BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

)

)

)

)

)

)

)

In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan

Case No. 25-0092-EL-SSO

DIRECT TESTIMONY OF

ROBERT J. LEE

ON BEHALF OF

OHIO EDISON COMPANY THE CLEVELAND ELECTRIC ILLUMINATING COMPANY THE TOLEDO EDISON COMPANY

January 31, 2025

1 I. INTRODUCTION AND EXPERIENCE

2 PLEASE STATE YOUR NAME AND BUSINESS ADDRESS. Q. My name is Robert J. Lee. My business address is John Hancock Tower, 200 Clarendon 3 A. 4 Street, T-9, Boston, Massachusetts 02116. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION? 5 **Q**. 6 A. I am a Vice President at Charles River Associates ("CRA") and a member of CRA's 7 Auctions & Competitive Bidding consulting practice. Founded in 1965, CRA provides economic and financial expertise and management consulting services to businesses, law 8 9 firms, accounting firms, and governments. 10 **PLEASE** DESCRIBE AND Q. YOUR **EDUCATIONAL** PROFESSIONAL 11 **BACKGROUND.** 12 I have been at CRA since 2001. I received an MSIA degree from Carnegie Mellon A. 13 University in Pittsburgh in 1996. From the mid-1990s through the mid-2000s, my work 14 focused on the domestic energy sector, where I primarily worked with power generators 15 and regulated utilities. Most recently, I have focused on auctions and other transaction 16 mechanisms in a range of industries, including the power sector. I have been a Vice 17 President in CRA's Auctions & Competitive Bidding Practice since 2013. CRA's 18 Auctions & Competitive Bidding Practice works in a wide range of industries designing,

managing, and providing oversight to competitive bidding processes ("CBPs"). CRA acts
as the independent monitor of bidding processes on behalf of some clients and provides
bidder support for others. In the course of that work, I have played a leadership role in a
wide range of auctions in a broad set of industries, including auctions in the power sector.

I have also played a leadership role in dozens of consulting engagements involving auctions and other competitive bidding mechanisms in electricity. Among other engagements, I have acted as the Request for Proposal ("RFP") Manager or Auction Manager, or as the RFP/Auction Monitor for electricity clients in many U.S. jurisdictions. I have managed more than 200 auctions similar to the CBP we have designed and conducted in the electric utility industry. My curriculum vitae is marked as Attachment RJL-1, listing my background and experience in further detail.

8 Q. HAVE YOU PREVIOUSLY WORKED ON MATTERS BEFORE THE PUBLIC 9 UTILITIES COMMISSION OF OHIO (THE "COMMISSION")?

10 Yes, I have. CRA has been retained by the Companies for structured procurements since A. 11 2008 and I have served as part of the CRA Auction Manager team on all the Companies' 12 procurements to date. I have also assisted CRA's Auction Manager team in support of CBP procurements pursuant to Commission-approved electric security plans ("ESPs") for 13 14 Duke Energy Ohio ("DEO") and AES Ohio, also known as Dayton Power and Light 15 Company ("AES Ohio"). In 2010, I submitted testimony on behalf of DEO in Case No. 16 10-2586-EL-SSO related to its Market Rate Offer filing. In 2011, 2014, and 2017, I 17 testified on behalf of DEO related to its ESP filings in Case Nos. 11-6000-EL-UNC and 14-841-EL-SSO. In 2012, 2016, and 2022, I submitted testimony on behalf of AES Ohio 18 19 in association with its competitive procurements in support of its Standard Service Offer 20 ("SSO") under Case Nos. 12-426-EL-SSO, 16-0395-EL-SSO, and 22-0900-EL-SSO. I 21 testified on behalf of the Companies in support of their fifth ESP filing ("ESP V") in Case 22 No. 23-301-EL-SSO. CRA also currently executes Commission-approved procurements 23 on behalf of the Percentage of Income Payment Plan ("PIPP") customers of the Companies,

1		as well as AES Ohio and DEO. Additionally, during the late 1990s, prior to joining CRA,
2		I worked on behalf of Dayton Power & Light and Cinergy on their transition plans related
3		to the deregulation of the Ohio power sector.
4	Q.	HAVE YOU WORKED ON PROCUREMENTS FOR ANY OF THE COMPANIES'
5		AFFILIATES?
6	А.	Yes. I have worked for the Companies' Pennsylvania affiliates on Provider of Last Resort
7		procurements broadly similar to the procurements being done for the Companies in Ohio.
8	Q.	HAS THE COMMISSION SUPPORTED CRA'S INDEPENDENT ROLE IN THE
9		COMPETITIVE BIDDING PROCESSES?
10	A.	Yes. CRA has managed dozens of SSO CBPs for electric distribution utilities ("EDUs")
11		in Ohio. In all cases, the Commission accepted the results based on recommendations of
12		both CRA acting as the independent Auction Manager and the Commission's consultant.
13		The Commission has found CRA to be an active, fair, and impartial participant in these
14		processes. The Commission, either directly or through its consultant, has had ready insight
15		into the auction process, and I am confident that CRA would not have served, and would
16		not continue to serve, in its capacity as an Auction Manager if there were any question
17		about its unbiased and independent role.
18	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?
19	A.	Similar to our engagements for the Companies starting in 2008, CRA has been retained by
20		the Companies to serve as the independent Auction Manager to design and implement a
21		CBP to procure SSO supply. My testimony describes how the proposed CBP solicitations
22		will work, what alternative CBP designs were considered, and how the proposed CBP
23		supports the establishment of the Companies' sixth electric security plan ("ESP VI") under

1		Section 4928.143 of the Ohio Revised Code. I also propose the Companies' ESP VI
2		auction schedule.
3	Q.	WHAT ARE THE ATTACHMENTS AND SCHEDULES FOR WHICH YOU ARE
4		RESPONSIBLE?
5	A.	I am sponsoring the following items:
6		• Attachment RJL-1 – Curriculum Vitae;
7		• Attachment RJL-2 – Part 1 Application document;
8		• Attachment RJL-3 – Part 2 Application document;
9		• Attachment RJL-4 – Bidding Rules;
10		• Attachment RJL-5 – Communications Protocols;
11		• Attachment RJL-6 – Pre-Bid Letter of Credit;
12		• Attachment RJL-7 – Master Supply Agreement ("MSA");
13		• Attachment RJL-8 – Glossary; and
14		• Attachment RJL-9 – Proposed Schedule of CBP Auctions.
15		
16	II.	PROPOSED CBP PROCESS
17	Q.	ARE YOU PROPOSING TO CONTINUE THE COMPANIES' CURRENT
18		APPROVED COMPETITIVE BIDDING PROCESS?
19	A.	Yes. The proposed CBP process for ESP VI is consistent with the process that has been
20		used successfully in the past. It mirrors the CBP as approved by the Commission in ESP
21		V, which the Commission also approved the Companies to continue using during their
22		return to ESP IV. The only changes that the Companies are proposing here are to the CBP
23		auction schedule, as described below, and to Appendix A to the MSA to implement the use

1		of a single MSA per supplier, as approved by the Commission in ESP V. The proposed
2		changes to Appendix A of the MSA are reflected in Attachment RJL-7.
3	Q.	DO THE COMPANIES CURRENTLY HAVE AN APPROVED AUCTION
4		SCHEDULE IN PLACE?
5	A.	Yes. The Companies' auction schedule was approved in Case No. 24-133-EL-UNC, ¹ and
6		the Companies were authorized to continue using that schedule in their modified ESP IV
7		in Case No. 14-1297-EL-SSO.
8	Q.	ARE THE COMPANIES PROPOSING IN ESP VI TO MODIFY THE CURRENT
9		APPROVED AUCTION SCHEDULE?
10	А.	Yes, while some of the currently scheduled auctions will not change, the Companies are
11		proposing that others will. Specifically, the Companies are not proposing any
12		modifications to the June 2025 or January 2026 auctions. The Companies propose to shift
13		the summer 2026 auction to September and to conduct the winter 2027 auction as
14		scheduled in January, with the product lengths in these two auctions to be updated to
15		procure power for the remainder of the ESP VI term through May 31, 2028. The
16		Companies' proposed ESP VI auction schedule can be found in Attachment RJL-9.
17	Q.	WHY ARE THE COMPANIES PROPOSING TO MOVE THE SUMMER

18

AUCTION TO SEPTEMBER?

A. Moving the auction to September will bring it closer to the delivery year, reducing the time
 between signing contracts with winning bidders and delivery of power to customers. The

21 Companies anticipate that reducing the time between contracting and delivery will lower

¹ In Case No. 24-133-EL-UNC, the Commission approved the Companies' alternative three-year and five-year auction schedules, depending upon the outcome of the Companies' then-pending application for rehearing ("AFR"), which would have determined the term of ESP V. For purposes of this testimony, I am referring to the five-year auction schedule contained in Exhibit B to the Companies' July 31, 2024 Motion to Update Auction Schedule.

the risk premium. Additionally, this change will align the schedule with those followed by
 other electric distribution utilities in Ohio and Pennsylvania and past precedent for the
 Companies.

4

5 III. <u>DESCRIPTION OF THE CBP SOLICITATIONS</u>

6 Q. WHAT CRITERIA INFLUENCED THE DEVELOPMENT OF THE CBP PLAN 7 UNDER THE COMPANIES' PROPOSED ESP VI?

A. The CBP plan presented here is supported and guided by the relevant statutory and
Commission rule requirements applicable to a CBP plan under Ohio Revised Code Section
4928.143. The CBP plan proposed in these proceedings is materially similar in structure
to the CBP plan approved by the Commission as part of the Companies' ESP V² and their
modified ESP IV.³

13 Q. PLEASE DESCRIBE THE PROPOSED CBP PLAN.

A. The CBP plan is designed to promote open, fair, and transparent competitive solicitations
with clear product definitions, standardized bid evaluation criteria, oversight by an
independent third party, and the evaluation of the submitted bids prior to the selection of
the least-cost bid winners. The Commission has repeatedly held that a CBP is consistent
with the state's policy goals by approving CBPs for each of Ohio's investor-owned EDUs.
As stated in the Communications Protocols, there are at least four objectives in
implementing a CBP. These are:

² See Case Nos. 23-301-EL-SSO and 24-133-EL-UNC.

³ See Case No. 14-1297-EL-SSO.

1	• To establish a fair and equitable process for all Bidders by ensuring all
2	Bidders have equal access to the same information necessary to evaluate the
3	bidding opportunity and to prepare their bids in a timely manner;
4	• To take all reasonable precautions that any information generated by the
5	auction process that could harm the competitive position of Bidders or the
6	Companies, if released, is kept confidential;
7	• To take all reasonable precautions that confidential information is provided
8	only to those persons to whom it is deemed necessary for the conduct and
9	management of the auction process; and
10	• To ensure that information that, if released, could harm the competitiveness
11	of future competitive bidding processes is kept confidential from all entities
12	including Bidders.
13	The major elements of the CBP plan include the following:
14	• Developing products and contract terms, as formalized in the MSA, that
15	encourage participation in the CBP;
16	• Maintaining an Information Website that facilitates interest and
17	participation by providing documents, announcements, a timeline
18	(including deadlines for the CBP), load data, frequently asked questions
19	("FAQs"), and other information;
20	• Conducting bidder information sessions, educating bidders through
21	informational materials, and training bidders through mock auctions, all to
22	promote and encourage participation;

 to information; Administering the two-part bidder application process, inclusion 	-
• Administering the two-part bidder application process, incl	-
	NITOGO
4 establishing financial and non-financial requirements to enco	Julage
5 participation by serious parties;	
• Developing the auction design and bidding procurements to attract b	idders
7 and to promote competitive bidding;	
• Customizing and testing the bidding platform ("Bidding Website") an	d help
9 desk facility;	
• Providing starting prices for the CBP that are intended to attract	bidder
11 participation;	
• Conducting each solicitation in accordance with the bidding rules an	ıd in a
13 manner that promotes participation and allows for verification	on of
14 procedures and results; and	
• Submitting a post-auction report to the Commission that the Comm	ission
16 may rely on to approve the results of the CBP.	
17 Q. WHAT IS THE PRODUCT THAT WILL BE PROCURED IN THE	CBP
18 AUCTIONS UNDER ESP VI?	
19 A. The Companies propose in ESP VI to procure an SSO product that mirrors the produ	act the
20 Commission approved in ESP V and continued in the Companies' modified ES	SP IV.
21 Specifically, the product in the Companies' CBP auctions is an hourly, load-following	ng full
22 requirements tranche of the Companies' entire SSO load. For purposes of this descri	C
23 a tranche is defined as one (1) percent, or a slice, of the Companies' total SSC	

obligation for energy, capacity, ancillary services, and certain other transmission services.
 The Companies will support bidders by providing detailed, historical, hourly load profiles
 for shopping and non-shopping customers by customer class, customer counts, shopping
 rates and other considerations that define the product obligation. The FAQ process
 provides a mechanism for bidders to request information on market factors, policy issues,
 energy efficiency programs and other considerations that may impact the obligations of an
 SSO supplier.

The Companies will include different products of varying contract durations 8 9 necessary to meet their entire SSO load via a competitive process. In an effort to better 10 achieve fairly consistent, price-smoothing benefits for customers, the Companies are 11 planning to procure a mix of 12- and 24-month term contracts, where possible, for the ESP 12 VI period. Regardless of the term length to which a supplier commits, each successful supplier will provide full requirements SSO supply, including energy, capacity, ancillary 13 14 services, and other services as defined in the MSA. A proposed schedule of auctions and 15 products has been included as Attachment RJL-9.

16 Q. HOW WILL THE PRODUCT DEFINITIONS AND CONTRACT TERMS 17 ENCOURAGE PARTICIPATION?

A. The products and contract terms are familiar to market participants and prospective bidders. They are standardized and yet provide flexibility through multiple solicitations and staggered contract delivery periods that allow participants to bid their preferred supply profile over time. The definition of the tranche size—where each tranche is a specified, fixed percentage of SSO load—also encourages participation from a range of potential bidders. Additionally, the term of auction products will be aligned with the PJM calendar

for the purpose of providing potential suppliers clear information as to the potential cost of
 satisfying their SSO capacity obligations.

3 Q. HOW WILL PROSPECTIVE BIDDERS AND OTHER PARTICIPANTS BE KEPT 4 INFORMED DURING THE CBP?

5 Documents, announcements, a timeline, load data, FAQs, and other information will be A. 6 readily available via the Information Website which will be hosted and updated regularly 7 by the Auction Manager. Interested parties can register at the Information Website to 8 receive, via email, updates and announcements about the CBP. Parties can submit 9 questions and comments to the Auction Manager directly via a link on the Information 10 Website or via email. Responses will be posted to the FAQ section of the Information 11 Website, and registered parties will receive email notifications of new information posted 12 to the Information Website. In addition to the Information Website, bidder information sessions will be conducted with presentations about the CBP, with time allowed for 13 14 attendees to ask questions. In recent years, the bidder information sessions have been 15 conducted via Web conference to accommodate prospective bidders that may not be able 16 to attend such sessions in person. Web conferences are low cost and require a limited time 17 commitment from interested parties. Although CRA would be willing to conduct open 18 sessions to the extent that the Commission or Commission Staff feel such sessions would 19 be useful, it is my recommendation that the Web-based format be retained for the proposed 20 solicitations. Registered bidders also will be encouraged to participate in mock auctions to familiarize themselves with the bidding platform and procedures. 21

Q. WHAT PRECAUTIONS AND PROCEDURES WILL BE TAKEN TO ENSURE APPROPRIATE COMMUNICATIONS AND INFORMATION EXCHANGE?

3 The Communications Protocols establish the general substance and form of A. 4 communications allowed among various parties including the Auction Manager, the 5 Companies, the Commission, any advisor the Commission may have retained, and 6 prospective bidders. The Communications Protocols are found in Attachment RJL-5. The 7 protocols are intended to protect confidential information and to establish a fair and 8 equitable process without providing an advantage or disadvantage to prospective bidders. 9 This is done by ensuring all bidders have equal access to the same information necessary 10 to evaluate the bidding opportunity and to prepare their bids in a timely manner.

11 The Auction Manager will provide the communications channel for interested 12 parties. This includes handling questions from parties about the CBP, providing 13 information via the Information Website, broadcasting email notifications to registered 14 parties (using the BCC email field), conducting bidder information sessions, managing the 15 auctions, communicating results, and submitting a post-auction report. Through this 16 process, the Auction Manager will distribute and disseminate information equally and 17 fairly to all prospective and actual bidders. All of this will facilitate equal access to the 18 same information at the same time for all bidders.

19 Certain individuals from the Companies will be part of the information exchange. 20 But this will be limited and only support the competitiveness and success of the CBP. The 21 roles of such persons primarily will be for: (1) development of data posted to the 22 Information Website; (2) assistance in responding to FAQs (they will not know the identity 23 of questioners); (3) assistance in reviewing certain information in the Part 1 Applications

(to determine creditworthiness and pre-bid security requirements); (4) confirming the pre bid security posted as part of the Part 2 Applications; and (5) administering the MSA and
 MSA confirmations.

4 Q. PLEASE PROVIDE AN OVERVIEW OF THE BIDDER APPLICATION AND 5 QUALIFICATION PROCESS.

6 A. To participate in the CBP, prospective bidders will need to satisfy financial and non-7 financial requirements through a two-part application process. Through the two-part 8 application process, prospective bidders demonstrate their ability and commitment to meet 9 the requirements for participation in the CBP and for acting as an SSO Supplier as set forth 10 in the MSA. The Part 1 Application and Part 2 Application forms are found in Attachment 11 RJL-2 and Attachment RJL-3. As much as possible, the Part 1 and Part 2 Application 12 process will be conducted electronically via CRA's on-line portal for the Part 1 Application 13 and Part 2 Application process. This secure process is designed to make it easier and less 14 time consuming for applicants to submit applications. The process further provides for: 15 (1) the review and assessment of the applications; (2) feedback to applicants; (3) the ability 16 for applicants to check on the status of their applications; (4) the opportunity for applicants 17 to cure any deficiencies; and (5) the ability for applicants to submit electronic PDF versions 18 of the supporting financial documents.

19

Q. PLEASE DESCRIBE THE PART 1 APPLICATION PROCESS.

20 A.

In its Part 1 Application, a prospective bidder must satisfy the following requirements:

21

22

23

- Submit a completed application;
- Provide contact information for the applicant and for designated representatives of the applicant;

1 Agree to comply with the provisions of the MSA and all the rules of the 2 CBP including the Communications Protocols; 3 Demonstrate PJM participant status, or certify that there are no impediments 4 to establishing that status prior to the start of the relevant SSO supply 5 period; 6 Provide financial and credit information to be used in determining 7 creditworthiness and credit requirements; and 8 Make certifications regarding confidentiality and other matters. 9 Part 1 Applications are to be submitted to the Auction Manager by the Part 1 10 Application due date. The Auction Manager team will process and evaluate all Part 1 11 Applications to determine whether each applicant has satisfied the requirements of Part 1. 12 Financial and credit information will be submitted, on a redacted basis when appropriate, to credit representatives of the Companies in order to conduct a creditworthiness 13 14 assessment. If an applicant's Part 1 Application is incomplete or requires clarification, the 15 Auction Manager will send a deficiency notice to the applicant, and the applicant will have 16 until the end of the next business day or until the Part 1 Application due date—whichever 17 is later—to respond. 18 Following the evaluation of Part 1 Applications, the Auction Manager will notify

18 Following the evaluation of Part 1 Applications, the Auction Manager will notify 19 each Part 1 applicant whether they have successfully completed the Part 1 Application 20 process to become a Qualified Bidder. The Auction Manager will send a Notification of 21 Qualification to each Qualified Bidder that will include details about the pre-bid security 22 the Qualified Bidder will be required to post as part of its Part 2 Application. The Auction 23 Manager will send a list of the Qualified Bidders to each Qualified Bidder as well as to

other parties as necessary to oversee the proper conduct of the CBP including
 representatives from the Companies, Commission Staff, and any advisor that Commission
 Staff may have retained for this purpose. All parties, including Qualified Bidders, will
 have undertaken to maintain the confidentiality of the list of Qualified Bidders, as further
 explained in the Communications Protocols.

6 Q. PLEASE DESCRIBE THE PART 2 APPLICATION PROCESS.

7 To continue participation in the CBP, Qualified Bidders must submit a Part 2 Application. A. 8 In the Part 2 Application, the Qualified Bidder must make a number of certifications 9 regarding its associations with other Qualified Bidders. This ensures that each Qualified 10 Bidder participates independently of other Qualified Bidders. It also ensures the 11 confidentiality of information regarding the CBP. Also in the Part 2 Application, each 12 Qualified Bidder must submit an indicative offer that specifies the number of tranches that it would be willing to serve at the minimum starting price and at the maximum starting 13 14 price for each product in the CBP auction.

Part 2 applicants also must post pre-bid security in the form of a pre-bid letter of credit or cash (electronic wire transfer) sufficient to support their indicative offers. The pre-bid letter of credit submitted to support the indicative offer must be in a form acceptable to the Companies. A sample pre-bid letter of credit (Attachment RJL-6) will be posted to the Information Website.

20 Part 2 Applications are to be submitted to the Auction Manager by the Part 2
21 Application due date. The Auction Manager team will process and evaluate all Part 2
22 Applications to determine whether each applicant has satisfied the requirements of the Part
23 2 Application. A Part 2 Application will be acceptable if it satisfies the following:

1	• It is complete;
2	• It includes an indicative offer in the appropriate form;
3	• It meets the requirements provided to the Part 2 applicant resulting from the
4	Part 1 Application process; and
5	• It includes the pre-bid security in a form acceptable to the Companies that
6	is sufficient to cover the indicative offer submitted by the Part 2 applicant
7	at the maximum starting prices.
8	If an applicant's Part 2 Application is incomplete or requires clarification, the
9	Auction Manager will send a deficiency notice to the applicant, and the applicant will have
10	until the end of the next business day or until the Part 2 Application due date-whichever
11	is later—to respond.
12	Following the evaluation of Part 2 Applications, the Auction Manager will notify
13	each Part 2 applicant whether it has successfully completed the Part 2 Application process
14	to become a Registered Bidder. The Registered Bidder's pre-bid security establishes the
15	Registered Bidder's initial eligibility, <i>i.e.</i> , the maximum number of tranches the bidder will
16	be allowed to bid in the auction. The Auction Manager will send a Notification of
17	Registration to each Registered Bidder that will include the Registered Bidder's initial
18	eligibility. The Auction Manager will send to each Registered Bidder, as well as to other
19	parties as necessary to oversee the proper conduct of the CBP, a list of the Registered
20	Bidders and the total initial eligibility across all Registered Bidders. All parties, including
21	Registered Bidders, will have undertaken to maintain the confidentiality of this information
22	provided to them.

Q. WHAT PROCEDURES WILL BE FOLLOWED IF THERE ARE APPARENT AFFILIATE RELATIONSHIPS OR OTHER ASSOCIATIONS AMONG APPLICANTS?

- A. As outlined in the Bidding Rules (Attachment RJL-4), the competitiveness of an auction
 may be compromised by coordinated or collusive behavior that bidding associations may
 facilitate. CRA, the Companies, Commission Staff, and the Commission's consultant
 previously worked together to develop a set of rules and protocols to address situations in
 which bidders may be associated. These rules and protocols are included in the Bidding
 Rules. Restrictions on participation may include, but may not be limited to, the following:
- Indicative offers may be restricted such that any applicable load cap or
 credit-based tranche cap may apply across the associated bidders (initial
 eligibility is not allowed to exceed either cap);
- 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
- In some cases, one or more associated bidders may not be allowed to
 participate in the CBP auction.
- 18 Q. WHAT BIDDING DESIGN WILL BE USED?

A. A version of the simultaneous, multiple-round, descending-price clock auction format will
be used. A version of this format has been used in numerous electricity procurements
starting in Massachusetts in 1997 and then later in New Jersey, Ohio, Pennsylvania,
Illinois, and elsewhere. It has been used successfully to competitively procure the
Companies' SSO supply for their prior electric security plans (ESP I, ESP II, ESP III, ESP

IV, and ESP V, including the most recent auction).⁴ It also has been used by other EDUs in Ohio to procure SSO supply. This bidding design also has been used for buying and 2 3 selling other energy products and has been used in other industries.

The bidding format is simultaneous; multiple products and/or multiple tranches are 4 5 bid on simultaneously. Bidding takes place online using Web-based software in a series 6 of bidding rounds, with pre-specified starting and ending times for each round. Prior to 7 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. 8 9 The starting announced price for each product—*i.e.*, the announced price in effect during 10 round 1—is set so as to encourage bidding participation. At the end of each round, the 11 bidding software (with oversight by the Auction Manager team) determines which products 12 are over-subscribed and which products are under-subscribed. A product is oversubscribed if more supply tranches were bid on it across all bidders than the number of 13 14 tranches needed of that product. Likewise, a product is under-subscribed if fewer tranches 15 were bid on it than needed. If a product is over-subscribed, the announced price for that 16 product will be reduced by a decrement for the next round. If a product is not over-17 subscribed, its announced price will not change for the next round. The bidding process 18 continues in this manner, with prices tending to tick down like hands on a clock. As prices 19 change across the products, bidders are allowed to change the number of tranches they bid, 20 subject to certain restrictions. Subject to these restrictions, in each round, a bidder simply 21 specifies the number of tranches that it is willing and able to supply for each product given 22 the announced price for each product. There is no pre-determined number of rounds before

⁴ See Case No. 16-776-EL-UNC.

the auction closes. The auction closes after the first round in which no product is oversubscribed and there is no excess supply. Winning bidders are those bidders who bid the
tranches that are winning tranches as of the close of the auction. The Bidding Rules provide
a more detailed description of the bidding process.

5 Q. PLEASE DESCRIBE THE PROCESS FOLLOWING THE CLOSE OF THE 6 AUCTION.

7 A. At the close of the auction, the Auction Manager will provide a report to the Commission, 8 the Companies, and the Commission's consultant. The post-auction report will summarize 9 the bidding process and results and will provide a list of the least-cost bidders and the 10 number of the least-cost tranches for each product for each such bidder. The Companies 11 propose that the bids of the least-cost bidders will continue to be reviewed by the 12 Commission within forty-eight (48) hours of the conclusion of the auction, with winning bids serving to determine the retail rates for SSO supply for the relevant period(s) of ESP 13 VI. 14

After the last round of the auction, bidders that remained active in the auction will see preliminary auction results through the Bidding Website. These bidders will see the closing prices for the products and the number of tranches the bidder tentatively has won for each product. The Auction Manager 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 product-specific closing prices. These preliminary results remain subject to the Commission's review.

Once the Commission approves the winning bidders, each winning bidder and the
 Companies will execute an MSA or a transaction confirmation. Pre-bid security will be

returned to winning bidders upon execution of the MSAs or transaction confirmations. Pre bid security will be returned to non-winning bidders on or before the fifth calendar day
 after the close of the auction. Pre-bid security may be held back for any bidder that violated
 any of the rules or certifications of the CBP.

5 At its discretion, the Commission may release certain non-confidential information 6 about the CBP results including winning bidders, winning tranches, and closing prices.

Q. HOW IS THE CBP DESIGNED TO ENCOURAGE PARTICIPATION IN EACH AUCTION AND TO ENSURE THAT NO ONE BIDDER IS ADVANTAGED?

9 A. Any bidder that can acquire the necessary SSO requirements for delivery to the Companies' 10 service territory can participate in the CBP. Physical generation assets are not required to 11 participate in the CBP or to bid on and win tranches. Nothing in the CBP requires bidders 12 to own generation and nothing in the CBP provides preferential treatment to those that do own generation. The descending-price clock auction format is non-discriminatory because 13 14 anyone can participate as long as they satisfy the criteria used in the application process. 15 Moreover, the CBP is a structured process that levels the playing field for participants and 16 makes information available to ensure that no bidders are advantaged. All bidders are 17 bidding on standardized supply contracts and are subject to identical financial and credit 18 requirements and criteria. All bidders have equal access to information before bidding and 19 during the auction itself. Prior to the auction, the process to educate and train bidders on 20 the details of the CBP and the products is the same for all bidders. During the auction, all 21 bidders receive the same information about the status of the auction.

Q. ARE THERE SPECIFIC DESIGN CONSIDERATIONS CHOSEN TO PROMOTE COMPETITION IN THE AUCTION?

3 A. Yes. There are several rules in place designed to promote competitive bidding. These
4 include the following:

- All bidders are subject to identical credit qualification procedures and
 criteria. Each bidder's credit-based tranche cap is a function of clearly
 defined, objective criteria. The criteria prevent any potential subjectivity or
 favoritism in the process;
- All bidders are bidding on standardized supply contracts. Contracts are not
 tailored to accommodate the needs or demands of any individual bidder;
- The bidder education and training process is designed to provide all bidders
 with equal access to information. The process includes bidder information
 sessions to educate all bidders on the CBP, the auction rules, and the
 products being offered. The FAQ process is designed to provide all bidders
 equal access to information related to the CBP;
- During the auction, all bidders receive the same information about the status
 of the auction, including prices and the supply and demand conditions; and
- The closing criteria of the auction are applied equally to all bidders. Bids are evaluated and winning bidders are determined based on price alone.
 Any bidder demonstrating it is willing and able to supply at the announced price remains active in the auction. Any bidder active on a product when the auction closes is guaranteed to win the rights to supply SSO load (subject to Commission review). Winning bidders win because non-

1		winning bidders are not willing and able to supply tranches at prices as low
2		as the prices at which winning bidders are willing and able to supply
3		tranches. Any bidder willing and able to supply tranches at the lowest
4		possible closing price will become a winning bidder.
5	Q.	HOW DID YOU CONSIDER ALTERNATIVES TO THE PROPOSED CBP?
6	A.	The Companies considered alternatives to the proposed CBP when they developed ESP V.
7		Here, the Companies are proposing the same CBP design approved in ESP V and continued
8		in the modified ESP IV.
9	Q.	WHAT ALTERNATIVES WERE CONSIDERED FOR THE PROPOSED CBP IN
10		ESP V?
11	A.	In addition to a descending-price clock auction format, the Companies considered a request
12		for proposal ("RFP") process such as a one-shot sealed-bid format. Both formats -
13		descending-price clock auction and RFP – have been used for a number of years to procure
14		electricity and for other competitive bids in electricity and in other industries. A one-shot
15		sealed-bid format may be appropriate in some instances and offers the advantage of a
16		seemingly simple bidding process in some situations. One of the advantages of a
17		descending-price clock auction format is that it provides an effective price discovery
18		process. Only with an effective price discovery process, in which bidders submit and re-
19		submit bids as announced auction prices fall reflecting the level of bidding competition,
20		will bidders' bids reflect their best bids in competition with other bidders. Also, bidders
21		are familiar with the descending-clock auction format and its application has a proven
22		record of success in Ohio and elsewhere. For the types of products being procured here,
23		there is little if any advantage of a one-shot sealed-bid format by itself, while a descending-

price clock auction format offers several advantages. For ESP VI, the Companies propose
the same auction format as used in the Companies' prior ESPs (ESP I, ESP II, ESP III, ESP
IV, and ESP V, including the Companies' most recent auction⁵), and as used by DEO and
AES Ohio for their ESPs, *i.e.*: (a) for procurements with multiple products, the Companies
have selected a descending-price clock format; (b) for single product procurements, the
Companies have selected a descending-price clock format with a possible sealed-bid round.
The advantages are summarized below.

8 First, with multiple products, it is more difficult in a one-shot sealed-bid format for 9 bidders to specify their bids. The number of tranches they would be willing and able to 10 supply depends on price levels and relative prices for the different products. In principle, 11 they could submit contingent bids, specifying how many tranches for each product they 12 would supply for different combinations of prices, but specifying all the possible 13 combinations of prices would be challenging.

14 Second, there is a common value element to the CBP products. This means there 15 is some uncertainty in valuing the tranches and the uncertainty is correlated across bidders 16 (for example, forecasts of market prices in the future). Thus, a bidder faces the risk that its 17 bid is an outlier compared to the bids of other market participants and wins at a price that is below competitive market levels. Unless this risk is addressed through the appropriate 18 19 auction design, bidders will compensate for the risk by bidding conservatively, leading to 20 potentially higher closing prices for the procurement. In a one-shot sealed-bid format, the 21 risk can be addressed somewhat by using uniform pricing (all winning bidders for a product 22 get paid the same price for the product) rather than first-price discriminatory bidding (each

⁵ See Case No. 16-776-EL-UNC.

winning bidder gets paid the price it bid). However, the one-shot sealed-bid format lacks
an effective price discovery mechanism that also would mitigate the risk. An effective
price discovery mechanism benefits bidders who gain confidence from price signals that
reflect other bidders' bids in the aggregate, thereby encouraging bidders to bid more
aggressively.

6 Third, with multiple products, the more the products are related in value (for 7 example, they are substitutes and/or complements), the more important it is that meaningful price signals be provided so that bidders gain information about the value of the tranches. 8 9 This reduces risks for bidders and encourages them to bid lower prices. A one-shot sealed-10 bid auction does not provide these price signals, thereby increasing risks faced by bidders 11 and discouraging them from bidding lower prices. In contrast to the one-shot sealed-bid 12 format, the descending-price clock format allows bidders to revise their bids in response to 13 prices that reflect aggregate bidder interest in the products. Because the auction proceeds 14 in a series of rounds with announced prices reflecting competitive bids, bidders do not need 15 to be concerned with specifying combinations of hypothetical prices. There is an effective 16 price discovery mechanism: prices decline in response to supply being bid, and bidders can 17 adjust their bids accordingly. The descending-price clock format provides the price 18 transparency that facilitates effective and efficient bidding among all bidders. The price 19 signals provided through the process enable bidders to bid confidently and aggressively 20 (*i.e.*, at lower prices) without risking "under-bidding the market." The descending-price 21 clock format also imposes uniform pricing which also reduces bidders' risks. The bidding 22 mechanics for the descending-price clock format are straightforward. Even bidders

participating in this bidding format for the first time find the logic, interface, and
 experience intuitive and efficient.

Fourth, in a simultaneous, multiple-round, descending-price clock procurement, bidders can switch from one of the EDU's products to another product in response to price differences that they believe are not reflective of underlying supply cost differences. This behavior leads to a potentially more efficient outcome and contributes to pricing that is more consistent among the products. Similar products will have similar prices through this process. This further simplifies administration and regulatory oversight.

