs), is partially offset through past long-term purchases (e.g., 10 years) that have delivery obligations running through the default service period.

² The Commission's Final Order in Docket No. L-2009-2095604 (Implementation of Act 129 of October 15, 2008; Default Service And Retail Electric Markets) recognizes that relative cost stability is an objective in procuring default service supply:

As stated earlier in this Order, the "least cost over time" standard should not be confused with the presumption that default prices will always equal the lowest cost price for power at any particular point in time. In implementing default service standards, the Commission must be concerned about rate stability as well as other considerations such as ensuring a "prudent mix" of supply and ensuring safe and reliable service. In our view, a default service plan that meets the "least cost over time" standard should not have, as its singular focus, the achievement of the absolute lowest cost over the default service plan time frame but rather a cost for power that is both relatively stable and also economical relative to other options (p. 40).

- Q. Do you believe that the Companies' Default Service Programs are consistent with the requirement in Section 3.4 of Act 129 that they be designed to ensure "the least cost to customers over time"?
- Yes, I do. As I have explained in prior testimony, 4 the use of a competitive process to A. procure a full-requirements product is designed to induce aggressive bidding among suppliers who can manage portfolios of energy, transmission, and capacity products to meet the load obligations of a given class of customers. The competitiveness of the bidding process, coupled with the nature of the product that is being procured, will result in an outcome where the suppliers who can manage those portfolios at the least cost over 10 time (or who believe that they can obtain the components of their portfolios at the lowest prices over time) are the winning bidders.
- 12 How does the reliance upon a full-requirements product contribute to a Q. 13 procurement strategy that is designed to ensure "the least cost to customers over 14 time" as required under Act 129?
 - A. A full-requirements product, known as a "tranche," is a clearly defined product. It represents a defined percentage of the load of a particular customer class that the default service supplier must serve, including the provision of energy, capacity, ancillary services, transmission services and NITS (but excluding NMB charges). Default service suppliers also are responsible for fulfilling some requirements of the AEPS Act, as I described earlier in my testimony. With a clear product definition established in this fashion, all bidders will bid to supply an identical product, so that winning bidders are

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⁶⁶ Pa.C.S. § 2807(e)(3.4).

See DSPI, Met-Ed/Penelec Statement No. 8; DSPII, Met-Ed/Penelec/Penn Power/West Penn Statement No. 6; DSPIII, Met-Ed/Penelec/Penn Power/West Penn Statement No. 3; and DSPIV, Met-Ed/Penelec/Penn Power/West Penn Statement No. 2.

chosen purely on the bas	is of their price offers.	This will lead to a	transparent and
efficient bidding process.			

By bidding on a full-requirements product that must be supplied at a fixed price per MWh, the suppliers assume various risks, such as those relating to price uncertainty and volumetric uncertainty due to variations in weather, customer shopping behavior, fuel prices facing generators, and other market factors. Those suppliers who consider themselves to be the most adept portfolio managers (or who are the most optimistic portfolio managers) in terms of handling these risks will place the lowest bids in the procurement. Thus, the procurement process is intended to rely on the skills of the best electric power portfolio managers to achieve the least cost over time for default service customers while maintaining a certain degree of rate stability.

The Commission appears to accept this viewpoint as well, as stated in its discussion of full-requirements procurements in the Final Rulemaking Order in Docket No. L-2009-2095604⁵:

The major benefit associated with the FR [full-requirements] approach is that the procurement function is delegated to the electric supplier which is presumably better equipped with the necessary personnel and infrastructure to perform the activities associated with acquiring electric supplies in the complex and ever changing wholesale market environment. The FR process insulates default supply customers from the volatility associated with wholesale market conditions with the supplier bearing the risks of factors such as customer migration, weather, load variation and economic activity (p. 54).

⁵ Implementation of Act 129 of October 15, 2008; Default Service and Retail Electric Markets; Docket No. L-2009-2095604 (Final Rulemaking Order dated Oct. 4, 2011) ("2011 Final Rulemaking Order"). The Commission's Tentative Order and Final Order in Investigation of Pennsylvania's Retail Electricity Market: End State of Default Service, Docket No. I-2011-2237952, also support the use of full-requirements procurements to

- Q. How does the reliance upon full-requirements products compare to the alternative where the EDC instead uses a managed portfolio approach?
- A. In comparing the merits of a full-requirements approach versus a managed portfolio approach to procuring generation supply for default service customers, the Commission has previously expressed concern that the managed portfolio approach could produce higher costs and greater pricing risk for consumers if the EDC does not prove to be an adept portfolio manager.

For example, the Commission has previously stated as follows:

On balance, we are not persuaded that the MP [managed portfolio] approach is superior to the FR approach in achieving the "least cost to customers" while also achieving the other objectives of "prudent mix" of products and price stability. The MP approach has clear advantages to the retail markets and the retail customer <u>provided</u> the EDC is capable of performing the full range of portfolio management functions....Our principal concerns are that EDCs do not currently possess the requisite expertise and infrastructure to perform these portfolio management duties and the risks to retail customers from EDC inexperience in performing these functions is too great. We are also mindful of the fact that the current default supply process, with the EDC acting as the default supplier and distribution entity purchasing its supply from electric suppliers knowledgeable about the workings of the wholesale electric market, is a product of the Competition Act, which created the market structure we now operate within.⁶

Not only is the full-requirements approach intended to conform with the principles of least-cost procurement, the winning bidders are supplying a product that is designed to provide adequate and reliable service. The default service suppliers themselves will not be expected to have difficulty providing such a product, given that its components (*e.g.*, energy, capacity, ancillary services) can readily be acquired through the PJM market.

⁶ 2011 Final Rulemaking Order, pp. 55-56.

Moreover, the use of 12-month and 24-month full-requirements purchases for residential and commercial customers should provide some measure of cost stability for those customers.

4 Q. Have previous full requirements default service procurements resulted in substantial participation?

- A. Yes, there has been substantial participation, based on recent experience with competitive procurements of full-requirements supplies for default service customers in Pennsylvania.

 For example, the number of bidders in default service supply auctions for Met-Ed,

 Penelec, Penn Power, and West Penn has ranged from nine to fourteen for procurements that have taken place through October 2017.
- 11 Q. Have the Companies' previous default service auctions resulted in reasonable prices 12 that reflected expected wholesale market conditions?
- 13 A. Yes, they have. My analysis of the prices resulting from recent default service auctions
 14 conducted for residential and commercial customers of Met-Ed, Penelec, Penn Power,
 15 and West Penn shows that these prices were only slightly above the combined wholesale
 16 energy, capacity, ancillary service, and NITS costs that were projected at the time of each
 17 auction for the corresponding delivery periods.⁸ This analysis is shown in Met18 Ed/Penelec/Penn Power/West Penn Exhibit JDR-1.

Data for the number of participating bidders for Met-Ed, Penelec, Penn Power and West Penn default service auctions under DSP IV were provided by the Companies. The reported range reflects the number of bidders who bid on at least one product in the five procurements held under DSP IV thus far.

⁸ I did not include costs associated with alternative energy credits needed to satisfy AEPS requirements, or PJM RTEP and ECRC costs that were included in default service supplier obligations for auctions with delivery periods falling between June 1, 2011 and May 31, 2013. Given the exclusion of these costs, my estimates of implied risk premiums in providing default service may be somewhat overstated.

I first estimated the expected wholesale energy costs to serve retail loads of residential and commercial customers. For this calculation, I have used PJM West forward prices, which I adjusted for the delivery location by using the difference in spot energy prices between the PJM West hub and the corresponding zonal price (METED, PENELEC, PENN POWER, or APS). I then adjusted these flat prices by the load shape factor of residential and commercial non-shopping customers to reflect the fact that the retail load of these customer classes is, on average, higher during hours with higher prices. The resulting energy prices were in the range of \$29-\$54/MWh for Met-Ed, \$31-\$47/MWh for Penelec, \$32-\$48/MWh for Penn Power, and \$32-\$42/MWh for West Penn.

To calculate the capacity cost component of serving residential and commercial customers, I relied on the PJM Base Residual Auction ("BRA") prices (and the Fixed Resource Requirement Integration Auction prices for Penn Power before Penn Power joined the PJM BRA) for the appropriate delivery periods. Then I converted these capacity prices expressed in dollars per megawatt day ("\$/MW-day") into levelized capacity costs (expressed in \$/MWh) by using the ratio of peak to average load for each customer class. ¹⁰ The resulting levelized capacity prices were in the range of \$10-\$25/MWh for Met-Ed, \$9-\$26/MWh for Penelec, \$2-\$33/MWh for Penn Power, and \$4-\$15/MWh for West Penn.

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For this "basis" adjustment, I used 2010 as my reference year for default service auctions that occurred during 2010 and 2011, 2012 as my reference year for default service auctions that occurred in 2012 and 2013, and 2014 as my reference year for default service auctions that occurred in 2014 and 2015. METED, PENELEC, and APS zonal prices are used for the respective Met-Ed, Penelec, and West Penn basis adjustments. The APS zonal price is used for Penn Power's 2010 and 2011 basis adjustments. The PENN POWER aggregate nodal price reported by PJM is used for Penn Power's adjustments in subsequent years (as Penn Power became part of PJM in mid-2011).

For this capacity price adjustment, I used 2010 load data for default service auctions that occurred during 2010 and 2011, 2012 load data for default service auctions that occurred in 2012 and 2013, and 2014 load data for default service auctions that occurred in 2014 and 2015.

For ancillary service costs, I used the actual 2010 (2012, 2014, 2016) costs of \$1.94 (\$1.92, \$2.41, \$0.97) for default service auctions that occurred in 2010-11 (2012-13, 2014-15, 2016-17).

For NITS costs, I used costs expressed in \$/MW-day as provided by the Companies starting when NITS became the default service supplier's responsibility in June 2013. As I did with the capacity prices, I converted NITS costs into levelized costs (expressed in \$/MWh) by using the ratio of peak to average load for each customer class. The resulting levelized NITS costs were in the range of \$3-\$6/MWh for Met-Ed, \$3-\$6/MWh for Penelec, \$6-\$12/MWh for Penn Power, and \$4-\$6/MWh for West Penn.

Finally, I added together the energy, capacity, ancillary service, and NITS costs to estimate the expected wholesale market cost of serving the residential and commercial customers. This represents my estimate of the expected cost of serving retail customers without accounting for any potential risk premium that default service suppliers may include in their bid prices to reflect volumetric and price uncertainty. I refer to this estimated cost as the "Estimated No-Risk Price", as shown in Met-Ed/Penelec/Penn Power/West Penn Exhibit JDR-1.

My estimated cost of serving retail customers is conservative as it does not include the costs of alternative energy credits needed to meet AEPS requirements, as well as any other costs not described above that are incurred by suppliers of default service. Therefore, the "risk premium" referenced in Met-Ed/Penelec/Penn Power/West Penn Exhibit JDR-1, which is calculated as the difference between the auction price and the sum of the expected cost of serving the customer (*i.e.*, the sum of energy, capacity,

¹¹ I used the same load data for the NITS cost adjustment as for the capacity price adjustment.

ancillary services, and NITS costs), may be larger than the "true" risk-premium to the extent that any material costs have been omitted.

In spite of the conservatism of my cost calculations, the average difference between the auction price and expected cost is relatively modest. The average risk premiums expressed in \$/MWh were \$3.72/MWh for Met-Ed, \$2.71/MWh for Penelec, \$2.53/MWh for Penn Power, and \$2.88/MWh for West Penn. Expressed as a percentage of the Estimated No-Risk Price, the risk premiums were, on average, 6.97% for Met-Ed, 5.06% for Penelec, 3.92% for Penn Power, and 5.28% for West Penn. My results are summarized in Table 1, and further detail is provided in Met-Ed/Penelec/Penn Power/West Penn Exhibit JDR-1.

Table 1: Average Estimated Risk Premium in Default Service Full-Requirements Auctions (2010-2017)

EDC	Risk Premium (\$/MWh)	Risk Premium (% of No-Risk Price)
Met-Ed	3.72	6.97%
Penelec	2.71	5.06%
Penn Power	2.53	3.92%
West Penn Power	2.88	5.28%

Source: The Brattle Group.

Α.

Q. What are the advantages of conducting a simultaneous procurement for Met-Ed, Penelec, Penn Power, and West Penn?

By conducting a simultaneous procurement for the Companies for all classes, more potential bidders can be attracted to the procurement process. Transaction costs for both bidders and those soliciting supply also can be reduced through a simultaneous procurement. When the procurement mechanism is a simultaneous, multi-round, descending-clock procurement, bidders can switch from one utility's product to another

in response to price differences that they believe are not reflective of underlying supply cost differences. This behavior leads to a potentially more economically efficient outcome and contributes to pricing that is more consistent among the four Companies.

By procuring in this fashion, the prices of default service for Met-Ed, Penelec, Penn Power and West Penn customers are more closely related to each other (*i.e.*, one is not low-priced or high-priced relative to the others simply because it was procured at a different point in time). This provides the added benefit of simplifying administration and regulatory oversight.