9 Finally, the descending-price clock format has been used successfully for several 10 CBPs in Ohio and is familiar to the Commission and the Companies. The format has 11 performed well and resulted in strong participation from suppliers reflecting the 12 competitive nature of the process. It is a format that participants are used to and are 13 comfortable with.

14 Q. DOES THE COMPANIES' PROPOSED CBP USE A SLICE-OF-SYSTEM 15 APPROACH?

A. Yes. The slice-of-system approach refers to the manner in which the SSO load is procured and served by suppliers. Under this approach, the SSO load is treated as an aggregated whole, encompassing the total megawatt-hour energy and capacity requirements of all customer classes combined. Suppliers participating in the auction bid to serve a proportional share of this aggregate SSO load, rather than targeting specific customer classes or subsets of the load. This method ensures that all customer classes are treated uniformly within the procurement process, avoiding the risk of certain classes receiving

1

2

limited or no supplier interest, which could occur if separate solicitations were conducted by customer class.

3 Q. DID YOU CONSIDER CONDUCTING SEPARATE SOLICITATIONS BY 4 CUSTOMER CLASS?

Similar to the consideration of alternative CBP designs, the Companies considered 5 A. 6 conducting separate solicitations by customer class when they developed their CBP 7 proposal in ESP V. The Companies elected to continue the long-standing "slice-of-system" 8 approach. Due to historically high levels of shopping in certain customer classes, the 9 Companies are concerned that some products or customer classes may garner limited or no 10 bidder interest, and some tranches may go unserved in the auction. The Commission 11 agreed with the Companies' proposal to not include separate solicitations by customer class 12 in its ESP V decision.

Q. DOES THE PROPOSED CBP INCLUDE A PROVISION FOR THE FUNDING OF THE COMMISSION'S CONSULTANT?

A. Yes. The CBP plan provides for funding of a consultant that may be selected by the Commission. The Commission's consultant's role is to assess and report to the Commission on the design of the solicitation, the oversight of the bidding process, the clarity of the product definition, the fairness, openness, and transparency of the solicitation and bidding process, the market factors that could affect the solicitation, and other relevant criteria as directed by the Commission.

1Q.WILL THE ADOPTION OF THE PROPOSED CBP CREATE ANY2DIFFICULTIES OR BARRIERS?

3 No. There should be no barriers or difficulties for bidders with respect to the proposed A. 4 CBP. As with any competitive procurement, a critical success factor is whether the 5 products are attractive to bidders and whether bidders have been provided sufficient time 6 and information to evaluate the opportunity to participate. As part of that, any uncertainties 7 in the process that bidders face should be addressed to the extent possible. The CBP products are clearly defined and are designed to be attractive to prospective bidders. The 8 9 proposed CBP plan is designed to provide sufficient time and readily available information 10 for prospective bidders to participate confidently in the CBP.

11 Q. WILL THERE CONTINUE TO BE LOAD CAPS FOR THE AUCTIONS?

12 Yes. Although load caps may place upward pressure on the auction closing prices, supplier A. 13 diversity provides some risk mitigation benefits to customers and the Companies. As a 14 result, the Companies are proposing to adopt a load cap for the CBP auctions. The 15 proposed load cap will be 80 percent on an aggregated load basis across all auction products 16 for each auction date such that no bidder may bid on and win more tranches than the load 17 cap. The load cap will be implemented by ensuring that each bidder's initial eligibility 18 does not exceed the load cap in an auction. This is identical to the load cap in the Companies' ESP IV and ESP V. 19

20 Q. WHAT IS THE CONTINGENCY PLAN IF NOT ENOUGH TRANCHES ARE 21 SECURED THROUGH A CBP AUCTION?

A. The contingency plan comprises a three-step process if fewer tranches than a product's
 tranche target are procured in the auction. First, if the next scheduled CBP auction takes

1 place no later than 30 calendar days prior to the start of the delivery period for the unfilled 2 tranches, the unfilled tranches will be made available in that auction. Second, if there is 3 no such auction, or if there is such an auction but some of the unfilled tranches remain 4 unfilled after such an auction, then the remaining unfilled tranches will be procured by 5 offering them to current SSO suppliers. Current SSO suppliers will be assigned a random 6 number, and each unfilled tranche will be offered to current SSO suppliers in ascending 7 order of random number, subject to any credit-based tranche limits and any applicable load 8 caps for such suppliers. The tranches will be offered to current SSO suppliers at the 9 clearing price, starting price, or reservation price, whichever is lowest, from the auction in 10 which the tranches were not procured. Finally, if, after the attempts above to procure 11 unfilled tranches there remain unfilled tranches, the necessary SSO supply requirements 12 associated with those unfilled tranches will be met through PJM-administered markets at prevailing day-ahead zonal spot prices, and, unless instructed otherwise by the 13 14 Commission, the Companies will not enter into hedging transactions to attempt to mitigate 15 the associated price or volume risks to serve these tranches.

16 Q. WHAT IS THE CONTINGENCY PLAN IF ONE OR MORE OF THE SSO 17 SUPPLIERS DEFAULT PRIOR TO OR DURING THE DELIVERY PERIOD?

A. If a winning bidder defaults prior to or during the delivery of SSO load requirements, the
Companies' contingency plan to procure the open tranches will be to follow the same steps
as outlined above for unfilled tranches from a CBP auction. Additional costs incurred by
the Companies in implementing the contingency plan will be assessed first against the
defaulting supplier's credit security, to the extent of such security.

1	Q.	WERE ALL THE AUCTIONS CONDUCTED UNDER THE COMPANIES'
2		PREVIOUS ESPS COMPETITIVE?
3	A.	Yes. Participation in each of the CBP auctions conducted to date as part of the Companies'
4		ESP I, ESP II, ESP III, ESP IV, and ESP V, has been broad and competitive. And the
5		results of every auction in the ESPs above have been accepted by the Commission.
6		
7	IV.	RENEWABLE PORTFOLIO STANDARD COMPLIANCE
8	Q.	WILL THE COMPANIES USE THE CBP AUCTIONS TO MEET STATUTORY
9		RENEWABLE ENERGY RESOURCE BENCHMARKS?
10	А.	No. The Companies will separately purchase renewable energy credits to comply with the
11		statutory benchmarks, which I understand end on December 31, 2026.
12		
13	V.	CONCLUSION
14	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?

15 A. Yes.



ROBERT J. LEE Vice President

M.S. Industrial Administration, Carnegie Mellon University,

> B.A. Mathematics, Boston College

Mr. Lee is a Vice President at Charles River Associates. During his consulting career, Mr. Lee has assisted numerous clients to develop structured sales and procurement channels in an array of industries and markets. He has managed structured transactions, acquisitions and divestitures in both traditional and competitive bidding environments. In addition, Mr. Lee has helped clients on a range of valuations and market analyses related to changes in market dynamics and market structure. Mr. Lee began his consulting career in senior staff positions at the PA Consulting Group and at Putnam, Hayes and Bartlett, Inc. At Putnam, Hayes and Bartlett, Mr. Lee was involved in quantifying the stranded costs for several utilities in Ohio, Pennsylvania and West Virginia resulting from proposed changes in market structure. Mr. Lee led modeling teams for clients at Allegheny Power Systems, Dayton Power and Light Company and Cinergy in support of their transition from vertically integrated utilities operating under cost of service regulation to utilities operating in markets with retail choice.

AUCTIONS AND COMPETITIVE BIDDING

Electricity

Duke Energy Carolinas

 Supported Duke Energy's Carolina affiliates, Duke Energy Carolinas and Duke Energy Progress, execute annual solar procurement processes. The procurements were designed to identify local solar and solar paired with storage options. The RFPs were designed to procure over 1,000 MW of PPA and utility ownership options each year in support of Duke's carbon plan targets.

Duke Energy Indiana

 Duke Energy Indiana to execute two, All-Source, RFP processes in support of Duke Indiana's capacity needs. The RFPs were designed to identify resources in support of the targets identified by Duke's integrated resource planning efforts. The RFP's considered thermal and renewable resource options located in MISO LRZ6 and across a broader MISO footprint.

Consumers Energy

Supported Consumers to execute a request for proposal process designed to identify
existing thermal resources in support of Consumers' energy and capacity needs. CRA
managed the RFP process from project launch through winner selection and the pending
regulatory phase. CRA marketed the process to bidders, supported bidders through bid
submission, evaluated proposals based on project economics and other factors and
recommended projects for advancement.

Great River Energy

• Supported Great River management on soliciting and evaluating bids for Great River's (GRE) HVDC transmission line that connects the Coal Creak power plant to MISO at or around Minneapolis/St. Paul. Worked with GRE on the solicitation process, identifying data gaps and material uncertainty for potential counterparties and stakeholder communication related to the potential HVDC sale.

Hoosier Energy

 Designed and executed a competitive, all-sources RFP for resources in MISO on behalf of Hoosier Energy. The RFP was designed to solicit bids for capacity to replace Hoosier's Merom coal-fired power plant. Managed the CRA team in the development of the RFP rules, marketing the opportunity to potential counterparties and worked closely with Hoosier on the bid review and winner selection.

Northern Indiana Public Service Company

 Designed and executed a series of competitive RFP for capacity in MISO LRZ6 on behalf of Northern Indiana Public Service Company. Managed a process designed to be compliance with FERC Edgar Allegheny requirements. Examined options for a structured tax-equity joint venture structure to monetize tax assets associated with renewable ownership. Let several working sessions with FERC staff related to tax-equity financing structures and the implications of renewable ownership for utilities.

Monongahela Power Company

• Designed a competitive RFP process for Monongahela Power Company to evaluate options to meet anticipated capacity shortfalls for the West Virginia utility. Designed and managed the bidding process, modeled the anticipated operations of facilities bid into the RFP, selected the winning bidder and supported the acquisition through testimony at FERC and the West Virginia PSC.

Duke Energy Ohio, Inc.

- Designed a competitive bidding process (CBP) to procure wholesale generation for retail Standard Service Offer (SSO) load for Duke Energy Ohio, Inc. covering the period from January 1, 2012 through May 31, 2018. The CBP used a clock auction format. The auction process was subject to approval by the Public Utilities Commission of Ohio (PUCO).
- Designed and managed a request for proposal process (RFP) to identify a supplier for the Percentage of income Payment Plan (PIPP) customer load of Duke Energy Ohio.

The Dayton Power and Light Company

• Designed a competitive bidding process (CBP) to procure wholesale generation for retail Standard Service Offer (SSO) load for Dayton Power and Light. The procurements covered the period from January 1, 2014 through May 31, 2017. The CBP used a clock auction format. The auction process and outcome were subject to approval by the Public Utilities Commission of Ohio (PUCO).

Duquesne Light Company

• Designed a competitive bidding process (CBP) to procure wholesale generation for retail provider of last resort (POLR VIII) load for the Duquesne Light Company.

DTE Electric Company

- Managed DTE Electric Company (DTE)'s 2017 capacity RFP. The RFP was designed to analyze options for combined cycle generating capacity within MISO Zone 7 for the purposes of acquisition.
- Managed DTE Electric Company (DTE)'s 2015 capacity RFP. The RFP was designed to acquire a power plant to help DTE close an identified capacity shortfall. DTE acquired the East China combustion turbine from an affiliate under a process approved by FERC under affiliate transaction guidelines.

FirstEnergy Corporation

 Assisted in the design and ongoing execution of a competitive bidding processes to procure wholesale generation and capacity for retail Standard Service Offer (SSO) load of customers of FirstEnergy's Ohio Utilities — Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company. The auction process and outcome are subject to approval by the Public Utilities Commission of Ohio (PUCO).

- For FirstEnergy Service Company, assisted in designing and conducting a competitive bidding process using a hybrid clock auction and sealed-bid format to procure wholesale generation and capacity for retail Standard Service Offer (SSO) load to be delivered June 2009 through May 2011 to customers of FirstEnergy Ohio Utilities — Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company. Played a key role on the Auction Manager team including managing the mock auction and the live event. The successful auction procured more than \$6 billion in supplies. The auction process and outcome were subject to approval by the Public Utilities Commission of Ohio (PUCO).
- Designed and managed a request for proposal process (RFP) to identify a supplier for the Percentage of income Payment Plan (PIPP) customer load of FirstEnergy's Ohio Utilities.
- Managed an RFP process for FirstEnergy's Monongahela Power (Mon Power) affiliate in West Virginia. The RFP was designed to acquire a power plant to help Mon Power close an identified capacity and energy shortfall.
- Managed an RFP process for Mon Power to divest a share of the Bath County pumped storage facility.

RWE

 Auction Manager for RWE's ongoing power supply auction serving major commercial and industrial customers in Europe. Currently working with RWE and the broader CRA auction team on the auction design framework, including all bidding rules, auction parameters, and bidder support documentation and tools. In addition, Mr. Lee helped to develop and test the customized auction software working with software engineering through the design and testing process. The auction process and outcome are subject to approval by the German cartel office (BKartA).

Trans Elect

 Part of CRA's Auction Manager team on an open season auction process for Trans Elect. The open season auction process used CRA's Auction Management System to successfully sell transmission capacity rights through an open and transparent bidding process. The auction process and outcome were subject to approval by the U.S. Federal Energy Regulatory Commission (FERC).

GE EFS

Auction Manager for the Linden VFT open season auction process. With CRA's assistance, GE successfully auctioned incremental transmission capacity from PJM into New York's Zone J. Mr. Lee worked closely with GE and the broader CRA team to design and test the customized AMS auction software and to educate bidders on the auction design parameters as well as the VFT technology. The auction process and outcome were subject to approval by the U.S. Federal Energy Regulatory Commission (FERC).

Agriculture

Ocean Spray Cranberries

• Project Manager and Auction Manager for the development of an Internet-based trading platform for Ocean Spray Cranberries. The system, launched in the summer of 2009, represented a major innovation in an industry that lacked price transparency and adequate market signals for investment. Through the online system, Ocean Spray successfully is offering cranberry concentrate to major beverage producers worldwide.

Fonterra - GlobalDairyTrade

• Project Manager and Auction Manager for the development and administration of *global*DairyTrade, the Internet-based auction sales channel for a major international dairy cooperative. The auction-based system represents a major departure from the industry status quo and served as a mechanism for cost reduction, efficiency improvement, and increased market transparency for the supplier and its customers. Key responsibilities include contributions on the auction design, software development, customer training processes, and client communications.

ASSET VALUATION AND MARKET STRATEGY

Monongahela Power Company

• Managed the modeling and valuation of fossil power stations within the APS Zone of PJM. Modeling was conducted in support of Mon Power's 2017 RFP for capacity resources.

Confidential Client

• Advised the successful bidder in the acquisition of a gas-fired combined cycle power plant located in a remote region of Pakistan. As part of El Paso's divestiture of its Asian power generating assets, Mr. Lee worked closely with a the buyer to value the portfolio of power sales, fuel supply and O&M contracts supporting the facility. Critical considerations included fuel supply risk, FX risk and the proper assessment of the threat of terrorism associated with the facility.

Confidential Client

• Worked closely with the management of a processed coal producer to identify the product's value versus alternative coal options. Established the breakeven value for the fuel under a range of alternative environmental, coal price and transportation cost scenarios. Helped establish the relevant geographic range under which the fuel could potentially compete and identified attractive utilities for targeted marketing activities. Identified alternative distribution strategies that would help mitigate transportation cost concerns.

Hoosier Energy

 Reviewed the NO_x SIP Call compliance plan for Hoosier Energy, a Midwestern G&T Cooperative. Worked closely with management to develop a new framework for evaluating environmental compliance options at Hoosier's principal coal-fired power stations. Identified key risk factors impacting the value of the cooperative's planned environmental expenditures, including the risk of domestic CO2 restrictions. Identified potential cost saving and risk mitigation strategies in association with pending changes in environmental policies. Proposed alternative allowance banking strategies that would reduce financial exposure associated with SIP investments.

PSEG

 Worked with management to evaluate the impact of a range of environmental scenarios on PSEG asset values. Mr. Lee modeled an array of 3P and 4P proposals and evaluated the likely response of market participants. The modeling exercise examined the impact of incremental environmental restrictions on regional and national new capacity builds, PCE retrofits and fuel selection. In addition, the CRA team quantified the impact of proposed or pending regulations on regional power market prices and on the prices for tradable emissions credits.

Triton Coal

Advised the management of Triton Coal on antitrust issues associated with their divestiture
of the Buckskin and North Rochelle coal mines located in the Wyoming portion of the
Powder River Basin. Identified substitute products including coal from alternative producing
basins and power generation from alternative fuels. Identified the market for Powder River
Basin coal based on transportation access and costs as well as coal quality considerations.
Evaluated bidders based on the potential impact of the acquisition on market
concentrations. Balanced the bid price for resources versus the likelihood that a potential
sale would withstand DOJ scrutiny.

Foster Wheeler

• Performed a strategic assessment of the international coal boiler market for Foster Wheeler. Identified key markets for growth in coal-fired power generation over the near, mid and long-term. Considered key issues such as resource availability, environmental policy uncertainties and power demand growth. Worked closely with Foster Wheeler Oy to identify attractive markets for their CFB coal-boiler marketing activities.

British Petroleum

• Examined the potential strategic impacts of btu convergence on coal and oil markets. The analysis evaluated the economics of coal-to-liquids, coal-to-gas and underground coal gasification. Identified regional discontinuities on project economics and participated in workshops designed to assess opportunities in the coal space and their impact on markets for oil, coal and power.

The Dayton Power and Light Company – AES Ohio Generation

• Quantified the reactive power revenue requirements for the combined fossil fleet of Dayton Power and Light and AES Ohio Generation.

TESTIMONY AND ADMINISTRATIVE PROCEEDINGS

PUCO Case No. 23-301-EL-SSO. Testified on behalf of the FirstEnergy Ohio Utilities related to their application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

PUCO Case No. 22-0900-EL-SSO. Submitted testimony on behalf of AES Ohio related to an application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

Michigan Public Service Commission Case No. U-21090. Testified before the Michigan Public Service Commission on behalf of Consumers Energy and their request for proposals process related to the acquisition of generating stations located in MISO LRZ7.

FERC, ER19-2775-000 and EC20-8-000, Testimony in support of Northern Indiana Public Service Company under Sections 205 and 203 of the Federal Power Act related to Affiliate Transactions.

IURC Case Nos.45194, 45195, 45196, 45489 and related cases. Testimony before the Indiana Utility Regulatory Commission on behalf of Norther Indian Public Service Company. At issue was NIPSCO's request for the issuance of a certificate of public convenience and necessity related to the development and acquisition or contractual control of three separate wind farms in Indiana.

PUCO Case No. 17-1263-EL-SSO. Testimony on behalf of the Duke Energy Ohio (Duke) related to Duke's application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

Public Service Commission of West Virginia Case No. 17-0269-E-PC. Testimony on behalf of the Monongahela Power Company (Mon Power) in support of Mon Power's petition for approval of a generation resource transaction and related relief.

Monongahela Power Company, Allegheny Energy Supply Company, LLC (AE Supply). FERC Docket EC17-88-000. Submitted testimony in support of the proposed transfer of a generating asset from AE Supply to Mon Power.

PUCO Case No. 16-0395-EL-SSO. Testimony on behalf of the Dayton Power & Light Company (DP&L) related to DP&L's application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

Dayton Power and Light Company, et al., FERC Docket No. ER16-2569 Testimony in support of Dayton Power and Light Company's reactive power tariff.

AES Ohio Generation, LLC, Docket No. FERC ER16-2570; Testimony in support of AES Ohio Generation reactive power tariff.

DTE Electric Company, et al., Docket No. FERC EC15-138; in support of DTE's affiliate acquisition of the East China combustion turbine located in East China Township Michigan

PUCO Case No. 14-841-EL-SSO. Testimony on behalf of the Duke Energy Ohio, Inc. (Duke) related to Duke's application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

Sixth Judicial Circuit in and for Pinellas County Florida; Case Number 2012-006187-SC. Testified on the structure and efficacy of a competitive bidding process designed to establish market values for settling automobile insurance claims

PUCO Case No. 12-426-EL-SSO. Testimony on behalf of the Dayton Power & Light Company (DP&L) related to DP&L's application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

PUCO Case No. 11-3549-EL-SSO. Testimony on behalf of the Duke Energy Ohio, Inc. (Duke) related to Duke's application for authority to establish a Standard Service Offer pursuant to Section 4928.143, Revised Code, in the form of an Electric Security Plan.

PUCO Case No. 10-2586-EL-SSO. Testimony on behalf of the Duke Energy Ohio, Inc. (Duke) related to Duke's application for approval of a Market Rate Offer to conduct a competitive bidding process for Standard Service Offer electric generation supply.

Developed and presented PSEG and Exelon's joint claim for relief to the Oil Spill Liability Trust Fund, US Department of Homeland Security. Prepared the claim for damages associated with the temporary shut down of the Salem nuclear facility as a result of the November, 2004 Athos I oil spill.

PRESENTATIONS AND PUBLICATIONS

Brandeis University, Graduate School of International Business, lecturer on coal and environmental markets and energy market dynamics

National Public Radio (NPR), Marketplace, recurrent on air guest discussing coal, environmental markets and environmental policy

"Creating Markets and Structured Sales Channels", presented at the U.S. Apple Association Outlook 2010, Chicago, IL, August 19, 2010

"Not Your Father's Auction", Industry Week, April 2010

"A Better Way to Transact", Beverage Industry: Market Insights, May 2010

"NO_X Trading: Strategies for Electric Cooperatives"; with Anne Smith; Cooperative Research Network, National Rural Electric Cooperative Association; April 2003

EDUCATION

CARNEGIE MELLON UNIVERSITY,

Graduate School of Industrial Administration MSIA (MBA)

BOSTON COLLEGE College of Arts and Sciences BA Mathematics

Chestnut Hill, MA

Part 1 Application

FirstEnergy Ohio Utilities' CBP Auctions

Name of Applicant

PART 1 APPLICATION FirstEnergy Ohio Utilities' CBP Auctions

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 Competitive Bidding Process ("CBP").
- Part 2 Application: Qualified Bidders for the CBP submit the Part 2 Application, in which they will agree to comply with the Bidding Rules and Communications Protocols, accept the terms of the FirstEnergy Ohio Utilities' Master Standard Service Offer Supply Agreement ("Master SSO Supply Agreement"), make certifications regarding associations and handling of Confidential Information, submit Indicative Offers, and 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 either the Glossary or the Master SSO Supply Agreement.

PART 1 APPLICATION SUBMISSION

To become a Qualified Bidder for the CBP, Applicants must submit the following to the Auction Manager electronically through the Secure Application Process by the Part 1 Application deadline:

- Electronic Application Form: Completed Part 1 Application;
- PDF Application Form: A scanned copy of the completed Part 1 Application with all required signatures and the name of the Applicant on every page of the Application;
- **Supporting Documentation:** A copy of required financial statements, and other requested documents supporting the Application as specified in Appendix A; and

Name of Applicant

Changes to Credit Documents (Optional): One (1) copy of any proposed changes to the Pre-Bid Security Letter of Credit and/or the Form of SSO Supplier Letter of Credit, and a copy of any proposed alternate form of guaranty ("Credit Documents"). Any suggested modifications to the Pre-Bid Security Letter of Credit or the Form of SSO Supplier Letter of Credit must be provided to the Auction Manager in an electronic, red-lined version. Any proposed alternate form of guaranty must be provided to the Auction Manager in an electronic form. Section 1.10 and Appendix B describe the process for submitting an alternate form of guaranty. Appendix C describes the process for submitting proposed changes to the Pre-Bid Security Letter of Credit.

Modifications to the Credit Documents and any other inquiries may be directed to the Auction Manager by email at <u>FEOUAuctionManager@crai.com</u>. Inquiries also can be made through the Information Website.

Photocopies and facsimiles of completed forms 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 CBP.

The completed Part 1 Application and proposed changes to the Credit Documents MUST be received by the Auction Manager 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.

Name of Applicant

CONFIDENTIALITY OF PART 1 APPLICATION SUBMISSIONS

All Applicants are required to comply with the Communications Protocols.

Confidentiality requirements specific to the Part 1 Application are reiterated 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 Auction Manager Team and the Public Utilities Commission of Ohio ("PUCO" or "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 FirstEnergy Ohio Utilities 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.

Name of Applicant

PART 1 APPLICATION FirstEnergy Ohio Utilities' CBP Auctions

This Part 1 Application includes the forms to become a Qualified Bidder in the FirstEnergy Ohio Utilities' Competitive Bidding Process (CBP).

I. Background Information

Before completing this application, please review the Bidding Rules document for this CBP ("Bidding Rules"), the Master SSO Supply Agreement, the Communications Protocols, and other documents posted on the Information Website so that you understand the conditions under which the CBP will be conducted.

II. Confirmation of Receipt

Online delivery: If your Part 1 Application is submitted online through the Secure Application Process, an email will be sent to the Authorized Representative and Delegate to confirm receipt. You will still be required to submit through the online Secure Application Process or via email a scanned copy of the Part 1 Application with all required signatures.

III. Incomplete Applications

If your Part 1 Application is incomplete or requires clarification, the Auction Manager 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 CBP. 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 to the Auction Manager by email to FEOUAuctionManager@crai.com or through the online Secure Application Process.

Name of Applicant

IV. Late Applications

Part 1 Applications received after the stated deadline will NOT be accepted under any circumstances.

V. Notification to Qualified Bidders

If you become a Qualified Bidder for the CBP, the Auction Manager will send a Notification of Qualification to your Authorized Representative by email after the Part 1 Application Due Date.

Name of Applicant

PART 1 APPLICATION FORMS

1.1 Applicant Basic Information

Name of Applicant (Company Name)

Legal Name of Applicant (if different from	n 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 FirstEnergy Ohio Utilities SSO auction?	If yes, indicate the most recent auction date (month, year):	

Name of Applicant

1.2 Authorized Representative

The Authorized Representative is authorized to represent the Applicant in the CBP. The Authorized Representative will receive all documentation related to the CBP if and when the Applicant becomes a Registered Bidder, including any CBP procedures and Confidential Information required for the submission of bids in any trial auction and in the actual auction. The Authorized Representative must ensure that only authorized persons act on behalf of the Applicant in the CBP. The Authorized Representative is the only person authorized to distribute CBP procedures and Confidential Information and should do so in accordance with the Communications Protocols. The integrity of the CBP depends upon each Authorized Representative safeguarding Confidential Information and passwords used in the CBP.

The person designated below is the Applicant's Authorized Representative.

Last Name	Gi	ven 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

Communications with the Authorized Representative for purposes of the Part 1 Application are done via email.

Name of Applicant

The Applicant hereby acknowledges that any notification or other communication given by the Auction Manager to the Applicant with respect to the Part 1 Application shall be emailed to the email address above.

This certification must be signed by the Authorized Representative.

I hereby certify that I am authorized by the Applicant to serve as Authorized Representative, to represent the Applicant both (i) in the CBP, and (ii) to represent the Applicant for purposes of this Part 1 Application. I further certify that I will be responsible for all Confidential Information regarding the CBP 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

Name of Applicant

The person designated in this section by the Applicant is the Delegate. The Delegate serves as a secondary point person for communications with the Auction Manager.

Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Company Name	Title	
Street Address 1		
Street Address 2		
City	State	Zip Code
Telephone No. Cell Phone	PNO. Fax No.	Email Address

Name of Applicant

1.3 Designation of the Applicant's Authorized Representative and Delegate for the CBP

This certification should be signed by an officer or director of the Applicant The person making this certification cannot be either the Authorized Representative or the Delegate.

I certify that I am an officer or director of the Applicant, empowered to undertake contracts and bind the Applicant. I have read and accept the Bidding Rules, the provisions contained in the Master SSO Supply Agreement, and the provisions of the Communications Protocols pertaining to bidders in the CBP.

All the information contained in this Application is true and correct to the best of my knowledge. If there are material changes to the Applicant's information provided in this Part 1 Application, I agree to notify the Auction Manager. I designate to act as the Authorized Representative of the Applicant in the CBP and ______ to act as Delegate for the Authorized Representative. I am not designating myself as Authorized Representative or Delegate.

Signature of Officer or Director of the Applicant

Date

Printed Name

Title

Name of Applicant

1.4 Applicant's Legal Representative in Ohio

Please check here if the Applicant's Authorized Representative is also the Applicant's Legal Representative.

The Applicant's Legal Representative in Ohio must:

- be a legal counsel;
- have an address in Ohio; and
- be authorized and agree to accept service of process on the Applicant's behalf.

The person designated below is the Applicant's Legal Representative.

Last Name	G	iven Name(s)		Mr/Mrs/Ms/Dr/(other)
Title				
Company Name				
Street Address 1				
Street Address 2				
City		State		Zip Code
Telephone No.	Cell Phone No.	Fax No.	Email	Address
				

This certification must be signed by the Legal Representative.

I agree to serve as Legal Representative of the Applicant. I am authorized and I agree to receive service of process on the Applicant's behalf.

Signature of Legal Representative

Date

Name of Applicant

1.5 Applicant's Credit Representative

The Applicant's Credit Representative is the Applicant's in-house Credit Representative who can answer questions or provide information about the Applicant's credit with respect to the requirements for the CBP.

The person designated below is the Applicant's Credit 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	

Name of Applicant

1.6 General Requirements to Participate in the CBP

1. If the Applicant already is a transmission customer of PJM who has executed the applicable PJM Agreements as that term is defined in the Master SSO Supply Agreement, 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

2. If the Applicant already has PJM E-Accounts necessary to provide SSO 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 any PJM E-Accounts necessary to provide SSO Supply and execute the PJM E-Account contract(s) for the supply period by the start 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

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;
 - e) The Applicant has never been barred from public bidding or sanctioned for unauthorized disclosure of confidential information; and
 - f) The Applicant is unaware of any pending criminal investigation in which the Applicant is a possible target.

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.

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 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);
- b) If the Applicant is not an SEC registrant, or if the Applicant does not file the Form 10-K or Form 10-Q with the SEC, please provide most recent annual (audited) and quarterly financial data, including related footnotes, 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;
- c) 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				

Name of Applicant

d) 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		

- e) 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 FirstEnergy Ohio Utilities of counsel qualified to practice in the foreign jurisdiction in which the Applicant is incorporated or otherwise formed that the Master SSO Supply Agreement 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 give 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.

Name of Applicant

Further, if such Applicants become SSO Suppliers, they will be required to submit additional documents as detailed in Article 6 of the Master SSO Supply Agreement, including:

- A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the SSO Supplier is incorporated or otherwise formed that this Agreement is, or upon the completion of execution formalities will become, the binding obligation of the SSO 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 SSO Supplier that the person executing the Agreement on behalf of the SSO Supplier has the authority to execute the Agreement and that the governing board of such SSO Supplier has approved the execution of the Agreement; and
- The sworn certificate of the corporate secretary (or similar officer) of such SSO Supplier that the SSO Supplier has been authorized by its governing board to enter into agreements of the same type as the Master SSO Supply Agreement.

Is the Applicant and/or its parent:

	Appli Yes	icant 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 Applicant's and/or parent's financial condition?				
Subject to collection lawsuits or outstanding judgments that could impact solvency?				

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.

Name of Applicant

1.8 Guarantor Information

The Guarantor information is required only if the Applicant expects to have a third party act as a Guarantor should the Applicant become an SSO Supplier.

Please check here and proceed to the next section if this section does not apply to you because you will not have a third party act as a Guarantor.

Basic Information for the Guarantor

Name of Guarantor		
Legal Name of Guarantor (if different from a	bove)	
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	
Guarantor's Contact Informatic	on	
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. Er	mail Address

Name of Applicant

The Guarantor's Credit Representative

The Guarantor's in-house Credit Representative is the individual who can answer questions or provide information about the Guarantor's credit with respect to the requirements for the CBP.

The person designated below is the Guarantor's Credit Representative.

Last Name	(Given Name(s)	N	//////////////////////////////////////
Title	I L			
Street Address 1				
Street Address 2				
City		State		Zip Code
Telephone No.	Cell Phone No.	Fax No.	Email Add	ress

Name of Applicant

Please provide the following information for the Guarantor:

- a) 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);
- b) If the Guarantor is not an SEC registrant, or if the Guarantor does not file the Form 10-K or Form 10-Q with the SEC, please provide most recent annual (audited) and quarterly financial data, including related footnotes, 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;
- c) 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				

Name of Applicant

 d) 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		

- e) 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 FirstEnergy Ohio Utilities 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 give 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.

Name of Applicant

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 security if they become a winning bidder.

Further, if an Applicant with such a Guarantor becomes an SSO Supplier, the Guarantor will be required to submit additional documents as detailed in Article 6 of the Master SSO Supply Agreement, 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):

	Guarantor Yes No	Parent Yes 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?		

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 of the Guarantor.

Name of Applicant

1.9 Additional Certifications

The CBP Bidding Rules, the Master SSO Supply Agreement, the Communications Protocols, and the Information Website include important information that an Applicant should understand prior to participating in the CBP.

a) Please certify that you have read the CBP Bidding Rules and that you will comply with these rules.

Signature of Authorized Representative

- Date
- b) Please certify that you have read the Master SSO Supply Agreement and that you accept its terms. Please also certify that if you become a winning Bidder, you will execute the Master SSO Supply Agreement within three (3) Business Days following the close of the auction:

Signature of Authorized Representative

Date

Name of Applicant

c) Please certify that if you qualify to participate in the CBP, you will not disclose at any time information regarding the list of Qualified Bidders in the CBP, including but not limited to the number of Qualified Bidders, the identity of any one of the Qualified Bidders (including yourself), or the fact that an entity has not qualified for participation in the CBP. Further, please certify that you will destroy any document distributed by the Auction Manager that lists the Qualified Bidders within five (5) days of the close of the bidding, or earlier if so instructed by the Auction Manager.

Signature of Authorized Representative

Date

d) No Qualified Bidder in the CBP shall substitute another party, transfer its rights to another party, or otherwise assign its status as a Qualified Bidder to another party. Any such substitutions, transfers, or assignments shall be null and void and will result in the exclusion of the Qualified Bidder from the CBP. Please certify that you agree to the limitation set forth in this paragraph.

Signature of Authorized Representative

Date

The Bidding Rules and Communications Protocols include restrictions on the disclosure of Confidential Information. For purposes of the following certifications, the definition of Confidential Information relative to bidding strategy is defined according to Section 12.2 of the Bidding Rules:

e) Please certify that you agree not to disclose any Confidential Information relative to bidding strategy to any party that may have an effect on the participation of another bidder, prospective bidder, or on any of the bids that another bidder would be willing to submit.

Signature of Authorized Representative

Date

Name 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, nondisclosure 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

g) Please certify that you are unaware of any pending criminal investigation in which the Guarantor or the Guarantor's Officers is a possible target.

Signature of Authorized Representative

Date

If unable to make the certifications requested above please identify the nature of your need to disclose Confidential Information without sufficient precautions to ensure that such Confidential Information is not made public or made available to another bidder.

Name of Applicant

1.10 Alternate Form of Guaranty

A prospective SSO Supplier that wishes to rely on a Guarantor can use the standard Form of Guaranty (Appendix to the Master SSO Supply Agreement) and be assured that the standard Form of Guaranty is acceptable to the FirstEnergy Ohio Utilities. Alternatively, the FirstEnergy Ohio Utilities will consider an alternate form of guaranty if it is submitted with this Part 1 Application. Also, you may submit an alternate form of guaranty that was previously approved.

The alternate form of guaranty must be a financial guaranty for unlimited liability. Additional requirements are specified in Appendix B.

Please check here 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 form of guaranty complies with these requirements:

Signature of Authorized Representative

Date

Please check below to show that you are including all required documents.

- The proposed alternate form of guaranty;
- Certification that the alternate form of 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.

Name of Applicant

1.11 Bidding Agreements

Please note that the FirstEnergy Ohio Utilities will not review information provided in this section.

Please check here 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 CBP or pertaining to bidding in the CBP. Please also provide the names of the other parties to the bidding agreement or other arrangement.

Other parties to the arrangement:

 Bidding Agreement
 Bidding Consortium

 Joint Venture
 Other (define) ______

If you are part of a bidding agreement, bidding consortium or joint venture, you must nominate a single party to the bidding agreement, bidding consortium or joint venture to fulfill the creditworthiness requirements. This party may have a Guarantor. Please indicate below which party from the bidding agreement, bidding consortium, or joint venture will be fulfilling the creditworthiness requirements:

Name of the single Party fulfilling the creditworthiness requirements:

The Authorized Representative of the party named above must sign here to acknowledge the fact that this party has agreed to fulfill the creditworthiness requirements:

Signature of Authorized Representative

Date

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.

Name of Applicant

Appendix A – Enclosures to the Part 1 Application

This is a checklist of documents to be enclosed with this Part 1 Application. Please submit only one copy of required supporting documents to the application unless noted otherwise.

A copy of the completed Part 1 Application with original signatures and original notarized 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 Master SSO Supply Agreement [Section 1.6]
- 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 not SEC registrant, or if the Applicant does not file the Form 10-K or Form 10-Q with the SEC, please provide most recent annual (audited) and quarterly financial data, including related footnotes, 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 FirstEnergy Ohio Utilities of counsel qualified to practice in the foreign jurisdiction in which the Applicant is incorporated or otherwise formed that the Master SSO Supply Agreement 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]

For the Guarantor:

- 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) [Section 1.8]
- ☐ If the Guarantor is not an SEC registrant, or if the Guarantor does not file the Form 10-K or Form 10-Q with the SEC, please provide most recent annual (audited) and quarterly financial data, including related footnotes, 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 1.8]
 - 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 FirstEnergy Ohio Utilities 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 Applicant is proposing an alternate form of guaranty:

- Proposed alternate form of guaranty [Section 1.10]
- Certification that the alternate form of 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]
 - Previously approved alternate form of guaranty [Section 1.10]

Name of Applicant

Appendix B – Alternate Form of Guaranty (Optional)

The criteria used to review the alternate form of guaranty are as follows:

- 1. The alternate form of guaranty must be a financial guaranty; performance guarantees are not acceptable.
- 2. The FirstEnergy Ohio Utilities will consider an alternate form of guaranty only if the guaranty is for unlimited liability.
- The alternate form guaranty must be an unconditional guaranty of payment of all amounts due by the SSO Supplier to the FirstEnergy Ohio Utilities under the Master SSO Supply Agreement. The Master SSO Supply Agreement must be expressly identified and the satisfaction of obligations through performance may not be authorized.
- 4. The alternate form of guaranty may be terminated upon not less than thirty (30) days advance written notice to the FirstEnergy Ohio Utilities 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 form of guaranty must not be subject to any monetary limit.
- 6. The alternate form of guaranty must be accompanied by a certification that this alternate form of guaranty, subject to changes needed to conform to the specific requirements of the FirstEnergy Ohio Utilities, has been in general use by the submitting party in its ordinary course of business over the past twelve months.
- 7. The alternate form of guaranty must be a guaranty of payment and not of collection.
- 8. Assignment of the alternate form of guaranty shall not be permitted except with the prior written consent of the FirstEnergy Ohio Utilities.
- 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 FirstEnergy Ohio Utilities and explicitly state that the FirstEnergy Ohio Utilities 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 Auction Manager will redact the proposed alternate form of guaranty to remove any information identifying the Applicant. The Auction Manager will then forward the redacted version to a credit and legal representative of the FirstEnergy Ohio Utilities.

Name of Applicant

- The credit and legal representative will determine whether the alternate form of guaranty 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 FirstEnergy Ohio Utilities (listed above);
 - (ii) whether the alternate form of guaranty provides substantially similar credit protections to the credit protections provided to FirstEnergy Ohio Utilities by the standard Form of Guaranty; and
 - (iii) whether the alternate form of guaranty includes defenses in favor of the Guarantor not found in the standard Form of Guaranty. The FirstEnergy Ohio Utilities 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 Auction Manager of its decision no later than seven (7) Business Days following the Part 1 Application Due Date.
- Upon receipt of the FirstEnergy Ohio Utilities' decision, the Auction Manager will notify the Applicant of the FirstEnergy Ohio Utilities' decision. The FirstEnergy Ohio Utilities' decision will either state:
 - (i) The proposed alternate form of guaranty is acceptable to the FirstEnergy Ohio Utilities in the form in which it was submitted.
 - (ii) The proposed alternate form of guaranty is not acceptable to the FirstEnergy Ohio Utilities in the form in which it was submitted, but would be acceptable subject to specific changes of a minor nature. The correspondence from the Auction Manager will set forth the required changes.
 - (iii) The proposed alternate form of guaranty is not acceptable to the FirstEnergy Ohio Utilities.
- If specific changes are required to the proposed alternate form of guaranty, the Applicant will be required to resubmit the alternate form of guaranty form with changes identified by the FirstEnergy Ohio Utilities on the Business Day following the Business Day during which the Auction Manager notified the Applicant of the FirstEnergy Ohio Utilities' decision. No later than three (3) Business Days after the Applicant's resubmission, the Auction Manager will notify the Applicant of the FirstEnergy Ohio Utilities' final decision.

A potential bidder that had secured approval for an alternate form of guaranty from any previous FirstEnergy Ohio Utilities' CBP and wishes to use the same

Name of Applicant

alternate form of guaranty can renew this approval for any CBP conducted pursuant to the ESP in Case No. 12-1230-EL-SSO (the "ESP CBP"), by submitting:

- 1. The alternate form of guaranty from any previous FirstEnergy Ohio Utilities' CBP;
- The enforceability opinion from any previous FirstEnergy Ohio Utilities' CBP;
- 3. A certification that the text of the alternate form of guaranty for the ESP CBP is exactly the same as the alternate form of guaranty that had been previously approved from any previous FirstEnergy Ohio Utilities' CBP;
- 4. A certification that the text of the enforceability opinion for the ESP CBP is exactly the same as the enforceability opinion that had been previously approved from any previous FirstEnergy Ohio Utilities' CBP.

If a potential bidder submits the materials as specified above, the alternate form of guaranty will be approved for the ESP CBP without further re-evaluation. If a potential bidder had secured approval for an alternate form of guaranty from any previous FirstEnergy Ohio Utilities' CBP 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 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 form of guaranty are rejected by the FirstEnergy Ohio Utilities, are required to submit with their Part 2 Application a supplemental certification that the Applicant unconditionally accepts all terms and conditions of the Master SSO Supply Agreement.

Name of Applicant

Appendix C – Proposing Changes to the Pre-Bid Security Letter of Credit

The standard form of the Pre-Bid Security Letter of Credit presented in this section is in a form acceptable to the FirstEnergy Ohio Utilities and will be posted to the Information Website. However, an Applicant has the option to propose changes to the Pre-Bid Security Letter of Credit clearly identifying the proposed changes in an electronic, redlined version by email with their Part 1 Application to **FEOUAuctionManager@crai.com**.

The FirstEnergy Ohio Utilities will assess, in its 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 FirstEnergy Ohio Utilities upon review of the Part 1 Application. The proposed changes to the Pre-Bid Security Letter of Credit will be reviewed in accordance with the following process:

- Upon receipt of the Part 1 Application, the Auction Manager will redact the modified Pre-Bid Security Letter of Credit to remove any information identifying the Applicant. The Auction Manager will then forward the redacted version to a credit and legal representative of the FirstEnergy Ohio Utilities.
- The credit and legal representative will determine whether such modifications are acceptable. The credit and legal representative shall inform the Auction Manager of its decision no later than seven (7) Business Days following the Part 1 Application Due Date.
- Upon receipt of the FirstEnergy Ohio Utilities' decision, the Auction Manager will notify the Applicant of the FirstEnergy Ohio Utilities' decision. The FirstEnergy Ohio Utilities' decision will either state:
 - (i) The proposed changes to the Pre-Bid Security Letter of Credit are acceptable to the FirstEnergy Ohio Utilities 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 FirstEnergy Ohio Utilities in the form in which they were submitted, but would be acceptable subject to specific changes of a minor nature. The correspondence from the Auction Manager will set forth the required changes.
 - (iii) The proposed changes to the Pre-Bid Security Letter of Credit are not acceptable to the FirstEnergy Ohio Utilities.

Name of Applicant

 If specific changes are required pursuant to (ii) above, the Applicant will be required to resubmit the Pre-Bid Letter of Credit with the changes identified by the FirstEnergy Ohio Utilities on the Business Day following the Business Day during which the Auction Manager notified the Applicant of the FirstEnergy Ohio Utilities' decision. No later than three (3) Business Days after the Applicant's resubmission, the Auction Manager will notify the Applicant of the FirstEnergy Ohio Utilities' final decision.

End of Part 1 Application

Part 2 Application

FirstEnergy Ohio Utilities' CBP Auctions

Name of Applicant

PART 2 APPLICATION FirstEnergy Ohio Utilities' CBP Auctions

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 Competitive Bidding Process ("CBP").
- Part 2 Application: Qualified Bidders for the CBP submit the Part 2 Application, in which they will agree to comply with the Bidding Rules and Communications Protocols, accept the terms of the FirstEnergy Ohio Utilities' Master Standard Service Offer Supply Agreement ("Master SSO Supply Agreement"), make certifications regarding associations and handling of Confidential Information, submit Indicative Offers, and 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 either the Master SSO Supply Agreement or the Glossary, which is Appendix B to the Communications Protocols.

PART 2 APPLICATION SUBMISSION

To become a Registered Bidder for the CBP, Applicants must submit the following to the Auction Manager electronically through the Secure Application Process by the Part 2 Application deadline:

- Electronic Application Form: Completed Part 2 Application;
- **PDF Application Form:** A scanned copy of the completed Part 2 Application with original signatures and the name of the Applicant on every page of the Part 2 Application;

Name of Applicant

In addition to the completed Part 2 Application Forms, each Qualified Bidder must:

- Submit an Indicative Offer for the CBP;
- Submit a Pre-Bid Security Letter of Credit and/or cash to support the Indicative Offer. The Letter of Credit can be submitted as a hard-copy or electronically by the bank; and
- Make required certifications on Applicant Associations and Confidential Information and, if unable to do so, make required information disclosures.

It is in your interest to seek independent legal and financial advice before deciding to participate in the CBP.

The completed Part 2 Application and the Pre-Bid Security MUST be received by the Auction Manager 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.

Name of Applicant

CONFIDENTIALITY OF PART 2 APPLICATION SUBMISSIONS

All Applicants are required to comply with the Communications Protocols.

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 Auction Manager Team and the Public Utilities Commission of Ohio ("PUCO" or "Commission") and their representatives. Representatives from the FirstEnergy Ohio Utilities 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, as well as the total Initial Eligibility aggregated across all Registered Bidders and products. 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 FirstEnergy Ohio Utilities' CBP Auctions

This Part 2 Application includes the forms to become a Registered Bidder in the FirstEnergy Ohio Utilities' Competitive Bidding Process (CBP).

I. Background Information

Before completing this application, please review the Bidding Rules document for this CBP ("Bidding Rules"), the Master SSO Supply Agreement, the Communications Protocols, and other documents posted on the Information Website so that you understand the conditions under which the CBP will be conducted.

II. Confirmation of Receipt

Online delivery: When your Part 2 Application is submitted online through the Secure Application Process, an email will be sent to the Authorized Representative and Delegate to confirm receipt. You will still be required to submit through the online Secure Application Process or via email a scanned copy of the Part 2 Application with all required signatures.

III. Incomplete Applications

If your Part 2 Application is incomplete or requires clarification, the Auction Manager 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 CBP. 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 to the Auction Manager by email to FEOUAuctionManager@crai.com or through the online Secure Application Process.

IV. Late Applications

Part 2 Applications received after the stated deadline will NOT be accepted under any circumstances.

Name of Applicant

V. 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 Auction Manager 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 to the Auction Manager by email to <u>FEOUAuctionManager@crai.com</u> or through the online Secure Application Process.

VI. Deficient Pre-Bid Security

If your Pre-Bid Security is insufficient for your Indicative Offer, or if your Pre-Bid Security is in a form that is not acceptable to the FirstEnergy Ohio Utilities, your Authorized Representative will be emailed a deficiency notice. You will have until 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 and sufficient Pre-Bid Security. If you cannot correct the deficiency, your Application may be rejected or your Initial Eligibility may be reduced by the Auction Manager so that your Pre-Bid Security is sufficient to cover your Indicative Offer.

VII. Certifications Regarding Associations

You may be required to provide additional information to the Auction Manager and to the Commission and its representatives if you are unable to make the certifications in this Part 2 Application.

VIII. Notification to Registered Bidders

If you become a Registered Bidder for the CBP, the Auction Manager will send a Notification to Registered Bidders to your Authorized Representative by email after the Part 2 Application Due Date. If there are material changes to the Applicant's information provided in this Part 2 Application, you are obligated to notify the Auction Manager.

Prior to the auction, Registered Bidders will receive information to participate in the auction using the Auction Manager's secure Bidding Website.

Name of Applicant

PART 2 APPLICATION FORMS

2.1 Applicant Information

Name of Applicant (Company Name)

Authorized Representative's Contact Information

Last Name	Given Name(s)	Mr/Mrs/Ms/Dr/(other)
Title		
Street Address 1		
Street Address 2		
City	State	Zip Code
	L	
Telephone No. Cell Pho	ne No. Fax No.	Email Address

Name of Applicant

Delegate's Contact Information

Last Name	Give	en Name(s)		Mr/Mrs/Ms/Dr/(other)
Company Name			Title	
Street Address 1				
Street Address 2				
City		State		Zip Code
Telephone No.	Cell Phone No.	Fax No.	Email A	ddress

NOTE: The Authorized Representative and Delegate should be the same contact information that was provided in the Part 1 Application. Please email <u>FEOUAuctionManager@crai.com</u> if there are any changes to this information prior to the deadline for making changes as outlined in Section V above.

Name of Applicant

2.2 Indicative Offer and Pre-Bid Security

In Table 2.1 below, provide your Indicative Offer at the <u>Minimum</u> Starting Price and the <u>Maximum</u> Starting Price for each product in the auction. Your Indicative Offer should be the maximum number of Tranches that you would be willing to supply at the Starting Prices for the auction subject to the limitations of any applicable credit-based tranche limit and any applicable Load Cap for the auction. In the auction itself, you are not required to bid the number of Tranches in your Indicative Offer. However, your Initial Eligibility to bid in the auction will be determined by the total number of Tranches across the products in your Indicative Offer at the <u>Maximum</u> Starting Price.

You are required to submit Pre-Bid Security — in the form of either a Letter of Credit or a cash deposit — for an amount equal to \$500,000 multiplied by the total number of Tranches in your Indicative Offer at the Maximum Starting Price. The Pre-Bid Security Letter of Credit in support of your Pre-Bid Security should be in the form provided on the Information Website or as approved in modified form during the Part 1 Application process.

Please check here if you are submitting a cash deposit as Pre-Bid Security.

Please check here if you are submitting a Pre-Bid Security Letter of Credit as Pre-

Bid Security.

Complete Table 2.1 to include the amounts of the Pre-Bid Security Letter of Credit and/or cash deposit that you are providing with this Part 2 Application.

Name of Applicant

Table 2.1 Indicative Offer and Pre-Bid Security

Indicative Offer (Number of Tranches)	Tranches @ Min Starting Price	Tranches @ Max Starting Price
XX-month supply period		
Starting Price: Minimum=\$xx.xx/MWh Maximum=\$yy.yy/MWh		
XX-month supply period		
Starting Price: Minimum=\$xx.xx/MWh Maximum=\$yy.yy/MWh		
Amount of cash deposit or Pre-Bid Security Letter of Credit All Bidders: This amount is equal to \$500,000 multiplied by the number of		Cash
Tranches at Max Starting Price		LoC

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 submit a Pre-Bid Security Letter of Credit and leave this field blank, the Pre-Bid Security Letter of Credit will be returned to the issuing bank once it can be cancelled.

If you are submitting a cash deposit, please attach a copy of your W9 (for tax ID) and a copy of your banking information on your company's letterhead (signed and dated) and, in the space below, please provide wiring instructions for returning your cash deposit.

Name of Applicant

2.3 Certifications by Authorized Representative

Please consult the list of Qualified Bidders for the CBP provided to you upon qualification. Please consult the criteria for associations and the definition of Confidential Information in the Bidding Rules. Please also consult the Communications Protocols to understand the requirements regarding the treatment of Confidential Information.

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 CBP, must make these certifications. The following certifications (1) to (8) will apply from the time of qualification until the results of the CBP 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 CBP with whom you are associated and the nature of the association.

Name of Applicant

(2) Please certify that, other than parties explicitly named in Section 1.11 of your Part 1 Application as parties with whom you have entered into a Bidding Agreement, Joint Venture for the purpose of bidding in the CBP, or Bidding Consortium or other arrangement pertaining to bidding in the CBP, you have not entered into any agreement with another Qualified Bidder, directly or indirectly, regarding bids in the CBP, including, but not limited to, the amount to bid at certain prices, when or at what prices bids are to be withdrawn, or the amount of exit prices.

Signature of Authorized Representative

Date

(3) Please certify that any person who will be advising or assisting you with bidding strategy in the CBP, with estimation of the value of Tranches, or with the estimation of the risks associated with serving SSO Load (an **advisor**) will either (i) not provide any similar advice or assistance to any other Qualified Bidder; or (ii) if such person will provide similar advice or assistance to another Qualified Bidder, or if such person will be privy to Confidential Information relative to any other Qualified Bidder's bidding strategy, that appropriate protections have been put into place to ensure that the advisor does not serve as a conduit of information between, or as a coordinator of the bidding strategies of, multiple bidders, and please describe such appropriate protections in the space below.

Signature of Authorized Representative

Date

If unable to make certification (3) requested above please name the advisor(s) and the Qualified Bidder(s) concerned.

Name of Applicant

(4) Please certify that you are not a party to any contract for the purchase of power that might be used as a source of supply for SSO Service, and that (i) would require the disclosure of any Confidential Information (Confidential Information relative to the bidding strategy or Confidential Information regarding the CBP) to the counterparty under such a contract; or (ii) that would require the disclosure of any Confidential Information (Confidential Information relative to the bidding strategy or Confidential Information regarding the CBP) to any other party; or (iii) that would provide instructions, direct financial incentives, or other inducements for the Bidder to act in a way determined by the counterparty in the agreement and/or in concert with any other Bidder in the CBP. Notwithstanding the above, you may, during negotiations prior to the CBP for contractual arrangements for power to serve SSO Load were you to be a winner at the CBP. discuss with the counterparty to such arrangements the nature of the standard products to be purchased, the volume, and the price at which you are willing to buy these products, so long as such arrangements do not result in violation of (i), (ii) or (iii) above.

Signature of Authorized Representative

Date

If unable to make certification (4) requested above please disclose the contractual terms that prevent you from making the certification. Please identify the counterparty and if applicable, the party to whom information disclosure must be made under the terms of the contract.

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

If unable to make certification (5) requested above please name the other Qualified Bidder(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 for the purpose of bidding in the CBP, or Bidding Consortium or other arrangement pertaining to bidding in the CBP, 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 unable 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 for purposes of the CBP, or Bidding Consortium, or other arrangement pertaining to the CBP, no party has agreed to defray any of the costs of participating in the CBP, 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 unable to make certification (7) requested above please explain.

(8) Please certify your agreement that the submission of any bid in the CBP creates a binding and irrevocable offer to provide service under the terms set forth in the Master SSO Supply Agreement 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 CBP shall arise under the Master SSO Supply Agreement. Please note that failure to execute the Master SSO Supply Agreement within three (3) Business Days of the conclusion of the CBP may result in the forfeiture of the Pre-Bid Security.

Signature of Authorized Representative

Date

If unable to make certification (8) requested above please explain.

Name of Applicant

The following certifications (9), (10) and (11) will apply from the date on which you make the certifications.

(9) Please certify that if you are registered to participate in the CBP, you will not disclose at any time information regarding the Initial Eligibility in the CBP or the list of Registered Bidders, including the number of Registered Bidders, the identity of any one or all entities that have been registered, or the fact that an entity has not been registered for participation in the CBP.

Signature of Authorized Representative

Date

(10) Please certify that you will not disclose any Confidential Information regarding the CBP to any party except your advisors and Bidders with which you are associated as disclosed in certification (1).

Signature of Authorized Representative

Date

If unable to make certification (10) requested above please explain.

Name of Applicant

(11) Please certify that you will continue to abide by your prior confidentiality certifications. You will not disclose any Confidential Information regarding the CBP to any party except to your advisor and Bidders with which you are associated. Please certify that you will destroy all documents, written or electronic, provided by the Auction Manager that contain Confidential Information regarding the CBP within five (5) days of the close of the bidding, or earlier if so instructed by the Auction Manager

Signature of Authorized Representative

Date

If unable to make certification (11) requested above please explain.

Name of Applicant

2.4 Ongoing Obligations

Please note that all obligations, terms and conditions set forth in the Bidding Rules and Master SSO Supply Agreement 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 Master SSO Supply Agreement, loss of all rights to provide supply for the FirstEnergy Ohio Utilities 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 competitive bidding processes, and other sanctions that may be appropriate.

Name of Applicant

2.5 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.

Name of Applicant

Appendix A – Enclosures to the Part 2 Application

This is a checklist of documents to be enclosed with this Part 2 Application.

- One copy of completed Part 2 Application forms (with original signatures)
- One copy of W9 Form (for Tax ID) and one copy of banking information on your company's letterhead (signed and dated) (if submitting Cash Deposit as Pre-Bid Security) [Section 2.2]
- Pre-Bid Security Letter of Credit (if applicable) [Section 2.2]

End of Part 2 Application

Attachment RJL-4



Bidding Rules for the FirstEnergy Ohio Utilities' CBP Auctions

Table of Contents

1.		INTRODUCTION	1
	1.1	Auction Manager	2
2.		THE PRODUCTS BEING PROCURED	2
	2.1	SSO Load	
	2.2	Full Requirements Service	2
	2.3	Tranches	3
3.		PRICES PAID TO SSO SUPPLIERS	3
4.		PRIOR TO THE START OF BIDDING	4
	4.1	Information Provided to Bidders	4
	4.1.1	Data	4
	4.1.2	Minimum and Maximum Starting Prices	4
	4.1.3	Tranche Size, Tranche Targets	
	4.1.4	Auction Schedule	
	4.2	Qualification Process	5
	4.2.1	Part 1 Application: Certifications and Other Qualified Bidder Requirements	5
	4.2.2	Part 2 Application: Certifications, Indicative Offer, and Pre-Bid Security	6
	4.3	Starting Prices (Round 1 Prices)	
	4.4	Extraordinary Events	
5.		BIDDING FORMAT FOR AUCTIONS OF MULTIPLE PRODUCTS	
	5.1	Descending-Price Clock Format	
	5.1.1	Rounds	
	5.1.2	The Announced Prices and a Bid	
	5.1.3	Reservation Prices and Starting Prices	
	5.1.4	Restrictions on What a Bidder Can Bid	
	5.1.5	Multiple Bids by a Bidder	
	5.1.6	Default Bid	
	5.1.7	The EOR Procedure	14
	5.1.8	Price Decrements	
	5.2	Determination of Winning Tranches, Winning Bidders, and Winning Prices	
	5.2.1	Bid Stack for a Product has All Tranches at the Same Price	
	5.2.2	Bid Stack for a Product has Tranches at Two Different Prices	
	5.3	Example of Round by Round Bidding	
	5.4	Reporting Round Results	
	5.5	Frequency of Rounds	17
	5.6	Auction Pause Declared by Auction Manager	17
6.		BIDDING FORMAT FOR AUCTIONS OF A SINGLE PRODUCT	
	6.1	Clock Phase	
	6.1.1	Rounds	
	6.1.2	The Announced Price and a Bid	
	6.1.3	Reservation Price	
	6.1.4	A Bidder's Eligibility to Bid	
	6.1.5	Multiple Bids by a Bidder	19
	6.1.6	Default Bid	19

	6.1.7	Price Decrements	20
	6.1.8	Frequency of Rounds	
	6.1.9	Insufficient Supply for the Tranches	
	6.2	Transition Rule	21
	6.3	Sealed-Bid Round	21
	6.3.1	Allowed Bids	
	6.3.2	Multiple Bids by a Bidder	
	6.3.3	Default Bid	
	6.4	Determination of Winning Tranches, Winning Bidders, and Winning Prices	
	6.4.1	Excess Supply = 0 at End of Clock Phase	
	6.4.2	Excess Supply < 0 at End of Clock Phase with No Sealed-Bid Round	
	6.4.3	Excess Supply < 0 at End of Clock Phase with Sealed-Bid Round	
	6.5	Reporting Round Results	
	6.6	Auction Pause Declared by Auction Manager	
7.	0.0	AFTER THE AUCTION CLOSES	
••	7.1	Notification of Results	
	7.2	Execution of Master SSO Supply Agreement	
	7.3	Sanctions for Failure to Execute the Master SSO Supply Agreement	
	7.4	Disclosure of the Auction Results	
8.	1.4	USE OF THE BIDDING WEBSITE	
0.	8.1	Importance of Confirmed Bids	
	8.2	Requirements for Using the Bidding Website	
	8.3	Messaging	
9.	0.5	BACKUP BIDDING PROCEDURES	
9. 10.		WHO TO CONTACT IN CASE OF PROBLEMS DURING THE AUCTION	
11.		CONTINGENCY PLAN TO PROCURE TRANCHES	
	11.1	If Fewer Tranches than the Tranche Target are Procured in the Auction	
	11.1.1	Unfilled Tranches to be Offered in Next Scheduled Auction	
	11.1.1	Unfilled Tranches to be Offered to Current SSO Suppliers	
	11.1.3	SSO Supply Requirements to be Met through PJM-Administered Markets	
40	11.2	If a Winning Bidder Defaults Prior to or During the SSO Delivery Period.	
12.		CONFIDENTIAL INFORMATION, CERTIFICATIONS, AND SANCTIONS	
	12.1	Confidential Information	
	12.2	Certifications and Disclosures to Be Made	
	12.3	Actions to be Taken if Certifications Cannot Be Made	
4.0	12.4	Sanctions for Failure to Comply	
13.		BIDDER ASSOCIATIONS	
	13.1	Procedure Followed by the Auction Manager	
	13.1.1	Following the Receipt of the Part 1 Applications	
	13.1.2	V I II	
	13.2	Remedies and Actions Related to Participation by Associated Bidders	
	13.3	Handling of Confidential Information	
14.		MISCELLANEOUS	
	14.1	Warranty on Information	
	14.2	Hold Harmless	
	14.3	Bid Submissions Become the FirstEnergy Ohio Utilities' Property	
	14.4	Bidder's Acceptance	
	14.5	Permits, Licenses, Compliance with the Law and Regulatory Approvals	
	14.6	Auction Intellectual Property	
AP		A — EXAMPLE OF ROUND BY ROUND BIDDING IN AUCTIONS OF MULTIPLE PRODUCTS	

1. INTRODUCTION

These Bidding Rules apply to the competitive bidding process ("CBP") auctions for The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company (hereafter referred to as "the FirstEnergy Ohio Utilities" or "the Companies") to procure supply for the provision of Standard Service Offer supply ("SSO Supply") for all of their customers that take retail generation service from the FirstEnergy Ohio Utilities.

Bidders also need to be familiar with other documents for the auctions including the Master Standard Service Offer Supply Agreement ("Master SSO Supply Agreement" or "MSA"), the Part 1 Application, the Part 2 Application, the Communications Protocols, and the Glossary. Bidders also should visit the Information Website regularly for up-to-date information including information specific to each auction.

The URL for the Information Website is <u>http://www.firstenergyCBP.com</u>. It contains relevant data, the schedule and key dates for participating in the auction process, frequently asked questions, and other information.

Unless noted otherwise, all capitalized terms in this document are defined in the Glossary or Master SSO Supply Agreement available on the Information Website.

If there are any inconsistencies between this document and the prevailing Master SSO Supply Agreement, the prevailing Master SSO Supply Agreement governs.

Unless noted otherwise, "days" in this document refer to business days and times refer to prevailing Eastern Time.

Examples in this document are illustrative only.

These Bidding Rules may be modified from time to time by the Auction Manager in order to: (i) facilitate a more competitive CBP, (ii) make any necessary corrections and/or clarifications, (iii) account for any change in CBP 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 Auction Manager. Such modifications will be carried out in consultation with the FirstEnergy Ohio Utilities but without prior consent from the Public Utilities Commission of Ohio ("PUCO" or "Commission") or any past, current, or potential bidder and will be posted to the Information Website.

1.1 Auction Manager

The Auction Manager is CRA International, Inc. d/b/a Charles River Associates, Inc. The Auction Manager can be contacted by sending an email to <u>FEOUAuctionManager@crai.com</u>. The full contact information for the Auction Manager is as follows:

Attn: Robert Lee, Vice President / Auction Manager CRA International, Inc. John Hancock Tower 200 Clarendon Street Boston, MA 02116-5092 Phone: 617.425.3365 FEOUAuctionManager@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, the nominal MW size of the tranches, and the Seasonal Billing Factor.

2.1 SSO Load

Standard Service Offer ("SSO") Load will be the FirstEnergy Ohio Utilities' aggregate requirements to serve their SSO Customers. SSO Load is defined in the Master SSO Supply Agreement and excludes or includes certain customers as follows:

- Excludes the requirements of customers served by Competitive Retail Electric Service suppliers ("CRES Suppliers"). CRES Suppliers are certified by the PUCO and serve shopping customers.
- Includes the requirements of any customers of the FirstEnergy Ohio Utilities who are served under reasonable agreements.

2.2 Full Requirements Service

As used in this document, Full Requirements Service is intended to be synonymous with the requirements associated with SSO Load as defined in the Master SSO Supply Agreement. The auctions are designed to procure Full Requirements Service for SSO Customers of the FirstEnergy Ohio Utilities. Winning bidders will assume all responsibilities of a PJM Load Serving Entity ("LSE") and will be responsible for supplying all obligations associated with Full Requirements Service. Full Requirements Service includes unbundled Energy, Capacity¹, Ancillary Services and Firm Transmission Service, including all transmission and distribution losses, congestion and imbalance costs associated with the provision of the foregoing services, and any other LSE service or other service as may be required by PJM and Section 4928.141 of the Ohio Revised Code to serve the SSO Load of the FirstEnergy Ohio Utilities.

¹ For the delivery period where the PJM BRA price is not known, Capacity Proxy Price will be used. See MSA for detail.

The FirstEnergy Ohio Utilities will provide distribution services and will be responsible for Network Integrated Transmission Service ("NITS") charges and for other non-market-based FERC approved transmission charges for shopping and non-shopping load.

The obligations of winning bidders are defined in the Master SSO Supply Agreement.

2.3 Tranches

SSO Load will be divided into identical units called tranches, each representing an equivalent percentage of SSO Load. Each tranche represents one percent (1%) of the actual hourly energy required for SSO Load for the applicable delivery period as well as one percent (1%) of the PJM capacity requirement for the applicable delivery period.

The number of tranches intended to be procured for each product in the auction is referred to as the "tranche target" for that product. The Auction Manager may reduce the tranche target(s) prior to the auction if indications of interest in the auction are such that doing so is required to promote more competitive bidding.

3. PRICES PAID TO SSO SUPPLIERS

The payment to SSO Suppliers for tranches won may be a seasonal function of the auction prices. Any seasonal factors will be announced to suppliers prior to the auction and will be constant during the duration of the Master SSO Supply Agreement. Please refer to the MSA for details.

Example 1. Seasonal Supplier Payments

Assume the summer factor is 1.1180 and the non-summer factor is 0.9581, and the delivery period is June 1, 2016 through May 31, 2018.

Assume a bidder in the auction wins three (3) 24-month tranches at a price of \$60.00/MWh. The size of each tranche is 1% of the SSO Load. Thus, the bidder will serve 3% of the SSO Load from June 1, 2016 through May 31, 2017. The bidder will receive \$67.08 (\$60.00 X 1.1180) for each MWh of SSO Load served in the summer months and \$57.49 (\$60.00 X 0.9581) for each MWh of SSO Load served in the non-summer months.

4. PRIOR TO THE START OF BIDDING

4.1 Information Provided to Bidders

The FirstEnergy Ohio Utilities will make available certain information to suppliers in advance of qualification. This information will be posted on the Information Website.

4.1.1 Data

The FirstEnergy Ohio Utilities will provide:

- Historical load data for the most recent three-year period available.
- Historical hourly load data for total retail load and SSO Load.
- Historical switching statistics and historical load profiles.

4.1.2 Minimum and Maximum Starting Prices

The Auction Manager 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 Auction Manager will announce for each product in the auction:

- The tranche target or the number of tranches being procured.
- 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 Auction Manager will announce:

• Any update to the MW-measure of the tranches in the auction.