By contrast, even if the auctions occur only days apart, a sequential default service auction process among the different Companies could lead to price disparities that do not reflect actual differences in generation supply costs across the EDCs. Under a sequential auction process, generation suppliers for default service customers must make strategic decisions on how much supply to offer and what price to accept in one EDC's auction, based on their expectations of the results of subsequent EDCs' auctions. With a simultaneous auction process, a generation supplier can determine how much supply to offer to a given EDC based on the current auction prices for that EDC and all other Companies.

Q. Do the proposed procurement formats conform with the requirements of Section 3.1 of Act 129?

20 A. Yes, they do. Section 3.1 specifies that:

"...the default service provider shall provide electric generation supply to that customer pursuant to a commission-approved competitive procurement plan. The electric power acquired shall be procured through

1 2		competitive procurement processes and shall include one or more of the following:
3		(i) auctions;
4		(ii) requests for proposal;
5 6		(iii) bilateral agreements entered into at the sole discretion of the default service provider" ¹²
7 8		The procurement format proposed by the Companies is a descending-clock auction
9		process, as explicitly permitted by Section 3.1(i).
10	Q.	Is the proposed procurement format designed to achieve a competitive result, which
11		would be essential to achieving the least cost to customers over time?
12	A.	Yes, the auctions are designed to produce competitive outcomes as they are
13		nondiscriminatory, fair, and open. An auction mechanism encourages supplier
14		participation and is therefore aimed at achieving the least cost by selecting the
15		lowest-priced bids.
16		The descending-clock auction format is nondiscriminatory because any party can
17		participate as long as it satisfies the criteria used in the application process.
18		This procurement format is fair and transparent, because suppliers clearly understand
19		how the final solicitation prices are determined and how to compete for a winning
20		position.
21		In a descending-clock auction, each of the bidders can observe the prevailing price during
22		each round of the auction. Each bidder can then determine whether it is in their
23		economic interest to continue supplying the desired product at the current price as the
24		price falls from one round to the next. The auction ends when prices have decreased to

¹² 66 Pa.C.S. § 2807(e)(3.1).

the point where enough bidders have dropped out, such that the amount of power that remaining active bidders are willing to supply equals the amount of power needed.

A.

The rules of the descending-clock auction are pre-specified in a way that can be thoroughly replicated and verified. Because bidders are pre-qualified, the evaluation of bids is on a price-only basis, which is intended to produce a fair, least-cost result.

The openness and transparency of the auction format encourages participation in the bidding process. With a procurement format that encourages supplier participation, the winning bidders are those that offer to supply full-requirements service at the lowest prices (*i.e.*, the least cost). This process is consistent with achieving a competitive outcome.

Q. Why is it that the superior portfolio managers will place the lowest bids in these full-requirements procurements?

To serve default service customers, a prospective supplier must assemble a portfolio comprised of competitively priced wholesale products, such as fixed-price, fixed-quantity forward energy purchases and long-term energy contracts. Prospective suppliers are likely to pay similar prices for forward energy purchases, implying that differences in their auction bids are principally related to perceived differences in the cost of satisfying uncertain customer load, as well as perceived differences in the cost of bearing other sources of risk.

The suppliers submitting the lowest bids will be those that are the most efficient portfolio managers (or otherwise require the least compensation for bearing pricing and volumetric risk) or those that are most optimistic about the possibility of relatively low spot and

forward prices over the course of the delivery period. In this fashion, the Companies'

default service programs are designed to achieve the least cost to customers over time.

Q. Doesn't the competitiveness of the auction procurement process depend on the competitiveness of the underlying wholesale market?

Α.

Taking the competitiveness of the wholesale market as given, the auction process, by itself, can be competitive if it has sufficient participation. A concern might arise, however, that the wholesale market is not competitive, leading to insufficient auction participation and a less than fully competitive outcome because prospective suppliers are not confident in their ability to obtain physical power supplies at reasonable prices.

However, there is ample reason to believe that the wholesale market is sufficiently competitive to support a competitive pricing outcome for the Companies' default service auction process. The PJM wholesale market, including the forward and spot markets that are relevant to supplying Met-Ed, Penelec, Penn Power and West Penn, has numerous potential suppliers.

PJM's markets have an active market monitor, and the PJM day-ahead and real-time markets have procedures in place to mitigate abuses of market power. Specifically, PJM has stringent *ex ante* mitigation processes that impose cost-based restrictions on the bids of wholesale suppliers in its day-ahead and real-time markets whenever structural conditions exist that may lead to potential exercises of market power. This mitigation indirectly constrains longer-term forward prices as well, given that forward prices are representative of expected future spot prices and that energy purchasers can substitute between products of different durations. Besides its energy markets, PJM also has market power mitigation processes in its capacity markets.

As mentioned above, participation in the Companies' default service supply auctions
would likely be hindered if prospective participants were concerned that PJM's wholesale
markets were not competitive, or that energy trading in PJM was not sufficiently robust
to avoid incurring substantial transactions costs. However, past results suggest that this is
not the case, as there have historically been anywhere from nine to fourteen bidders in
recent full-requirements procurements for Met-Ed, Penelec, Penn Power, and West Penn.

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- Q. Are there contingency plans in place for alternative procurement strategies if any given auction appears to attract limited interest or if a winning supplier subsequently defaults on its obligation before or during a delivery period?
- 10 A. Yes. As described in detail by Mr. Catanach, the Companies are proposing to continue 11 the contingency plans that were previously approved by the Commission as part of their 12 current default service programs.
- Do you think that the plan to obtain SPAECs for Met-Ed, Penelec, and Penn Power 13 Q. 14 through additional two-year purchases made through a competitive process is also 15 consistent with the requirement to produce "the least cost to customers over time"? 16 Yes, as I mentioned previously, Pennsylvania SPAEC prices have shown substantial A. 17 volatility historically. While the market for SPAECs in Pennsylvania appears somewhat 18 oversaturated at the current time, given that available capacity to supply SPAECs is well 19 in excess of current RPS requirements, the ramp-up of RPS requirements over time will

cause the market to naturally tighten (absent further construction of solar facilities).

Moreover, the amendment to the AEPS Act contained in the recently approved Act 40 of 2017¹³ has the potential to significantly tighten the market in the next few years (particularly, if existing PA-certified facilities located outside of the state are not "grandfathered in"). For that reason, the fixed-term SPAEC purchases made via a competitive process that are part of the default service plan, as described in the testimony of Witness Catanach, are desirable for their ability to increase cost stability for default service customers.

8 III. CONCLUSION

- Q. Can you summarize how the proposed plan to procure full-requirements service for default service customers leads to the "least cost to customers over time" in the provision of default service supply?
 - A. Yes. Under the proposed plan, the Companies will use an auction process to acquire generation to satisfy 95% of the residential and 100% of the commercial default service load through full-requirements load-following procurements of 3-month (for commercial customers), 12-month, and 24-month durations. The remaining 5% of residential load will be from the PJM spot market (where a \$20/MWh adder is also applied). All load obligations will be priced based on the results of these fixed-priced procurements of differing duration.

Industrial default service load will be priced based on the PJM real-time market, plus a \$4/MWh adder. Suppliers will compete for this load through an auction process where they will bid an additional adder to cover any costs (or profit margin requirements) that

For the full text, refer to the following: http://www.legis.state.pa.us/cfdocs/billinfo/bill_history.cfm?syear=2017&sind=0&body=H&type=B&bn=118

remain after the \$4/MWh adder, which is intended to defray a portion of the capacity, ancillary services, NITS, AEPS Act, and other costs that are part of the full-requirements obligation.

The winners of the fixed-price full-requirements, load-following auctions must function as portfolio managers by procuring a combination of energy, capacity, ancillary services, and certain transmission products needed to ensure adequate and reliable service to default service customers in the face of load and price uncertainty. Because the winners in these auctions will be the ones that offer default service supply at the lowest reasonable prices, the proposed descending clock auctions necessarily choose as winning bidders those suppliers that can provide this portfolio of products at the least cost over time (or that believe that they can provide this portfolio at the least cost). As a result, the proposed supply plan produces the least cost over time relative to other procurement methods, assuming that the procurements themselves are competitive.

The procurement format (a descending-clock auction) is designed to be open, fair, and transparent. Supplier participation is encouraged as bidders are pre-qualified through an open, transparent application process, where relevant information about the procurement is posted to a public website. By accounting for any non-price factors such as bidder creditworthiness in the qualification requirements, the bids are evaluated on a price-only basis, which leads to a lowest price outcome. In this fashion, the procurement process and the supply plan work together to achieve the least cost to customers over time.

21 Q. Does this conclude your direct testimony?

22 A. Yes, it does.

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Dr. James D. Reitzes received his B.A. in economics and history from Stanford University, and his Ph.D. in economics from the University of Wisconsin. He specializes in providing economic analyses and expert testimony pursuant to regulatory proceedings and strategy work in the energy and transportation sectors and litigation in the areas of antitrust and competition.

Dr. Reitzes has provided expert analysis and testimony in energy-related competition and regulatory matters before the Federal Energy Regulatory Commission, state public utility commissions, and federal antitrust agencies. In the transportation sector, he has offered expert analysis and testimony in proceedings involving the U.S. Department of Transportation, U.S. Department of Justice, the European Commission, the European Court of First Instance, and national antitrust authorities. He also has provided economic consulting services to clients in the United States, Canada, the European Union, South America, and Africa.

Since joining The Brattle Group as a Principal in April 1998, Dr. Reitzes has been involved in energy regulatory, strategy, and litigation matters for utilities, RTOs, cooperatives, municipal power providers, and industrial customers. Most recently, Dr. Reitzes has been involved in formulating and managing auction and RFP processes for procuring and selling electric power supplies (including renewable power and renewable energy credits), assessing the competitive impact and efficiencies arising from integration and consolidation in natural gas transport markets, valuing investments in specified electric generation assets as well as purchases of energy and capacity (in comparison to other generation or procurement alternatives), analyzing the value and risks associated with particular features of power purchase agreements and EPC contracts, designing energy procurement strategies to support standard-offer service obligations, critiquing market-monitoring policies and market design features of electric power markets, assessing the competitive implications of mergers and acquisitions in power markets, providing analyses of alleged market manipulation and exercises of market power in the energy sector, and designing transitional regulation strategies.

Dr. Reitzes has authored several articles on firm strategies with respect to pricing, quality, R&D investment, and merger behavior, published in leading economics and legal journals. He also is an author of a book that assesses the domestic impact of U.S. international trade policies.

REPRESENTATIVE ENERGY SECTOR EXPERIENCE

Procurement (Auction) Management, Design, and Bidding Strategy

• For three utilities in Pennsylvania, designed and managed the procurement of solar photovoltaic alternative energy credits (SPAECs) on multiple occasions and submitted testimony describing the procurement process and benchmarking the results against expected market prices. Responsibilities included: (i) designing the auction rules and bid



forms; (ii) overseeing the provision of auction-related information on the procurement website; (iii) corresponding with interested bidders; (iv) interacting with company personnel regarding bidder credit issues; (v) hosting bidder information sessions; (vi) evaluating bid materials; (vii) building a financial model to determine the likely value of the solar energy credits; (viii) providing a benchmarking study to determine if the bids were reflective of market fundamentals; and (ix) drafting a report to the Pennsylvania Public Utility Commission to secure approval of the procurements.

- For utilities in Ohio, submitted testimony that described the design, management, and implementation of an auction process to serve standard service offer customers. Also participated in the development of software to implement the auction process and identify the winning bidders.
- For an owner of a merchant transmission line connecting PJM with NYISO, designed and managed an RFP process to sell transmission scheduling rights on multiple occasions. Responsibilities included: (i) designing the auction, its rules, and the bid forms; (ii) developing marketing materials and conducting various types of market analyses to assist bidders in understanding the value proposition offered by the transmission rights; (iii) identifying potentially interested bidders; (iv) assisting in the development of other auction materials including bidder participation agreements and purchase and sale contract provisions; (v) hosting a website and overseeing the provision of auction-related information through the website; (vi) communicating with potential bidders; (vii) responding to bidder questions and posting answers to those questions on the auction website; (viii) interacting with the client regarding a variety of bidder-related issues; (ix) selecting the winning bidders; and (x) preparing a report describing the auction process that was submitted to the Federal Energy Regulatory Commission.
- For an owner of another merchant transmission line connecting PJM with NYISO, designed and managed an RFP process to sell transmission scheduling rights. Responsibilities included: (i) designing the auction, its rules, and the bid forms; (ii) identifying potentially interested bidders; (iii) providing analyses to describe the value proposition offered to holders of transmission rights for the line; (iv) developing other marketing materials; (v) assisting in the development of other auction materials such as bidder qualification forms and purchase and sale agreements; (vi) hosting a website and overseeing the provision of auction-related information through the website; (vii) communicating with potential bidders; (viii) responding to bidder inquiries;



- (ix) interacting with the client regarding a variety of bidder-related issues; (x) selecting the winning bidders; and (xi) assisting in the preparation of a report submitted to the Federal Energy Regulatory Commission describing the auction process.
- For a municipal power provider that was a partial owner of a power plant in Illinois, designed and managed an RFP process to either sell the ownership stake in the plant or alternatively sell the output entitlement through a long-term PPA agreement. Responsibilities included: (i) developing target sale structures; (ii) formulating a schedule for completing the sale; (iii) developing the RFP documents and bid process tools; (iv) soliciting interest for the sale; (v) managing the RFP bid process; (vi) qualifying the bids; (vii) evaluating final bids and assisting in the negotiation of final terms; and (viii) preparing a report summarizing the RFP process.
- For an unregulated trading affiliate of a regulated utility, provided strategic bidding advice and financial analysis in a multi-round ascending clock auction to acquire PPAs for virtually divested generation assets. Assisted in the development of financial models to value the various PPAs, and in formulating between-round bidding strategies, including helping with algorithms to estimate the remaining amount of eligibility of competing bidders.
- Have been part of the Brattle team serving as the Independent Auction Monitor (IAM) for the Southern Company energy auction. Southern Company must supply its excess power resources under specified terms and conditions into a day-ahead and hour-ahead energy auction that is overseen by an external monitor. Our role is to: (i) verify Southern's calculations of available capacity to offer into the auctions; (ii) confirm that any transmission service necessary to accommodate a purchase under the auction is not unreasonably withheld; (iii) verify that the auction has cleared properly; (iv) ensure that internal data control restrictions are maintained to protect bidder information; (v) report complaints to the FERC; and (vi) independently file reports with the FERC regarding the auction.
- For industrial customers and municipalities in Texas in a stranded cost proceeding, submitted testimony to the Public Utility Commission of Texas that analyzed auction design issues pertaining to the sale of generation assets, including the potential impact on sale prices of conducting an auction when an outside entity has a right-of-first-refusal (ROFR) to purchase the assets at the winning auction price.