4.1.4 Auction Schedule

The schedule for each auction will be posted to the calendar page of the Information Website.

The Auction Manager, in consultation with the FirstEnergy Ohio Utilities and Commission Staff, may make changes to the schedule as circumstances warrant. Any such change will be announced to Bidders and posted to the Information Website.

4.2 Qualification Process

There are two parts to the application 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.

The auctions are scheduled for Summer and Winter.

If a prospective bidder completes the Part 1 Application and becomes a Qualified Bidder for the Summer auction in a year, the bidder need not complete the Part 1 Application again for the subsequent auction scheduled for Winter. The Qualified Bidder still needs to complete the Part 2 Application for the auction scheduled for Winter even if the Qualified Bidder completed a Part 2 Application for the preceding Summer auction.

If a prospective bidder for the Winter auction in a year was not a Qualified Bidder for the preceding Summer auction, then the prospective bidder must complete the Part 1 Application to become a Qualified Bidder for the Winter auction.

All prospective bidders for an auction scheduled for Summer in a year must complete a Part 1 Application to become a Qualified Bidder for that auction, even if they were Qualified Bidders in any prior auction.

A prospective bidder is obligated to inform the Auction Manager of any change in its status related to the information the prospective bidder previously provided in its Part 1 Application or its Part 2 Application.

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 Master SSO Supply Agreement with the FirstEnergy Ohio Utilities within three (3) days following the close of the auction.
- 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 Master SSO Supply Agreement.
- 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.
- If the applicant would like to propose changes to the Pre-Bid Security Letter of Credit and/or the Form of SSO Supplier Letter of Credit, submit those changes in an electronic, red-lined version. Likewise, if the Applicant would like to propose an alternate form of guaranty, submit that in electronic form.

Part 1 Applications must be submitted to the Auction Manager 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 Auction Manager no later than three (3) days after the Part 1 Application Due Date whether they succeeded in becoming a Qualified Bidder.

A prospective bidder that has qualified during the Part 1 Application process becomes a Qualified Bidder. The Auction Manager 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 FirstEnergy Ohio Utilities, PUCO Staff, and any advisor ("PUCO Consultant") that PUCO Staff may have retained for this purpose.

All parties receiving a list of Qualified Bidders will be subject to the confidentiality requirements as specified below and in the Communications Protocols.

4.2.2 Part 2 Application: Certifications, Indicative Offer, and Pre-Bid Security

For each auction, Qualified Bidders 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 Auction Manager 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 Auction Manager 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

Auction Manager 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 Offer

With its Part 2 Application, a Qualified Bidder will be required to submit an indicative offer and to post prebid security sufficient for this indicative offer. A Qualified Bidder's indicative offer specifies two (2) numbers of tranches for each product in the auction. For each product, the first number represents the number of tranches that the Qualified Bidder is willing to serve at the minimum starting price for the product and the second number represents the number of tranches that the Qualified Bidder is product. For each product, the number of tranches specified in the indicative offer at the minimum starting price cannot exceed the number of tranches specified at the maximum starting price.

Indicative offers are important in two respects. First, the Auction Manager 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 indicated by the Qualified Bidder 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 sum of the number of tranches at the maximum starting prices across all products in the Qualified Bidder's indicative offer. 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 all products that exceeds the bidder's initial eligibility. Thus, the number of tranches for each product at the maximum starting prices in the Qualified Bidder's indicative offer does not limit the number of tranches the Qualified Bidder can bid on a particular product, but the total number of tranches at the maximum starting prices across all products in the indicative offer must be equal to the Qualified Bidder's desired initial eligibility across all products.

Any restriction on the Qualified Bidder's initial eligibility also will restrict the Qualified Bidder's indicative offer commensurately. A Qualified Bidder's initial eligibility is restricted to be no higher than the lesser of the following: (a) a credit-based tranche cap and (b) any applicable load cap.

Restrictions on the Indicative Offer: Credit-Based Tranche Cap

A Qualified Bidder may have a credit-based tranche cap that limits the Qualified Bidder's initial eligibility. The total number of tranches at the maximum starting prices across all products in the Qualified Bidder's indicative offer must not exceed the Qualified Bidder's credit-based tranche cap. This credit-based tranche cap is based on the credit rating of the Qualified Bidder or its Guarantor. A Qualified Bidder's credit-based tranche cap is determined as shown in Table 1.

Credit Rating c	of Qualified Bidde	r or Guarantor	Cradit Basad Transha Can
S&P	Moody's	Fitch	Credit-Based Tranche Cap
BB and above	Ba2 and above	BB and above	Unlimited up to auction's tranche target
BB-	Ba3	BB-	12 tranches
Below BB-	Below Ba3	Below BB-	6 tranches
If not rated b	by any of those ration	ng agencies	6 tranches

Table 1. Credit-Based Tranche Cap

Note that the parameters in the table above may vary by auction and over time, at the sole discretion of the FirstEnergy Ohio Utilities.

To be assigned a credit-based tranche cap greater than the minimum credit-based tranche cap, the Qualified Bidder or its Guarantor must:

- Be rated by at least one of the following rating agencies: Standard & Poor's Rating Services ("S&P"), Moody's Investors Service, Inc. ("Moody's"), or Fitch, Inc. ("Fitch"), and
- Have a senior unsecured debt rating (or, if unavailable, corporate or issuer rating).

If the Qualified Bidder or Guarantor is rated by only one rating agency, that rating will be used. If the Qualified Bidder or Guarantor is rated by only two rating agencies, and the ratings differ, the lower rating will be used. If the Qualified Bidder or Guarantor is rated by the three rating agencies, and the ratings differ, the lowest rating will be used.

If a Qualified Bidder is not rated by any of the rating agencies, the Qualified Bidder's credit-based tranche cap will be the minimum credit-based tranche cap as shown in Table 1.

The credit-based tranche cap is in effect only during the bidding process. After the Master SSO Supply Agreement has been executed by a winning bidder, the credit-based tranche cap no longer will be in effect and the SSO Supplier will be required to meet the credit terms in accordance with the Master SSO Supply Agreement.

Restrictions on the Indicative Offer: Load Cap

In addition to any credit-based tranche cap, a Qualified Bidder will be subject to a load cap that limits the number of tranches the bidder can bid on and win. The load cap will be 80 percent on an aggregated load basis across all auction products for each auction date 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 (electronic wire transfer) or a Pre-Bid Security Letter of Credit will be accepted as pre-bid security. The standard form of the Pre-Bid Security Letter of Credit will be posted to the Information Website.

If a draft Pre-Bid Security 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. Proposed modifications must be received by the Auction Manager no later than 12:00 p.m. noon prevailing Eastern Time on the Part 1 Application Due Date. The FirstEnergy Ohio Utilities will assess, in their sole and exclusive discretion, whether such modifications are acceptable. The prospective bidder, in its Part 2 Application, must provide either cash or the required executed Pre-Bid Security Letter of Credit that uses either the standard form or incorporates only those modifications to the standard form accepted by the FirstEnergy Ohio Utilities upon review of the bidder's Part 1 Application.

The following is an example calculation of the pre-bid security.

Example 2. Pre-Bid Security

A Qualified Bidder submits an indicative offer of 5 tranches for Product-1 at the minimum starting price and 10 tranches for Product-1 at the maximum starting price, 3 tranches for Product-2 at the minimum starting price and 6 tranches for Product-2 at the maximum starting price, and 2 tranches for Product-3 at the minimum starting price and 4 tranches for Product-3 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 Security Letter of Credit of \$500,000 per tranche. The Qualified Bidder thus posts cash or a Pre-Bid Security Letter of Credit of \$10 million (20 tranches X \$500,000 per tranche).

For a Part 2 Application to be accepted, it must be complete and it must include the Qualified Bidder's indicative offer and pre-bid security (either a Pre-Bid Security Letter of Credit or cash). After its Part 2 Application is accepted, a Qualified Bidder becomes a Registered Bidder. The Auction Manager will send each Registered Bidder a summary of its indicative offer, pre-bid security amount, and the Registered Bidder's initial eligibility.

The Auction Manager 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 Auction Manager 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 five (5) calendar days after the conclusion of the auction. Subsequently, a bidder's pre-bid security will be cancelled and returned as follows:

- As soon as practicable if the bidder has won no tranches.
- After the bidder has signed the Master SSO Supply Agreement and has complied with all creditworthiness requirements of the Master SSO Supply Agreement for the tranches that it has won.

The FirstEnergy Ohio Utilities can collect on the financial guarantees of bidders that win tranches but that fail to sign the Master SSO Supply Agreement or fail to comply with the creditworthiness requirements immediately following the close of the auction.

4.3 Starting Prices (Round 1 Prices)

No later than three (3) days before bidding starts for an auction, the Auction Manager will inform all Registered Bidders of the starting price for each product in the auction, which are the announced prices 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 Auction Manager will set the starting prices.

4.4 Extraordinary Events

The Auction Manager, in consultation with the FirstEnergy Ohio Utilities, 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 Auction Manager 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 FirstEnergy Ohio Utilities and the Auction Manager. 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 significantly affect the cost of supply.

If an extraordinary event occurs during that time, the Auction Manager in consultation with the FirstEnergy Ohio Utilities 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 Auction Manager in consultation with the FirstEnergy Ohio Utilities will determine a revised schedule.

5. BIDDING FORMAT FOR AUCTIONS OF MULTIPLE PRODUCTS

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 Auction Manager'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. All products are bid on simultaneously in the auction 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 oversubscribed — 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, there is no excess supply, 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, 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 Auction Manager will keep bidders informed of the start and end times of subsequent rounds through the Bidding Website. The Auction Manager retains the option of pausing a round, delaying the start or end of a round, or otherwise adjusting the round times. The Auction Manager 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 Auction Manager 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 Auction Manager 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 Auction Manager 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 Auction Manager will not announce the reservation prices to bidders.

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 form 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 either its credit-based tranche limit or 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 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 were not bid on the product in 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 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 Auction Manager 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 Auction Manager reduces the tranche target for a product, bidders will be informed of the revised tranche target. Any bidder that would otherwise have eligibility exceeding the new tranche targets will have its eligibility reduced so as not to exceed the new tranche targets.
- (f) A determination is made as to whether the auction has concluded. 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 and disclosed to bidders. 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 during 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 Auction Manager 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 Auction Manager

At any time during the auction, the Auction Manager may decide to pause the auction. This is not expected to happen often and it may not happen at all. If the Auction Manager pauses the auction or changes the round schedule in any way, bidders will be notified.

6. BIDDING FORMAT FOR AUCTIONS OF A SINGLE PRODUCT

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 Auction Manager's secure Bidding Website.

The auction format is a multiple-round descending-price clock format for "N" rounds (N is not predetermined, as discussed below) possibly followed by a sealed-bid round. The descending-price clock rounds are referred to as the "clock phase." If there is a round following the last clock round, it is referred to as the "sealed-bid round."

The number of rounds for the clock phase is not pre-determined. Instead, it is determined by a rule called "the transition rule," which determines the last round of bidding in the clock phase.

The clock phase, the transition rule, and the sealed-bid round are described next.

6.1 Clock Phase

The description in this section applies to the clock phase of the auction. In a descending-price clock bidding format, the Auction Manager announces a price prior to the start of each bidding round and each bidder bids the quantity it would supply at that price. The rounds continue with the price declining each round, causing the total supply bid to fall.

An important rule is that a bidder cannot increase the number of tranches it bids round to round as the price falls, it can only maintain or reduce the number of tranches it bids.

6.1.1 Rounds

The clock phase is conducted with rounds of bidding. 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 Auction Manager will keep bidders informed of the start and end times of subsequent rounds through the Bidding Website. The Auction Manager retains the option of pausing a round, delaying the start or end of a round, or otherwise adjusting the round times. The Auction Manager 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.

6.1.2 The Announced Price and a Bid

Prior to the start of each round, the Auction Manager announces the price that will be in effect for the round. The announced price is specified in dollars per MWh or \$/MWh. The price announced by the Auction Manager applies to all the tranches. Each bidder decides how many tranches it is willing and able to supply at the announced price. A bid is the number of tranches the bidder is willing to supply at that announced price. All bids are irrevocable and binding upon the bidders.

The announced price will decrease round by round by a price decrement.

At sufficiently high announced prices there will be excess supply for the tranches being procured in the auction. Excess supply for the tranches in a round is measured as the total number of tranches bid across all bidders in the round minus the tranche target.

6.1.3 Reservation Price

There is a reservation price for the auction. The reservation price is the price above which tranches will not be purchased. At the conclusion of the auction, the Auction Manager will inform bidders through the Bidding Website if the reservation price has not been met.

The starting price for the auction is determined after the reservation price is determined. The starting price will be no lower than the reservation price. The starting price may be the same as or higher than the reservation price. The Auction Manager will not announce the reservation price to bidders.

6.1.4 A Bidder's Eligibility to Bid

A bidder's eligibility to bid in a round is the maximum number of tranches it is allowed to bid in that round. A bidder's eligibility for a round is the number of tranches the bidder bid 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. If a bidder bids zero tranches in a round, it will not be allowed to bid in any more rounds of the clock phase.

As discussed above, a bidder's initial eligibility is its eligibility for round 1 of the auction.

6.1.5 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 accepted in the round for that bidder is the last confirmed bid it submitted in the round.

6.1.6 Default Bid

After the end of a round, a default bid of zero (0) tranches 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.

As with any bidder that actively bids zero tranches in a round, a bidder having a default bid of zero tranches submitted and confirmed on its behalf in a round will not be allowed to bid in any more rounds of the clock phase.

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 its behalf.

6.1.7 Price Decrements

The announced price will decrease round by round by a price decrement. Pre-specified price guidelines are used to determine the price decrement. Generally the price decrement will be larger for the earlier rounds in the auction and the greater is the excess supply for the tranches. 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 Auction Manager 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.

6.1.8 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.

6.1.9 Insufficient Supply for the Tranches

If there is insufficient supply for the tranches to ensure competitive bidding, the Auction Manager will reduce the tranche target. 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 the tranche target will be eliminated and there will be no reduction in the tranche target. Thus, any exercise of this discretion would be more likely in the earlier rounds of the auction.

If the Auction Manager reduces the tranche target for the auction, bidders will be informed of the revised tranche target. Any bidder that otherwise would have eligibility exceeding the new tranche target will have its eligibility reduced to the new tranche target.

6.2 Transition Rule

The rule that determines the last round of bidding in the clock phase is referred to as the transition rule.

The transition rule is that the last round of bidding in the clock phase is the first round of bidding in the clock phase in which excess supply falls to zero or below zero.

- If excess supply is zero, then the auction closes and the winning tranches, winning bidders, and the winning price are determined as described in section 6.4.
- If excess supply is less than zero and only one bidder reduced the number of tranches it bid between the last two rounds of the clock phase, then the auction closes and the winning tranches, winning bidders, and the winning price are determined as described in section 6.4.
- If excess supply is less than zero and two or more bidders reduced the number of tranches they bid between the last two rounds of the clock phase, then a sealed-bid round will be held as described next in section 6.3.

6.3 Sealed-Bid Round

The description in this section applies to the sealed-bid round of the auction. As with the clock phase, bidders bidding in the sealed-bid round will submit their bids by accessing the Auction Manager's secure Bidding Website.

If there is a sealed-bid round, it follows the last round of the clock phase. For ease of description, the last round of the clock phase will be referred to as "round N" and the next-to-last round of the clock phase will be referred to as "round N-1", so the sealed-bid round is "round N+1."

Bidders for the sealed-bid round are those bidders that bid at least one tranche in round N-1 and bid fewer tranches in round N. Any such bidder must submit a bid in the sealed-bid round (even if it bid zero tranches in round N). If it fails to submit a bid in the sealed-bid round, a default bid will be submitted on its behalf as described below in the section on default bids.

Only bidders that bid at least one tranche in round N-1 and bid fewer tranches in round N can submit a bid in the sealed-bid round.

6.3.1 Allowed Bids

While each round in the clock phase has an announced price, there is no announced price for the sealed-bid round. In the sealed-bid round, a bidder submits a bid by specifying for each tranche it bids the price at which the bidder is committing to supply the tranche. A bid by a bidder is, for each tranche in the bid, an irrevocable binding commitment to supply the tranche at the price it bids for the tranche.

The tranches in the bidder's bid will be treated as a supply schedule. That is, the tranches will be sorted in ascending order by price and the price it bid for the first tranche is the price at which the bidder is committing to supply the first tranche, the price it bid for the second tranche is the price at which it is committing to supply the second tranche, and so on.

The bid that a bidder can submit in the sealed-bid round is restricted as follows.

- The bidder's bid must include each of the tranches that it bid in round N-1 but did not bid in round N (even if it bid zero tranches in round N).
- For each of the tranches that the bidder bid in round N-1 but did not bid in round N, the bidder's bid in the sealed-bid round must specify a price that is no higher than the announced price in effect for round N-1. The bidder can specify a different price for each of the tranches. Alternatively, the bidder can specify the same price for two or more of the tranches.

The units for prices specified in the bidder's bid are \$/MWh. The precision of prices is \$0.01/MWh or one cent per MWh. Prices that are entered with greater precision than \$0.01/MWh will be rounded up to the next \$0.01/MWh.

The following example shows four bidders participating in the clock phase and two of those bidders participating in the sealed-bid round.

			Clock Ph	ase			
		Announced		Numb	er of Tranch	es Bid	
Round	Tranche Target	Price (\$/MWh)	BidderA	BidderB	BidderC	BidderD	Total
1	100	\$75.00	34	55	21	72	182
2	100	\$70.00	30	55	15	50	150
3	100	\$66.00	20	52	10	45	127
4	100	\$62.00	15	48	0	44	107
5	100	\$59.50	0	48	—	42	90

Example 3. Bids in Clock Phase and Allowed Bids in Sealed-Bid Round

		Sealed-B	id Round		
(must	BidderA bid 15 tran	ches)	(mus	BidderD t bid 2 tranc	ches)
# Tranches Bid	Max. Allowed Price (\$/MWh)	Price Bid (\$/MWh)	# Tranches Bid	Max. Allowed Price (\$/MWh)	Price Bid (\$/MWh)
5	\$62.00	\$62.00	1	\$62.00	\$60.04
8	\$62.00	\$61.40	1	\$62.00	\$59.50
2	\$62.00	\$59.95			—

In the example above, the clock phase was stopped after round 5 (round N) because it was the first round in which excess supply no longer was positive: in the round only 90 tranches of supply were bid against 100 tranches being procured.

- BidderA must bid 15 tranches in the sealed-bid round because it bid 15 tranches in round 4 and no tranches in round 5. For each of the 15 tranches, BidderA must submit a price in the sealed-bid round that is no higher than the announced price in round 4, or \$62.00/MWh. The bid submitted by BidderA in the sealed-bid round above satisfies that requirement: 5 tranches bid at \$62.00/MWh, 8 tranches bid at \$61.40/MWh, and 2 tranches bid at \$59.95/MWh.
- BidderB does not bid in the sealed-bid round because it bid at least one tranche in round 4 and it did not bid fewer tranches in round 5. BidderB thus wins the 48 tranches it bid in rounds 4 and 5, and the winning price for those 48 tranches is the round 5 announced price, or \$59.50/MWh.

- After round 4 it is known that BidderC can no longer participate in the auction because it bid zero tranches in round 4 and round 4 was not the last round of the clock phase. Thus, BidderC does not bid in the sealed-bid round and will not win any tranches.
- BidderD wins the 42 tranches it bid in round 5, and the winning price for those 42 tranches is the round 5 announced price, or \$59.50/MWh. In addition, BidderD must bid 2 tranches in the sealed-bid round because it bid 2 fewer tranches in round 5 than it bid in round 4. For each of the 2 tranches, BidderD must submit a price in the sealed-bid round that is no higher than the announced price in round 4, or \$62.00/MWh. The bid submitted by BidderD in the sealed-bid round above satisfies that requirement: 1 tranche bid at \$60.04/MWh and 1 tranche bid at \$59.50/MWh.

6.3.2 Multiple Bids by a Bidder

As in the clock phase, a bidder is allowed to make multiple bid submissions in the sealed-bid 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 the round, the only bid accepted in the round for that bidder is the last bid confirmed by the bidder in the round. Section 8.1 below discusses the process for confirming a bid.

6.3.3 Default Bid

A bidder in the sealed-bid round must submit a confirmed bid for all the tranches that it must bid in the sealed-bid round. If it fails to submit a confirmed bid by the end of the sealed-bid round, a default bid will be submitted on its behalf. This default bid will be as follows:

For each of the tranches the bidder bid in round N-1 but did not bid in round N, the default bid for the bidder in the sealed-bid round will specify a price that is the announced price in effect for round N-1.

After the sealed-bid round the auction closes and the winning tranches, winning bidders, and the winning price are determined as described in section 6.4.

6.4 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.

6.4.1 Excess Supply = 0 at End of Clock Phase

If the last round of the clock phase had zero excess supply then there is no sealed-bid round. The winning tranches are the tranches bid in the last round of the clock phase, the winning bidders are the bidders who bid those tranches, and the winning price in the auction is the announced price for the last round of the clock phase.

6.4.2 Excess Supply < 0 at End of Clock Phase with No Sealed-Bid Round

If the last round of the clock phase had excess supply less than zero but only one bidder reduced the number of tranches it bid between the last two rounds of the clock phase, then there is no sealed-bid round. Tranches bid in the last round of the clock phase are winning tranches, bidders who bid those tranches are winning bidders, and the winning price for those tranches is the announced price for the last round of the clock phase.

Additional winning tranches total the difference between the tranche target and the total number of tranches bid in the last round of the clock phase (i.e., round N). Those additional winning tranches are awarded to the one bidder who reduced its number of tranches bid between round N-1 and round N. The bidder is awarded the additional winning tranches at the announced price in effect for the next-to-last round of the auction.

6.4.3 Excess Supply < 0 at End of Clock Phase with Sealed-Bid Round

If the last round of the clock phase had excess supply less than zero and two or more bidders reduced the number of tranches they bid between the last two rounds of the clock phase, then there is a sealedbid round. Tranches bid in the last round of the clock phase are winning tranches, bidders who bid those tranches are winning bidders, and the winning price for those tranches is the announced price for the last round of the clock phase.

Additional winning tranches are determined as follows.

Random numbers will be assigned to the tranches bid in the sealed-bid round to be used as a tie-breaker, if needed, in case two or more tranches are bid at the same price. The tranches from the bids in the sealed-bid round will be sorted in ascending order by price and then in ascending order by random number. The assignment of random numbers to tranches and the sorting of tranches by price and by random number are done tranche by tranche without regard to bidder.

A winning tranche from the sorted list of tranches is a tranche that satisfies the following condition:

• It is one of the first T tranches that appears in the sorted list of bids, where T is the difference between the tranche target and the number of tranches bid in the last round of the clock phase. The bidder who bid such a winning tranche is the winning bidder for that tranche and the winning price for that tranche is the price the bidder bid for the tranche.

Tranches in the sorted list of bids that do not meet the condition above are not winning tranches.

None, some, or all of the tranches in a bidder's bid in the sealed-bid round may be winning tranches.

In Example 3 above, 17 tranches were bid in the sealed-bid round, and 10 of those tranches are selected as winning tranches. The winning tranches are selected in order of ascending price bid: one tranche bid at price \$59.50/MWh by BidderD, two tranches bid at price \$59.95/MWh by BidderA, one tranche bid at price \$60.04/MWh by BidderD, and six tranches bid at price \$61.40/MWh by BidderA.

6.5 Reporting Round Results

During a round, a bidder will see the current status of the auction and the status of the current round (including the announced price for a round in the clock phase) as well as its 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 clock phase will show:

- For the completed round, the announced price and a range of total supply across all bidders (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 in the clock phase below a pre-determined level, total supply will be reported simply as being below that level. This pre-determined level of total supply will not be disclosed.
- For each bidder, that bidder's bid for the round and the bidder's eligibility for the next round (each bidder does not see information about other bidders).
- The announced price for the next round if the clock phase will continue with the next round.

6.6 Auction Pause Declared by Auction Manager

At any time during the auction, the Auction Manager may decide to pause the auction. This is not expected to happen often and it may not happen at all. If the Auction Manager pauses the auction or changes the round schedule, bidders will be notified.

7. AFTER THE AUCTION CLOSES

7.1 Notification of Results

At the close of the auction, if the Auction Manager determines that the auction did not violate the competitive bidding process rules in such a manner so as to invalidate the auction, the Auction Manager will notify the FirstEnergy Ohio Utilities, the PUCO, the PUCO Consultant (if one has been retained), and the bidders as follows.

- The Auction Manager will notify the FirstEnergy Ohio Utilities, the PUCO, and the PUCO consultant of the identities of the winning bidders, the number of tranches won by each winning bidder, and the prices for the tranches won.
- The Auction Manager will notify each winning bidder of how many tranches the bidder has won and at what prices. The Auction Manager also will notify the unsuccessful bidders that they have not won any tranches.

The PUCO may reject the results of the auction, through an Order filed within forty-eight (48) hours of the conclusion of the auction based upon a post-auction report from the Auction Manager or the PUCO's consultant in which it is determined that the auction violates a specific CBP rule in such a manner so as to invalidate the auction.

7.2 Execution of Master SSO Supply Agreement

The winning bidders and the FirstEnergy Ohio Utilities will execute the Master SSO Supply Agreements no later than three (3) days following the close of the auction once the specific pricing information and load obligations have been inserted upon completion of the auction. Each winning bidder must demonstrate compliance with the creditworthiness requirements set forth in the Master SSO Supply Agreement.

7.3 Sanctions for Failure to Execute the Master SSO Supply Agreement

A winning bidder's financial guaranty posted with its Part 2 Application may be forfeited if the winning bidder does not execute the Master SSO Supply Agreement within three (3) days following the close of the auction, if it fails to demonstrate compliance with the creditworthiness requirements set forth in the Master SSO Supply Agreement, or if it fails to agree to any of the terms of the Master SSO Supply Agreement. If the FirstEnergy Ohio Utilities exercise their right to collect on the financial guarantees, then any contractual rights or other entitlements of the winning bidder will terminate immediately without further notice by the FirstEnergy Ohio Utilities. In addition, the winning bidder will be liable for damages incurred by the FirstEnergy Ohio Utilities, which will be determined in accordance with the terms of the Master SSO Supply Agreement as though the winning bidder were a Defaulting Party to the Master SSO Supply Agreement.

7.4 Disclosure of the Auction Results

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 PUCO or as required by law. The PUCO may choose to release additional information.

A winning bidder itself may release information regarding the number of tranches it has won, and a nonwinning bidder itself may release information only regarding the fact that it participated in the auction, but not before the earliest of:

- (1) A PUCO Order confirming the results of the auction.
- (2) Forty-eight (48) hours after the conclusion of the auction.

The winning bidders and the non-winning bidders otherwise continue to be bound by their certifications as described elsewhere. 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 PUCO.

8. USE OF THE BIDDING WEBSITE

Bidders will bid in the auction by accessing the Auction Manager's secure Bidding Website. An Authorized Representative of a bidder will access the Bidding Website using their own Web browser. The URL address for the Bidding Website, as well as user names 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 Auction Manager.

8.1 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.

8.2 Requirements for Using the Bidding Website

Access to the Bidding Website requires all of the following:

- User name and password provided by the Auction Manager.
- Access to the Internet.
- Compatible Web browser.
- Status as a Registered Bidder.

A bidder loses access to the Bidding Website after it no longer is possible to win tranches in the auction.

8.3 Messaging

The Bidding Website displays messages from the Auction Manager. These messages from the Auction Manager are displayed for all bidders with access to the Bidding Website.

9. BACKUP BIDDING PROCEDURES

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, backup bidding procedures will be provided as follows.

- (1) Option 1. Upon encountering a technical difficulty, it is recommended that the bidder call the Auction Manager's Help Desk and inform the Help Desk operator that it would like to submit a bid over the phone. The Help Desk operator will verify the identity of the caller, for example by asking for the bidder's company name, and the first and last name of the caller, along with the username and password of the bidder. Then a member of the Auction Manager team will attempt to enter the bid on the Bidding Website on behalf of the bidder. Please note that the Auction Manager can accept bids over the phone only from callers that have been identified as authorized bidders by the bidder company.
- (2) Option 2. In case the bidder is unable to place a call to the Auction Manager's Help Desk, it is recommended that the bidder submit its bid via email to the Auction Manager. If possible, the email should be sent using encrypted email. Once the backup bid is received via email, a member of the Auction Manager team will attempt to enter the bid on the Bidding Website on behalf of the bidder. Note that prior to the auction, bidders will be provided with one or more forms to use for submitting a bid using this email-based backup bidding procedure.
- (3) Option 3. In case the bidder is unable to place a call to the Auction Manager's Help Desk or to submit a bid via email, the bidder should use the Backup Bidding Fax Number to submit its bid via facsimile. Once the backup bid is received via facsimile, a member of the Auction Manager team will attempt to enter the bid on the Bidding Website on behalf of the bidder. Note that prior to the auction, bidders will be provided with the Backup Bidding Fax Number and with one or more forms to use for faxing a bid using the faxed- based backup bidding procedure.

Bidders must be aware and understand that there is no guarantee or other assurance that if it submits a bid using a backup bidding procedure that its bid will be submitted and confirmed on its behalf by the Auction Manager 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 Auction Manager 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 Auction Manager team will contact the bidder and provide the 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 Auction Manager 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.

10. 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.

11. CONTINGENCY PLAN TO PROCURE TRANCHES

There is a contingency plan to cover the following scenarios:

- If Fewer Tranches than the Tranche Target are Procured in the Auction
- If a Winning Bidder Defaults Prior to or During the SSO Delivery Period

11.1 If Fewer Tranches than the Tranche Target are Procured in the Auction

In the event that fewer tranches than a product's tranche target are procured in the auction, the FirstEnergy Ohio Utilities will implement a contingency plan for the unfilled tranches as follows.

11.1.1 Unfilled Tranches to be Offered in Next Scheduled Auction

For any unfilled tranches, if the next scheduled auction takes place no later than 30 calendar days prior to the start of the delivery period for the unfilled tranches, the unfilled tranches will be made available in that auction. If there is no such auction, or if there is such an auction but some of the unfilled tranches remain unfilled after such an auction, then the remaining unfilled tranches will be procured as follows.

11.1.2 Unfilled Tranches to be Offered to Current SSO Suppliers

For this purpose, current SSO Suppliers are SSO Suppliers who have won tranches in one of the FirstEnergy Ohio Utilities' CBP auctions. An SSO Supplier will be considered a current SSO Supplier from the conclusion of the FirstEnergy Ohio Utilities' CBP auction in which such supplier won tranches until the termination of the obligation to serve the SSO Load. Current SSO Suppliers will be assigned a random number and each unfilled tranche will be offered to current SSO Suppliers in ascending order of random number, subject to any credit-based tranche limits and any applicable load caps for such suppliers. The tranches will be offered to current SSO Suppliers at the clearing price, starting price, or reservation price whichever is lowest, from the auction in which the tranches were not procured.

11.1.3 SSO Supply Requirements to be Met through PJM-Administered Markets

If, after the attempts above to procure unfilled tranches, there remain unfilled tranches, the necessary SSO supply requirements associated with those unfilled tranches will be met through PJM-administered markets at prevailing day-ahead zonal spot prices, and, unless instructed otherwise by the PUCO, the FirstEnergy Ohio Utilities will not enter into hedging transactions to attempt to mitigate the associated price or volume risks to serve these tranches.

11.2 If a Winning Bidder Defaults Prior to or During the SSO Delivery Period

In the event a winning bidder defaults prior to or during the delivery of SSO Load requirements, the FirstEnergy Ohio Utilities will implement a contingency plan for the open tranches. This contingency plan will follow the same steps as the contingency plan above for unfilled tranches in an auction. That is, the first consideration will be to make the open tranches available in the next scheduled auction if that auction takes place no later than 30 calendar days prior to the start of the delivery period for the open tranches. Next, any remaining open tranches will be offered to current SSO Suppliers as described above. Finally, the necessary SSO supply requirements associated with any remaining open tranches will be met through PJM-administered markets as described above.

Additional costs incurred by the FirstEnergy Ohio Utilities in implementing the contingency plan will be assessed first against the defaulting supplier's credit security, to the extent available.

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 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 PUCO, the FirstEnergy Ohio Utilities or the Auction Manager and that a bidder acquires as a result of participating in the auction, whether in writing or verbally, which if it were to be made public could impair the integrity of current or future competitive bidding processes, impair the ability of the FirstEnergy Ohio

Utilities to hold future competitive bidding processes, 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 Auction Manager 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 PUCO, a court or otherwise by law. The Auction Manager, the PUCO, and the FirstEnergy Ohio Utilities 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 PUCO) or by a court of competent jurisdiction. However, the FirstEnergy Ohio Utilities will endeavor to notify the bidder in advance of such disclosure. In any event, neither the FirstEnergy Ohio Utilities nor the Auction Manager, 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 FirstEnergy Ohio Utilities and the Auction Manager 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 PUCO, and any other regulatory body and the courts, if necessary, without the prior consent/approval of, or notice to, any such bidder.

12.2 Certifications and Disclosures to Be Made

A prospective bidder will be required to make the certifications listed in the Part 1 and Part 2 Applications and to disclose certain information. For example:

- A prospective bidder will be required to certify in its Part 1 Application that, should it qualify to
 participate, it will not disclose information regarding the list of Qualified Bidders.
- A prospective bidder will be required to certify that it accepts the terms of the Master SSO Supply Agreement and, should it win tranches, it will sign the applicable Master SSO Supply Agreement and comply with all creditworthiness requirements by the stated deadline.
- 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, a joint venture for the purpose of participating in the auction, 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.
- Each Qualified Bidder will be asked to certify in its Part 2 Application that it will undertake steps to appropriately restrict its disclosure of Confidential Information relative to its bidding strategy and Confidential Information regarding the auction.

- A Qualified Bidder will be asked to certify in its Part 2 Application that it has not and will not come to any agreement with another Qualified Bidder with respect to bidding in the auction, except as disclosed and approved by the Auction Manager in its Part 1 Application.
- Before obtaining sealed documentation necessary to participate in the auction, Registered Bidders will be required to certify that they will continue to maintain the confidentiality of any information that they will have acquired through their participation in the auction.

12.3 Actions to be Taken if Certifications Cannot Be Made

If a bidder cannot make all the certifications, the Auction Manager 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 Auction Manager 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 Auction Manager regarding certifications required in the Part 2 Application, the Auction Manager 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.

Such sanctions can include, but are not limited to, any one or more of the following:

- Termination of the Master SSO Supply Agreement.
- The loss of all rights to provide supply for the FirstEnergy Ohio Utilities to serve any load won by such bidder.
- The forfeiture of letters of credit, financial guarantees, 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 competitive bidding processes.
- Other sanctions that may be appropriate.

Should such an event occur, the Auction Manager will make a recommendation to the FirstEnergy Ohio Utilities regarding sanctions. The imposition of such sanctions will be at the discretion of the FirstEnergy Ohio Utilities.

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 Auction Manager has developed standards that apply when associated parties apply to participate in a CBP auction. 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 a CBP auction for the FirstEnergy Ohio Utilities.

13.1 Procedure Followed by the Auction Manager

Potential associations among participants may come to the attention of the Auction Manager 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 Auction Manager 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 Auction Manager 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 Auction Manager 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 Auction Manager will notify representatives of the FirstEnergy Ohio Utilities, PUCO Staff, and the PUCO's consultant that there is a potential association among applicants.

In addition, as outlined in the Part 2 Application, the Auction Manager 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 CBP auction.
- (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 Auction Manager until the Qualified Bidders submit final certifications along with their Part 2 Applications. In such cases, the Auction Manager will initiate the steps outlined above, upon receipt of the completed Part 2 Applications.

After the Auction Manager has requested and received additional information from each associated bidder, the Auction Manager will work with representatives of the FirstEnergy Ohio Utilities, PUCO Staff, and the PUCO's consultant to determine:

- (a) Whether each of the associated bidders will be allowed to participate independently in the CBP auction; 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 Auction Manager.

13.2 Remedies and Actions Related to Participation by Associated Bidders

This section summarizes the potential restrictions that will be considered by the Auction Manager, the FirstEnergy Ohio Utilities, PUCO Staff, and the PUCO's consultant 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 or credit based tranche 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 CBP auction.

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 Auction Manager to share, directly, certain confidential information among the associated parties, the FirstEnergy Ohio Utilities, the PUCO, its staff, and/or the consultant hired by the PUCO to monitor the process.

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 CBP 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 Auction Manager 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 FirstEnergy Ohio Utilities nor the Auction Manager 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 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 FirstEnergy Ohio Utilities, nor the Auction Manager, 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 FirstEnergy Ohio Utilities and the Auction Manager 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 FirstEnergy Ohio Utilities' Property

All bids submitted by bidders participating in the auction will become the exclusive property of the FirstEnergy Ohio Utilities 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 Master SSO Supply Agreement.

14.5 Permits, Licenses, Compliance with the Law and Regulatory Approvals

Bidders shall obtain all licenses and 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 Auction Manager) and associated documentation, including but not limited to these Bidding Rules, and the screen formats and forms designed by the Auction Manager (the "Auction Software"), are proprietary to the Auction Manager and all rights, title, and interest to the Auction Software remain with the Auction Manager. The Auction Manager 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 Auction Manager's sole discretion that the Qualified Bidder is in breach of this section 13.6, the Auction Manager 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 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 Auction Manager 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 IN AUCTIONS OF MULTIPLE PRODUCTS

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 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.

			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
			•					L				
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

Example 4. 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
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

Communications Protocols for the FirstEnergy Ohio Utilities' CBP Auctions

Table of Contents

<u>Page</u>

1.		INTRODUCTION	1
2.		OBJECTIVES	2
3.		THE FIRSTENERGY OHIO UTILITIES AND AFFILIATES	2
	3.1	Internal Communications	2
	3.2	Communications with Bidders	3
	3.3	Part 1 Application Process	3
	3.4	Part 2 Application Process	3
	3.5	Communication of the Bid Selection Criteria	3
	3.6	Auction Results	3
	3.7	Post-Auction Reports	4
4.		GENERAL PUBLIC AND MEDIA	4
	4.1	The Information Website	4
	4.2	Registered Users	4
	4.3	Press Releases	
	4.4	Answering Inquiries from the General Public or Media	5
5.		BIDDERS	5
	5.1	Communications Among Bidders	
	5.2	Communications between the Auction Manager and Bidders	5
	5.3	Frequently Asked Questions	5
	5.4	Bidding Process	
	5.5	Limitations on Disclosures by Bidders	
6.		PUBLIC UTILITIES COMMISSION OF OHIO	
	6.1	Identification of the PUCO Consultant	6
	6.2	Communications with the Auction Manager	
	6.3	Communications with the FirstEnergy Ohio Utilities	
	6.4	Communications with Bidders	
	6.5	Information on Auction Participation	
	6.6	Round-by-Round Bids	7
7.		APPENDIX A	8

1. INTRODUCTION

These Communications Protocols apply to the competitive bidding process ("CBP") auctions for The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company (hereafter referred to as "the FirstEnergy Ohio Utilities") to procure supply for the provision of Standard Service Offer supply ("SSO Supply") for all of their retail customers that take retail generation service from the FirstEnergy Ohio Utilities.

The Communications Protocols in this document are intended to promote a fair, open, transparent, objective, and non-discriminatory process for the CBP auctions to procure supply for SSO customers of the FirstEnergy Ohio Utilities. These protocols also intend 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 competitive bidding processes.

Unless noted otherwise, all capitalized terms are defined in the Glossary available on the Information Website.

These protocols elaborate upon the means by which confidentiality is to be maintained by all parties through adherence to the procedures in this document. Should the Auction Manager recognize that additional information should be kept confidential, the Auction Manager will establish additional procedures in keeping with the principles provided in this document and inform the FirstEnergy Ohio Utilities, the PUCO and PUCO Staff, the PUCO Consultant, and Bidders in a timely manner.

This document is organized as follows:

- Section 2 summarizes the objectives of this document.
- Section 3 describes protocols regarding communications within the FirstEnergy Ohio Utilities, including any affiliate of the FirstEnergy Ohio Utilities, and between the FirstEnergy Ohio Utilities and Bidders.
- Section 4 summarizes information that may be communicated with the general public, including the media, and the means by which that information is disseminated.
- Section 5 addresses Bidder Communications Protocols, including communications among Bidders and between the Auction Manager and Bidders.
- Section 6 summarizes Communications Protocols with the PUCO, including communications between the PUCO and the Auction Manager, between the PUCO and the FirstEnergy Ohio Utilities, and disclosure of confidential information.
- Appendix A includes a confidentiality agreement to be signed by any party other than the Auction Manager or Bidders who may have access to proprietary and confidential information.

2. OBJECTIVES

This document and the procedures it describes promote four main objectives:

- The first objective is to establish a fair and equitable process for all Bidders by ensuring all Bidders have equal access to the same information necessary to evaluate the bidding opportunity and to prepare their bids in a timely manner.
- The second objective is to take all reasonable precautions that any information generated by the auction process that could harm the competitive position of Bidders or the FirstEnergy Ohio Utilities, if released, is kept confidential.
- The third objective is to take all reasonable precautions that confidential information is provided only to those persons to whom it is deemed necessary for the conduct and management of the auction process.
- The fourth objective is to ensure that information that, if released, could harm the competitiveness of future competitive bidding processes is kept confidential from all entities including Bidders.

These objectives will be accomplished by following two guiding principles. The first is that there will be one communication point for Bidders: all communications to prospective and actual Bidders will be directed through the Auction Manager. The second guiding principle is that the Auction Manager will distribute and disseminate information equally and fairly to all prospective and actual Bidders. These two guiding principles facilitate equal access to the same information for all Bidders. Only the Auction Manager responds to inquiries from Bidders and information is disseminated to all Bidders by or under the supervision of the Auction Manager.

The Auction Manager also will ensure that information generated by the implementation of the auction that could harm the competitive position of Bidders, if released, is kept confidential by those who have access to such information.

3. THE FIRSTENERGY OHIO UTILITIES AND AFFILIATES

3.1 Internal Communications

The FirstEnergy Ohio Utilities 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 FirstEnergy Ohio Utilities that may bid in the auction process where such communication or information is related directly or indirectly to this auction process.

3.2 Communications with Bidders

The FirstEnergy Ohio Utilities will not communicate with Bidders prior to the selection of winning bids. When the Auction Manager informs the FirstEnergy Ohio Utilities about the prices and tranches of the winning bids and the identity of winning Bidders, representatives from the FirstEnergy Ohio Utilities then will communicate with the winning Bidders in order to execute the necessary documents.

If a Bidder attempts to contact the FirstEnergy Ohio Utilities regarding the auction process by phone call, email, fax, or other means, the FirstEnergy Ohio Utilities will direct the Bidder to the Information Website and/or to the Auction Manager.

3.3 Part 1 Application Process

For the Part 1 Application process, the Auction Manager will need to provide the names of applicants to the FirstEnergy Ohio Utilities' credit representatives for purposes of confirming the applicants' credit requirements.

3.4 Part 2 Application Process

For the Part 2 Application process, the Auction Manager will need to provide the aggregate eligibility and other information from the Part 2 Applications to the FirstEnergy Ohio Utilities with the names of applicants redacted. Following the Part 2 Application process, the Auction Manager will provide to the FirstEnergy Ohio Utilities the name and initial eligibility of each Registered Bidder.

3.5 Communication of the Bid Selection Criteria

No later than one business day before bids are due, the FirstEnergy Ohio Utilities will provide the Auction Manager with details concerning any updates to the pre-determined bid selection criteria. The pre-determined bid selection criteria will be price-based, such as a reservation price.

3.6 Auction Results

If there are winning bid(s), the Auction Manager will: (a) inform the FirstEnergy Ohio Utilities (as well as the PUCO and PUCO Consultant) about the winning bids and identify the winning Bidders, and (b) notify the winning Bidders. The FirstEnergy Ohio Utilities will contact the winning Bidders to execute necessary documents. The Auction Manager also will inform any Bidders who did not win tranches that they have not been awarded any tranches in the auction process.

If there are no winning bid(s), the Auction Manager will inform the FirstEnergy Ohio Utilities (as well as the PUCO and PUCO Consultant) there are no bids that met the criteria for a winning bid.

Any paper copies of the bidding results will be secured in the Auction Manager's office.

3.7 Post-Auction Reports

Within one week of the conclusion of the auction process, the Auction Manager will provide to the FirstEnergy Ohio Utilities a comprehensive written report regarding the auction process.

The PUCO may receive from the PUCO Consultant a post-auction report in addition to the CBP Manager's comprehensive report. The Auction Manager shall review the PUCO Consultant's post-auction report in un-redacted, draft form in order to provide comments prior to the final version. The FirstEnergy Ohio Utilities shall receive the PUCO Consultant's report and provide comments to ensure accuracy.

4. GENERAL PUBLIC AND MEDIA

While bidding is in progress, there is to be no communication with the media or the public other than notification when the bidding begins. After the auction process is completed, results are determined, and Bidders have been notified, all media inquiries will be forwarded to the FirstEnergy Ohio Utilities.

4.1 The Information Website

The central source of information made available publicly and to Bidders is the Information Website. The Auction Manager will manage the information flow on the Information Website and will be designated on the Website as the contact person for any questions or inquiries from parties. Any party will have access to the public sections of the Information Website. The Information Website also will have restricted, non-public sections that will be accessible only to Applicants.

4.2 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. (Note that not all Registered Users become Registered Bidders, but a Bidder that would like to become a Registered Bidder must first register to become a Registered User so they can receive notices and updates.)

Any information the Auction Manager 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.

4.3 Press Releases

The FirstEnergy Ohio Utilities and/or the Auction Manager 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.

4.4 Answering Inquiries from the General Public or Media

Inquiries from the general public or the media to the Auction Manager will be directed to the Information Website.

5. **BIDDERS**

5.1 Communications Among Bidders

Pursuant to the auction rules, 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.

5.2 Communications between the Auction Manager and Bidders

The central source of information made available to Bidders is the Information Website. The Website will facilitate making information available equally to Bidders in a timely manner.

Bidders will be requested to become Registered Users to receive ongoing information about the auction process. As discussed above, once registered through the Information Website, Registered Users will receive notifications from the Auction Manager about updates to the auction process and to the Information Website.

If the Auction Manager receives an inquiry from a party and prepares a response that would be relevant for other parties, the Auction Manager 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 without revealing the identity of parties.

In addition to posting information to the Information Website, the Auction Manager 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 Auction Manager to a Bidder will not reveal the identity of other Bidders.

5.3 Frequently Asked Questions

Among other information and resources on the Information Website, there will be a FAQ (frequently asked questions) section with posted questions and answers. As inquiries are received, they will be converted into a FAQ and posted on the Information Website without revealing the identity of the party posing the inquiry.

Inquiries to be answered by the FirstEnergy Ohio Utilities will be forwarded by the Auction Manager to the FirstEnergy Ohio Utilities. Inquiries to be answered by the Auction Manager will be forwarded to the FirstEnergy Ohio Utilities as necessary with a draft response. Any inquiry or draft response forwarded by the Auction Manager to the FirstEnergy Ohio Utilities will not identify the party posing the inquiry. Both the FirstEnergy Ohio Utilities and the Auction Manager will review any inquiry and response before the FAQ is posted to the Information Website.

5.4 Bidding Process

During the auction, the Auction Manager, the PUCO, the PUCO's consultant, if any, and FirstEnergy Ohio Utilities' personnel may monitor the bidding process.

The Auction Manager 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.

5.5 Limitations on Disclosures by Bidders

Bidders are not allowed to disclose they are participating in a CBP auction and winning Bidders are not allowed to disclose that they have won any tranches in a CBP auction until the PUCO publicly reports the results of the CBP auction. Such limitation on public disclosure by bidders is waived if disclosure is required by law.

6. PUBLIC UTILITIES COMMISSION OF OHIO

6.1 Identification of the PUCO Consultant

The PUCO may identify up to three individuals who will serve as the PUCO Consultant and may be onsite at the offices of the Auction Manager during the bidding process. Other than information that is accessible by being onsite, the PUCO Consultant will not be forwarded confidential information electronically or in hardcopy format. Those individuals are required to abide by the Communication Protocols and sign the confidentiality agreement in Appendix A.

6.2 Communications with the Auction Manager

During the bidding process, the identity of Bidders, prices, and the number of tranches each winning Bidder has won will be kept confidential. This information may be released to the PUCO after the auction results are finalized.

6.3 Communications with the FirstEnergy Ohio Utilities

The PUCO may communicate with the FirstEnergy Ohio Utilities regarding the auction process. However, the FirstEnergy Ohio Utilities 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.

6.4 Communications with Bidders

The PUCO will not communicate with Bidders about the auction process prior to the determination of winning bids. If a Bidder attempts to contact the PUCO by phone call, email, fax, or other means, the PUCO will direct the Bidder to the Information Website and/or to the Auction Manager.

6.5 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 of Bidders will be kept confidential until released publicly by the PUCO. The PUCO may elect to keep these data confidential at its sole discretion.

6.6 Round-by-Round Bids

Actual round-by-round bids by Bidders will be kept confidential pursuant to the confidentiality provisions of the Bidding Rules and the Master SSO Supply Agreement.

7. APPENDIX A

CONFIDENTIALITY AGREEMENT

I acknowledge that I have read and understand the Communications Protocols and obligations regarding treatment of confidential information related to the CBP auctions to procure generation supply for SSO customers of the FirstEnergy Ohio Utilities.

I certify that I have abided by its terms and that I agree to continue to abide by its terms and conditions. I acknowledge that I may be subject to potential injunctive action to enforce this confidentiality agreement, as well as liability from parties participating in the CBP auctions to procure supply for SSO customers of the FirstEnergy Ohio Utilities should I be found in violation of this confidentiality agreement.

Company

Signed by

Date

Please return the signed form to the Auction Manager at FEOUAuctionManager@crai.com to:

Attn: Robert Lee, Vice President CRA International, Inc. John Hancock Tower 200 Clarendon Street Boston, MA 02116-5092 Phone: 617.425.3365 FEOUAuctionManager@crai.com

Sample Pre-Bid Security – Pre-Bid Letter of Credit

_____[Date]

Letter of Credit No.

To: The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company (collectively, the "FirstEnergy Ohio Utilities" or "Companies")

1.	We hereby establish in your favor this irrevocable	Letter of Credit (this "Letter of
	Credit") for the account of	("the Bidder"), in the amount
	of \$, effective immediately and	available to you at sight upon
	demand by all of you at our counters at	[location] and expiring
	on[date] which is 60 calendar days	from date of issuance, unless
	terminated earlier in accordance with the provisions h	nereof or otherwise extended.

- 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 a certificate from you stating that the Bidder:
 - a) "has made a material omission or misrepresentation in the Part 1 Application or the Part 2 Application submitted by the Bidder to participate in the FirstEnergy Ohio Utilities' Competitive Bidding Process for purposes of procuring supply under the Master Standard Service Offer Supply Agreement ("Master SSO Supply Agreement"); or
 - b) "has violated the bidding rules for the FirstEnergy Ohio Utilities' Competitive Bidding Process for purposes of procuring supply under the Master SSO Supply Agreement; or
 - c) "has a winning bid in the FirstEnergy Ohio Utilities' Competitive Bidding Process for purposes of procuring supply under the Master SSO Supply Agreement and has failed to execute the Master SSO Supply Agreement within three (3)

business days of the closing of the Solicitation (as defined in the Master SSO Supply Agreement)"; or

- d) "has a winning bid in the FirstEnergy Ohio Utilities' Competitive Bidding Process for purposes of procuring supply under the Master SSO Supply Agreement and has failed to meet the creditworthiness requirements of the Master SSO Supply Agreement within three (3) business days of the closing of the Solicitation (as defined in the Master SSO Supply Agreement)"
- 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 AM (prevailing Eastern Time¹) on such Business Day to ______ [bank], ______ [address], (i) a notice in the form of Annex 1 hereto executed by an Authorized Officer of each of the FirstEnergy Ohio Utilities and (ii) your draft in the form of Annex 2 hereto, appropriately completed and duly signed by an Authorized Officer of each of the FirstEnergy Ohio Utilities. 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 such accounts at such banks in the United States as you may specify in your draft delivered to us pursuant to Paragraph 3 hereof, by 3:00 PM (prevailing Eastern Time) on the date of such drawing if delivery of this requisite document is made prior to 11:00 AM (prevailing Eastern 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 after 11:00 AM (prevailing Eastern Time) on any Business Day pursuant to Paragraph 3 hereinabove.

¹ 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.

- 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 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 nonconforming 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.
- 6. This Letter of Credit shall automatically terminate and be delivered to us for cancellation 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, or (iii) the above-stated expiration date hereof.
- 7. As used herein:

"**Business Day**" means any day on which the Companies' and PJM's corporate offices are open for business and commercial banks are not authorized or required to close and on which payments can be effected on the Fedwire system.

- 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 _____ [Bank] satisfy the minimum senior unsecured debt rating of "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 our Standby Letter of Credit Unit at _____.
- 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 Auction Manager for the FirstEnergy Ohio Utilities' Competitive Bidding Process:

Attn: Brad Miller, Vice President CRA International, Inc. John Hancock Tower 200 Clarendon Street, T-9 Boston, MA 02116 Phone: (617) 425-3384 We understand that the Auction Manager holds the letter of credit for the benefit of the FirstEnergy Ohio Utilities. The aggregate amount paid to the FirstEnergy Ohio Utilities 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 each of the FirstEnergy Ohio Utilities. Acceptance or rejection of any amendments to this Letter of Credit must be signed by an Authorized Officer of the FirstEnergy Ohio Utilities.

Very truly yours,

[Bank]

By:_____

Name: Title:

By:_____

Name: Title:

Annex 1 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO.

_____, 20____

To: [Bank] [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._____, dated______, 20__, the undersigned are entitled to make a drawing under the Letter of Credit in the aggregate amount of \$______, inasmuch as the Bidder has (state reason from conditions (a) – (d) of Paragraph 2).

The amounts to be received by The Cleveland Electric Illuminating Company is \$______, the amount to be received by The Toledo Edison Company is \$______ and the amount to be received by Ohio Edison Company is \$______, for a total equal to the aggregate amount in the previous paragraph.

4. 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,

The FirstEnergy Ohio Utilities

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By Name: Title: Date:	By: Name: Title: Date:
Ohio Edison Company	
By Name: Title: Date:	-

Annex 2 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO.

_____, 20____

ON	[Business Day pursuant to Paragraph 4]
PAY TO:	The Cleveland Electric Illuminating Company
\$	
For credit to	the account of

PAY TO: The Toledo Edison Company

\$_____

For credit to the account of ______.

PAY TO: Ohio Edison Company

\$_____

For credit to the account of

FOR VALUE RECEIVED AND CHARGE TO ACCOUNT OF LETTER OF CREDIT NO.

[Bank] [Address]

The FirstEnergy Ohio Utilities

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By Name: Title: Date:	By: Name: Title: Date:
Ohio Edison Company	
By Name:	

Title: Date:

Annex 3 to Letter of Credit

CERTIFICATE OF EXPIRATION OF LETTER OF CREDIT NO. _____

_____, 20___

To: [Bank] [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.

FirstEnergy Ohio Utilities

The Cleveland Electric Illuminating Company	The	Cleveland	Electric	Illuminating	Company
---	-----	-----------	----------	--------------	---------

The Toledo Edison Company

By	By:
Name:	Name:
Title:	Title:
Date:	Date:

Ohio Edison Company

Ву	
Name:	
Title:	
Date:	

CC:		[Bidder]
-----	--	----------

MASTER STANDARD SERVICE OFFER ("SSO")

SUPPLY AGREEMENT

BETWEEN

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

OHIO EDISON COMPANY

AND

EACH SSO SUPPLIER SET FORTH IN APPENDIX A HERETO

TABLE OF CONTENTS

TABLE	OF CONTENTS	i
ARTIC	LE 1: DEFINITIONS	6
ARTIC	LE 2: GENERAL TERMS AND CONDITIONS	14
2.1	SSO Supplier's Obligations to Provide SSO Supply	14
2.2	Companies' Obligation to Take SSO Supply	
2.3	Firm Transmission Service and other Transmission Charges	
2.4	Other Changes in PJM Charges	15
2.5	Congestion and Congestion Management	15
2.6	Record Retention	16
2.7	PJM E-Accounts	16
2.8	Reliability Guidelines	16
2.9	PJM Membership	16
2.10	Regulatory Authorizations	17
2.11	Retail Distribution	
2.12	PJM Member Default Cost Allocation	
2.13	Status of SSO Supplier	
2.14	Sales for Resale	
ARTIC	LE 3: REPRESENTATIONS AND WARRANTIES	
3.1	SSO Supplier's Representations and Warranties	
3.2	Companies' Representations and Warranties	
3.3	Notice	
ARTIC	LE 4: COMMENCEMENT AND TERMINATION OF AGRE	EMENT 23
4.1	Term	
4.2	Effect of Termination on Obligations; Survival	
4.3	Mutual Termination	
4.4	Early Termination	
ARTIC	-	
5.1	Events of Default	
5.1 5.2	Rights Upon an Event of Default	
5.2 5.3	Default Damages; Settlement Amount; Termination Payment	
5.3 5.4	Step-up Provision	
5.5	Setoff of Payment Obligations of the Non-Defaulting Party	
5.6	Preservation of Rights of Non-Defaulting Party	
ARTIC 6.1	,	
6.1 6.2	Applicability Creditworthiness Determination	
6.2 6.3		
	Independent Credit Requirement per Tranche	
6.4	Independent Credit Threshold	
6.5	Mark-to-Market Credit Exposure Methodology	
6.6	Credit Limit Posting Margin Collateral and Return of Excess Collateral	
6.7	rosung margin Conateral and Keturn of Excess Collateral	41

6.8	Grant of Security Interest; Remedies	42
6.9	Acceptable Forms of Security	44
6.10	Reporting; Maintenance of Creditworthiness	45
6.11	Interest on Cash Held by Companies	
6.12	No Endorsement of SSO Supplier	46
ARTICL	JE 7: SCHEDULING, FORECASTING, AND INFORMATION	47
7.1	Scheduling	
7.2	Load Forecasting	
ARTICL	E 8: BILLING AND SETTLEMENT	48
8.1	Companies Statement	48
8.2	PJM Billing; Third Party Billing	
ARTICL	E 9: SYSTEM OPERATION	53
9.1	Disconnection and Curtailment by the Companies	
9.2	Loss of Service to SSO Customers	
9.3	PJM Requirements	54
9.4	Compliance with Governmental Directives	54
ARTICL	E 10: DISPUTE RESOLUTION	54
10.1	Informal Resolution of Disputes	54
10.2	Formal Dispute Resolution	55
10.2	Description A consistent Country of Competent Invisition	55
10.3	Recourse to Agencies or Courts of Competent Jurisdiction	
ARTICL		
		56
ARTICL	E 11: LIMITATION OF LIABILITY; RISK OF LOSS	 56 56
ARTICL 11.1	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss.	 56 56 56
ARTICL 11.1 11.2	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss	 56 56 5 6
ARTICL 11.1 11.2 ARTICL	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability	56 56 56 56
ARTICL 11.1 11.2 ARTICL 12.1	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability	56 56 56 56 56
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL	LE 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Limitation of Liability Risk of Loss Risk of Loss LE 12: INDEMNIFICATION Indemnification Lindemnification LE 13: MISCELLANEOUS PROVISIONS	56 56 56 56 56 59
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Limitation of Liability Risk of Loss Risk of Loss Le 12: INDEMNIFICATION Indemnification Indemnification Le 13: MISCELLANEOUS PROVISIONS Notices Notices	56 56 56 56 56 59 59
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No Waiver or Prejudice of Rights Assignment Governing Law	56 56 56 56 56 59 62 63
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Indemnification Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries	56 56 56 56 56 59 59 62 63 64
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability. Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity	56 56 56 56 59 59 59 59 62 63 64
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability. Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices. No Waiver or Prejudice of Rights Assignment. Governing Law. Third Party Beneficiaries. Unenforceability or Invalidity Entire Agreement State of Loss	56 56 56 56 56 59 62 63 64 64 65
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability. Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices. No Waiver or Prejudice of Rights Assignment. Governing Law. Third Party Beneficiaries. Unenforceability or Invalidity Entire Agreement Taxes	56 56 56 56 56 59 59 59 59 62 63 64 64 64
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity Entire Agreement Taxes Rules of Interpretation	56 56 56 56 59 59 59 59 62 63 64 64 65
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 13.10	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity Entire Agreement Taxes Rules of Interpretation Confidentiality	56 56 56 59 59 59 59 62 63 64 64 65 65 64
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 13.10 13.11	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity Entire Agreement Taxes Rules of Interpretation Confidentiality Amendment Mendment	56 56 56 56 59 59 59 59 59 62 63 64 64 65 66 68
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 13.10 13.11 13.12	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity Entire Agreement Taxes Rules of Interpretation Confidentiality Amendment PJM Agreement Modifications PJM Agreement Modifications	56 56 56 56 56 59 59 59 59 59 62 63 64 64 65 66 68
ARTICL 11.1 11.2 ARTICL 12.1 ARTICL 13.1 13.2 13.3 13.4 13.5 13.6 13.7 13.8 13.9 13.10 13.11	E 11: LIMITATION OF LIABILITY; RISK OF LOSS Limitation of Liability Risk of Loss Risk of Loss Risk of Loss E 12: INDEMNIFICATION Indemnification Indemnification E 13: MISCELLANEOUS PROVISIONS Notices No Waiver or Prejudice of Rights Assignment Governing Law Third Party Beneficiaries Unenforceability or Invalidity Entire Agreement Taxes Rules of Interpretation Confidentiality Amendment Mendment	56 56 56 59 59 59 59 59 62 63 64 64 65 64 65 65 66 68 68 68 68

1
3
4
5
0
3
01
00
06

Attachment RJL-7

MASTER SSO SUPPLY AGREEMENT

THIS MASTER SSO SUPPLY AGREEMENT (this "Agreement") made and entered into this [*} day of {*}, [*} (the "Effective Date") by and between The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company (collectively, the "Companies"), each of which is a corporation organized and existing under the laws of the State of Ohio, and each of the suppliers listed on Appendix A severally, but not jointly (each an "SSO Supplier" and, collectively, the "SSO Suppliers"). The Companies and each SSO Supplier are hereinafter sometimes referred to collectively as the "Parties," or individually as a "Party."

WITNESSETH:

WHEREAS, each of the Companies is an Ohio public utility engaged, <u>inter alia</u>, in providing SSO Service within its service territory; and

WHEREAS, the PUCO found that, commencing on and after June 1, 2024 it would serve the public interest for the Companies to secure SSO Supply through a competitive bidding process; and

WHEREAS, on [*] [*], [*], the Companies conducted and completed a successful Solicitation for SSO Supply; and

WHEREAS, each SSO Supplier was one of the winning bidders in the Solicitation for the provision of SSO Supply; and

WHEREAS, the PUCO has authorized the Companies to contract with winning bidders for the provision of SSO Supply to serve SSO Load in accordance with the terms of this Agreement; and

WHEREAS, each SSO Supplier will satisfy its Capacity obligations under the PJM Agreements associated with its respective SSO Supplier Responsibility Share in accordance with the terms and provisions of the PJM Agreements, including through participation in the base residual auction and incremental auctions administered by PJM; and

WHEREAS, the Companies and the SSO Suppliers desire to enter into this Agreement setting forth their respective obligations concerning the provision of SSO 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 will

have the definition set forth in this Article.

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.

Ancillary Services has the meaning set forth in the PJM Agreements.

Applicable Legal Authorities means, generally, those federal and Ohio statutes and administrative rules and regulations that govern the electric utility industry in Ohio.

Bankrupt means, with respect to any entity, that such entity (i) voluntarily files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar law, or has any such petition filed or commenced against it by its creditors and such petition is not dismissed within sixty (60) calendar days of the filing or commencement; (ii) makes an assignment or any general arrangement for the benefit of its creditors; (iii) otherwise becomes insolvent, however evidenced; (iv) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets; or (v) is generally unable to pay its debts as they become due.

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. § 101 <u>et seq.</u>

Billing Month means each calendar month during the Delivery Period.

Business Day means any day except a Saturday, Sunday or a day that PJM declares to be a holiday, as posted on the PJM website. A Business Day shall open at 8:00 a.m. and close at 5:00 p.m. prevailing Eastern Time.

Capacity means "Unforced Capacity" as set forth in the PJM Agreements, or any successor measurement of the capacity obligation of an LSE as may be employed in PJM (whether set forth in the PJM Agreements or elsewhere).

Capacity Proxy Price or "CPP" – The capacity price SSO Suppliers account for in their bid if the PJM capacity price is not known for a given year.

Charge means any fee, charge, PJM charge, the PMEA/FMEA Adjustment if in favor of the Companies, or any other amount that is billable by the Companies to the SSO Supplier under this Agreement.

Commercial Customer means a Customer taking service under one of the Companies' General Service – Small Tariffs.

Costs mean, with respect to the Non-Defaulting Party, all reasonable attorney's fees,

brokerage fees, commissions, PJM charges 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 attorney's fees and expenses incurred by the Non-Defaulting Party in connection with the termination of this Agreement as between the Companies and the applicable SSO Supplier.

Credit Limit means an amount of credit, based on the creditworthiness of an SSO Supplier or its Guarantor, if applicable, determined pursuant to Section 6.6, granted by the Companies to such SSO Supplier to be applied towards the Total Exposure Amount for such SSO Supplier.

CRES Supplier means a Person that is duly certified by the PUCO to offer and to assume the contractual and legal responsibility to provide Standard Service Offer pursuant to retail open access programs approved by the PUCO to Customers who are not SSO Customers of the Companies.

Customer means any Person who receives distribution service from the Companies in accordance with the Applicable Legal Authorities.

Default Allocation Assessment has the meaning set forth in the PJM Agreements.

Default Damages means direct damages, calculated in a commercially reasonable manner, that the Non-Defaulting Party incurs as a result of an Event of Default by the Defaulting Party. Default Damages may include: (i) the positive difference (if any) between the Price of SSO Supply hereunder and the price at which the Companies or the SSO Supplier is able to purchase or sell (as applicable) SSO Supply (or any components of SSO Supply it is able to purchase or sell) from or to third parties including other SSO Suppliers and PJM; (ii) Emergency Energy charges; (iii) additional transmission or congestion costs incurred to purchase or sell SSO Supply; and (iv) Costs.

Defaulting Party has the meaning set forth in Section 5.1.

Delivery Period means the Original Delivery Period, unless this Agreement is terminated earlier in accordance with the provisions hereof.

Delivery Point means the FE Ohio Residual Aggregate as defined within PJM.

Early Termination has the meaning set forth in Section 4.4.

Early Termination Date means, as between the Companies and the applicable SSO Supplier, the date upon which an Early Termination becomes effective as specified in Section 5.2(b).

Effective Date has the meaning set forth in the preamble.

Emergency means (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; (ii) a condition that requires implementation of emergency operations procedures; or (iii) any other condition or situation that the Companies, transmission owner(s) or PJM deems imminently likely to endanger life or property or to affect or impair the Companies' electrical system or the electrical system(s) of other Person(s) to which the Companies' electrical system is directly or indirectly connected (a "Connected Entity"). Such a condition or situation may include potential overloading of the Companies' subtransmission or distribution circuits, PJM minimum generation ("light load") conditions, or unusual operating conditions on either the Companies' or a Connected Entity's electrical system, or conditions such that the Companies are unable to accept Energy from the SSO Supplier without jeopardizing the Companies' electrical system or a Connected Entity's electrical system.

Emergency Energy has the meaning set forth in the PJM Agreements.

Energy means three-phase, 60-cycle alternating current electric energy, expressed in units of kilowatt-hours or megawatt-hours.

Event of Default has the meaning set forth in Section 5.1.

Excess Collateral has the meaning set forth in Section 6.7.

FE Ohio Aggregate means that set of electrical locations determined pursuant to the applicable PJM Tariff, rules, agreements and procedures, representing the aggregate area of consumption for the Companies within PJM and used for the purposes of scheduling, reporting withdrawal volumes, and settling Energy transactions at aggregated load levels, to facilitate Energy market transactions.

FERC means the Federal Energy Regulatory Commission, or any successor thereto.