Retail Market Design and Power Procurement for Standard-Offer Service Customers

- For a utility in Pennsylvania, submitted testimony that analyzed cost and risk differences
 associated with full-requirements versus block-and-spot procurements of power supplies
 for default service customers. Analysis included estimates of the implied price premium
 for covering volumetric and pricing risk that was associated with past procurements of
 full-requirements power supplies, showing that this premium was relatively modest in
 size.
- For a utility in Pennsylvania, submitted testimony that estimated the expected level and variance in procurement costs associated with different portfolio strategies for providing electric power to default service customers. Analysis showed how different portfolio combinations of spot and forward purchases were likely to perform under different assumptions regarding the timing and frequency of forward purchases.
- For a utility in Maryland, submitted testimony that assessed differences in the expected cost and risk profile of different portfolio strategies for procuring power supplies for standard offer service customers. Analyzed how the use of a fixed-price default service product without switching restrictions provides customers with a potentially valuable option that may significantly increase the cost of supplying default service customers with full-requirements power. Assessed how load uncertainty affects the cost and risk of providing default service.
- For a utility in Pennsylvania, submitted testimony that assessed methods of supplying default service customers and the relationship between various facets of default service policy and the development of increased shopping by retail, residential, and commercial customers. Testimony analyzed the impact on customer shopping rates (and the competitive retail electric market) arising from the imposition of an "adder" to the price-to-compare, as well as from holding a retail opt-in auction subsequent to the purchase of power supplies for default service customers. Testimony also analyzed the magnitude of the "risk premium" embedded in the prices of past auctions to acquire full-requirements power supplies for default service customers.
- For a utility in Ohio, assessed a utility's proposed rate plan for self-supplying generation service to standard service offer customers, and compared its costs against the costs of procuring power from market sources under full-requirements contracts.



Asset Valuation

- For the City of San Antonio, performed a valuation of a nuclear power plant, and compared its value against alternative technologies including gas-fired, wind, and solar powered generation. Our analysis included a risk assessment of how the plant's value could be affected by changes in natural gas prices, environmental policy, and construction costs. Historical volatilities and implied volatilities derived from options were used to derive a distribution of potential valuation outcomes. Our results were submitted in a public report and hearing, as well as in briefings to the Mayor, City Manager, City Council, and the public.
- For a major overseas utility and investor in generation assets, performed a valuation of a proposed nuclear power plant in ERCOT and estimated the values of different types of PPAs associated with the output of the power plant. Made recommendations as to various structures for potential PPA agreements, and performed valuations associated with changes in individual PPA features. Identified potentially interested counterparties for PPA agreements. Also, performed a valuation analysis for the power plant for the "residual" period beyond the expiration of the PPA agreements. This analysis required predicting the expected level and variance of future power prices under differing outcomes regarding the price of natural gas and greenhouse gas policy.
- For a group of municipal power providers and industrial customers, performed a valuation of various power plants for a stranded cost proceeding. Built a financial model to estimate the assets' values at the time as sale, as well as analyzed comparable transactions to form an alternative valuation estimate.
- Built financial model to perform valuation analysis of renewable energy credits. This
 model was used to evaluate the results of several procurements of solar renewable energy
 credits conducted by Pennsylvania utilities, and the results of the model were presented
 to the Pennsylvania Public Utility Commission.
- On several occasions for utilities in the Mid-Atlantic and Midwest regions, have used
 multi-factor risk models to estimate the expected cost and cost distribution associated
 with different portfolio strategies for procuring power supplies for default service
 customers.



Competition Analysis

- For a merger of two major utilities in the western United States, estimated the pricing
 impacts associated with alternative generation divestiture scenarios through the use of a
 Cournot oligopoly simulation model. Assisted in the drafting of testimony related to the
 merger's impact on competition and other issues.
- For an independent power producer, submitted testimony to FERC assessing the
 competitive impacts of a high-profile merger involving two major utilities and generation
 owners within PJM, as well as the competitive effects associated with specific proposed
 market power mitigation measures.
- For a group of municipal power companies, analyzed a proposed merger involving two
 major utilities with generation supplies in the mid-atlantic and midwest regions.
 Reviewed the Delivered Price Test (DPT) analysis conducted on behalf of the merger
 applicants, and analyzed the sensitivity of applicants' results to changes in assumptions
 regarding power prices, gas prices, and available suppliers of imported power into the
 geographic area of interest.
- For two merging utilities in New York, analyzed vertical market power issues related to the merged entities' ownership of both transmission and generation assets, including the strategic use of transmission outages and other forms of transmission withholding to induce increases in power prices. Examined potential pricing impacts with the aid of security-constrained, least-cost dispatch generation model.
- For PJM, served as the lead author of a Brattle study that analyzed PJM's protocols for
 mitigating market power, comparing those protocols to the ones used in other major RTO
 markets and internationally (e.g., the United Kingdom, Australia, and Nordpool). Made
 recommendations for potential changes to PJM's market power mitigation practices, and
 presented findings to various PJM member committees.
- For two merging electric and gas utilities with overlapping service territories in New England, analyzed the competitive impacts of their merger, specifically as it related to market power concerns arising from the supply of gas to dual-fuel industrial customers, interconnection policy with respect to industrial customers, and vertical market power issues related to supplying gas to competitive generation suppliers. Presented analysis to Federal Trade Commission attorneys and economists.



- For two merging electric and gas utilities in North Carolina, analyzed the competitive impact of the merger on gas transport markets and the price of delivered gas to North Carolina customers, including competing generation suppliers. Submitted analysis to the North Carolina Utilities Commission along with an expert report.
- For an owner and operator of natural gas pipelines, provided a white paper to the
 competition authorities that presented a framework for analyzing the cost and benefits of
 further consolidation of pipeline ownership, and assessed the efficiencies that have arisen
 from prior consolidations of complementary pipeline assets.
- For the U.S. government, analyzed the pricing impacts arising from an alleged cornering of a major commodity market for an oil and gas derivative product. Formulated and estimated an econometric model to identify whether an "artificial price" had resulted from the alleged behavior consistent with the exercise of significant market power. Also provided estimates of damages attributable to the price overcharges stemming from the alleged manipulation.

PUBLICATIONS

Journals

"Domestic Versus International Capital Mobility: Some Empirical Evidence," with Donald J. Rousslang, *Canadian Journal of Economics*, Vol. 21, No. 2 (May 1988): 312-323.

"The Impact of Quotas and Tariffs on Strategic R&D Behavior," *International Economic Review*, Vol. 32, No. 4 (November 1991): 985-1007.

"Anticompetitive Effects of Mergers in Markets with Localized Competition," with David T. Levy, *Journal of Law, Economics, and Organization*, Vol. 8, No. 2 (April 1992): 427-440.

"Quality Choice, Trade Policy, and Firm Incentives," *International Economic Review*, Vol. 33, No. 4 (November 1992): 817-835.

"Basing-Point Pricing and Incomplete Collusion," with David T. Levy, *Journal of Regional Science*, Vol. 33. No. 1 (February 1993): 27-35.

"Ocean Shipping Economics: Comment," Contemporary Policy Issues, Vol. 11, No. 3 (July 1993): 81-85.

"Product Differentiation and the Ability to Collude: Where Being Different Can Be an Advantage," with David T. Levy, *Antitrust Bulletin*, Vol. 38, No. 2 (Summer 1993): 349-368.



"Antidumping Policy," *International Economic Review*, Vol. 34, No. 4 (November 1993): 745-763 [reprinted in Douglas R. Nelson and Hylke Vandenbussche editors, *The WTO and Anti-Dumping: Volume 1* (Cheltenham, UK: Edward Elgar Publishers, 2005): 392-410].

"The Importance of Localized Competition in the 1992 Merger Guidelines: How Closely Do Merging Firms Compete?" with David T. Levy, *ABA Antitrust Law Journal*, Vol. 62, No. 3 (Spring 1994): 695-716.

"Market-Share Quotas," with Oliver R. Grawe, *Journal of International Economics*, Vol. 36, No. 3/4 (May 1994): 431-447.

"Price Discrimination and Mergers," with David T. Levy, *Canadian Journal of Economics*, Vol. 28, No. 2 (May 1995): 427-436.

"In the Matter of Weyerhaeuser Company: The Use of the Hold-Separate Order in a Merger with Horizontal and Vertical Effects," with Robert P. Rogers and Laurence Schumann, *Journal of Regulatory Economics*, Vol. 11, No. 3 (May 1997): 271-289.

"Market Power and Collusion in the Ocean Shipping Industry: Is a Bigger Cartel a Better Cartel?" with Paul S. Clyde, *Economic Inquiry*, Vol. 36, No. 2 (April 1998): 292-304.

"Is it Efficient to Impose Costs on Small-Volume Equity Traders?" with Paul S. Clyde, *International Journal of the Economics of Business*, Vol. 6, No. 1 (April 1999): 81-92.

"Lessons from the First Year of Competition in the California Electricity Markets," with Robert Earle, Philip Hanser, and Weldon Johnson, *The Electricity Journal*, Vol. 12, No. 8 (October 1999): 57-76.

"Entry Policy and Entry Subsidies," with Oliver R. Grawe, *Review of International Economics,* Vol. 7, No. 4 (November 1999): 715-731.

"Deregulation and Monitoring of Electric Power Markets," with Robert L. Earle and Philip Q Hanser, *The Electricity Journal*, Vol. 13, No. 8 (October 2000): 11-25.

"Strategic Pricing When Electricity Is Storable," with Alfredo Garcia and Ennio Stachetti, *Journal of Regulatory Economics*, Vol. 20, No. 3 (November 2001): 223-247.

"Rolling Seas in Liner Shipping," with Kelli L. Sheran, *Review of Industrial Organization*, Vol. 20, No. 1 (February 2002): 51-59.

"Regional Interactions in Electricity Prices in the Eastern United States," with Gregory R. Leonard, Adam C. Schumacher, and James G. Bohn, in Michael A. Crew and Joseph C. Schuh editors, *Markets, Pricing, and Deregulation of Utilities* (Boston: Kluwer Academic Publishers, 2002): 109-142.

"Designing Standard-Offer Service to Facilitate Electric Retail Restructuring," with Lisa V. Wood, J. Arnold Quinn, and Kelli L. Sheran, *The Electricity Journal*, Vol. 15, No. 9 (November 2002): 34-51.



"Can Mergers to Monopoly, Price Fixing, and Market-Division Agreements Raise Welfare?" with Paul S. Clyde, *International Journal of the Economics of Business*, Vol. 11, No. 1 (February 2004): 69-90.

"Forward and Spot Prices in Electricity and Gas Markets: Does 'Storability' Matter?" with J. Arnold Quinn and Adam C. Schumacher, in Michael A. Crew and Menahem Spiegel editors, *Obtaining the Best from Regulation and Competition* (Boston: Kluwer Academic Publishers, 2005): 109-135.

"Incentive Contracts for Infrastructure, Litigation and Weak Institutions," with Alfredo Garcia and Juan Benavides, *Journal of Regulatory Economics*, Vol. 27, No. 1 (January 2005): 5-24.

"Dynamic Pricing & Learning in Electricity Markets," with Alfredo Garcia and Enrique Campos, *Operations Research*, Vol. 53, No. 2 (March-April 2005): 231-241.

"Estimating the Economic 'Trade' Value of Increased Transmission Capability," with Andrew N. Kleit, *The Electricity Journal*, Vol. 19, No. 2 (March 2006): 69-78.

"International Perspectives on Electricity Market Monitoring and Market Power Mitigation," with Jose A. Garcia, *Review of Network Economics*, Vol. 6, No. 3 (September 2007): 397-424.

"Downstream Price-Cap Regulation and Upstream Market Power," *Journal of Regulatory Economics*, Vol. 33, No. 2 (April 2008): 179-200.

"Airline Alliances and Systems Competition," with Diana Moss, *Houston Law Review*, Vol. 45, No. 2 (Summer 2008): 293-332.

"The Effectiveness of FERC's Transmission Policy: Is Transmission Used Efficiently and When Is It Scarce?" with Andrew N. Kleit, *Journal of Regulatory Economics*, Vol. 34, No. 1 (August 2008): 1-26.

"Competition for Exclusive Customers: Comparing Equilibrium and Welfare under One-Part and Two-Part Pricing," with Glenn A. Woroch, *Canadian Journal of Economics*, Vol. 41, No. 3 (August 2008): 1046-1086.

"Competitive Effects of Exchanges or Sales of Airport Landing Slots," with Brendan McVeigh, Nicholas Powers, and Samuel Moy, *Review of Industrial Organization*, Vol. 46, No. 2 (March 2015): 95-125.

Books

The Regional Welfare Effects of U.S. Import Restraints on Apparel, Petroleum, Steel and Textiles, with Randi Boorstein, Michael Metzger, and Morris Morkre, Avebury Press, 1996.



Completed Studies

"Case Studies of the Price Effects of Horizontal Mergers," *Staff Report of the Federal Trade Commission,* April 1992, with coauthors.

"The Effectiveness of Collusion under Antitrust Immunity - The Case of Liner Shipping Conferences," *Staff Report of the Federal Trade Commission*, December 1995, with coauthor.

"The Effectiveness of Dutch Airport Transport Policy," study prepared for the Dutch Ministry of Transport, December 2002, with coauthors.

"The Economic Impact of an EU-US Open Aviation Area," study prepared for the European Commission - Directorate-General for Energy and Transport, December 2002, with coauthors.

"Study to Assess the Potential Impact of Proposed Amendments to Council Regulation 2299/89 with regard to Computerised Reservation Systems," study prepared for the European Commission - Directorate-General for Energy and Transport, October 2003, with coauthors.

PRESENTATIONS

"Genco Pricing & Genco Asset Values under Deregulation," presented to the Center for Business Intelligence Conference, Chicago, IL, September 18, 1998.

"Ancillary Services: New Business Opportunities in Competitive Ancillary Services Markets," presented at Electric Utility Consultants Workshop on Strategies for Pricing and Selling Ancillary Services, Denver, CO, September 9, 1999.

"Profit-Maximizing Strategies and Gaming: Market Power and Power Markets," presented to the Center for Business Intelligence Conference on Pricing Power Products and Services, Chicago, IL, October 14, 1999.

"Strategic Behavior and Power Market Prices," presented to the EPRI Asset &Risk Management Group, Washington, DC, June 23, 2000.

"Regional Interactions in Electricity Prices in the United States," presented to the CRRI Research Seminar, Newark, NJ, May 3, 2002.

"Standard-Offer Service and Retail Restructuring of Electric Markets," presented to the CRRI Eastern Conference, Newport, RI, May 23, 2002.

"The Economic Impact of an EU-US Open Aviation Area," presented to the U.S. Department of State, the European Commission (US office), and the Heritage Foundation, Washington, DC in 2002 and 2003, and the Association of European Airlines, Brussels, Belgium, 2003.



"Transactions Costs Across Electricity Markets: Does Restructuring Matter?" presented to the CRRI Eastern Conference, Skytop, PA, May 22, 2003.

"Identifying the Relationship between Spot and Futures Prices for Electricity and Natural Gas," presented to the Center for Research in Regulated Industries (CRRI) Research Seminar, Newark, NJ, May 7, 2004, and the CRRI Eastern Conference, Skytop, PA, May 21, 2004.

"Geographic Integration, Transmission Constraints, and Electricity Restructuring," presented to the Federal Energy Regulatory Commission, Federal Trade Commission, Energy Information Administration, in Washington, DC, in 2004 and 2005, and the 10th Annual POWER Research Conference on Electricity Industry Restructuring of the University of California Energy Institute, Berkeley, CA, March 18, 2005.

TESTIMONY/EXPERT REPORTS

Testimony before the Advisory Commission on Conferences in Ocean Shipping, 1991, relating to an econometric analysis of the determinants of ocean freight rates, and the conclusions of that study with respect to the existence of market power in ocean shipping.

Expert Submission - Appendix J, Volume 1, Prehearing Brief on Behalf of Petitioner, Certain Flat Rolled Carbon Steel Products, June 21, 1993, U.S. International Trade Commission Investigation Nos. 701-TA-319-332, 334, 336-342, 344, and 347-353 (final); 731-TA-573-579, 581-592, 594-597, 599-609, and 612-619 (final). Analysis included a critique of methods used to evaluate domestic injury in trade cases. Also authored part of submission for post-hearing brief.

Expert Report Submitted to the European Court of First Instance on Behalf of the European Commission relating to the Petition of the Transatlantic Agreement to Annul the Commission's Decision of October 19, 1994, including a rebuttal of the expert economic analysis offered by the members of the Transatlantic Agreement in support of their collective restrictions on capacity utilization and their coordinated activity in setting certain types of freight rates.

Testimony in the Matter of Henry H. Godfrey v. Benjamin F. Hofheimer, III, *et. al.*, 1995, on behalf of defendant relating to the appropriate calculation of damages in a breach-of-contract dispute.

Expert Report Submitted to the Environmental Protection Agency, 2000, on behalf of a trade group of aluminum smelters assessing the economic costs of revised land-disposal restriction standards for spent aluminum potliners (K088), 2000.

Two Expert Reports Submitted to the U.S. District Court for the District of Maryland, 2001, in the matter of Charles River Associates Inc. v. Hale Trans, Inc., assessing the quality and cost effectiveness of economic expertise provided in a predatory-pricing matter.



Expert Report Submitted to the U.S. District Court for the District of Columbia in the Matter of DAG Enterprises Inc. v. Exxon Mobil Corporation, 2003, regarding the suitability of a prospective purchaser as an acquirer of Mobil assets under the antitrust standards used by the Federal Trade Commission.

Expert Report Submitted to the Federal Energy Regulatory Commission (Docket No. EC05-43-000) 2005 on behalf of Midwest Generation, regarding the competitive impact of the proposed merger of Exelon Corporation and Public Service Enterprise Group and the mitigation measures offered by the parties.

Expert Reports submitted to the U.S. Department of Transportation (Docket No. OST-2004-19214), 2005, on behalf of American Airlines, regarding the competitive impact of the proposed application for antitrust immunity of an airline alliance consisting of Delta, Northwest, KLM, Air France, Alitalia, and Czech Airlines.

Expert Report and Testimony before the Public Utility Commission of Texas (Docket No. 31056), 2005, on behalf of the Cities served by AEP Texas Central Company, the Texas Industrial Energy Consumers, and the Alliance for Valley Healthcare, regarding the competitiveness of an auction held to sell an ownership share in a nuclear power plant and the commercial reasonableness of the actions taken by the seller.

Expert Reports submitted to the U.S. Department of Transportation (Docket No. OST-2005-22922), 2006, on behalf of American Airlines, regarding the competitive impact of the proposed Star Alliance expansion to include LOT and Swiss airlines and expand antitrust immunity between Air Canada and United Airlines.

Expert Report and Testimony before the Public Service Commission of Maryland, (Case No. 9117, Phase 1), 2007 on behalf of Potomac Electric Power Company and Delmarva Power & Light Company, regarding the risks and costs associated with portfolio procurement of electric power supplies as opposed to relying on a full-requirements auction-based procurement method.

Expert Report submitted to the Pennsylvania Public Utility Commission (Docket No. P-0072305), 2008, on behalf of Pennsylvania Power Company, regarding the risks and costs associated with different procurement methods for obtaining electric power supplies to serve default-service customers.

Expert Report and Testimony before the Public Utility Commission of Ohio (Case No. 08-936-EL-SSO), 2008, on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, regarding the rationale for using an auction process to procure full-requirements electric power supplies for standard-service-offer customers, as well as a description of the responsibilities undertaken by myself and The Brattle Group as manager of that procurement.

Expert Report submitted to the Pennsylvania Public Utility Commission (Docket Nos. P-2009-2093053 and P-2009-2093054), 2009, on behalf of Metropolitan Edison Company and Pennsylvania Electric Company, describing the design of an RFP process for procuring solar photovoltaic alternative energy credits and the management of that process by myself and The Brattle Group, as well as an analysis of



the desirability of meeting default service obligations through the auction-based procurement of full-requirements power supplies.

Various Expert Reports submitted between 2008 and 2010 to the U.S. Department of Transportation (Docket No. OST-2008-0252) and the European Commission describing the competitive impact of the proposal by the oneworld alliance to receive antitrust immunity, including various assessments of the impact on non-stop and connecting passengers that relied on econometric analysis of airline fare data and other empirical methods.

Reports submitted to the Pennsylvania Public Utility Commission, 2010, 2011, 2012, and 2013 as the Independent Procurement Manager for the procurement of Solar Photovoltaic Alternative Energy Credits by Metropolitan Edison Company, Pennsylvania Electric Company, and Pennsylvania Power Company including a description of the RFP process, a benchmarking of procurement prices against both current short-term prices and expected long-term prices for solar credits (based on a proprietary financial model), and the conformity of the procurement to the standards of least-cost procurement provided under Pennsylvania law.

Expert Reports (and Deposition) submitted to the U.S. District Court for the Middle District of Tennessee, 2012, in the matter of Watson Carpet & Floor Covering Inc. v. Mohawk Industries Inc., regarding the competitive effects of a carpet manufacturer's alleged refusal to sell its products to a carpet dealer serving production homebuilders in Nashville and surrounding counties.

Expert Reports and Testimony before the Pennsylvania Public Utility Commission (Docket Nos. P 2011-2273650, P-2011-2273668, P-2011-2273669, and P-2011-2273670), 2011 and 2012, on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company, analyzing the Companies' procurement strategies for supplying default service customers, describing the design of an RFP process for procuring solar photovoltaic alternative energy credits (and the management of that process by myself and The Brattle Group), proposing an auction process for outsourcing the provision of generation service for time-of-use customers, describing an "opt-in" auction process to promote the switching of default service customers to competitive retail supply, and describing a customer referral program that is also designed to promote retail competition.

Expert Reports before the Pennsylvania Public Utility Commission (Docket Nos. P-2013-2391368, P-2013-2391372, P-2013-2391375, P-2013-2391378), 2013 and 2014, on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company, analyzing the Companies' procurement strategies for supplying default service customers.

Report submitted and Testimony provided to the Canadian Radio-television and Telecommunications Commission (CRTC Docket No. 2014-76-1), 2014, on behalf of the Canadian Competition Bureau analyzing market power in the wireless market, including an analysis of industry profitability, an assessment of the impact on prices, market shares, profits, consumer surplus, and market penetration arising from the entry of an additional nationwide carrier, and an analysis of the cost impact for incumbent carriers arising from changes in spectrum availability used to accommodate additional entry.



Expert Reports before the Pennsylvania Public Utility Commission (Docket Nos. P-2015-2511333, P-2015-2511351, P-2015-2511355, and P-2015-2511356), 2015, on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company, analyzing the Companies' procurement strategies for supplying default service customers and the competitiveness of the proposed procurement process, and estimating the pricing and volumetric risk premium associated with past procurements.

Expert Report before the North Carolina Utilities Commission (Docket. Nos. E-2 Sub 1095, E-7 Sub 1100, and G-9 Sub 682), 2016, on behalf of Duke Energy, relating to an analysis of potential market power issues and the potential for competitive harm associated with the acquisition by Duke Energy of Piedmont Natural Gas, as it applies to the combination of electric and retail gas activities and the transport and delivery of natural gas.

PROFESSIONAL ACTIVITIES

Consultant to the *World Bank* on the formation of regional trading blocs, the *European Community* (DG IV) on antitrust and transportation issues, and the *Government of Canada* (Competition Bureau) on antitrust and transportation issues.

Advisory Board Member of the Center for Research in Regulated Industries

Member of the Atlantic Energy Group

Referee for the following journals: American Economic Review, Canadian Journal of Economics, Contemporary Policy Issues, European Economic Review, International Economic Review, International Journal of the Economics of Business, Journal of Economics, Journal of Economics and Business, Journal of Economic Integration, Journal of Industrial Economics, Journal of International Economics, Journal of Regulatory Economics, Oxford Economic Papers, and Review of International Economics.