Final Monthly Energy Allocation or **FMEA** means a quantity of Energy expressed in MWh which, for any Billing Month, is the PMEA adjusted for any billing or metering errors found subsequent to the calculation of PMEA of which PJM is notified prior to the last date on which PJM issues a settlement statement for a previous operating day for the Billing Month.

Firm Transmission Service has the meaning ascribed to "Network Integration Transmission Service" under the PJM Agreements. In the event the PJM Agreements are modified such that "Network Integration Transmission Service" is no longer offered, Firm Transmission Service means the type of transmission service offered under the PJM Agreements that is accorded the highest level of priority for scheduling and curtailment purposes.

FPA has the meaning set forth in Section 10.3.

Forward Market Prices means forward market prices for a specific geographic Market Price Hub.

Gains means an amount equal to the present value of the economic benefit to the Non-Defaulting Party, if any, exclusive of Costs, resulting from an Early Termination.

General Service – Small Tariffs means Rate Schedules GS, GP, STL, TRF and POL of the Companies' Tariffs for Electric Service.

General Service – Large Tariffs means Rate Schedules GSU and GT of the Companies' Tariffs for Electric Service.

Governmental Authority means any federal, state, local, municipal or other governmental entity, authority or agency, department, board, court, tribunal, regulatory commission, or other body, whether legislative, judicial or executive, together or individually, exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power over a Party to this Agreement.

Guaranty means the Total Exposure Amount Guaranty, as applicable.

Guarantor means any Person having the authority and agreeing to guarantee an SSO Supplier's financial obligations under this Agreement, provided that such party meets the Companies' creditworthiness requirements for SSO Suppliers.

Indemnified Supplier has the meaning set forth in Section 12.1(b).

Independent Credit Requirement per Tranche or ICRT - Amount per Tranche required as security under Section 6.3, to mitigate the risk to the Company of Energy price movements between the date of an Early Termination caused by an Event of Default by a SSO Supplier and the date the final calculation of Default Damages owing to the Company under Section 5.3 is made.

Independent Credit Threshold or ICT - Amount of credit, based on the creditworthiness of a SSO Supplier or its Guarantor, if applicable, determined pursuant to Section 6.4, granted by the Company to such SSO Supplier to be applied towards the satisfaction of such SSO Supplier's Independent Credit Requirement.

Industrial Customer means a Customer taking service under one of the Companies' General Service – GSU and GT Tariffs.

Interest Index means the average Federal Funds Effective Rate, defined below, for the period of time the funds are on deposit. The Federal Funds Effective Rate is published daily on the Federal Reserve website <u>http://www.federalreserve.gov/releases/h15/update/</u>.

Kilowatt or kW means a unit of measurement of useful power equivalent to 1,000 watts.

Kilowatt-hour or **kWh** means one kilowatt of electric power used over a period of one hour.

Letter of Credit means a standby irrevocable letter of credit acceptable to the Companies issued by a bank or other financial institution with a minimum "A" senior unsecured debt rating (or, if unavailable, corporate issuer rating) from S&P or a minimum "A2" senior unsecured debt rating (or, if unavailable, corporate issuer rating) from Moody's, in substantially similar form as set forth in Appendix D and including all of the requirements specifically set forth in Section 6.9(b).

Load Serving Entity or LSE has the meaning set forth in the applicable PJM Agreements.

Losses means an amount equal to the present value of the economic loss to the Non-Defaulting Party, if any, exclusive of Costs, resulting from an Early Termination.

Margin means, at any time, the amount by which the Total Exposure Amount exceeds the Credit Limit of the SSO Supplier or its Guarantor.

Margin Call has the meaning set forth in Section 6.6(d).

Margin Collateral has the meaning set forth in Section 6.6(d).

Mark-to-Market Exposure Amount means an amount calculated daily for each SSO Supplier reflecting the exposure to the Companies due to fluctuations in market prices for Energy as set forth in Section 6.5 and SSO Load per Tranche including any subsequent changes to the SSO Load per Tranche, minus amounts due to such SSO Supplier pursuant to Section 8.1. The total Mark-to-Market Exposure Amount will be equal to the sum of the

Mark-to-Market Exposure Amounts for each Billing Month during the Original Delivery Period.

Market Price Hub means a liquid pricing point located within PJM's geographic footprint.

Megawatt or MW means one thousand kilowatts.

Megawatt-hour or **MWh** means one megawatt of electric power used over a period of one hour.

Minimum Margin Threshold means \$250,000.

Minimum Rating means a minimum senior unsecured debt rating as defined in Section 6.6(a) of this Agreement.

Midwest ISO Tariff means the Open Access Transmission, Energy and Operating Reserve Markets Tariff for the Midwest Independent Transmission System Operator, Inc., or the successor, superseding or amended versions of the Open Access Transmission, Energy and Operating Reserve Markets Tariff that may take effect from time to time.

NERC means the North American Electric Reliability Corporation or its successor.

Non-Defaulting Party means (i) where an SSO Supplier is the Defaulting Party, each of the Companies; (ii) where any of the Companies is the Defaulting Party with respect to an Event of Default, the SSO Supplier to which the applicable obligation was owed.

Ohio Sales and Use Taxes has the meaning set forth in Section 13.8.

Original Delivery Period has the meaning set forth in Appendix A.

Other SSO Supply Agreement has the meaning set forth in Section 5.3(c).

Party has the meaning set forth in the preamble to this Agreement, and includes such Party's successors and permitted assigns.

Person means an individual, partnership, joint venture, corporation, limited liability company, trust, association or unincorporated organization, any Governmental Authority, or any other entity.

PJM means PJM Interconnection, L.L.C. or any successor organization thereto.

PJM Agreements means the PJM OATT, PJM Operating Agreement, PJM RAA and any other applicable PJM manuals or documents, or any successor, superseding or amended versions thereof that may take effect from time to time.

PJM Control Area means the control area recognized by NERC as the PJM Control Area.

PJM E-Account means an account obtainable through PJM which provides access to webbased PJM settlement, accounting, marketing and other informational and economic systems.

PJM OATT or **PJM Tariff** means the Open Access Transmission Tariff of PJM or the successor, superseding or amended versions of the Open Access Transmission Tariff that may take effect from time to time.

PJM Operating Agreement means the Amended and Restated Operating Agreement of PJM or the successor, superseding or amended versions of the Amended and Restated Operating Agreement that may take effect from time to time.

PJM RAA means the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region or any successor, superseding or amended versions of the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region that may take effect from time to time.

PMEA or Preliminary Monthly Energy Allocation means a quantity of Energy expressed in MWh which, for any Billing Month, is the preliminary calculation of the SSO Supplier's SSO Supplier Responsibility Share.

PMEA/FMEA Adjustment means, for any Billing Month, the monetary amount due to an SSO Supplier or the Companies, as the case may be, in order to reconcile any difference between the PMEA used for the purpose of calculating estimated payments made to such SSO Supplier for a given month and the FMEA used for calculating the final payments due to the SSO Supplier for such month, as more fully described in Article 8.

Price means, with respect to each SSO Supplier, the price in \$/MWh set forth in Appendix A, resulting from the Companies' Solicitation for the opportunity to provide SSO Supply. The Price is the basis for financial settlement of SSO Supply supplied by an SSO Supplier for SSO Customers under this Agreement.

PUCO means the Public Utilities Commission of Ohio, or any successor thereto.

Residential Customer means a Customer taking service under any of the Companies' Residential Tariffs.

Residential Tariff means Rate Schedule RS.

Seasonal Billing Factor means a numerical factor, as set forth in Appendix B, one amount applicable during the summer months of June through August, and one amount applicable during the non-summer months of September through May, applied to the Price in accordance with the provisions of Article 8 and thereby used to adjust the Companies' payments to SSO Suppliers.

Settlement Amount means the net amount of the Losses or Gains, and Costs, expressed in U.S. Dollars, which the Non-Defaulting Party incurs as a result of Early Termination, calculated from the Early Termination Date through the end of the Original Delivery Period. For purposes of calculating the Settlement Amount, the quantity of Energy (and other components of SSO Supply) provided for under this Agreement for the period following the Early Termination Date through the remainder of the Original Delivery Period will be deemed to be those quantities that were delivered on an hourly basis, or would have been delivered on an hourly basis had this Agreement been in effect, during the previous calendar year, adjusted for any SSO Load changes as may have occurred since the previous calendar year as determined by the Companies. The calculation of Settlement Amount with respect to an Early Termination shall exclude Default Damages calculated pursuant to Section 5.2(b).

Solicitation means the competitive bidding process by which the counterparty, quantity, pricing and other terms of this Agreement are established.

SSO Customers means Residential Customers, Commercial Customers and Industrial Customers, including special contract (SC) Customers, taking SSO Supply from the Companies during the Delivery Period.

SSO Load means the full electricity requirements for SSO Service of SSO Customers.

SSO Service means Standard Service Offer service that is not provided by a CRES Supplier.

SSO Supplier has the meaning set forth in the preamble.

SSO Supplier Responsibility Share means, for each SSO Supplier, the fixed percentage share of the SSO Load for which the SSO Supplier is responsible as set forth in Appendix A. The stated percentage is determined by dividing the number of Tranches won by the SSO Supplier in the Solicitation by the total number of Tranches.

SSO Supply means unbundled Energy, Capacity and Ancillary Services, including, to the extent not expressly assumed by the Companies pursuant to Section 2.3, all transmission and distribution losses and congestion and imbalance costs associated with the provision of such services, as measured and reported to PJM, and such other services or products that an SSO Supplier may be required to provide, by PJM or other Governmental Authority, in order to meet the requirements of SSO Service.

Standard Service Offer means a market-based standard service offer of all competitive retail electric services necessary to maintain essential electric service to Customers, including unbundled Energy, Capacity, Ancillary Services and Firm Transmission Service, including all transmission and distribution losses, congestion and imbalance costs associated with the provision of the foregoing services, other obligations or responsibilities currently imposed or that may be imposed by PJM, and such other services or products that are provided by a CRES Supplier or an SSO Supplier to fulfill its obligations to serve customer load, as required by Section 4928.141 of the Ohio Revised Code.

Statement has the meaning set forth in Section 8.1(a).

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, each as would be reflected on a balance sheet prepared in accordance with generally accepted accounting principles.

Taxes have the meaning set forth in Section 13.8.

Term has the meaning set forth in Section 4.1.

Termination Payment has the meaning set forth in Section 5.3(c).

Total Exposure Amount means an amount calculated daily for each SSO Supplier reflecting the total credit exposure to the Companies 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" (or similar designation) under any Other SSO Supply Agreement; and (iii) the amount designated as the "credit exposure" (or similar designation) under any Other SSO Supply Agreement; and y the amount designated as the "credit exposure" (or similar designation) under any Other SSO Supply Agreement; 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.

Total Exposure Amount Guaranty means a guaranty, in substantially similar form as set forth in Appendix E, provided by a Guarantor in favor of the Companies guaranteeing an SSO Supplier's financial obligation with respect to its Total Exposure Amount.

Tranche means a fixed percentage share of the SSO Load as determined for the purposes

of the Solicitation conducted to procure SSO Supply for the SSO Load.

UCC means the Uniform Commercial Code.

ARTICLE 2: GENERAL TERMS AND CONDITIONS

2.1 <u>SSO Supplier's Obligations to Provide SSO Supply</u>

Each SSO Supplier hereby agrees, severally, but not jointly, as follows:

 (a) during the Delivery Period, such SSO Supplier shall sell, deliver and provide SSO Supply on a firm and continuing basis in order to meet its SSO Supplier Responsibility Share, in accordance with this Agreement and the PJM Agreements;

(b) (i) except with respect to Capacity, each SSO Supplier's obligation under Sections 2.1(a) will result in physical delivery and not financial settlement; (ii) the quantity of SSO Supply that such SSO Supplier must deliver will be determined by the requirements of the SSO Load, which may be different than the amount indicated in the Solicitation; and (iii) this Agreement does not provide for an option by such SSO Supplier with respect to the quantity of SSO Supply to be delivered; and

(c) each SSO Supplier shall deliver SSO Supply to the Delivery Point under this Agreement free and clear of any and all liens, security interests, claims and encumbrances or any interest therein or thereto by any Person.

2.2 <u>Companies' Obligation to Take SSO Supply</u>

During the Delivery Period, the Companies shall purchase and accept SSO Supply provided by an SSO Supplier pursuant to Section 2.1.

2.3 Firm Transmission Service and other Transmission Charges

The Companies shall be financially responsible for the provision of Firm Transmission Service from the Delivery Point. In addition, the Companies shall be responsible, at their sole cost and expense, and pursuant to PJM Agreements, for (i) charges and credits assessed under "Network Integration Transmission Service (NITS)",

Attachment RJL-7

Transmission Owner Scheduling, System Control and Dispatch Services, Schedule 2 (Reactive Supply and Voltage Control from Generation or Other Sources Services), Schedule 11 (Transitional Market Expansion Charge), Schedule 12 (Transmission Enhancement Charge), Planning Period Congestion Uplift, Meter Error Correction, Emergency Energy, Balancing Operating Reserve, Balancing Operating Reserve for Load Response, Reactive Services, and Generation Deactivation Charge of the PJM Tariff, and (ii) Midwest ISO Transmission Expansion Plan (MTEP) charges assessed under Schedule 26 of the Midwest ISO Tariff, whether assessed directly by the Midwest Independent Transmission System Operator, Inc., PJM or American Transmission Systems, Incorporated, and (iii) other non-market-based costs, fees or charges imposed on or charged to the Companies by FERC or a regional transmission organization, independent transmission operator, or similar organization approved by FERC. The Companies shall have such responsibility regarding such services and schedules as they may be modified or superseded from time to time. Each SSO Supplier shall be responsible for all other costs and expenses related to transmission and Ancillary Services in connection with the provision of SSO Supply in proportion to its SSO Supplier Responsibility Share. PJM billing statement line items are set forth in Appendix G.

2.4 Other Changes in PJM Charges

Each SSO Supplier is responsible, at its sole cost and expense, for any changes in PJM products and pricing during the Term.

2.5 Congestion and Congestion Management

Each SSO Supplier is responsible for any congestion costs incurred to supply its SSO Supplier Responsibility Share.

Attachment RJL-7

2.6 <u>Record Retention</u>

The Companies will retain for a period of two (2) years following the expiration of the Term necessary records so as to permit the SSO Suppliers to confirm the validity of payments due to the SSO Suppliers hereunder; provided that, if an SSO Supplier has provided notice within two (2) years of the expiration of the Term that it disputes the validity of any payments, the Companies agree that they will retain all records related to such dispute until the dispute is resolved pursuant to Article 10.

Each SSO Supplier will have the right, upon reasonable notice, to inspect (at the sole cost and expense of such SSO Supplier) the books and records retained by the Companies only insofar as they relate to payments due and owing, or owed and paid, to such SSO Supplier. Such inspection must take place during regular business hours.

2.7 PJM E-Accounts

Each SSO Supplier and the Companies shall work with PJM to establish any PJM E-Accounts necessary for such SSO Supplier to provide SSO Supply. Each SSO Supplier may manage its PJM E-Accounts in its sole discretion; provided such SSO Supplier acts in accordance with the standards set forth in the PJM Agreements.

2.8 <u>Reliability Guidelines</u>

Each Party agrees to adhere to the applicable operating policies, criteria and guidelines of the NERC, PJM, their successors, and any regional or sub-regional requirements.

2.9 <u>PJM Membership</u>

(a) Each SSO Supplier shall be at all times during the Delivery Period (i) a member in good standing of PJM; (ii) qualified by PJM as a "Market Buyer" and "Market

Seller" pursuant to the PJM Agreements, and (iii) qualified as a PJM "Load Serving Entity." During the Delivery Period, each of the Companies shall be a member in good standing of PJM.

(b) Each SSO Supplier shall be responsible, and be liable, to PJM for the performance of its LSE obligations associated with the provision of SSO Supply under this Agreement.

2.10 <u>Regulatory Authorizations</u>

(a) The Companies and each SSO Supplier shall obtain and maintain throughout the Delivery Period all regulatory authorizations necessary to perform their respective obligations under this Agreement, and with respect to SSO Suppliers only, each SSO Supplier shall have and maintain, throughout the Delivery Period, FERC authorization to make sales of Energy, Capacity, and Ancillary Services at market-based rates within PJM.

(b) Each SSO Supplier shall cooperate in good faith with the Companies in any regulatory compliance efforts as 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 SSO Supply before the PUCO, FERC or any other Governmental Authority.

2.11 <u>Retail Distribution</u>

The Companies will be responsible for (i) metering, billing and delivery with respect to SSO Customers (and SSO Suppliers will have no responsibility with respect thereto) and (ii) distribution services (and SSO Suppliers will have no responsibility with respect thereto).

2.12 PJM Member Default Cost Allocation

In the event PJM imposes a Default Allocation Assessment upon any of the Companies relating to a default during the Term, the Companies may, in their sole discretion, invoice each SSO Supplier, based on its SSO Supplier Responsibility Share, for amounts determined, in the Companies' sole discretion, to be properly payable by such SSO Supplier from the Default Allocation Assessment and each SSO Supplier shall pay such amounts within three (3) Business Days after receipt of such invoice, subject to the dispute resolution procedures set forth in Section 8.1(f).

2.13 Status of SSO Supplier

In order to meet the Companies' service obligations under Applicable Legal Authorities, it is the intent of the Parties that each SSO Supplier shall be deemed a Load Serving Entity for the duration of the Delivery Period pursuant to the PJM Agreements and Applicable Legal Authorities.

2.14 Sales for Resale

All SSO Supply provided by an SSO Supplier to the Companies shall be sales for resale, with the Companies reselling such SSO Supply to SSO Customers.

ARTICLE 3: REPRESENTATIONS AND WARRANTIES

3.1 <u>SSO Supplier's Representations and Warranties</u>

Each SSO Supplier hereby represents and warrants to the Companies as follows:

(a) it is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization and, if organized outside the State of Ohio, is duly registered and authorized to do business and is in good standing in the State of Ohio;

(b) it has all requisite power and authority to execute and deliver this Agreement, to carry on the business to be conducted by it under this Agreement and to enter into and perform its obligations hereunder, including the satisfaction of all applicable PUCO, FERC and PJM requirements;

(c) 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 and conditions in its governing documents, any contracts to which it is a party or any law, rule, regulation, order or decree of any Governmental Authority;

(d) this Agreement is the legal, valid and binding obligation of such SSO
 Supplier, enforceable in accordance with its terms, except insofar as such enforcement may
 be affected by bankruptcy, insolvency, moratorium or other laws affecting creditors' rights
 generally;

(e) as of the commencement of the Original Delivery Period, it has duly obtained all authorizations from any Governmental Authority necessary for it to perform its obligations under this Agreement;

(f) 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 reasonably be expected to adversely affect its ability to perform its obligations under this Agreement;

(g) it is not relying upon the advice or recommendations of any other Party in entering into this Agreement, it is capable of understanding, understands and accepts the terms, conditions and risks of this Agreement, and no other Party is acting as a fiduciary for or advisor to it in respect of this Agreement;

 (h) no Event of Default with respect to it has occurred and is continuing and no such event or circumstance will occur as a result of its entering into or performing its obligations under this Agreement;

(i) it is a "forward contract merchant" within the meaning of the United StatesBankruptcy Code;

 (j) it is not in violation of any law, rules, regulations, ordinances or judgments of any Governmental Authority which could reasonably be expected to adversely affect its ability to perform its obligations under this Agreement;

(k) as of the commencement of the Original Delivery Period, it is (i) a member in good standing of PJM; (ii) qualified by PJM as a "Market Buyer" and "Market Seller" pursuant to the PJM Agreements and (iii) qualified as a PJM "Load Serving Entity;"

(l) as of the commencement of the Original Delivery Period, it has duly obtained all FERC authorization necessary or desirable to make sales of Energy, Capacity, and Ancillary Services at market-based rates within PJM.

3.2 <u>Companies' Representations and Warranties</u>

Each of the Companies hereby represents and warrants to the SSO Suppliers as follows:

(a) it is an electric utility corporation duly organized, validly existing and in good standing under the laws of the State of Ohio;

(b) it 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;

(c) 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 and conditions in its governing documents, any contracts to which it is a party or any law, rule, regulation, order or decree of any Governmental Authority;

(d) this Agreement is the legal, valid and binding obligation of the Company, enforceable in accordance with its terms, except insofar as such enforcement may be affected by bankruptcy, insolvency, moratorium or other laws affecting creditors' rights generally;

(e) as of the commencement of the Original Delivery Period, it has duly obtained all authorizations from any Governmental Authority necessary for it to perform its obligations under this Agreement;

(f) 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 reasonably be expected to adversely affect its ability to perform its obligations under this Agreement;

(g) it is not relying upon the advice or recommendations of any other Party in entering into this Agreement, it is capable of understanding, understands and accepts the terms, conditions and risks of this Agreement, and no other Party is acting as a fiduciary

for or advisor to it in respect of this Agreement;

(h) 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; and

 (i) it is not in violation of any law, rules, regulations, ordinances or judgments of any Governmental Authority which could reasonably be expected to adversely affect its ability to perform its obligations under this Agreement.

3.3 <u>Notice</u>

If a Party becomes aware that any of the representations, warranties, or covenants in this Agreement are no longer true during the Term, such Party must immediately notify the other Parties in accordance with the notice provisions of Section 13.1, provided that if the notifying Party is an SSO Supplier, the SSO Supplier does not have to notify any other SSO Supplier.

ARTICLE 4: COMMENCEMENT AND TERMINATION OF AGREEMENT

4.1 <u>Term</u>

The term of this Agreement will commence upon the Effective Date and continue through the end of the Delivery Period (the "Term"); provided, however, that the provision of SSO Supply by SSO Suppliers will commence on June 1, 2024 at 12:00:01 a.m. prevailing Eastern Time.

4.2 <u>Effect of Termination on Obligations; Survival</u>

Termination of this Agreement, including Early Termination as between the Companies and an SSO Supplier for any reason, shall not relieve the Companies or such SSO Supplier of any obligation accruing on or prior to such termination. Any termination of this Agreement, including Early Termination, as between the Companies and an SSO Supplier, shall not relieve or otherwise affect the Companies or other SSO Suppliers with respect to their other obligations under this Agreement, absent a written agreement to the contrary among the remaining parties. All provisions of this Agreement which must, in order to give full force and effect to the rights and obligations of the Parties, survive termination or expiration of this Agreement shall so survive, including Articles 5, 10, 11, 12 and 13 and Sections 2.6, 6.6, 6.9, 8.1(d) and (h), in accordance with the terms thereof.

4.3 <u>Mutual Termination</u>

The Companies and any SSO Supplier may agree at any time during the Term to terminate their respective rights and obligations hereunder on such terms and under such conditions as they mutually deem to be appropriate as set forth in a mutual termination agreement acceptable in form and substance to the Companies and such SSO Supplier.

4.4 <u>Early Termination</u>

This Agreement may be terminated as between the Companies and an SSO Supplier prior to the end of the Term due to the occurrence of an Event of Default and the declaration of an Early Termination Date by the Non-Defaulting Party pursuant to Section 5.2 (an "Early Termination").

ARTICLE 5: BREACH AND DEFAULT

5.1 <u>Events of Default</u>

An "Event of Default" shall mean with respect to a Party (the "Defaulting Party") the occurrence of any of the following:

(a) the failure of the Defaulting Party to make, when due, any payment required pursuant to this Agreement (including under Section 8.2(b)) if such failure is not remedied within one (1) Business Day after receipt of written notice of non-payment;

(b) with respect to an SSO Supplier, the failure of the Defaulting Party to provide Margin Collateral, or with respect to any of the Companies, the failure of the Defaulting Party to return Excess Collateral, in each case pursuant to Section 6.5;

(c) failure of the Defaulting Party to comply with its obligations pursuant to
 Article 6 (except to the extent constituting a separate Event of Default under Section 5.1(b))
 if such failure is not remedied within three (3) Business Days of such failure;

(d) any representation or warranty made by the Defaulting Party herein is false or misleading in any material respect when made;

(e) the failure of the Defaulting Party to comply with the requirements of Sections 2.9 and 2.11 if such failure is not remedied within three (3) Business Days of such failure;

(f) PJM has declared the Defaulting Party to be in default of any provision of any PJM Agreement, which default prevents the Defaulting Party's performance hereunder, if such failure is not remedied within three (3) Business Days after written notice;

(g) the failure of the Defaulting Party to perform any material obligation set forth in this Agreement (except to the extent constituting a separate Event of Default) if such failure is not remedied within three (3) Business Days after written notice;

(h) the Defaulting Party becomes Bankrupt;

PJM holds any of the Companies responsible for the provision of SSO
 Supply, including Energy, Capacity and Ancillary Services, to meet the Defaulting Party's
 SSO Supplier Responsibility Share under this Agreement;

(j) the occurrence and continuation of: (i) a default, event of default or other similar condition or event in respect of the Defaulting Party or its Guarantor, if applicable, under one or more agreements or instruments, individually or collectively, relating to indebtedness for borrowed money in an aggregate amount of not less than five percent (5%) of such Defaulting Party's or Guarantor's (as the case may be) TNW, which results in such indebtedness becoming immediately due and payable; (ii) a default by the Defaulting Party or its Guarantor, if applicable, in making on the due date therefor one or more payments in respect of any obligation under contract or at law, individually or collectively, in an aggregate amount of not less than five percent (5%) of such Defaulting Party's or Guarantor's (as the case may be) TNW; or (iii) a default, event of default or other similar condition or event by the Defaulting Party under any Other SSO Supply Agreement; and

(k) with respect to a Defaulting Party's Guarantor, if any, (i) any representation or warranty made by such Guarantor in connection with this Agreement or any related Guaranty is intentionally or unintentionally false or misleading in any material respect when made or when deemed made or repeated; (ii) the failure of such Guarantor to make 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 three (3) Business Days after written notice; (iii) the failure of such Guarantor's Guaranty to be in full force and effect (other than in accordance with its terms) prior to the satisfaction of all obligations of the Defaulting Party under this Agreement without the written consent of the Companies; (iv) such Guarantor repudiates, disaffirms, disclaims, or rejects, in whole or in part, or challenges the validity of the Guaranty; or (v) such Guarantor becomes Bankrupt.

5.2 <u>Rights Upon an Event of Default</u>

If an Event of Default shall have occurred and be continuing, the Non-Defaulting Party shall have the right to:

(a) immediately suspend performance upon written notice to the Defaulting
 Party; provided, however, that if an SSO Supplier is the Non-Defaulting Party, such SSO
 Supplier may only suspend performance if the default of the Defaulting Party constitutes
 an Event of Default under Sections 5.1(a) or (h);

(b) declare an Early Termination and designate by written notice an Early Termination Date which shall be no earlier than the day such designation notice is effective and no later than twenty (20) calendar days after such notice is effective; provided, however, that if an SSO Supplier is the Non-Defaulting Party, such SSO Supplier may only declare on Early Termination if the default of the Defaulting Party constitutes an Event of

Default under Sections 5.1(a) or (h);

(c) calculate and receive from the Defaulting Party payment for any Default Damages which the Non-Defaulting Party incurs as of the date of the event giving rise to the Event of Default, until the earlier of: (i) the Early Termination Date (if applicable); (ii) the date the Event of Default has been cured by the Defaulting Party; or (iii) the date the Non-Defaulting Party waives such Event of Default;

(d) withhold any payments due to the Defaulting Party under this Agreement as
 a set-off against any Default Damages, or Termination Payment, as applicable, the
 Defaulting Party is entitled to receive;

(e) draw down, liquidate, set-off against, or demand payment under, any Guaranty and Margin Collateral; and

(f) exercise any other remedies at law or in equity.

5.3 Default Damages; Settlement Amount; Termination Payment

(a) <u>Default Damages</u>. Subject to Section 5.3(e), the Defaulting Party shall pay
 Default Damages on or before three (3) Business Days after receipt of an invoice therefor.
 The invoice shall include a written statement explaining in reasonable detail the calculation
 of such amount. Neither Party will be liable for Default Damages if this Agreement is
 terminated by a Governmental Authority.

(b) <u>Settlement Amount</u>. If the Non-Defaulting Party has declared an Early Termination Date pursuant to Section 5.2(b), the Non-Defaulting Party shall have the right to (i) accelerate all amounts owing between the Defaulting Party and the Non-Defaulting Party and to liquidate and terminate the undertakings set forth in this Agreement as between the Defaulting Party and the Non-Defaulting Party; and (ii) withhold any payments due to

the Defaulting Party under this Agreement pending payment of the Termination Payment. The Non-Defaulting Party will calculate, in a commercially reasonable manner, the Settlement Amount with respect to the Defaulting Party's obligations under the Agreement.

(c) **Termination Payment**. The Non-Defaulting Party will calculate a single payment (the "Termination Payment") by netting out (i) the sum of the Settlement Amount under this Agreement payable to the Defaulting Party, plus similar settlement amounts payable to the Defaulting Party under any other agreements between the Companies and the applicable SSO Supplier for the provision of SSO Supply or similar service (each, an "Other SSO Supply Agreement") being terminated due to the event giving rise to the Event of Default plus, at the option of the Non-Defaulting Party, any cash or other form of security then available to the Non-Defaulting Party under this Agreement or Other SSO Supply Agreements 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 and, at the option of the Non-Defaulting Party, Other SSO Supply Agreements, and (ii) the sum of the Settlement Amount under this Agreement payable to the Non-Defaulting Party, plus similar settlement amounts payable to the Non-Defaulting Party under any Other SSO Supply Agreement plus, at the option of the Non-Defaulting Party, any cash or other form of security then available to the Defaulting Party under this Agreement or Other SSO Supply Agreements and actually received, liquidated and retained by the Defaulting Party, plus any or all other amounts due to the Non-Defaulting Party under this Agreement and, at the option of the Non-Defaulting Party, Other SSO Supply Agreements. The Termination Payment will be due to or due from the Non-Defaulting Party as appropriate; provided, however, that if an SSO Supplier is the Defaulting Party and the Termination

Payment is due to such SSO Supplier, the Companies will be entitled to retain a 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 such SSO Supplier as Default Damages; and further provided that any previously attached security interest of the Companies in such retained amounts will continue. If the Termination Payment has been retained by the Companies as security for additional amounts that may be determined to be due and owing by the SSO Supplier, and if, upon making a final determination of Default Damages and payment therefor, the Termination Payment, or any portion thereof, is to be made to the SSO Supplier, the Companies will pay simple interest on the Termination Payment amount being made to the SSO Supplier for the period of such retention. Simple interest will be calculated at the lower of the Interest Index or six percent (6%) per annum.

(d) **Notice of Termination Payment**. As soon as practicable after calculation of the Termination Payment, notice must 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 Section 5.3(e), the Termination Payment must be made by the Party that owes it within three (3) Business Days after such notice is received by the Defaulting Party.

(e) <u>Disputes With Respect to Default Damages or Termination Payment</u>. If the Defaulting Party disputes the Non-Defaulting Party's calculation of the Default Damages or Termination Payment, in whole or in part, the Defaulting Party must, within three (3) Business Days of receipt of the Non-Defaulting Party's calculation of the Default

Damages or Termination Payment, provide to the Non-Defaulting Party a detailed written explanation of the basis for such dispute. Any dispute under this Section 5.3(e) shall be subject to the dispute resolution procedures in Article 10; provided, however, that if the Default Damages or Termination Payment is due from the Defaulting Party, the Defaulting Party must first provide commercially reasonable financial assurances to the Non-Defaulting Party in an amount equal to the Default Damages or Termination Payment, as the case may be.

5.4 <u>Step-up Provision</u>

If an SSO Supplier defaults in its obligations hereunder resulting in the exercise of the right of Early Termination by the Companies with respect to such SSO Supplier, then the Companies, subject to Applicable Legal Authorities, may offer one or more of the nondefaulting SSO Suppliers the right to assume under this Agreement additional Tranches of SSO Load, subject to further compliance with the creditworthiness provisions of Article 6. The provision of any such offer by the Companies to non-defaulting SSO Suppliers shall indicate the duration of the offer and the manner of acceptance thereof. Following the assumption by an SSO Supplier of additional Tranches hereunder, such SSO Supplier and the Companies shall execute an amendment to this Agreement modifying Appendix A to reflect the revised SSO Supplier Responsibility Share of the non-defaulting SSO Supplier or otherwise arising from its election to decline an offer to assume additional Tranches upon the default of another SSO Supplier.

5.5 <u>Setoff of Payment Obligations of the Non-Defaulting Party</u>

Any payment obligations of the Non-Defaulting Party to the Defaulting Party

pursuant to this Agreement or any Other SSO Supply Agreement will 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 SSO Supply Agreement 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 SSO Supply Agreement to the Non-Defaulting Party pursuant to this Agreement or any Other SSO Supply Agreement that are unsecured, but which are guaranteed by 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 SSO Supply Agreement.

5.6 <u>Preservation of Rights of Non-Defaulting Party</u>

The rights of the Non-Defaulting Party under this Agreement, including Sections 5.2, 5.3 and 5.5, will 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.

ARTICLE 6: CREDITWORTHINESS; PERFORMANCE ASSURANCE

6.1 <u>Applicability</u>

Each SSO Supplier agrees that it will meet the creditworthiness standards of this Article 6 at all times during the Term and will inform the Companies immediately of any changes in its credit rating or financial condition. Without limiting the foregoing, each SSO Supplier shall, upon the written request of the Companies, affirmatively demonstrate to the Companies in a manner satisfactory to the Companies its compliance with the creditworthiness standards set forth hereunder. The Companies may establish less restrictive creditworthiness standards under this Article 6 in a non-discriminatory manner.