Teaching Experience: Introductory Macroeconomics; Introductory Microeconomics

June 30, 2016



Default Service Full Requirements Auction Price to Expected Wholesale Market Costs: Met-Ed, 2010-2017

Utility	Auction Month	Product	Duration months	Delivery Period Start	Delivery Period End	\$/MW	h	Zonal Premi PJM W \$/MW	est ^r h	\$/MW	Zone Adjusted Price \$/MWh Off Peak Peak		Load Shape Factor %	Load Shape Adjusted Price \$/MWh	Average Capacity Price \$/MWh	Capacity Scaling Factor	Adjusted Capacity Price Adder \$/MWh	Ancillary Services Add-in <i>\$/MWh</i>	Average NITS Rate \$/MWh	NITS Scaling Factor	Adjusted NITS Rate Adder \$/MWh	Estimated No-Risk Price \$/MWh	Auction Price \$/MWh	Estimated Risk	k Premium %
						Off Peak [1]	Peak	Off Peak [2]	Peak	Off Peak [3]		[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
Met-Ed	Oct-10	Commercial	12	Jun-11	May-12	36.95	49.73	1.22	3.74	38.17	53.47	45.32		48.54	5.29	2.33	12.32	1.94	0.00	2.33			63.97	1.17	1.86%
Met-Ed	Oct-10	Residential	24	Jun-11	May-13	37.81	51.46	1.22	3.74	39.03	55.19	46.59		51.76		2.64		1.94	0.00	2.64			66.66		-3.68%
Met-Ed	Jan-11	Commercial	12	Jun-11	May-12	39.70	52.75	1.22	3.74	40.92	56.49	48.20	7.10%	51.62	5.29	2.33	12.32	1.94	0.00	2.33	0.00	65.88	69.97	4.09	6.20%
Met-Ed	Jan-11	Residential	12	Jun-11	May-12	39.70	52.75	1.22	3.74	40.92	56.49	48.20	11.12%	53.56	5.29	2.64	13.96	1.94	0.00	2.64	0.00	69.46	67.43	-2.03	-2.92%
Met-Ed	Jan-11	Residential	24	Jun-11	May-13	39.83	53.34	1.22	3.74	41.05	57.08	48.54	11.12%	53.94	5.87	2.64	15.50	1.94	0.00	2.64	0.00	71.38	70.69	-0.69	-0.97%
Met-Ed	Mar-11	Commercial	12	Jun-11	May-12	38.24	50.88	1.22	3.74	39.45	54.62	46.55	7.10%	49.85	5.29	2.33		1.94	0.00	2.33	0.00		67.34		5.04%
Met-Ed	Mar-11	Residential	12	Jun-11	May-12	38.24	50.88	1.22	3.74	39.45	54.62	46.55	11.12%	51.72		2.64	13.96	1.94	0.00	2.64			67.35		-0.40%
Met-Ed	Mar-11	Residential	24	Jun-11	May-13	39.02	51.86	1.22	3.74	40.24	55.60	47.42		52.69	5.87	2.64	15.50	1.94	0.00	2.64			70.09		-0.06%
Met-Ed	May-11	Commercial	12	Jun-12	May-13	40.76	54.11	1.22	3.74	41.97	57.84	49.40		52.90	6.46	2.33		1.94	0.00	2.33			72.85		4.25%
Met-Ed	Oct-11	Commercial	12	Jun-12	May-13	39.32	52.52	1.22	3.74	40.54	56.25	47.89	7.10%	51.28		2.33		1.94	0.00	2.33			68.00		-0.39%
Met-Ed	Jan-12	Commercial	12	Jun-12	May-13	31.46	41.93	-0.49	0.11	30.96	42.03	36.11	5.21%	37.99	6.46	2.08		1.92	0.00	2.08			56.17	2.82	5.29%
Met-Ed Met-Ed	Jan-12 Mar-12	Residential	12	Jun-12	May-13 May-13	31.46 30.09	41.93 41.33	-0.49 -0.49	0.11	30.96 29.60	42.03 41.43	36.11 35.09	6.95% 5.21%	38.62 36.92	6.46 6.46	2.31 2.08		1.92	0.00 0.00	2.31 2.08			56.19 54.98		1.38% 5.16%
Met-Ed	Mar-12	Commercial Residential	12 12	Jun-12 Jun-12	May-13	30.09	41.33	-0.49 -0.49	0.11 0.11	29.60	41.43	35.09	6.95%	37.53	6.46	2.31		1.92 1.92	0.00	2.31			55.83		2.74%
Met-Ed	Jan-13	Residential	24	Jun-12 Jun-13	May-15	31.69	44.70	-0.49	0.11	31.19	44.81	37.52		40.13	8.45	2.31		1.92	1.73	2.31			67.71	2.22	3.38%
Met-Ed	Feb-13	Residential	12	Jun-13	May-13	31.63	45.04	-0.49	0.11	31.14	45.15	37.65		40.26		2.31		1.92	1.73	2.31			71.34		0.19%
Met-Ed	Feb-13	Commercial	12	Jun-13	May-14	31.63	45.04	-0.49	0.11	31.14	45.15	37.65		39.61	10.86	2.08		1.92	1.73	2.08			69.16		2.10%
Met-Ed	Sep-13	Commercial	12	Dec-13	Nov-14	31.54	44.52	-0.49	0.11	31.05	44.62	37.35		39.30	8.44	2.08		1.92	1.73	2.08			63.49		1.78%
Met-Ed	Jan-14	Residential	12	Jun-14	May-15	31.23	44.63	0.73	1.43	31.96	46.06	38.53	16.07%	44.72	6.03	1.97	11.89	2.41	1.73	1.97			63.24		1.32%
Met-Ed	Jan-14	Commercial	12	Jun-14	May-15	31.23	44.63	0.73	1.43	31.96	46.06	38.53	7.31%	41.35	6.03	1.88		2.41	1.73	1.88	3.24	58.31	63.09	4.78	8.19%
Met-Ed	Oct-14	Residential	12	Jun-15	May-16	33.32	48.97	0.73	1.43	34.06	50.39	41.67	16.07%	48.36	7.21	1.97	14.22	2.41	1.72	1.97	3.39	68.39	77.89	9.50	13.90%
Met-Ed	Oct-14	Residential	24	Jun-15	May-17	32.99	48.43	0.73	1.43	33.72	49.85	41.24	16.07%	47.86	6.48	1.97	12.77	2.41	1.72	1.97	3.40	66.44	76.82	10.38	15.62%
Met-Ed	Oct-14	Commercial	12	Jun-15	May-16	33.32	48.97	0.73	1.43	34.06	50.39	41.67	7.31%	44.71	7.21	1.88	13.54	2.41	1.72	1.88	3.23	63.90	86.56	22.66	35.47%
Met-Ed	Oct-14	Commercial	24	Jun-15	May-17	32.99	48.43	0.73	1.43	33.72	49.85	41.24	7.31%	44.25	6.48	1.88	12.16	2.41	1.72	1.88			89.56	27.50	44.32%
Met-Ed	Jan-15	Residential	12	Jun-15	May-16	31.34	44.33	0.73	1.43	32.07	45.75	38.44	16.07%	44.62	7.21	1.97	14.22	2.41	1.72	1.97			65.74		1.69%
Met-Ed	Jan-15	Residential	24	Jun-15	May-17	31.32	44.29	0.73	1.43	32.05	45.72	38.42	16.07%	44.59		1.97	12.77	2.41	1.72	1.97			66.03		4.53%
Met-Ed	Jan-15	Commercial	12	Jun-15	May-16	31.34	44.33	0.73	1.43	32.07	45.75	38.44	7.31%	41.25	7.21	1.88		2.41	1.72	1.88			66.09		9.35%
Met-Ed	Jan-15	Commercial	24	Jun-15	May-17	31.32	44.29	0.73	1.43	32.05	45.72	38.42	7.31%	41.23	6.48	1.88		2.41	1.72	1.88			66.53		12.70%
Met-Ed	Apr-15	Residential	12	Jun-15	May-16	32.84	47.16	0.73	1.43	33.57	48.58	40.57	16.07%	47.09	7.21	1.97	14.22	2.41	1.72	1.97	3.39	67.11	66.53	-0.58	-0.86%
Met-Ed	Apr-15	Residential	24	Jun-15	May-17	32.47	46.53	0.73	1.43	33.21	47.95	40.08		46.52	6.48	1.97		2.41	1.72	1.97			66.44	1.35	2.07%
Met-Ed	Apr-15	Commercial	12	Jun-15	May-16	32.84	47.16	0.73	1.43	33.57	48.58	40.57	7.31%	43.53		1.88		2.41	1.72 1.72	1.88			65.03		3.69%
Met-Ed Met-Ed	Apr-15 Oct-15	Commercial Residential	24 12	Jun-15	May-17 May-17	32.47 31.39	46.53 43.26	0.73	1.43 1.43	33.21 32.13	47.95 44.68	40.08 37.98	7.31% 16.07%	43.01 44.08	6.48 6.48	1.88 1.97		2.41 2.41		1.88 1.97			65.15 56.23		7.13% -10.26%
Met-Ed Met-Ed	Oct-15	Commercial	12 12	Jun-15 Jun-15	May-17	31.39	43.26	0.73 0.73	1.43	32.13	44.68	37.98		40.75		1.88		2.41	1.72	1.88			56.66		-3.24%
Met-Ed	Jan-16	Residential	12	Jun-16	May-17	28.95	41.28	-4.40	-4.71	24.55	36.57	30.14		33.00		2.44		0.97	1.72	2.44			51.28		-1.69%
Met-Ed	Jan-16	Commercial	12	Jun-16	May-17	28.95	41.28	-4.40	-4.71	24.55	36.57	30.14		32.18		1.99		0.97	1.73	1.99			50.50	2.48	5.16%
Met-Ed	Apr-16	Residential	12	Jun-16	May-17	27.83	39.87	-4.40	-4.71	23.43	35.16	28.88		31.62		2.44		0.97	1.73	2.44			51.29		1.00%
Met-Ed	Apr-16	Commercial	12	Jun-16	May-17	27.83	39.87	-4.40	-4.71	23.43	35.16	28.88		30.83		1.99		0.97	1.73	1.99			49.68		6.44%
Met-Ed	Oct-16	Residential	12	Jun-17	May-18	27.13	39.65	-4.40	-4.71	22.73	34.94	28.40		31.10		2.44		0.97	2.58	2.44			53.09		4.46%
Met-Ed	Oct-16	Residential	24	Jun-17	May-19	26.33	38.36	-4.40	-4.71	21.93	33.65	27.37		29.98		2.44		0.97	2.58	2.44			53.13		1.63%
Met-Ed	Oct-16	Commercial	12	Jun-17	May-18	27.13	39.65	-4.40	-4.71	22.73	34.94	28.40		30.33		1.99		0.97	2.58	1.99			52.82		13.28%
Met-Ed	Oct-16	Commercial	24	Jun-17	May-19	26.33	38.36	-4.40	-4.71	21.93	33.65	27.37		29.23		1.99		0.97	2.58	1.99			53.08		11.42%
Met-Ed	Jan-17	Residential	12	Jun-17	May-18	28.17	40.21	-4.40	-4.71	23.77	35.50	29.22	9.51%	31.99		2.44		0.97	2.58	2.44	6.29		56.29		8.85%
Met-Ed	Jan-17	Residential	24	Jun-17	May-19	27.08	38.75	-4.40	-4.71	22.67	34.04	27.96		30.61		2.44		0.97	2.58	2.44			57.99		9.59%
Met-Ed	Jan-17	Commercial	12	Jun-17	May-18	28.17	40.21	-4.40	-4.71	23.77	35.50	29.22		31.20		1.99		0.97	2.58	1.99			55.29		16.41%
Met-Ed	Jan-17	Commercial	24	Jun-17	May-19	27.08	38.75	-4.40	-4.71	22.67	34.04	27.96		29.85		1.99		0.97	2.58	1.99			55.54		15.08%
Met-Ed	Apr-17	Residential	12	Jun-17	May-18	28.79	40.63	-4.40	-4.71	24.39	35.92	29.75		32.57		2.44		0.97	2.58	2.44			57.91		10.74%
Met-Ed	Apr-17	Residential	24	Jun-17	May-19	27.66	38.81	-4.40	-4.71	23.26	34.10	28.30		30.99		2.44		0.97	2.58	2.44			58.44		9.67%
Met-Ed	Apr-17	Commercial	12	Jun-17	May-18	28.79	40.63	-4.40	-4.71	24.39	35.92	29.75		31.76		1.99		0.97	2.58	1.99			56.76		18.10%
Met-Ed	Apr-17	Commercial	24	Jun-17	May-19	27.66	38.81	-4.40	-4.71	23.26	34.10	28.30	6.78%	30.22	6.17	1.99	12.30	0.97	2.58	1.99	5.14	48.63	56.18	7.55	15.53%
Met-Ed Avera	age																							3.63	6.44%

Source: The Brattle Group.