6.2 <u>Creditworthiness Determination</u>

The Companies will determine the creditworthiness of an SSO Supplier or its

Guarantor, if applicable, whether organized under the laws of the United States or organized under the laws of a foreign jurisdiction, based on its most recent senior unsecured debt rating (or, if unavailable, its corporate issuer rating). The Companies will have full discretion, without liability or recourse to such SSO Supplier or its Guarantor, if applicable, to evaluate the evidence of creditworthiness submitted by such SSO Supplier or Guarantor. The Companies may re-evaluate the creditworthiness of an SSO Supplier or Guarantor from time to time, including whenever they become aware of an adverse change in such SSO Supplier's or Guarantor's credit standing. In addition, the SSO Supplier may petition the Companies to re-evaluate its creditworthiness whenever an event occurs that the SSO Supplier reasonably believes would improve the determination made by the Companies of its or its Guarantor's creditworthiness. The Companies' credit re-evaluation must be completed as soon as practicable, but in no event longer than thirty (30) days after receiving a fully documented request. The Companies shall provide the rationale for their determination of the credit limit and any resulting security requirement, and such determination shall be deemed final and conclusive. The Companies shall perform their credit re-evaluation and associated security calculation in a non-discriminatory manner. Each SSO Supplier or its Guarantor shall provide unrestricted access to its audited financial statements; however, if audited financial statements are not available, the Companies may specify other types of financial statements that will be accepted. If the Companies determine in their sole discretion that they are unable to adequately assess an SSO Supplier's or Guarantor's creditworthiness or the credit rating of an SSO Supplier or its Guarantor is insufficient, such SSO Supplier shall be required to post Margin Collateral in accordance with Section 6.5.

6.3 Independent Credit Requirement per Tranche

The Independent Credit Requirement per Tranche ("ICRT") that will be required of each SSO Supplier under each Agreement will initially be the sum of the amounts set forth on Appendix C-1 at the inception of the Original Delivery Period for each Tranche and will decline throughout the Term in accordance with the schedule set forth on Appendix C-1.

6.4 Independent Credit Threshold

Each SSO Supplier that qualifies under the following criteria will be granted an Independent Credit Threshold ("ICT").

(a) For a SSO Supplier or its Guarantor that has been organized under the laws of the United States, the following requirements must be satisfied in order for such SSO Supplier to be granted an ICT:

(i) the SSO Supplier or its Guarantor, as applicable, must (1) be rated by S&P Global Ratings ("S&P"), Moody's Investors Service, Inc. ("Moody's") or Fitch, Inc. ("Fitch"), and (2) have a minimum senior unsecured debt rating (or, if unavailable, corporate or issuer rating) of at least "BB" from S&P, "Ba2" from Moody's, or "BB" from Fitch (a "Minimum Rating"). If the SSO Supplier or its Guarantor is rated by only two rating agencies and the ratings are split, the lowest rating will be used. If the SSO Supplier or its Guarantor is rated by three rating agencies and the ratings are split, the lowest of the ratings will be used. If the SSO Supplier and an Affiliate(s) are both winning bidders in the Solicitation for the provision of SSO Supply, then the SSO Supplier or its Guarantor, as applicable, and the Affiliate(s) will proportionally share the maximum level of the ICT using the lowest rating as determined for the SSO Supplier or its Guarantor, as applicable, and the Affiliate(s). The maximum level of

Credit Rating of the SSO Supplier or its Guarantor			Max. Independent Credit Threshold (calculated as the lesser of the percentage of TNW and the applicable Independent Credit Cap below)	
S&P	Moody's	Fitch	Percentage of TNW	Independent Credit Threshold Cap
BBB+ and	Baa1 and	BBB+ and	16%	Not applicable
above	above	above		11
BBB	Baa2	BBB	10%	Not applicable
BBB-	Baa3	BBB-	8%	Not applicable
BB+	Bal	BB+	4%	\$3,000,000
BB	Ba2	BB	3%	\$1,500,000
BB- and below	Ba3 and below	BB- and below	0%	\$0

the ICT will be determined based on the following table:

(ii) for SSO Supplier having a Guarantor, the maximum level of the ICT that can be granted based on an ICT Guaranty will be determined in accordance with subsection (i) above, with reference to the credit rating of the Guarantor.

The ICT granted to the SSO Supplier will not exceed the amount of the ICT Guaranty. The ICT Guaranty tendered by the SSO Supplier to satisfy the ICT requirement arising under this Section 6.4 shall be a separate guaranty from the Total Exposure Amount Guaranty, if any, tendered by the SSO Supplier to satisfy any requirement for a Credit Limit to cover the Total Exposure Amount arising under Section 6.7; provided, however, that a single Guaranty may be provided if such Guaranty is for an unlimited amount.

(b) For a SSO 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:

(i) A legal opinion of counsel qualified to practice in the foreign jurisdiction in which the SSO 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 SSO Supplier or Guarantor in the jurisdiction in which it has been incorporated or otherwise formed; and

(ii) The sworn certificate of the corporate secretary (or similar officer) of such SSO Supplier or Guarantor that the person executing this Agreement on behalf of the SSO Supplier has the authority to execute the Agreement and that the governing board of the SSO Supplier or Guarantor has approved the execution of this Agreement;

(iii) The sworn certificate of the corporate secretary (or similar officer) of such SSO Supplier or Guarantor that the SSO Supplier or Guarantor has been authorized by its governing board to enter into agreements of the same type as this Agreement; and

(iv). Such other documents and certificates as may be required by the Company in its sole discretion.

6.5 <u>Mark-to-Market Credit Exposure Methodology</u>

To calculate the Mark-to-Market Exposure Amount for each SSO Supplier, the following mark-to-market credit exposure methodology will be used. The "mark" and SSO Load per Tranche for each Billing Month will be determined at the time the Solicitation is completed based on the then prevailing Forward Market Prices. At the time the Solicitation is completed, the Mark- to-Market Exposure Amount for each SSO Supplier shall be equal to zero. Subsequently, the differences between the prevailing Forward Market Prices on a

valuation date and the "mark" prices will be used to calculate the Mark-to-Market Exposure Amounts for each SSO Supplier. Additionally, the SSO Load per Tranche could be updated at any time by the Companies to reflect changes to the SSO Load. The total Mark-to-Market Exposure Amount will be equal to the sum of the Mark-to-Market Exposure Amounts for each Billing Month during the Original Delivery Period. Forward Market Prices will be determined by publicly available market quotations obtained by the Companies; provided, however, if such quotations are not publicly available, Forward Market Prices will be determined by the Companies using any method which the Companies deem appropriate and which reasonably reflects forward market pricing conditions in PJM. The methodology for calculation of the Mark-to-Market Exposure Amount is illustrated in the example (using hypothetical numbers) in Appendix C-2, including, but without limiting the preceding sentence, a methodology the Companies expect to use to derive off-peak Forward Market Prices.

6.6 <u>Credit Limit</u>

The following criteria constitute the Companies' creditworthiness requirements for the SSO Suppliers to cover the Total Exposure Amount:

(a) for SSO Suppliers to be granted a Credit Limit without delivering a Total Exposure Amount Guaranty or other performance assurances acceptable to the Companies, in the case of an SSO Supplier organized under the laws of the United States, the SSO Supplier must (1) be rated by at least one of the following rating agencies: Standard & Poor's Rating Services ("S&P"), Moody's Investors Service, Inc. ("Moody's") or Fitch, Inc. ("Fitch"), and (2) have a minimum senior unsecured debt rating (or, if unavailable, corporate issuer rating) of at least "BB-"from S&P, "Ba3" from Moody's or "BB-" from Fitch (a "Minimum Rating"). If the SSO Supplier is rated by only two rating agencies, and

the ratings are split, the lower rating will be used. If the SSO Supplier is rated by three rating agencies, and the ratings are split, the lowest rating will be used If the SSO Supplier and an Affiliate(s) are both winning bidders in the Solicitation for the provision of SSO Supply, then the SSO Supplier and the Affiliate(s) will proportionally share the maximum level of the Credit Limit using the lowest rating as determined for each the SSO Supplier and the Affiliate(s). The maximum level of the Credit Limit to cover the Total Exposure Amount will be determined based on the following table:

Credit Rating of the SSO Supplier			Maximum Credit Limit (calculated as the lesser of the percentage of TNW and the Credit Limit Cap below)	
S&P	Moody's	Fitch	Percentage of TNW	Credit Limit Cap
BBB+ and	Baa1 and	BBB+ and	16%	\$50,000,000
above	above	above		
BBB	Baa2	BBB	10%	\$35,000,000
BBB-	Baa3	BBB-	8%	\$20,000,000
BB+	Bal	BB+	4%	\$10,000,000
BB	Ba2	BB	3%	\$5,000,000
BB-	Ba3	BB-	2%	\$2,000,000
Below BB-	Below Ba3	Below BB-	0%	\$0

The SSO Supplier will be required to post cash or letter of credit in an acceptable form as defined in Section 6.7(b) below (see standard format in Appendix D for the Margin due the Company as set forth in Section 6.5 of this Agreement; or

(b) for SSO Suppliers delivering a Total Exposure Amount Guaranty, in the case of a Guarantor organized under the laws of the United States, the Guarantor providing the Total Exposure Amount Guaranty must (1) be rated by at least one of the following rating agencies: S&P, Moody's, or Fitch, and (2) 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 lower rating will be

used. If the Guarantor is rated by three rating agencies, and the ratings are split, the lowest rating will be used. If the SSO Supplier and an Affiliate(s) are both winning bidders in the Solicitation for the provision of SSO Supply, then the Guarantor of the SSO Supplier and the Affiliate(s) will proportionally share the maximum level of the Credit Limit using the lowest rating as determined for each the Guarantor and the Affiliate(s). The maximum level of the Credit Limit to cover the Total Exposure Amount that could be granted based on the Total Exposure Amount Guaranty will be determined based on the following table:

Credit Rating of the Guarantor			Maximum Credit Limit (calculated as the lesser of the percentage of TNW and the Credit Limit Cap below)	
S&P	Moody's	Fitch	Percentage	Credit Limit Cap
			of TNW	
BBB+ and	Baa1 and	BBB+ and	16%	\$50,000,000
above	above	above		
BBB	Baa2	BBB	10%	\$35,000,000
BBB-	Baa3	BBB-	8%	\$20,000,000
BB+	Bal	BB+	4%	\$10,000,000
BB	Ba2	BB	3%	\$5,000,000
BB-	Ba3	BB-	2%	\$2,000,000
Below	Below Ba3	Below BB-	0%	\$0
BB-				

(c) For an SSO Supplier or Guarantor, if applicable, that has not been organized under the laws of the United States, the following standards will apply:

the SSO Supplier must supply such evidence of creditworthiness as to provide the Companies with comparable assurances of creditworthiness as applicable above for SSO Suppliers that have been organized under the laws of the United States; or

if the SSO Supplier is providing a Total Exposure Amount Guaranty, the Guarantor of an SSO Supplier must supply such evidence of creditworthiness as to provide the Companies with comparable assurances of creditworthiness as applicable above for Guarantors of SSO Suppliers that have been organized under the laws of the United States.

The Companies may reject Total Exposure Amount Guaranties from Guarantors that do not meet the creditworthiness requirements.

(d) All SSO Suppliers or Guarantors of SSO Suppliers, if applicable, that have not been organized under the laws of the United States must, in addition to all documentation required elsewhere in this Section 6.4, supply the following to the Companies:

for an SSO Supplier: (1) a legal opinion of counsel qualified to practice in the foreign jurisdiction in which the SSO Supplier is organized that (A) the SSO Supplier is duly incorporated and existing in such foreign jurisdiction; (B) this Agreement is the binding and enforceable obligation of the SSO Supplier in such foreign jurisdiction and does not violate any local law or the SSO Supplier's organizational or governing documents; and (C) all authorizations, approvals, consents, licenses, exemptions or other requirements of governmental, judicial or public bodies in such foreign jurisdiction have been obtained, and all execution formalities have been duly completed, necessary for the enforcement and validity of the Agreement and the performance by the SSO Supplier of its obligations hereunder; and (2) the sworn certificate of the corporate secretary (or similar officer) of such SSO Supplier that the Person executing the Agreement on behalf of the SSO Supplier has the authority to execute the Agreement and that the governing board of such SSO Supplier has approved the execution of the Agreement.

The Companies will have full discretion, without liability or recourse to the SSO Supplier, to evaluate the sufficiency of the documents submitted by the SSO Supplier; or for the Guarantor of an SSO Supplier: (1) a legal opinion of counsel qualified to practice in the foreign jurisdiction in which the Guarantor is organized that (A) the Guarantor is duly incorporated and existing in such foreign jurisdiction; (B) the Guaranty is the binding

and enforceable obligation of the Guarantor in such foreign jurisdiction and does not violate any local law or the Guarantor's organizational or governing documents; and (C) all authorizations, approvals, consents, licenses, exemptions or other requirements of governmental, judicial or public bodies in such foreign jurisdiction have been obtained, and all execution formalities have been duly completed, necessary for the enforcement and validity of the Guaranty and the performance by the Guarantor of its obligations thereunder; and (2) 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. The Companies will have full discretion, without liability or recourse to the Guarantor or the SSO Supplier, to evaluate the sufficiency of the documents submitted by such Guarantor.

For an SSO Supplier with a Total Exposure Amount Guaranty, the SSO Supplier will be granted a Credit Limit up to the amount of the Total Exposure Amount Guaranty, but not exceeding the Credit Limit shown in the table above. The Total Exposure Amount Guaranty shall be provided to the Companies on or prior to the Effective Date, but may be modified in any amended or substitute Total Exposure Amount Guaranty provided to the Companies during the Term. The SSO Supplier, however, may not increase or substitute its Total Exposure Amount Guaranty for the purpose of increasing its applicable Credit Limit during the time period after the Companies have made a demand of the SSO Supplier to cover Margin (a "Margin Call") but before the SSO Supplier has provided the Companies with cash credited to a deposit account of the Companies or a Letter of Credit in accordance with Section 6.9, in each case in an amount equal to the Margin (the "Margin Collateral"). Notwithstanding anything herein to contrary, the SSO Supplier may increase the limit of its

Total Exposure Amount Guaranty after satisfying a Margin Call. Upon the Companies' receipt of an amended or substitute Total Exposure Amount Guaranty increasing the limit of the Total Exposure Amount Guaranty, the SSO Supplier may request a return of Margin Collateral in accordance with Section 6.7. The SSO Suppliers will be required to post cash or letter of credit in an acceptable form as defined in Section 6.9(b) below (see standard format in Appendix D) for the Margin due the Companies as set forth in Section 6.7 of this Agreement; or

(e) Under no circumstances shall the Credit Limit plus any other credit limit granted to the SSO Supplier under any Other SSO Supply Agreement exceed the Credit Limit hereunder.

6.7 Posting Margin Collateral and Return of Excess Collateral

If at any time and from time to time during the Delivery Period, Margin exists with respect to an SSO Supplier, then the Companies on any Business Day may make a Margin Call of such SSO Supplier; provided however that the Companies may not make a Margin Call unless the Margin exceeds the Minimum Margin Threshold. Upon receipt of a Margin Call, the applicable SSO Supplier shall provide to the Companies Margin Collateral, which shall comprise of cash or a Letter of Credit. The Margin Collateral shall be in an amount equal to the Margin less the amount of any Margin Collateral already posted by the SSO Supplier in which the Companies have a first priority, perfected security interest to secure the obligations of the SSO Supplier under this Agreement and any Other SSO Supply Agreement.

If an SSO Supplier receives a Margin Call from the Companies by 1:00 p.m. prevailing Eastern Time on a Business Day, then such SSO Supplier shall post Margin

Collateral the following Business Day if posting cash and the second Business Day following the Margin Call if posting a Letter of Credit, unless in each case the Companies agree in writing to extend the period to provide Margin Collateral. If the SSO Supplier receives a Margin Call after 1:00 p.m. prevailing Eastern Time on a Business Day, whether posting cash ora Letter of Credit, then the SSO Supplier must post Margin Collateral on the second Business Day following the Margin Call unless the Companies agree in writing to extend the period to provide Margin Call unless the Companies agree in writing to extend the period to provide Margin Collateral. The Companies will not unreasonably deny a request for a one-day extension of such period.

Margin Collateral being held by the Companies not needed to satisfy the Margin ("Excess Collateral"), will be returned to the SSO Supplier upon receipt of a written request from the SSO Supplier; provided, however, that the SSO Supplier may not request Excess Collateral until such Excess Collateral exceeds the Minimum Margin Threshold. If the SSO Supplier posted cash and notice is received by 1:00 p.m. prevailing Eastern Time on

a Business Day, the Excess Collateral will be returned by the following Business Day and if the SSO Supplier posted cash and notice is received by the Companies after 1:00 p.m. prevailing Eastern Time on a Business Day, the Excess Collateral will be returned by the second Business Day following the date of notice. If the SSO Supplier posted a Letter of Credit, the Excess Collateral 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 in each case the SSO Supplier agrees in writing to extend such period for returning the Excess Collateral. The SSO Supplier will not unreasonably deny a request for a one-day extension of the period for returning the Excess Collateral.

6.8 Grant of Security Interest; Remedies

To secure its obligations under this Agreement, the SSO Supplier hereby grants to

the Companies a present and continuing security interest in, and lien on (and right of setoff against), its right, title and interest, whether now owned or hereafter acquired or arising, in (i) all deposit accounts in the name of any Company or partially in the name of any Company or held for the benefit of any Company and all funds credited to any and all of the foregoing, (ii) all securities, instruments (including promissory notes), money (each of the foregoing terms as defined in the UCC), cash and other tangible property delivered to and held by any Company (or its agents or custodians) and (iii) all proceeds (as defined in the UCC) of any and all of the foregoing. The SSO Supplier agrees to take such action as reasonably required to create and perfect the Companies' 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 at any time after the occurrence or deemed occurrence and during the continuation of an Event of Default where an SSO Supplier is the Defaulting Party or an Early Termination Date (whether or not such SSO Supplier was the Defaulting Party), the Companies may do any one or more of the following in any order: (i) exercise any of the rights and remedies of the Companies, including the right to set-off and liquidation, against any and all Margin Collateral or other collateral of such SSO Supplier in the possession of the Companies, whether held in connection with this Agreement or any Other SSO Supply Agreement, including any such rights and remedies under law then in effect, free from any claim or right of any nature whatsoever of such SSO Supplier and (ii) draw on any outstanding Letter of Credit provided by such SSO Supplier. The Companies will apply the proceeds of the collateral realized upon the exercise of such rights or remedies to reduce such SSO Supplier's obligation under this Agreement and under any Other SSO Supply Agreement, and such SSO Supplier shall remain liable for any amounts owing to the Companies after such

application, subject to the Companies' obligation to return any surplus proceeds remaining after all such obligations are satisfied in full.

All notices, demands or requests regarding credit requirements and credit-related security or deposit transfers shall be sent in accordance with Section 13.1.

6.9 Acceptable Forms of Security

At each SSO Supplier's choice, the following are deemed to be acceptable for posting Margin Collateral if required:

(a) cash credited to a deposit account of the Companies; or

(b) a Letter of Credit, which shall state that such Letter of Credit will 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 Companies receive notice from the issuing financial institution that the Letter of Credit is being cancelled, the SSO Supplier will be required to provide a substitute Letter of Credit from an alternative bank satisfying the minimum credit rating set forth in the definition of "Letter of Credit". The receipt of the substitute Letter of Credit must be effective as of the cancellation date and delivered to the Companies thirty (30) days before the cancellation date of the original Letter of Credit. If the SSO Supplier fails to supply a substitute Letter of Credit as required, then the Companies will have the right to draw on the existing Letter of Credit and to hold the amount as Margin Collateral, as applicable.

If the credit rating of a bank or other financial institution from which an SSO Supplier has obtained a Letter of Credit falls below the levels set forth in the definition of "Letter of Credit", the SSO Supplier will immediately notify the Companies and, within one (1) Business Day of the failure of the financial institution to meet the required credit rating, 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 Companies.

6.10 <u>Reporting; Maintenance of Creditworthiness</u>.

(a) Each SSO Supplier must promptly notify the Companies of any change in its or its Guarantor's credit rating or financial condition. The SSO Supplier or Guarantor must also furnish evidence of an acceptable credit rating or financial condition upon the request of the Companies.

(b) If the lowest credit rating (whether corporate issuer rating or unsecured senior debt rating) used to determine the SSO Supplier's Credit Limit adversely changes, the Companies will require Margin Collateral from such SSO Supplier in accordance with Sections 6.4, and 6.5. The additional security must be in a form acceptable to the Companies, as specified in Section 6.7.

6.11 Interest on Cash Held by Companies

The Companies will pay simple interest calculated at the lower of the Interest Index or six percent (6%) per annum on all cash held by the Companies pursuant to this Agreement. If applicable, each Billing Month the SSO Supplier will prepare a statement of interest amounts due from the Companies. The statement will be sent to the Companies within three (3) Business Days after the end of the Billing Month via overnight mail or other expeditious means. The Companies will make interest payments on the first Business Day after the fifth (5th) day of each calendar month.

6.12 <u>No Endorsement of SSO Supplier</u>

The Companies' determination of an SSO Supplier's creditworthiness pursuant to the process set forth in this Article 6 will not be deemed to constitute an express or implied warranty or guarantee of any kind with respect to the financial or operational qualifications of such SSO Supplier. The Companies will treat all SSO Suppliers in a non-discriminatory manner and shall provide no preference to any SSO Supplier.

ARTICLE 7: SCHEDULING, FORECASTING, AND INFORMATION SHARING

7.1 <u>Scheduling</u>

(a) Each SSO Supplier shall schedule SSO Supply and make all necessary arrangements for the delivery of SSO Supply through the PJM Office of Interconnection pursuant to the PJM Agreements.

(b) The Companies will provide to each SSO Supplier and to PJM all information required by PJM for the purpose of calculating each SSO Supplier's SSO Supply obligations, including the magnitude and location of each SSO Supplier's SSO Supply obligation, as required by the PJM Office of Interconnection.

7.2 Load Forecasting

The Companies shall not be required to provide to any SSO Supplier any load forecasting services.

ARTICLE 8: BILLING AND SETTLEMENT

8.1 <u>Companies Statement</u>

Subject to Section 8.2, the Companies and each SSO Supplier shall pay all amounts due to each other hereunder in accordance with the following provisions:

(a) for each Billing Month, the Companies will prepare and provide an invoice to each SSO Supplier, which will show (i) amounts due to the SSO Supplier equal to the Price multiplied by the applicable Seasonal Billing Factor multiplied by the PMEA, (ii) the PMEA/FMEA Adjustment from such Billing Month, if any, and (iii) all Charges due to the Companies incurred during the Billing Month (the "Statement"). The Companies will determine the total amount payable by one Party to the other Party by netting the aggregate amounts due and owing to one Party against the aggregate amounts due and owing to the other Party, with the Party, if any, owing the greater aggregate amount paying the other Party the difference between the amounts owed. For any amounts due and owing the Companies, the Companies will specify in each Statement how the amounts will be allocated among the Companies. In the case of the PMEA/FMEA Adjustment, the allocation will be based on the respective SSO Loads of the Companies.

(b) The Statement will be sent to each SSO Supplier within six (6) Business Days after the end of the Billing Month as provided in Section 13.1.

(c) The Companies or the SSO Supplier, as the case may be, will make payment on the first (1st) Business Day after the nineteenth (19th) day of each calendar month.

(d) All payments shall be subject to adjustment for any arithmetic errors, computation errors, or other errors, provided that the errors become known within one (1) year of the earlier of (i) end of the Term or (ii) the Early Termination Date.

(e) The Companies or the SSO Supplier, as the case may be, shall make payments of funds by electronic transfer to a bank designated by the Companies and the SSO Supplier, as applicable.

(f) If a good faith dispute arises between the Companies and the SSO 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 must be addressed promptly, and in accordance with the dispute resolution procedures set forth in Article 10. 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 percent (6%) per annum payable from the date that notice of a Statement dispute was received by the non-disputing Party.

(g) If payment is made to the SSO 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 will be calculated at the prime rate J.P. Morgan Chase (or, if not available, another financial institution selected by the Companies) charges commercial borrowers.

(h) In the event of a good faith dispute regarding any Statement, each SSO Supplier will have the right to verify, at its sole expense, the accuracy of the Statement or the calculation of the payment due by obtaining copies of the relevant portions of the books and records of the applicable Company. The right of verification will survive for one (1) year following the earlier of (i) the end of the Term or (ii) the Early Termination Date.

(i) Notwithstanding anything to the contrary contained in this Section 8.1, the

determination of the allocation among the Companies of amounts due and owing to the Companies, as set forth in a Statement, will be final and binding, absent manifest error.

8.2 PJM Billing; Third Party Billing

(a) The Companies and each SSO Supplier shall direct PJM to invoice the Companies and such SSO Supplier for PJM charges and credits relating to such SSO Supplier's and the Companies' rights and obligations under this Agreement. If PJM is unable to invoice charges or credits in accordance with the foregoing sentence, the Companies shall rectify such PJM invoice discrepancy in the Statement sent pursuant to Section 8.1.

(b) For Capacity purchased by an SSO Supplier pursuant to Section 2.1(b), such SSO Supplier shall, unless the Companies direct otherwise, be invoiced and submit payment for such Capacity directly to PJM in accordance with the billing practices set forth in the PJM Agreements.

(c) The Parties agree that the PJM invoice may change from time to time. Allocation of any charges that are reflected in a PJM invoice that are not included on or are inconsistent with Appendix G will be determined pursuant to Sections 2.3, 2.4, 2.5, and 13.12.

(d) The Companies shall have no responsibility for billing between an SSOSupplier and any other third party. The Companies shall be solely responsible for billingSSO Customers for SSO Supply.

ARTICLE 9: SYSTEM OPERATION

9.1 <u>Disconnection and Curtailment by the Companies</u>

Each of the Companies shall have the right, without incurring any liability to any SSO Supplier, to disconnect (or otherwise curtail, interrupt or reduce deliveries from) the SSO Suppliers or to disconnect (or otherwise curtail, interrupt or reduce deliveries to) any Customer whenever one of the Companies determines in its discretion acting in good faith that such a disconnection, curtailment, interruption or reduction is necessary to facilitate construction, installation, maintenance, repair, replacement or inspection of any of the Companies' facilities; or due to any other reason affecting the safe and reliable operation of any of the Companies' or a Customer's facilities, including Emergencies, forced outages or potential overloading of any of the Companies' transmission or distribution circuits, potential damage to any Customer's facilities or any risk of injury to persons, or when any of the Companies are directed by PJM. The Companies shall not show any preference for any entity affiliated with it in connection with any such disconnection, curtailment or reduction.

9.2 Loss of Service to SSO Customers

The Parties agree and acknowledge that service to SSO Customers may be lost due to storms, weather, accidents, breakage of equipment or other events beyond the reasonable control of the Companies affecting the transmission and distribution facilities of the Companies. No Party will have any liability to any other Party for the occurrence of such events. In no event will a loss of service to a Customer affect a Party's obligation to make any payments then due or becoming due with respect to performance rendered prior to such loss of service.

9.3 PJM Requirements

The Parties acknowledge and agree that, as members of PJM, each of them is bound by the PJM Agreements and any other operating instructions, policies and procedures set forth by PJM. Each SSO Supplier acknowledges and agrees that it will cooperate with the Companies, PJM and the applicable balancing authority and reliability coordinator so that the Companies will be in compliance with all PJM emergency operations procedures, which include 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.

9.4 <u>Compliance with Governmental Directives</u>

Each SSO Supplier acknowledges and agrees that the Companies may need to act in response to directives by a Governmental Authority that may affect SSO Supply or SSO Load. Each SSO Supplier agrees to cooperate fully with the Companies in order to comply with such directives.

ARTICLE 10: DISPUTE RESOLUTION

10.1 <u>Informal Resolution of Disputes</u>

Any dispute arising out of or relating to this Agreement shall be subject to the dispute resolution procedures specified in this Article 10. If any dispute arises between any Parties in connection with this Agreement, such Parties in dispute shall first attempt in good faith to resolve such dispute between themselves. The disputing Parties shall comply in good faith with the procedures in this Section 10.1 before commencing litigation under Section 10.2. When any such dispute arises, a disputing Party shall deliver a notice of dispute to the other Party subject to the dispute in accordance with the notice procedures set forth in Section 13.1, such notice of dispute to include the nature of the dispute, the

amount involved, if any, and the remedies sought. Within ten (10) Business Days after the receipt of such notice, members of the senior management of the Parties in dispute shall meet in person or by telephone to discuss the dispute. If such Parties have not resolved such dispute or if a meeting of senior management has not occurred within thirty (30) Business Days after receipt of the notice of dispute, then any such Party may bring such action at law or in equity as it deems necessary or desirable, in accordance with the provisions of Section 10.2. Any amounts that are owed by one Party to another Party as a result of resolution of a dispute pursuant to this Section 10.1 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.

10.2 Formal Dispute Resolution

After the requirements of Section 10.1 have been satisfied, all disputes between the Parties, except where this Agreement requires otherwise, shall be submitted to an Ohio State court of competent jurisdiction or to a federal court of competent jurisdiction situated in the State of Ohio, which courts shall have exclusive jurisdiction to settle disputes arising under or related to this Agreement.

10.3 <u>Recourse to Agencies or Courts of Competent Jurisdiction</u>

Notwithstanding Section 10.2, 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") or with the PUCO under relevant provisions of the Applicable Legal Authorities. The Parties' agreement under this Section 10.3 is without prejudice to any Parties' right to contest the jurisdiction of the FERC or PUCO to which a complaint is brought.

ARTICLE 11: LIMITATION OF LIABILITY; RISK OF LOSS

11.1 Limitation of Liability

Except to the extent expressly set forth in this Agreement, including Article 12, as between the Companies and each SSO Supplier, each Party will be liable to the other for direct damages incurred as a result of such Party's failure to comply with this Agreement and no Party will have any liability to the other Party for consequential, indirect, special or punitive damages, including lost profits or lost revenues, arising out of such Party's failure to comply with its obligations under this Agreement. Notwithstanding anything to the contrary in this Agreement, nothing herein shall impose any obligations or liability from one SSO Supplier to any other SSO Supplier, except as provided in Article 12.

11.2 Risk of Loss

Title to and risk of loss with respect to SSO Supply shall pass from each SSO Supplier to the Companies when such SSO Supply is delivered to the Delivery Point. Until title passes, each SSO Supplier shall be deemed in exclusive control of SSO Supply provided by it and shall bear sole responsibility for any damage or injury caused thereby, subject to the provisions of Section 12.1. After title to such SSO Supply passes to the Companies, the Companies shall be deemed in exclusive control of such SSO Supply and shall bear sole responsibility for any damage or injury caused thereby, subject to the provisions of Section 12.1. Notwithstanding the foregoing, nothing contained in this Agreement is intended to create or increase liability of the Companies to any third party beyond such liability, if any, as would otherwise exist under the PJM Agreements or other applicable law if the Companies had not taken title.

ARTICLE 12: INDEMNIFICATION

12.1 Indemnification

(a) Each SSO Supplier must defend (at the Companies' option), indemnify and hold harmless the Companies, their shareholders, board members, directors, officers and employees, agents and attorneys from and against any and all third party (including PJM and each other SSO Supplier) claims 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 such SSO Supplier with respect to an obligation arising under or in connection with this Agreement (including such SSO Supplier's failure to submit payments to PJM pursuant to Section 8.2(b)), or for which such SSO Supplier has otherwise assumed liability under the terms of this Agreement, 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 any of the Companies. The Companies may, at their own expense, retain counsel and participate in the defense of any such suit or action.

(b) The Companies and each SSO Supplier must defend (at the option of the Indemnified Supplier), indemnify and hold harmless each other SSO Supplier (the "Indemnified Supplier"), its shareholders, board members, directors, officers, employees, agents and attorneys from and against any and all third party (including another SSO Supplier) claims 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 Companies or such SSO Supplier with respect to an obligation arising under or in connection with this Agreement, or for which any of the Companies or such SSO Supplier has otherwise assumed liability under the terms of this Agreement, 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 Supplier. The Indemnified Supplier may, at its own expense, retain counsel and participate in the defense of any such suit or action.

(c) The obligation of a Party to defend, indemnify, and hold harmless another Party under this Article will 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.

(d) If a Party intends to seek indemnification under Sections 12.1(a) or 12.1(b), as applicable, from any other Party, the Party seeking indemnification shall give the other Party notice of such claim within thirty (30) 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 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. No Party may settle or compromise any claim without the prior consent of the Companies (for an indemnification under Section 12.1(b)); provided, however, such consent shall not be unreasonably withheld or delayed.

ARTICLE 13: MISCELLANEOUS PROVISIONS

13.1 <u>Notices</u>

All notices, demands or requests required or permitted under this Agreement must be in writing and must be personally delivered or sent by email, overnight express mail, courier service or facsimile transmission (provided that in the case of an email or facsimile, the original shall then be transmitted by any of the other aforementioned delivery methods) addressed as follows:

If to an SSO Supplier:

Notification information for each SSO Supplier is set forth on Appendix A.

If to the Company:

In the case of all notices except those required under Article 6, to:

Santino Fanelli

Dir, Rates & Regulatory Affairs FirstEnergy Service Company 76 South Main Street, 8th Floor Akron, OH 44308 Telephone: 330-761-7772 sfanelli@firstenergycorp.com

Copy to:

Brian Knipe Supervising Counsel FirstEnergy Service Company 76 South Main Street, 15th Floor Akron, OH 44308 Telephone: 330-384-5795 bknipe@firstenergycorp.com In the case of all notices required under Article 6 (Creditworthiness; Performance

Assurance), to:

Justin Gawne Analyst IV- Insurance & Operational Risk FirstEnergy Service Company 341 White Pond Drive, A-WAC-C2 Akron, OH 44320 Telephone: 330-315-7226 Facsimile: 330-436-1901 jgawne@firstenergycorp.com

Copy to:

Santino Fanelli Dir, Rates & Regulatory Affairs FirstEnergy Service Company 76 South Main Street, 8th Floor Akron, OH 44308 Telephone: 330-761-7772 sfanelli@firstenergycorp.com

and:

Randy Feucht Director, Regulated Commodity Sourcing 341 White Pond Drive, (A-WAC-C1) Akron, OH 44320 Telephone: 330-384-4619 Facsimile: rfeucht@firstenergycorp.com

and:

Brian Knipe Supervising Counsel FirstEnergy Service Company 76 South Main Street, 15th Floor Akron, OH 44308 Telephone: 330-384-5795 bknipe@firstenergycorp.com

or to such other person or such other address as a Party may designate by like notice to the other Party. Notice received after the close of the Business Day will be deemed received on the next Business Day. Notice by email or facsimile transmission will be deemed to have been received by the recipient on the date the recipient confirms receipt either orally or in writing.

Non-notice general inquiries for invoicing, scheduling, payments, and credit and collections can be addressed to the designees identified in Appendix H.