Default Service Full Requirements Auction Price to Expected Wholesale Market Costs: Penelec, 2010-2017

Utility	Auction Month	Product	Duration	Delivery Period Start	Delivery Period End	PJM West For	ward Price		Zonal Premium over PJM West 2 \$/MWh		Zone Adjusted Price		Load Shape Factor	Load Shape Adjusted Price	Capacity Price	Capacity Scaling Factor	Capacity Price Adder	Ancillary Services Add-in	Average NITS Rate	NITS Scaling Factor	Adjusted NITS Rate Adder	Estimated No-Risk Price	Auction Price	Estimated Risk	k Premium
			months			\$/MW Off Peak	h Peak	\$/MW Off Peak	ʻh Peak	\$/MW Off Peak	′h Peak	\$/MWh	%	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh	\$/MWh	%
						[1]	reak	[2]		[3]	7 Cun	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
Penelec	Oct-10	Commercial	12	Jun-11	May-12	36.95	49.73	-2.23	-3.13	34.73	46.60	40.28	5.33%	42.42	5.29	1.88	9.96	1.94	0.00	1.88	0.00	54.33	54.33	0.00	0.00%
Penelec	Oct-10	Residential	24	Jun-11	May-13	37.81	51.46	-2.23	-3.13	35.58	48.32	41.54	7.39%	44.61	5.87	2.12		1.94	0.00	2.12	0.00	59.00	55.74	-3.26	-5.52%
Penelec	Jan-11	Commercial	12	Jun-11	May-12	39.70	52.75	-2.23	-3.13	37.48	49.62	43.15	5.33%	45.45	5.29	1.88		1.94	0.00	1.88	0.00	57.36	59.32	1.96	3.42%
Penelec	Jan-11	Residential	12	Jun-11	May-12	39.70	52.75	-2.23	-3.13	37.48	49.62	43.15	7.39%	46.34	5.29	2.12		1.94	0.00	2.12	0.00	59.49	58.01	-1.48	-2.49%
Penelec Penelec	Jan-11 Mar-11	Residential Commercial	24 12	Jun-11 Jun-11	May-13 May-12	39.83 38.24	53.34 50.88	-2.23 -2.23	-3.13 -3.13	37.60 36.01	50.21 47.75	43.50 41.50	7.39% 5.33%	46.71 43.71	5.87 5.29	2.12 1.88		1.94 1.94	0.00 0.00	2.12 1.88	0.00 0.00	61.10 55.62	59.74 59.55	-1.36 3.93	-2.22% 7.07%
Penelec	Mar-11	Residential	12	Jun-11 Jun-11	May-12	38.24	50.88	-2.23 -2.23	-3.13	36.01	47.75	41.50	7.39%	44.57	5.29	2.12		1.94	0.00	2.12	0.00	57.72	57.88	0.16	0.29%
Penelec	Mar-11	Residential	24	Jun-11	May-13	39.02	51.86	-2.23	-3.13	36.80	48.73	42.38	7.39%	45.51	5.87	2.12		1.94	0.00	2.12	0.00	59.89	60.27	0.38	0.63%
Penelec	May-11	Commercial	12	Jun-12	May-13	40.76	54.11	-2.23	-3.13	38.53	50.98	44.35	5.33%	46.71	6.46	1.88		1.94	0.00	1.88	0.00	60.82	64.45	3.63	5.98%
Penelec	Oct-11	Commercial	12	Jun-12	May-13	39.32	52.52	-2.23	-3.13	37.09	49.38	42.84	5.33%	45.12	6.46	1.88	12.16	1.94	0.00	1.88	0.00	59.22	60.08	0.86	1.44%
Penelec	Jan-12	Commercial	12	Jun-12	May-13	31.46	41.93	-0.28	-0.71	31.18	41.22	35.84	4.42%	37.43	6.46	1.73	11.19	1.92	0.00	1.73	0.00	50.54	51.25	0.71	1.41%
Penelec	Jan-12	Residential	12	Jun-12	May-13	31.46	41.93	-0.28	-0.71	31.18	41.22	35.84	5.66%	37.87	6.46	2.35		1.92	0.00	2.35	0.00	54.94	50.62	-4.32	-7.87%
Penelec	Mar-12	Commercial	12	Jun-12	May-13	30.09	41.33	-0.28	-0.71	29.81	40.62	34.83	4.42%	36.37	6.46	1.73		1.92	0.00	1.73	0.00	49.48	51.66	2.18	4.41%
Penelec	Mar-12	Residential	12	Jun-12	May-13	30.09	41.33	-0.28	-0.71	29.81	40.62	34.83	5.66%	36.80	6.46	2.35		1.92	0.00	2.35	0.00	53.88	51.76	-2.12	-3.93%
Penelec Penelec	Jan-13 Feb-13	Residential Residential	24 12	Jun-13 Jun-13	May-15 May-14	31.69 31.63	44.70 45.04	-0.28 -0.28	-0.71 -0.71	31.41 31.35	43.99 44.33	37.25 37.38	5.66% 5.66%	39.36 39.50	8.45 10.86	2.35 2.35		1.92 1.92	1.73 1.73	2.35 2.35	4.05 4.05	65.15 70.96	61.14 64.39	-4.01 -6.57	-6.16% -9.26%
Penelec	Feb-13	Commercial	12	Jun-13	May-14	31.63	45.04	-0.28	-0.71	31.35	44.33	37.38	4.42%	39.03	10.86	1.73		1.92	1.73	1.73	2.99	62.77	65.18	2.41	3.84%
Penelec	Sep-13	Commercial	12	Dec-13	Nov-14	31.54	44.52	-0.28	-0.71	31.26	43.81	37.09	4.42%	38.73	8.44	1.73		1.92	1.73	1.73	2.99	58.26	60.89	2.63	4.51%
Penelec	Jan-14	Residential	12	Jun-14	May-15	31.23	44.63	-1.68	-1.92	29.55	42.72	35.68	12.41%	40.11	6.03	2.06		2.41	1.73	2.06	3.56	58.50	58.36	-0.14	-0.24%
Penelec	Jan-14	Commercial	12	Jun-14	May-15	31.23	44.63	-1.68	-1.92	29.55	42.72	35.68	9.45%	39.05	6.03	1.80	10.86	2.41	1.73	1.80	3.11	55.43	60.92	5.49	9.91%
Penelec	Oct-14	Residential	12	Jun-15	May-16	33.32	48.97	-1.68	-1.92	31.64	47.05	38.82	12.41%	43.64	7.21	2.06		2.41	1.72	2.06	3.55	64.46	73.24	8.78	13.62%
Penelec	Oct-14	Residential	24	Jun-15	May-17	32.99	48.43	-1.68	-1.92	31.31	46.51	38.39	12.41%	43.15	6.48	2.06		2.41	1.72	2.06	3.55	62.46	73.61	11.15	17.85%
Penelec	Oct-14	Commercial	12	Jun-15	May-16	33.32	48.97	-1.68	-1.92	31.64	47.05	38.82	9.45%	42.49	7.21	1.80		2.41	1.72	1.80	3.10		86.67	25.68	42.11%
Penelec	Oct-14	Commercial	24	Jun-15	May-17	32.99	48.43	-1.68	-1.92	31.31	46.51	38.39	9.45%	42.01	6.48	1.80	11.67	2.41	1.72	1.80	3.10		80.13	20.93	35.36%
Penelec Penelec	Jan-15 Jan-15	Residential Residential	12 24	Jun-15 Jun-15	May-16 May-17	31.34 31.32	44.33 44.29	-1.68 -1.68	-1.92 -1.92	29.66 29.64	42.41 42.37	35.60 35.57	12.41% 12.41%	40.01 39.99	7.21 6.48	2.06 2.06		2.41 2.41	1.72 1.72	2.06 2.06	3.55 3.55	60.84 59.30	63.47 63.75	2.63 4.45	4.33% 7.51%
Penelec	Jan-15 Jan-15	Commercial	12	Jun-15 Jun-15	May-17	31.34	44.29	-1.68	-1.92	29.66	42.37	35.60	9.45%	38.96	7.21	1.80		2.41	1.72	1.80	3.10		63.69	6.23	10.84%
Penelec	Jan-15	Commercial	24	Jun-15	May-17	31.32	44.29	-1.68	-1.92	29.64	42.37	35.57	9.45%	38.93	6.48	1.80	11.67	2.41	1.72	1.80	3.10		64.34	8.23	14.66%
Penelec	Apr-15	Residential	12	Jun-15	May-16	32.84	47.16	-1.68	-1.92	31.16	45.24	37.72	12.41%	42.40	7.21	2.06		2.41	1.72	2.06	3.55	63.22	62.37	-0.85	-1.35%
Penelec	Apr-15	Residential	24	Jun-15	May-17	32.47	46.53	-1.68	-1.92	30.79	44.61	37.23	12.41%	41.85	6.48	2.06	13.35	2.41	1.72	2.06	3.55	61.16	63.16	2.00	3.27%
Penelec	Apr-15	Commercial	12	Jun-15	May-16	32.84	47.16	-1.68	-1.92	31.16	45.24	37.72	9.45%	41.28	7.21	1.80	13.00	2.41	1.72	1.80	3.10		64.12	4.33	7.25%
Penelec	Apr-15	Commercial	24	Jun-15	May-17	32.47	46.53	-1.68	-1.92	30.79	44.61	37.23	9.45%	40.74	6.48	1.80		2.41	1.72	1.80	3.10		62.25	4.32	7.46%
Penelec	Oct-15	Residential	12	Jun-15	May-17	31.39	43.26	-1.68	-1.92	29.71	41.34	35.13	12.41%	39.49	6.48	2.06		2.41	1.72	2.06	3.55		54.54	-4.26	-7.24%
Penelec	Oct-15	Commercial	12	Jun-15	May-17	31.39	43.26	-1.68	-1.92	29.71	41.34	35.13	9.45%	38.45	6.48	1.80		2.41	1.72	1.80	3.10		56.31	0.68	1.22%
Penelec Penelec	Jan-16	Residential Commercial	12 12	Jun-16 Jun-16	May-17 May-17	28.95 28.95	41.28 41.28	-2.28 -2.28	-2.64 -2.64	26.67 26.67	38.64 38.64	32.23 32.23	6.62% 5.60%	34.37 34.04	5.74 5.74	2.49 1.68		0.97 0.97	1.73 1.73	2.49 1.68	4.29 2.90		51.28 53.70	-2.61 6.13	-4.84% 12.89%
Penelec	Jan-16 Apr-16	Residential	12 12	Jun-16 Jun-16	May-17	28.95 27.83	39.87	-2.28 -2.28	-2.64 -2.64	25.55	38.64	32.23	6.62%	33.02	5.74 5.74	2.49		0.97	1.73	2.49	4.29		50.18	-2.36	-4.50%
Penelec	Apr-16	Commercial	12	Jun-16	May-17	27.83	39.87	-2.28	-2.64	25.55	37.23	30.97	5.60%	32.71	5.74	1.68		0.97	1.73	1.68	2.90		52.47	6.23	13.48%
Penelec	Oct-16	Residential	12	Jun-17	May-18	27.13	39.65	-2.28	-2.64	24.84	37.01	30.50	6.62%	32.52	5.11	2.49		0.97	2.58	2.49	6.42		50.59	-2.02	-3.84%
Penelec	Oct-16	Residential	24	Jun-17	Мау-19	26.33	38.36	-2.28	-2.64	24.05	35.72	29.47	6.62%	31.42	6.17	2.49	15.34	0.97	2.58	2.49	6.42	54.15	50.29	-3.86	-7.12%
Penelec	Oct-16	Commercial	12	Jun-17	May-18	27.13	39.65	-2.28	-2.64	24.84	37.01	30.50	5.60%	32.21	5.11	1.68		0.97	2.58	1.68	4.34		53.12	7.00	15.17%
Penelec	Oct-16	Commercial	24	Jun-17	May-19	26.33	38.36	-2.28	-2.64	24.05	35.72	29.47	5.60%	31.12	6.17	1.68		0.97	2.58	1.68	4.34		53.62	6.80	14.53%
Penelec	Jan-17	Residential	12	Jun-17	May-18	28.17	40.21	-2.28	-2.64	25.88	37.57	31.31	6.62%	33.38		2.49		0.97	2.58	2.49	6.42		52.06	-1.42	-2.65%
Penelec	Jan-17	Residential	24 12	Jun-17	May-19	27.08	38.75	-2.28	-2.64 2.64	24.79	36.11	30.05	6.62%	32.04	6.17	2.49		0.97	2.58	2.49	6.42		52.24	-2.53 7.61	-4.61%
Penelec Penelec	Jan-17 Jan-17	Commercial Commercial	12 24	Jun-17 Jun-17	May-18 May-19	28.17 27.08	40.21 38.75	-2.28 -2.28	-2.64 -2.64	25.88 24.79	37.57 36.11	31.31 30.05	5.60% 5.60%	33.07 31.74	5.11 6.17	1.68 1.68		0.97 0.97	2.58 2.58	1.68 1.68	4.34 4.34		54.59 54.33	7.61 6.90	16.19% 14.54%
Penelec	Apr-17	Residential	12	Jun-17 Jun-17	May-19	28.79	40.63	-2.28 -2.28	-2.64 -2.64	24.79	37.99	31.84	6.62%	33.95	5.11	2.49		0.97	2.58	2.49	4.34 6.42		53.99	-0.05	-0.10%
Penelec	Apr-17	Residential	24	Jun-17	May-19	27.66	38.81	-2.28	-2.64	25.38	36.17	30.39	6.62%	32.40		2.49		0.97	2.58	2.49	6.42		54.25	-0.88	-1.60%
Penelec	Apr-17	Commercial	12	Jun-17	May-18	28.79	40.63	-2.28	-2.64	26.51	37.99	31.84	5.60%	33.63	5.11	1.68		0.97	2.58	1.68	4.34		54.91	7.37	15.50%
Penelec	Apr-17	Commercial	24	Jun-17	, May-19	27.66	38.81	-2.28	-2.64	25.38	36.17	30.39	5.60%	32.10		1.68		0.97	2.58	1.68	4.34		54.59	6.80	14.22%
Penelec Aver	age																							2.69	4.99%

Source: The Brattle Group.

Default Service Full Requirements Auction Price to Expected Wholesale Market Costs: Penn Power, 2011-2017

																	Aajustea								
												All Hours		Load Shape	Average	Capacity	Capacity	Ancillary		NITS	Adjusted	Estimated			
				Delivery	Delivery	PJM West Fo	orward	Zonal Premi	um over			Flat Load	Load Shape	Adjusted	Capacity	Scaling	Price	Services	Average	Scaling	NITS Rate	No-Risk	Auction		
Utility	Auction Month	Product	Duration	Period Start	Period End	Price		PJM W	est	Zone Adjuste	ed Price	Price	Factor	Price	Price	Factor	Adder	Add-in	NITS Rate	Factor	Adder	Price	Price	Estimated Risk	〈 Premium
			months			\$/MWh		\$/MW		\$/MWI		\$/MWh	%	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh	\$/MWh	%
						Off Peak [1]	Peak	Off Peak [2]	Peak	Off Peak	Peak	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
Penn Power	Jan-11	Commercial	12	Jun-11	May-12	39.70	52.75	-2.08	-2.27	37.63	50.49	43.64	6.76%	46.59	5.24	2.25	11.79	1.94	0.00	2.25			57.88	-2.44	-4.04%
	Jan-11	Residential	12	Jun-11	May-12	39.70	52.75	-2.08	-2.27	37.63	50.49	43.64	8.60%	47.39	5.24	2.14	11.20	1.94	0.00	2.14			60.29	-0.24	-0.40%
Penn Power	Jan-11	Residential	24	Jun-11	May-13	39.83	53.34	-2.08	-2.27	37.75	51.08	43.98	8.60%	47.77	3.12	2.14	6.66	1.94	0.00	2.14			55.39	-0.97	-1.73%
Penn Power	Mar-11	Commercial	12	Jun-11	May-12	38.24	50.88	-2.08	-2.27	36.16	48.62	41.99	6.76%	44.82	5.24	2.25	11.79	1.94	0.00	2.25			56.03	-2.52	-4.31%
Penn Power	Mar-11	Residential	12	Jun-11	May-12	38.24	50.88	-2.08	-2.27	36.16	48.62	41.99	8.60%	45.60	5.24	2.14	11.20	1.94	0.00	2.14	0.00	58.73	55.85	-2.88	-4.91%
Penn Power	Mar-11	Residential	24	Jun-11	May-13	39.02	51.86	-2.08	-2.27	36.95	49.59	42.86	8.60%	46.55	3.12	2.14	6.66	1.94	0.00	2.14	0.00	55.15	56.49	1.34	2.44%
Penn Power	Jan-12	Commercial	12	Jun-12	May-13	31.46	41.93	-1.38	-2.86	30.08	39.07	34.26	5.29%	36.07	0.99	2.18	2.16	1.92	0.00	2.18	0.00	40.15	41.97	1.82	4.53%
Penn Power	Jan-12	Residential	12	Jun-12	May-13	31.46	41.93	-1.38	-2.86	30.08	39.07	34.26	5.79%	36.24	0.99	2.55	2.53	1.92	0.00	2.55			41.25	0.56	1.39%
Penn Power	Mar-12	Commercial	12	Jun-12	May-13	30.09	41.33	-1.38	-2.86	28.71	38.47	33.24	5.29%	35.00	0.99	2.18	2.16	1.92	0.00	2.18			42.07	2.99	7.64%
	Mar-12	Residential	12	Jun-12	May-13	30.09	41.33	-1.38	-2.86	28.71	38.47	33.24	5.79%	35.17	0.99	2.55	2.53	1.92	0.00	2.55			40.84	1.23	3.09%
Penn Power	Jan-13	Residential	24	Jun-13	May-15	31.69	44.70	-1.38	-2.86	30.31	41.84	35.67	5.79%	37.73	3.68	2.55	9.38	1.92	2.98	2.55			52.22	-4.41	-7.78%
	Feb-13	Residential	12	Jun-13	May-14	31.63	45.04	-1.38	-2.86	30.25	42.18	35.79	5.79%	37.87	1.33	2.55	3.40	1.92	2.63	2.55		49.90	45.45	-4.45	-8.91%
	Feb-13	Commercial	12	Jun-13	May-14	31.63	45.04	-1.38	-2.86	30.25	42.18	35.79	5.29%	37.69	1.33	2.18	2.91	1.92	2.63	2.18			48.19	-0.07	-0.14%
	Sep-13 Jan-14	Commercial Residential	12 12	Dec-13 Jun-14	Nov-14	31.54 31.23	44.52 44.63	-1.38 -5.89	-2.86 -8.40	30.16 25.34	41.66 36.24	35.50 30.42	5.29% 11.50%	37.38 33.92	3.69	2.18 1.95	8.04 11.73	1.92 2.41	2.98 3.32	2.18 1.95		53.84 54.52	55.72 58.04	1.88	3.48% 6.46%
	Jan-14	Commercial	12	Jun-14 Jun-14	May-15 May-15	31.23	44.63	-5.89	-8.40	25.34	36.24	30.42	7.34%	32.65	6.03 6.03	2.24	13.50	2.41	3.32	2.24			63.42	3.52 7.42	13.25%
	Oct-14	Residential	12	Jun-15	May-15	33.32	48.97	-5.89	-8.40	27.44	40.57	33.56	11.50%	37.41	14.65	1.95	28.49	2.41	4.21	1.95			85.15	8.63	11.28%
	Oct-14	Residential	24	Jun-15	May-17	32.99	48.43	-5.89	-8.40	27.10	40.03	33.13	11.50%	36.94	9.61	1.95	18.69	2.41	4.22	1.95		66.24	78.47	12.23	18.46%
	Oct-14	Commercial	12	Jun-15	May-16	33.32	48.97	-5.89	-8.40	27.44	40.57	33.56	7.34%	36.02	14.65	2.24	32.80	2.41	4.21	2.24			89.65	8.99	11.14%
	Oct-14	Commercial	24	Jun-15	May-17	32.99	48.43	-5.89	-8.40	27.10	40.03	33.13	7.34%	35.56	9.61	2.24	21.51	2.41	4.22	2.24			83.19	14.27	20.70%
Penn Power	Jan-15	Residential	12	Jun-15	May-16	31.34	44.33	-5.89	-8.40	25.45	35.93	30.33	11.50%	33.82	14.65	1.95	28.49	2.41	4.21	1.95		72.92	74.16	1.24	1.70%
Penn Power	Jan-15	Residential	24	Jun-15	May-17	31.32	44.29	-5.89	-8.40	25.44	35.90	30.31	11.50%	33.79	9.61	1.95	18.69	2.41	4.22	1.95	8.21	63.10	72.32	9.22	14.62%
Penn Power	Jan-15	Commercial	12	Jun-15	May-16	31.34	44.33	-5.89	-8.40	25.45	35.93	30.33	7.34%	32.56	14.65	2.24	32.80	2.41	4.21	2.24	9.44	77.20	82.87	5.67	7.34%
Penn Power	Jan-15	Commercial	24	Jun-15	May-17	31.32	44.29	-5.89	-8.40	25.44	35.90	30.31	7.34%	32.53	9.61	2.24	21.51	2.41	4.22	2.24			78.74	12.84	19.49%
Penn Power	Apr-15	Residential	12	Jun-15	May-16	32.84	47.16	-5.89	-8.40	26.96	38.76	32.46	11.50%	36.19	14.65	1.95	28.49	2.41	4.21	1.95	8.20	75.29	77.45	2.16	2.87%
	Apr-15	Residential	24	Jun-15	May-17	32.47	46.53	-5.89	-8.40	26.59	38.13	31.97	11.50%	35.64	9.61	1.95	18.69	2.41	4.22	1.95		64.95	69.93	4.98	7.68%
Penn Power	Apr-15	Commercial	12	Jun-15	May-16	32.84	47.16	-5.89	-8.40	26.96	38.76	32.46	7.34%	34.84	14.65	2.24	32.80	2.41	4.21	2.24			81.67	2.19	2.76%
Penn Power	Apr-15	Commercial	24	Jun-15	May-17	32.47	46.53	-5.89	-8.40	26.59	38.13	31.97	7.34%	34.31	9.61	2.24	21.51	2.41	4.22	2.24			77.00	9.32	13.78%
	Oct-15	Residential	12	Jun-15	May-17	31.39	43.26	-5.89	-8.40	25.51	34.86	29.87	11.50%	33.30	9.61	1.95	18.69	2.41	4.22	1.95		62.60	56.87	-5.73	-9.16%
Penn Power Penn Power	Oct-15	Commercial Residential	12	Jun-15 Jun-16	May-17 May-17	31.39 28.95	43.26 41.28	-5.89 -1.66	-8.40 -1.85	25.51 27.29	34.86 39.43	29.87 32.93	7.34% 6.16%	32.06 34.96	9.61 4.55	2.24 2.25	21.51 10.24	2.41 0.97	4.22 4.23	2.24 2.25			61.24 55.50	-4.18 -0.19	-6.39% -0.34%
	Jan-16	Commercial	12	Jun-16 Jun-16	May-17	28.95	41.28	-1.66	-1.85	27.29	39.43	32.93	7.48%	35.40	4.55	2.23	10.24	0.97	4.23	2.23			60.62	3.94	6.96%
	Apr-16	Residential	12	Jun-16	May-17	27.83	39.87	-1.66	-1.85	26.17	38.01	31.67	6.16%	33.62	4.55	2.25	10.33	0.97	4.23	2.25		54.35	52.95	-1.40	-2.57%
Penn Power	•	Commercial	12	Jun-16	May-17	27.83	39.87	-1.66	-1.85	26.17	38.01	31.67	7.48%	34.04	4.55	2.31	10.53	0.97	4.23	2.31			58.88	3.56	6.43%
	Oct-16	Residential	12	Jun-17	May-18	27.13	39.65	-1.66	-1.85	25.47	37.80	31.20	6.16%	33.12	5.11	2.25	11.51	0.97	5.14	2.25			55.07	-2.11	-3.69%
Penn Power	Oct-16	Residential	24	Jun-17	May-19	26.33	38.36	-1.66	-1.85	24.67	36.51	30.17	6.16%	32.03	6.17	2.25	13.89	0.97	5.14	2.25			55.21	-3.26	-5.58%
Penn Power	Oct-16	Commercial	12	Jun-17	May-18	27.13	39.65	-1.66	-1.85	25.47	37.80	31.20	7.48%	33.53	5.11	2.31	11.83	0.97	5.14	2.31		58.24	64.37	6.13	10.53%
Penn Power	Oct-16	Commercial	24	Jun-17	May-19	26.33	38.36	-1.66	-1.85	24.67	36.51	30.17	7.48%	32.43	6.17	2.31	14.28	0.97	5.14	2.31	11.91	59.58	64.42	4.84	8.12%
Penn Power		Residential	12	Jun-17	May-18	28.17	40.21	-1.66	-1.85	26.51	38.36	32.01	6.16%	33.98	5.11	2.25	11.51	0.97	5.14	2.25			58.30	0.26	0.44%
Penn Power		Residential	24	Jun-17	May-19	27.08	38.75	-1.66	-1.85	25.42	36.90	30.75	6.16%	32.64	6.17	2.25	13.89	0.97	5.14	2.25			58.15	-0.94	-1.59%
Penn Power		Commercial	12	Jun-17	May-18	28.17	40.21	-1.66	-1.85	26.51	38.36	32.01	7.48%	34.41	5.11	2.31	11.83	0.97	5.14	2.31		59.11	64.13	5.02	8.49%
Penn Power		Commercial	24	Jun-17	May-19	27.08	38.75	-1.66	-1.85	25.42	36.90	30.75	7.48%	33.05	6.17	2.31	14.28	0.97	5.14	2.31		60.21	65.20	4.99	8.29%
Penn Power	•	Residential	12	Jun-17	May-18	28.79	40.63	-1.66	-1.85	27.13	38.77	32.54	6.16%	34.55	5.11	2.25	11.51	0.97	5.14	2.25			59.86	1.25	2.14%
Penn Power	•	Residential	24	Jun-17	May-19	27.66	38.81	-1.66	-1.85	26.00	36.96	31.09	6.16%	33.01	6.17	2.25	13.89	0.97	5.14	2.25			57.94	-1.51	-2.54%
Penn Power	Apr-17	Commercial	12	Jun-17	May-18	28.79	40.63	-1.66	-1.85	27.13	38.77	32.54	7.48%	34.98	5.11	2.31	11.83	0.97	5.14	2.31	11.91	59.68	63.47	3.79	6.35%
Penn Power A	verage																							2.42	3.73%

Source: The Brattle Group.

Default Service Full Requirements Auction Price to Expected Wholesale Market Costs: West Penn Power, 2013-2017

																		Adjusted								
											Percentage	Percentage	All Hours		Load Shape	Average	Capacity	Capacity	Ancillary		NITS	Adjusted	Estimated			
			Delivery	Delivery	PJM West F	orward	Zonal Premiu	ım over			of Off-Peak	of Peak	Flat Load	Load Shape	Adjusted	Capacity	Scaling	Price	Services	Average	Scaling	NITS Rate	No-Risk	Auction		
Utility Auction Month	Product	Duration	Period Start	Period End	Price	2	PJM We	est	Zone Adjust	ed Price	Hours	Hours	Price	Factor	Price	Price	Factor	Adder	Add-in	NITS Rate	Factor	Adder	Price	Price	Estimated Risk	k Premium
•		months			\$/MW	′h	\$/MWI)	\$/MW	h			\$/MWh	%	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh		\$/MWh	\$/MWh	\$/MWh	\$/MWh	%
					Off Peak	Peak	Off Peak	Peak	Off Peak	Peak																
					[1]		[2]		[3]				[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
West Penn Pov Jan-13	Residential	24	Jun-13	May-15	31.69	44.70	-0.56	-1.65	31.12	43.05	0.54	0.46	36.66	6.12%	38.91	3.68	2.86	10.54	1.92	2.04	2.86	5.85	57.21	51.04	-6.17	-10.79%
West Penn Pov Feb-13	Residential	12	Jun-13	May-14	31.63	45.04	-0.56	-1.65	31.07	43.39	0.54	0.46	36.79	6.12%	39.04	1.33	2.86	3.81	1.92	2.04	2.86	5.85	50.63	46.53	-4.10	-8.09%
West Penn Pov Feb-13	Commercial	12	Jun-13	May-14	31.63	45.04	-0.56	-1.65	31.07	43.39	0.54	0.46	36.79	2.84%	37.84	1.33	2.73	3.64	1.92	2.04	2.73	5.58	48.98	45.92	-3.06	-6.24%
West Penn Pov Sep-13	Commercial	12	Dec-13	Nov-14	31.54	44.52	-0.56	-1.65	30.97	42.87	0.54	0.46	36.50	2.84%	37.53	3.69	2.73	10.07	1.92	2.04	2.73	5.58	55.11	49.46	-5.65	-10.25%
West Penn Pov Jan-14	Residential	12	Jun-14	May-15	31.23	44.63	-2.53	-3.93	28.70	40.71	0.53	0.47	34.29	12.47%	38.57	6.03	2.00	12.07	2.41	2.04	2.00	4.09	57.14	57.36	0.22	0.39%
West Penn Pov Jan-14	Commercial	12	Jun-14	May-15	31.23	44.63	-2.53	-3.93	28.70	40.71	0.53	0.47	34.29	6.17%	36.40	6.03	2.42	14.56	2.41	2.04	2.42	4.93	58.31	57.29	-1.02	-1.74%
West Penn Pov Oct-14	Residential	12	Jun-15	May-16	33.32	48.97	-2.53	-3.93	30.79	45.04	0.53	0.47	37.43	12.47%	42.10	5.70	2.00	11.41	2.41	2.04	2.00	4.08	60.00	70.22	10.22	17.03%
West Penn Pov Oct-14	Residential	24	Jun-15	May-17	32.99	48.43	-2.53	-3.93	30.46	44.50	0.53	0.47	37.00	12.47%	41.61	4.28	2.00	8.57	2.41	2.04	2.00	4.09	56.68	70.09	13.41	23.66%
West Penn Pov Oct-14	Commercial	12	Jun-15	May-16	33.32	48.97	-2.53	-3.93	30.79	45.04	0.53	0.47	37.43	6.17%		5.70	2.42	13.77	2.41	2.04	2.42	4.92	60.83	75.73	14.90	24.49%
West Penn Pov Oct-14	Commercial	24	Jun-15	May-17	32.99	48.43	-2.53	-3.93	30.46	44.50	0.53	0.47	37.00	6.17%	39.28	4.28	2.42	10.34	2.41	2.04	2.42	4.93	56.96	74.46	17.50	30.73%
West Penn Pov Jan-15	Residential	12	Jun-15	May-16	31.34	44.33	-2.53	-3.93	28.81	40.40	0.53	0.47	34.21	12.47%		5.70	2.00	11.41	2.41	2.04	2.00		56.37	59.05	2.68	4.75%
West Penn Pov Jan-15	Residential	24	Jun-15	May-17	31.32	44.29	-2.53	-3.93	28.79	40.36	0.53	0.47	34.18	12.47%		4.28	2.00	8.57	2.41	2.04	2.00		53.51	57.93	4.42	8.26%
West Penn Pov Jan-15	Commercial	12	Jun-15	May-16	31.34	44.33	-2.53	-3.93	28.81	40.40	0.53	0.47	34.21	6.17%	36.31	5.70	2.42	13.77	2.41	2.04	2.42	4.92	57.41	60.52	3.11	5.42%
West Penn Pov Jan-15	Commercial	24	Jun-15	May-17	31.32	44.29	-2.53	-3.93	28.79	40.36	0.53	0.47	34.18	6.17%	36.29	4.28	2.42	10.34	2.41	2.04	2.42	4.93	53.97	62.00	8.03	14.89%
West Penn Pov Apr-15	Residential	12	Jun-15	May-16	32.84	47.16	-2.53	-3.93	30.31	43.23	0.53	0.47	36.33	12.47%		5.70	2.00	11.41	2.41	2.04	2.00		58.76	61.06	2.30	3.91%
West Penn Pov Apr-15	Residential	24	Jun-15	May-17	32.47	46.53	-2.53	-3.93	29.94	42.60	0.53	0.47	35.84	12.47%		4.28	2.00	8.57	2.41	2.04	2.00		55.38	60.11	4.73	8.55%
West Penn Pov Apr-15	Commercial	12	Jun-15	May-16	32.84	47.16	-2.53	-3.93	30.31	43.23	0.53	0.47	36.33	6.17%		5.70	2.42	13.77	2.41	2.04	2.42	4.92	59.66	59.68	0.02	0.03%
West Penn Pov Apr-15	Commercial	24	Jun-15	May-17	32.47	46.53	-2.53	-3.93	29.94	42.60	0.53	0.47	35.84	6.17%	38.05	4.28	2.42	10.34	2.41	2.04	2.42	4.93	55.73	59.79	4.06	7.29%
West Penn Pov Oct-15	Residential	12	Jun-15	May-17	31.39	43.26	-2.53	-3.93	28.86	39.33	0.53	0.47	33.74	12.47%		4.28	2.00	8.57	2.41	2.04	2.00		53.01	51.33	-1.68	-3.18%
West Penn Pov Oct-15	Commercial	12	Jun-15	May-17	31.39	43.26	-2.53	-3.93	28.86	39.33	0.53	0.47	33.74	6.17%	35.82	4.28	2.42	10.34	2.41	2.04	2.42	4.93	53.50	51.26	-2.24	-4.18%
West Penn Pov Jan-16	Residential	12	Jun-16	May-17	28.95	41.28	-0.36	-0.50	28.59	40.78	0.54	0.46	34.25	4.88%	35.93	2.86	2.16	6.19	0.97	2.04	2.16		47.50	49.32	1.82	3.82%
West Penn Pov Jan-16	Commercial	12	Jun-16	May-17	28.95	41.28	-0.36	-0.50	28.59	40.78	0.54	0.46	34.25	1.82%		2.86	2.20	6.30	0.97	2.04	2.20	4.50	46.64	49.12	2.48	5.32%
West Penn Pov Apr-16	Residential	12	Jun-16	May-17	27.83	39.87	-0.36	-0.50	27.47	39.36	0.54	0.46	32.99	4.88%	34.60	2.86	2.16	6.19	0.97	2.04	2.16	4.42	46.18	48.38	2.20	4.76%
West Penn Pov Apr-16	Commercial	12	Jun-16	May-17	27.83	39.87	-0.36	-0.50	27.47	39.36	0.54	0.46	32.99	1.82%		2.86	2.20	6.30	0.97	2.04	2.20	4.50	45.35	48.57	3.22	7.09% 6.79%
West Penn Pov Oct-16 West Penn Pov Oct-16	Residential Residential	12 24	Jun-17	May-18	27.13	39.65 38.36	-0.36	-0.50	26.76 25.97	39.15 37.86	0.54	0.46	32.52	4.88% 4.88%	34.11	5.11	2.16	11.06 13.35	0.97	1.76	2.16	3.80	49.94	53.33 53.02	3.39	3.65%
West Penn Pov Oct-16 West Penn Pov Oct-16	Commercial	12	Jun-17	May-19 May-18	26.33 27.13	39.65	-0.36 -0.36	-0.50 -0.50	26.76	39.15	0.54 0.54	0.46 0.46	31.49 32.52	4.86% 1.82%	33.03 33.11	6.17 5.11	2.16 2.20	11.25	0.97 0.97	1.76 1.76	2.16 2.20	3.80 3.87	51.15 49.20	52.79	1.87 3.59	7.29%
West Penn Pov Oct-16	Commercial	24	Jun-17 Jun-17	May-16	26.33	38.36	-0.36	-0.50	25.97	37.86	0.54	0.46	31.49	1.82%	32.06	6.17	2.20	13.58	0.97	1.76	2.20	3.87	50.49	52.79	2.42	4.80%
West Penn Pov Jan-17	Residential	12		May-19	28.17	40.21	-0.36	-0.50	27.80	39.71	0.54	0.46	33.33	4.88%	34.96	5.11	2.20	11.06	0.97	1.76	2.20	3.80	50.49	54.44	3.65	7.18%
West Penn Pov Jan-17	Residential	24	Jun-17 Jun-17	May-18	27.08	38.75	0.26	-0.50	26.71	38.25	0.54	0.46	32.07	4.000/	22.64	6.17	2.46	13.35	0.97	4.76	2.10	2.00	51.76	54.44	2.38	4.59%
West Penn Pov Jan-17	Commercial	12	Jun-17 Jun-17	May-19	28.17	40.21	-0.36 -0.36	-0.50	27.80	39.71	0.54	0.46	33.33	4.88% 1.82%		5.11	2.16	11.25	0.97	1.76 1.76	2.16 2.20	3.80 3.87	50.03	54.14	4.08	8.16%
West Penn Pov Jan-17	Commercial	24	Jun-17 Jun-17	May-18	27.08	38.75	-0.36	-0.50	26.71	38.25	0.54	0.46	32.07	1.82%		6.17	2.20	13.58	0.97	1.76	2.20		51.08	53.64		5.01%
West Penn Pov Apr-17	Residential	12	Jun-17 Jun-17	May-19	28.79	40.63	-0.36	-0.50	28.43	40.13	0.54	0.46	33.86	4.88%		5.11	2.20	11.06	0.97	1.76	2.20		51.35	55.63		8.34%
West Penn Pov Apr-17	Residential	24	Jun-17	May-19	27.66	38.81	-0.36	-0.50	27.30	38.31	0.54	0.46	32.41	4.88%		6.17	2.16	13.35	0.97	1.76	2.16		52.12	54.27	2.15	4.12%
West Penn Pov Apr-17	Commercial	12	Jun-17	May-18	28.79	40.63	-0.36	-0.50	28.43	40.13	0.54	0.46	33.86	1.82%		5.11	2.20	11.25	0.97	1.76	2.20		50.57	52.89		4.59%
West Penn Pov Apr-17	Commercial	24	Jun-17	May-19	27.66	38.81	-0.36	-0.50	27.30	38.31	0.54	0.46	32.41	1.82%		6.17	2.20	13.58	0.97	1.76	2.20		51.43	53.11	1.68	3.27%
West Penn Power Average				- 1									·- -	,			•						5		2.94	
AACST LEIIII LOMEI AACIARG																									4.34	3.36%

Source: The Brattle Group.

Only Includes 12 and 24 month auctions.

- [1]: Source: Bloomberg. PJM West Hub futures prices were averaged over last five trading days prior to the auction, and over all contract months in the delivery period.
- [2]: Zonal premiums were calculated by taking the average difference LMP between PJM West Hub and the zone of the utility.
- [4]: Weighted average of peak and off-peak zone adjusted prices.
- [5]: Percentage difference between the straight average LMP and load-weighted average LMP. Load-weighted average LMP based on hourly historical load for non-shopping customers in the relevant customer class.
- [7]: Capacity price increased by the installed reserve margin for the delivery period.
- [8]: Ratio between peak and average load for 2010, 2012, 2014, and 2016.
- [10]: Sum of ancillary service costs for 2010, 2012, 2014, and 2016.
- [11]: NITS daily rate converted to an average hourly rate. For future years with unknown NITS rates, The Brattle Group has applied 2017 NITS rates based on their own assumption.
- [12]: Ratio between peak and average load for 2010, 2012, 2014, and 2016.
- [13]: [11] x [12]
- [14]: [6] + [9] + [10] + [13]
- [15]: Announced auction price from First Energy website.
 [16]: [15] [14]
 [17]: [16] / [14]