13.2 <u>No Waiver or Prejudice of Rights</u>

The failure of a Party to insist in one or more instances upon strict performance of any provisions of this Agreement, or to take advantage of any of its rights hereunder, may not be construed as a waiver of any such provisions or the relinquishment of any such right or any other right hereunder, which will remain in full force and effect. No term or condition of this Agreement will 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.

13.3 Assignment

(a) The Companies may not assign this Agreement or their rights or obligations hereunder without the prior written consent of the other SSO Suppliers, which consent may not be unreasonably withheld; provided, however, that the Companies or any Company may, without the consent of the other SSO Suppliers:

transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof in connection with any financing or other financial arrangements; transfer or assign this Agreement to any Person having a Minimum

Rating; and transfer or assign this Agreement to any Person succeeding to all or substantially all of the assets of a Company.

(b) In the case of an assignment pursuant to Section 13.3(a)(ii) and (iii) above, the Companies may assign their obligations under this Agreement and shall be relieved of such obligations upon the assignment and assumption of the assignee of such obligations and SSO Supplier's receipt of notice thereof, except for such obligations of the Companies which have arisen prior to the date of the assignment.

(c) An SSO Supplier may not assign this Agreement or its rights or obligations hereunder without the prior written consent of the Companies, which consent may not be unreasonably withheld, it being understood that any assignee of such SSO Supplier must meet the creditworthiness requirements set forth in Article 6; provided, however, that such SSO Supplier may, without the consent of the Companies (and without relieving itself from liability hereunder) pledge or assign this Agreement or the accounts, revenues or proceeds hereof in connection with any financing or other financial arrangements; provided further, however, that if any of the lenders receiving the collateral assignment foreclose or otherwise exercise remedies against the SSO Supplier, such lenders may not transfer, pledge or assign this Agreement to a Person who does not meet the creditworthiness requirements set forth in Article 6. For the avoidance of doubt, an SSO Supplier is not required to obtain the consent of any other SSO Supplier under this Section 13.3.

13.4 Governing Law

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 will be governed by the laws of the State of Ohio, without regard to principles of conflicts of law.

13.5 Third Party Beneficiaries

This Agreement is intended solely for the benefit of the Parties hereto. Nothing in this Agreement may 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.

13.6 <u>Unenforceability or Invalidity</u>

Should any provision of this Agreement be held invalid or unenforceable, such provision will 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.

13.7 Entire Agreement

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 with respect to the subject matter hereof. The Parties further agree that this Agreement is the complete and exclusive statement of agreement with respect to the subject matter hereof and supersedes all proposals (oral or written), understandings, representations, conditions, warranties, covenants and all other communications between the Parties relating thereto.

13.8 <u>Taxes</u>

All present and future federal, state, municipal or other taxes imposed by any taxing authority by reason of the provision of SSO Supply by an SSO Supplier under this Agreement (collectively, the "Taxes") will be the liability of the SSO Supplier, except for Ohio sales and use taxes imposed under Ohio Rev. Code Ann. Tit. 57, Chapters 5739, 5740

and 5741 (the "Ohio Sales and Use Taxes"), which will be the Companies' responsibility. Should an SSO Supplier be required to remit any Ohio Sales and Use Taxes directly to the applicable taxing authority, other than Ohio Sales and Use Taxes previously collected by the SSO Supplier on behalf of the Companies, the Companies will defend and indemnify the SSO Supplier for such Ohio Sales and Use Taxes and will pay to the SSO Supplier all such tax amounts upon demand. Each SSO Supplier shall pay all Taxes (other than Ohio Sales and Use Taxes) to the applicable taxing authority to the extent required or permitted by law. If any transaction is exempt from the payment of any such Taxes, the affected SSO Supplier will, if requested, provide the Companies with valid tax exemption certificates. Should the Companies be required to remit any Taxes directly to any applicable taxing authority (other than Ohio Sales and Use Taxes and other Taxes previously collected by the Companies directly from an SSO Supplier), the SSO Supplier will defend and indemnify the Companies and will pay to the Companies all such Tax amounts upon demand.

Each Party shall provide to the other Party all information, data and exemption certificates as such other Party may from time to time reasonably request and otherwise fully cooperate with such other Party in connection with the reporting of (i) any Taxes payable by an SSO Supplier; (ii) any Tax audit; or (iii) any assessment, refund claim or proceeding relating to Taxes. Each Party shall cooperate with the other Party and take any action reasonably requested, which does not cause the Party to incur any material cost or inconvenience, in order to minimize any Taxes payable.

13.9 <u>Rules of Interpretation</u>

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) any references to "and" or "or" shall mean "and/or" as the context so requires;

(e) references to Articles, Sections, Appendices and the preamble are, unless the context indicates otherwise, references to Articles, Sections, Appendices and the preamble of this Agreement;

(f) any reference to laws, rules, regulations, ordinances or decrees in this Agreement shall mean such law, rules, regulations, ordinances and decrees as may be amended, modified, replaced, codified or superseded from time to time; and

(g) this Agreement shall not be interpreted or construed to create an association, joint venture, or partnership between the Parties (or any of them), or to impose any partnership obligation or liability upon any Party.

13.10 <u>Confidentiality</u>

(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 or it reasonably believes it is necessary

or advisable to disclose such document or information in connection with any PUCO or FERC regulatory proceeding; (ii) such document or information is generally available to the public; or (iii) 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 that such third party is prohibited from transmitting the document or information to the receiving Party by a contractual, legal or fiduciary obligation.

(b) Notwithstanding any other provision of this Section 13.10, a Party may disclose to its employees, representatives, agents and rating agencies all documents and information furnished by the other Party in connection with this Agreement, provided that they have been advised of the confidentiality provisions of this Section 13.10, 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) Each SSO Supplier agrees that the SSO Supplier's data and information submitted in the Solicitation will be disclosed if required by any federal, state or local agency (including the PUCO) or by a court of competent jurisdiction. However, the Companies will endeavor to notify the SSO Supplier in advance of such disclosure. In any event, none of the Companies, nor any of their employees or agents, will be responsible to the SSO Suppliers or any other party, or liable for any disclosure of such data or information. Notwithstanding the above, the Companies reserve the right to use and communicate publicly to third parties any and all information and data submitted as part of the Solicitation in any proceedings before FERC, the PUCO, and any other regulatory body and the courts, if the Companies deem it necessary or advisable, without the prior consent of, or notice to, any such SSO Supplier.

(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 13.10. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the Party breaches or threatens to breach its obligations under this Section 13.10, 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.

13.11 Amendment

Except as provided in Sections 5.4 and 13.12, this Agreement shall not be amended, modified, terminated, discharged or supplanted, nor any provision hereof waived, unless mutually agreed in writing by the Parties. Except as provided in Section 13.12, the rates, terms and conditions contained in this Agreement are not subject to change under Sections 205 and 206 of the Federal Power Act absent the mutual written agreement of the Parties. Absent the agreement of all Parties, the standard of review for changes to this Agreement proposed by a Party, a non-Party or the FERC acting <u>sua sponte</u> shall be the "public interest" standard of review set forth in <u>United Gas Pipe Line Co. v. Mobile Gas Service</u>

<u>Corp.</u>, 350 U.S. 332 (1956), and <u>Federal Power Commission v. Sierra Pacific Power Co.</u>,
350 U.S. 348 (1956) and affirmed by <u>Morgan Stanley Capital Group, Inc. v. Public Utility</u>

District No. 1 of Snohomish County, Washington, et al., 554 U.S. _____, 128 S. Ct. 2733 (June 26, 2008).

13.12 PJM Agreement Modifications

(a) If the PJM Agreements are amended or modified so that any term, schedule

or section reference herein to such agreements is changed, such term, schedule or section reference herein shall be deemed automatically (and without any further action by the Parties) to refer to the new term, 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, the Parties shall cooperate to make conforming changes to this Agreement to fulfill the purposes of this Agreement.

13.13 Agent

The Companies shall have the right at any time and from time to time during the Term to appoint an agent to act on their behalf to exercise or pursue any of their rights or remedies and to perform any of their obligations or duties under this Agreement. The Companies shall give each SSO Supplier thirty (30) days prior written notice before the appointment of an agent.

13.14 Counterparts

This Agreement may be executed in counterparts, each of which will be considered an original, but all of which will constitute one instrument. IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be

executed by their duly authorized representatives as of the date first set forth above.

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, OHIO

EDISON COMPANY,

AND

THE TOLEDO EDISON COMPANY

By: _____

Name: Torrence L. Hinton

Title: President Ohio

[SSO SUPPLIER SIGNATURES APPEAR ON SUCCEEDING PAGES]

[SSO SUPPLIER]

By:_____

Name:

Title:

APPENDIX A¹

SSO SUPPLIER RESPONSIBILITY SHARE

This SSO Supplier Responsibility Share is being provided pursuant to and in accordance with the Master Standard Service Offer Supply Agreement ("Agreement") dated (*) day of (*), (*) by and between The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company (collectively, the "Companies") and (**) ("SSO Supplier"). Terms used herein shall have the meanings ascribed to them in the Agreement. This SSO Supplier Responsibility Share shall confirm the following terms of the Agreement agreed to on (*) (*), (*).

SSO Supplier	Price (\$/MWh)	SSO Supplier Responsibility Share Percentage (%)	No. of Tranches
	/MWh	%	
Original Delivery	y Period: June 1, 20[_],	12:00:01 A.M. through [].

Address for Notice:

1. In the case of all notices except those required under Article 6:

Name: Address: Telephone: Facsimile: E-mail: copy to: Name: Address: Telephone: Facsimile: E-mail: 2. In the case of all notices required under Article 6:

Name: Address: Telephone: Facsimile: E-mail:

copy to:

Name: Address: Telephone: Facsimile: E-mail:

The Cleveland Electric Illuminating Company, The Toledo

Edison Company and Ohio Edison Company

<u>By:</u>_____

Name:

Title:

[SSO SUPPLIER]

BY:_____

Name: ______

Title:_____

¹ Appendix A to be completed for each SSO Supplier.

APPENDIX B

SEASONAL BILLING FACTOR

The Seasonal Billing Factors are as follows:

June 1 through August 31	1.00
September 1 through December 31 and January 1 through May 31	1.00

APPENDIX C-1 - INDEPENDENT CREDIT REQUIREMENT PER TRANCHE (ICRT)

Schedule for ICRT – FirstEnergy Ohio Utilities ESP V

• ICRT netted with prior ICRT requirements

Month	24-Month Product (\$/tranche)	12-Month Product (\$/tranche)
Month 1	1,500,000	1,500,000
Month 2	1,500,000	1,500,000
Month 3	1,500,000	1,200,000
Month 4	1,500,000	1,200,000
Month 5	1,500,000	1,000,000
Month 6	1,500,000	1,000,000
Month 7	1,200,000	800,000
Month 8	1,200,000	800,000
Month 9	1,200,000	600,000
Month 10	1,200,000	600,000
Month11	1,000,000	400,000
Month 12	1,000,000	400,000
Month 13	1,000,000	
Month 14	1,000,000	
Month 15	800,000	
Month 16	800,000	
Month 17	800,000	
Month 18	800,000	
Month 19	600,000	
Month 20	600,000	
Month 21	600,000	
Month 22	400,000	
Month 23	400,000	
Month 24	400,000	

APPENDIX C-2

EXAMPLE MARK-TO-MARKET EXPOSURE AMOUNT CALCULATION

The following is an illustration of the methodology the Companies will use to determine the Mark-to-Market Exposure Amounts for each SSO Supplier, including a methodology the Companies expect to use to derive off-peak Forward Market Prices. Notwithstanding the foregoing, if the Companies are unable to obtain publicly available market quotations for Forward Market Prices, Forward Market Prices will be determined by the Companies using any method which the Companies deem appropriate and which reasonably reflects forward market pricing conditions in PJM.

On the closing day of the Solicitation, the following parameters are determined by the Companies:

- 1. The expected On-Peak SSO Load per Tranche (including any subsequent changes);
- 2. The expected Off-Peak SSO Load per Tranche (including any subsequent changes);
- 3. Prevailing On-Peak Forward Market Prices for each month during the Original Delivery Period; and
- 4. Ratios of Off-Peak to On-Peak monthly Forward Market Prices for each month during the Original Delivery Period (to be used to determine the Off-Peak Forward Market Prices from the On-Peak Forward Market Prices).

The Forward Market Prices prevailing on the closing day of the Solicitation are used to establish the "mark" for each month during the Original Delivery Period. Table 1 contains hypothetical initial On-Peak Forward Market Prices for a 12-month Original Delivery Period from June through May of the following calendar year. The initial Off-Peak Forward Market Prices are determined by multiplying the On-Peak Forward Market Prices for each Billing Month in Table 1 by the ratios of off-peak to on-peak prices for each Billing Month in

Table 2. Table 3 contains the hypothetical "marks" established on the day the Solicitation is completed using the Forward Market Prices established in Tables 1 and 2. The "marks" will not change over the Original Delivery Period.

For each calculation of the Mark-to-Market Exposure Amount, the Companies will determine the Forward Market Prices for each month during the Original Delivery Period. Table 4 contains hypothetical Forward Market Prices as of the first day of the Original Delivery Period. Table 5 contains a calculation of the Mark-to-Market Exposure Amount as of the first date of the Delivery Period for the twelve-month Original Delivery Period based on the difference between the hypothetical "marks" set forth in Table 3 and the hypothetical Forward Market Prices set forth in Table 4.

MARK-TO-MARKET EXAMPLE

All Energy prices are based on a Market Price Hub

Table 1 – Hypothetical Initial Market Price Data

On-Peak Forward Market Price Quotes on the Solicitation Closing Date

Month	Jun-xx	Jul-xx	Aug-xx	Sep-xx	Oct-xx	Nov-xx
On-Peak	\$46.39	\$56.39	\$56.39	\$44.56	\$40.90	\$44.03
Month	Dec-xx	Jan-xx	Feb-xx	Mar-xx	Apr-xx	May-xx
On-Peak	\$43.11	\$53.11	\$51.69	\$50.40	\$50.40	\$48.43

Table 2 - Off-peak Forward Market Price Factors The Companies' Pre-determined Ratio of Off-Peak to On-Peak Prices

Month	Ratio of Off-Peak to On-Peak Price
January	0.75
February	0.75
March	0.75
April	0.75
May	0.75
June	0.65
July	0.65
August	0.65
September	0.65
October	0.75
November	0.75
December	0.75

Table 3 – Hypothetical Closing Day "Marks" "Marks" Set on the Solicitation Closing Date Energy (MWh/Tranche)

Hypothetical prices for June 20xx through May 20xx so as to correspond to a one-year Original Delivery Period.

	On-Peak Volume	Off-Peak Volume	On-Peak Price	Off-Peak Price
Jun-xx	5,681	6,083	\$46.39	\$30.15
Jul-xx	6,934	6,123	\$56.39	\$36.65
Aug-xx	6,756	5,832	\$56.39	\$36.65
Sep-xx	5,411	5,500	\$44.56	\$28.96
Oct-xx	5,776	5,069	\$40.90	\$30.68
Nov-xx	5,289	5,795	\$44.03	\$33.02
Dec-xx	6,115	6,585	\$43.11	\$32.33
Jan-xx	6,539	6,422	\$53.11	\$39.83
Feb-xx	6,058	6,019	\$51.69	\$38.77
Mar-xx	5,704	6,140	\$50.40	\$37.80
Apr-xx	5,619	5,188	\$50.40	\$37.80
May-xx	5,329	5,343	\$48.43	\$36.32

Table 4 – Hypothetical Forward Market Prices on Day 1 of the Delivery Period
On-Peak Forward Market Quotes on Day 1 of the Delivery Period

Month	Jun-xx	Jul-xx	Aug-xx	Sep-xx	Oct-xx	Nov-xx	
On-Peak	\$46.39	\$57.39	\$56.39	\$46.56	\$40.90	\$45.03	
Month	Dec-xx	Jan-xx	Feb-xx	Mar-xx	Apr-xx	May-xx	

Table 5 – MtM on Day 1 of the Delivery Period

Hypothetical Mark-to-Market set on Day 1 of the Delivery Period Energy (MWh/tranche)

Data for June 20xx through May 20xx so as to correspond to a one-year Original Delivery Period

	On- Peak Load per Tranche (MWh)	Off- Peak Load per Tranche (MWh)	Mark for On- Peak Prices	Current Day 1 On- Peak Prices	Change in On-Peak Price	Change in Off-Peak Price	MtM
Jun-16	5,681	6,083	\$46.39	\$46.39	\$-	\$-	\$-
Jul-16	6,934	6,123	\$56.39	\$57.39	\$1.00	\$0.65	\$10,914
Aug-16	6,756	5,832	\$56.39	\$56.39	\$-	\$-	
Sep-16	5,411	5,500	\$44.56	\$46.56	\$2.00	\$1.30	\$17,972
Oct-16	5,776	5,069	\$40.90	\$40.90	\$-	\$-	
Nov-16	5,289	5,795	\$44.03	\$45.03	\$1.00	\$0.75	\$ 9,635
Dec-16	6,115	6,585	\$43.11	\$43.11	\$-	\$-	
Jan-17	6,539	6,422	\$53.11	\$53.11	\$-	\$-	
Feb-17	6,058	6,019	\$51.69	\$51.69	\$-	\$-	
Mar-17	5,704	6,140	\$50.40	\$50.40	\$-	\$-	
Apr-17	5,619	5,188	\$50.40	\$50.40	\$-	\$-	
May-17	5,329	5,343	\$48.43	\$48.43	\$-	\$-	
						Total	\$ 38,521

APPENDIX D

FORM OF SSO SUPPLIER LETTER OF CREDIT

____(Date)

Letter of Credit No.

- To: The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company ("Beneficiaries")
- We hereby establish in your favor this irrevocable transferable Letter of Credit (this "Letter of Credit") for the account of ________ (the "Applicant"), in the aggregate amount of \$_______, effective immediately and available to you at sight upon demand at our counters at _______ and expiring 364 days from date of issuance or 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 12 hereof. This Letter of Credit may be drawn upon an Event of Default under that certain Master SSO Supply Agreement 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.

(prevailing Eastern Time¹) 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 an Authorized Officer of each of the Beneficiaries and (ii) your draft in the form of Annex 2 hereto, appropriately completed and duly signed by an Authorized Officer of each of the Beneficiaries. "Authorized Officer" shall mean President, Treasurer, any Vice President, any Assistant Treasurer or any other person holding an equivalent title.

- 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. 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. prevailing Eastern Time on the date of such drawing, if delivery of this requisite document is made prior to 11:00 A.M. (prevailing Eastern 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

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.

drawing if delivery of the requisite document is made after 11:00 A.M. (prevailing Eastern time) on any Business Day pursuant to Paragraph 3 herein above.

- 6. 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 later than 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, that in such event a conforming demand for payment must be timely made in accordance with the terms of this Letter of Credit.
- 7. 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; and (iii) the date we receive from you a Certificate of Expiration in the form of Annex 4 hereto. The Letter of Credit 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 Beneficiaries 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.

8. 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.

"<u>Business Day</u>" shall mean any day on which commercial banks are not authorized or required to close in New York, NY and any day on which payments can be effected on the Fed wire system.

- 9. This Letter of Credit is assignable and transferable, in accordance with Annex 6, to an entity certified by you to us in the form of Annex 6, 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.
- 10. 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 to incorporate herein by reference any document, instrument or agreement except as set forth above.

- 11. We certify that as of ______(date) we ______
 ("Bank") satisfy either the senior unsecured debt rating of "A" from Standard & Poor's Rating Service or the senior unsecured debt rating of "A2" from Moody's Rating Service.
- 12. 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.
- 13. Faxed document(s) are acceptable. Presentation by fax must be made to fax number _______ confirmed by telephone to ______.
- 14. In the event of act of God, riot, civil commotion, insurrection, war, terrorism or 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.
- 15. This original letter of credit has been sent to the Beneficiaries located at _______above (as per Applicant's instructions). 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 (except for Annex 5) or other communications directed to us under this Letter of Credit must be signed by an Authorized Officer of the Beneficiaries. 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 each of the Beneficiaries.

Very truly yours, (Bank)

By:_____ Name: Title:

By:_____ Name: Title:

Annex 1 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO.

_____, 20____

To: (Bank) (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 and not defined herein shall have the meanings ascribed thereto in the Letter of Credit.

2. Pursuant to Paragraph 2 of the Letter of Credit No._____, dated______, 20__, the undersigned is entitled to make a drawing under the Letter of Credit in the aggregate amount of \$______, due to an Event of Default under any Master SSO Supply Agreement between the Applicant and us.

4. 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,

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

Ohio Edison Company
By:
Name:
Title:
Date:

Annex 2 to Letter of Credit

DRAWING UNDER LETTER OF CREDIT NO.

_____, 20____

ON [Business Day set forth in Paragraph 5]

PAY TO: The Cleveland Electric Illuminating Company

\$_____

For credit to the account of ______.

PAY TO: The Toledo Edison Company

\$_____

For credit to the account of ______.

PAY TO: Ohio Edison Company

\$_____

For credit to the account of ______.

FOR VALUE RECEIVED AND CHARGE TO ACCOUNT OF LETTER OF CREDIT NO. _____OF

(Bank) (Address)

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

Ohio Edison Company	
By:	
Name:	
Title:	
Date:	

Annex 3 to Letter of Credit

AVAILABILITY CERTIFICATE UNDER LETTER OF CREDIT NO.

____, 20____ To: (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 \$ (the "<u>New Amount</u>") and to expire on _____(date), but otherwise in the form of the above-referenced 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:

> Beneficiaries' Addresses

> > Very truly yours,

The Cleveland Electric Illuminating Compan	y The Toledo Edison Company	
By:	By:	
Name:	Name:	
Title:	Title:	
Date:	Date:	
Ohio Edison Company		
By:		
Name:		
Title:		
Date:		
	APPLICANT NAME	
Agreed and Accepted	APPLICANT NAME	
(Bank)	By:	
By:	Name:	
Title:	Title:	
Date:	Date:	

Annex 4 to Letter of Credit

CERTIFICATE OF EXPIRATION OF LETTER OF CREDIT NO.

_____, 20____

To: (Bank) (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.

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:
Ohio Edison Company	

Ohio Edison Company By: _____ Name: Title: Date:

cc: _____(Applicant Name)

Annex 5 to Letter of Credit

NOTICE OF EXTENSION OF LETTER OF CREDIT NO._____

_____, 20____

To The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company:

Re: Our Letter of Credit no. _____ presently in the aggregate amount of USD______ issued for the account of ______ and expiring on ______.

On the expiration date of the Letter of Credit no. _____, we will issue a new Letter of Credit No. ______ to expire on ______ (date). This new Letter of Credit No. ______ will, aside from the expiration date, be in the amount and form of our Letter of Credit No. ______.

Very truly yours,

BANK

By		
Name:		
Title:		
Date:		

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

Ohio Edison Company		
By:		
Name:		
Title:		
Date:		

cc: _____(Applicant Name)

Annex 6 to Letter of Credit

NOTICE OF TRANSFER OF LETTER OF CREDIT NO.

_____, 20____ To: [Bank] [Bank Address]

To Whom It May Concern: Re: Credit______ Issued by ______ Advice No______

For the value received, the undersigned beneficiary hereby irrevocably transfers to:

(Name of Transferee)

(Address)

all rights of the undersigned Beneficiaries to draw under the above Letter of Credit in its entirety.

By this transfer, all rights of the undersigned Beneficiaries 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, 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 directly to the transferee with your customary notice of transfer.

Very Truly Yours,

The Cleveland Electric Illuminating Company	The Toledo Edison Company
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:
Ohio Edison Company	
By:	
Name:	
Title:	
Date:	

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)

(Authorized signature of authenticating party) Name Title

APPENDIX E

FORM OF GUARANTY

GUARANTY (this "Guaranty"), dated as of ______, made by ______, (the "Guarantor"), a corporation organized and existing under the laws of _______ in favor of The Cleveland Electric Illuminating Company, The Toledo Edison Company and Ohio Edison Company (the "Guaranteed Parties"), corporations organized and existing under the laws of the State of Ohio. Capitalized terms used herein but not defined herein shall have the meaning given such terms in the Agreement (defined below).

Guarantor enters into this Guaranty in consideration of, and as an inducement for, Guaranteed Parties having entered into or entering into that certain Master SSO Supply Agreement dated ______(the "Agreement") with ______[Name], a ______[State] [corporation] (the "SSO Supplier"), which may involve the extension of credit by the Guaranteed Parties. Guarantor, subject to the terms and conditions hereof, hereby unconditionally and absolutely guarantees to the Guaranteed Parties the full and prompt payment when due, upon demand in writing from the Guaranteed Parties to the Guarantor's attention at the address for Guarantor set forth in Article 11 hereof, of any and all amounts payable by the SSO Supplier to the Guaranteed Parties arising out of the Agreement, 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 SSO Supplier as a result of an Event of Default under the Agreement (including indemnities, damages, fees and interest thereon, pursuant to the terms of the Agreement). Notwithstanding anything to the contrary herein, the maximum aggregate liability of the Guarantor under this Guaranty shall [Option 1 {in no event exceed ______.} Option 2 {in no event exceed the lesser of the credit 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 SSO Supplier, and any right to require a proceeding first against the SSO Supplier.

- 3. The Guaranteed Parties 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 SSO Supplier) that the Guaranteed Parties determine in their 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 SSO Supplier to the Guaranteed Parties; or (iii) compromise or subordinate any Guaranteed Obligation(s) or liability of the SSO Supplier to the Guaranteed Parties; or the Guaranteed Parties including any security therefore.
- 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 of the SSO Supplier concerning any provision of the Agreement(s) in respect of any Guaranteed Obligations of the SSO Supplier; (ii) the rendering of any judgment against the SSO 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 (to which the Guarantor hereby consents); (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 SSO Supplier and the Guaranteed Parties; (v) any change in the corporate existence (including its constitution, laws, rules, regulations or powers), structure or ownership of the SSO Supplier or the Guarantor, or any insolvency, bankruptcy, reorganization or other similar proceedings affecting the SSO 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 SSO Supplier, the Guaranteed Parties 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 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 SSO Supplier of amounts to be paid by it under the Agreement 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 SSO Supplier, any other guarantor, the Guaranteed Parties 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 (i) any right of reimbursement or contribution, and (ii) any right of salvage against the SSO Supplier or any collateral security or guaranty or right of offset held by the Guaranteed Parties therefor.
- 6. The Guarantor will not exercise any rights which it may acquire by way of subrogation until all Guaranteed Obligations to the Guaranteed Parties pursuant to the Agreement 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 Parties in exercising any right, power or privilege hereunder, and no course of dealing between the Guarantor and the Guaranteed Parties, 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 Parties 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 Parties 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 Parties and their 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 Parties. The assignment rights of the Guaranteed Parties will be in accordance with the terms of the Agreement.
- 9. Neither this Guaranty nor any provision hereof may be changed, waived, discharged or terminated except upon written agreement of the Guaranteed Parties 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: [To be completed] If to the Guaranteed Parties:

Justin Gawne Analyst IV FirstEnergy Service Company 341 White Pond Drive, A-WAC-C2 Akron, OH 44320 Telephone: 330-315-7226 Facsimile: 330-436-1901 jgawne@firstenergycorp.com

Copy to:

Santino Fanelli Dir, Rates & Regulatory Affairs FirstEnergy Service Company 76 South Main Street, 8th Floor Akron, OH 44308 Telephone: 330-761-7772 sfanelli@firstenergycorp.com

and:

Randy Feucht Director, Regulated Commodity Sourcing 341 White Pond Drive, (A-WAC-C1) Akron, OH 44320 Telephone: 330-384-4619 Facsimile: <u>rfeucht@firstenergycorp.com</u>

and: Brian Knipe Supervising Counsel FirstEnergy Service Company 76 South Main Street, 15th Floor Akron, OH 44308 Telephone: 330-384-5795 bknipe@firstenergycorp.com

- 12. If claim is ever made upon the Guaranteed Parties for repayment or recovery of any amount or amounts received in payment or on account of any of the Guaranteed Obligations and the Guaranteed Parties repay all or part of such amount by reason of (i) any judgment, decree or order of any court or administrative body having jurisdiction over such payee or any of its property, or (ii) 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 or other instrument evidencing any liability of the Guarantor, and the Guarantor shall be and remain liable to the Guaranteed Parties 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.
- 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 Parties, which termination shall be effective only upon receipt by the Guaranteed Parties of alternative means of security or credit support, as specified in the Agreement and in a form reasonably acceptable to the Guaranteed Parties. Upon the effectiveness of any such expiration or termination, 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.

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 SSO Supplier and the Guarantor hereunder shall be construed in accordance with and governed by the laws of the State of Ohio. The Guarantor and Guaranteed Parties agree to the exclusive jurisdiction of State and federal courts located in the State of Ohio over any disputes arising from or relating to this Guaranty and waive any objections to venue or inconvenient forum. The Guarantor and Guaranteed Parties 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 Parties and the Guarantor with respect to subject matter hereof. The Guaranteed Parties 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 his or her individual 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 trustees 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.

[GUARANTOR]

By:_

Title:

Accepted and Agreed to:

The Cleveland Electric Illuminating Company

Name:

Title:

Date:

The Toledo Edison Company

By: _____ By:_____ Name: Title: Date:

Ohio Edison Company By: _____Name: Title: Date:

APPENDIX F - CAPACITY PROXY PRICE

For purposes of this Appendix F: (i) the Companies will use the published final zonal net load price (\$/MW-day) from PJM to LSEs for capacity in the Company's PJM zone under the Reliability Pricing Model ("RPM") or its successor; and (ii) the Capacity Proxy Price ("CPP") for the Companies is _/MW-day for the [insert applicable delivery years here] PJM delivery year(s).

The CPP will be the average of the capacity prices from the last auctions of the previous two capacity market auctions conducted by PJM.

In the event a CPP is implemented: (i) the Companies will calculate the CPP for the relevant PJM Capacity Year and provide notice to Bidders via the Information Website (<u>http://www.firstenergyCBP.com</u>); and (ii) Section 8.1 (a) of the MSA will also include the following:

For each Billing Month where a CPP was used, an additional line item on the supplier invoice will show the true-up amount expressed in dollars which is the difference between the Capacity Price actually charged for load served on the day for the Company's PJM zone and the CPP multiplied by the SSO Supplier Responsibility Share of the Capacity obligation (UCAP) for each day of the Billing Month in question. True-ups will occur in the delivery year where a proxy price was utilized.

APPENDIX G

SAMPLE PJM INVOICE

	PJM Billing Statement Line Items										
ID #	Resp.	CHARGES	ID #	Resp.	CREDITS						
1000	SSO S	Amount Due for Interest on Past Due Charges									
1100	EDU	Network Integration Transmission Service	2100	EDU	Network Integration Transmission Service						
1101	EDU	Network Integration Transmission Service (ATSI Low Voltage)	2101	EDU	Network Integration Transmission Service (ATSI Low Voltage)						
1104	EDU	Network Integration Transmission Service Offset	2104	EDU	Network Integration Transmission Service Offset						
			2106	SSO S	Non-Zone Network Integration Transmission Service						
1108	EDU	Transmission Enhancement	2108	EDU	Transmission Enhancement						
1109	EDU	MTEP Project Cost Recovery	2109	EDU	MTEP Project Cost Recovery						
1110	SSO S	Direct Assignment Facilities	2110	SSO S	Direct Assignment Facilities						
1115	EDU	Transmission Enhancement Settlement Charge									
1120	SSO S	Other Supporting Facilities	2120	SSO S	Other Supporting Facilities						
1130	SSO S	Firm Point-to-Point Transmission Service	2130	SSO S	Firm Point-to-Point Transmission Service						
			2132	SSO S	Internal Firm Point-to-Point Transmission Service						
1133	SSO S	Firm Point-to-Point Transmission Service Resale	2133	SSO S	Firm Point-to-Point Transmission Service Resale						
1135	SSO S	Neptune Voluntary Released Transmission Service (Firm)	2135	SSO S	Neptune Voluntary Released Transmission Service (Firm)						
1138	SSO S	Linden Voluntary Released Transmission Service (Firm)	2138	SSO S	Linden Voluntary Released Transmission Service (Firm)						
1140	SSO S	Non-Firm Point-to-Point Transmission Service	2140	SSO S	Non-Firm Point-to-Point Transmission Service						
			2142	SSO S	Internal Non-Firm Point-to-Point Transmission Service						
1143	SSO S	Non-Firm Point-to-Point Transmission Service Resale	2143	SSO S	Non-Firm Point-to-Point Transmission Service Resale						
1145	SSO S	Neptune Voluntary Released Transmission Service (Non-Firm)	2145	SSO S	Neptune Voluntary Released Transmission Service (Non-Firm)						
1146	SSO S	Neptune Default Released Transmission Service (Non-Firm)	2146	SSO S	Neptune Default Released Transmission Service (Non-Firm)						

1147	SSO S	Neptune Unscheduled Usage Billing Allocation			
1155	SSO S	Linden Voluntary Released Transmission Service (Non-Firm)	2155	SSO S	Linden Voluntary Released Transmission Service (Non-Firm)
1156	SSO S	Linden Default Released Transmission Service (Non-Firm)	2156	SSO S	Linden Default Released Transmission Service (Non-Firm)
1157	SSO S	Linden Unscheduled Usage Billing Allocation			
1200	SSO S	Day-ahead Spot Market Energy			
1205	SSO S	Balancing Spot Market Energy			
1210	SSO S	Day-ahead Transmission Congestion	2210	SSO S	Transmission Congestion
1215	SSO S	Balancing Transmission Congestion			
			2217	SSO S	Planning Period Excess Congestion
1218	EDU	Planning Period Congestion Uplift	2218	EDU	Planning Period Congestion Uplift
1220	SSO S	Day-ahead Transmission Losses	2220	SSO S	Transmission Losses
1225	SSO S	Balancing Transmission Losses			
1230	SSO S	Inadvertent Interchange			
1240	SSO S	Day-ahead Economic Load Response	2240	SSO S	Day-ahead Economic Load Response
1241	SSO S	Real-time Economic Load Response	2241	SSO S	Real-time Economic Load Response
1242	SSO S	Day-Ahead Load Response Charge Allocation			
1243	SSO S	Real-Time Load Response Charge Allocation			
1245	SSO S	Emergency Load Response	2245	SSO S	Emergency Load Response
1250	EDU	Meter Error Correction			
1260	EDU	Emergency Energy	2260	EDU	Emergency Energy
1301	SSO S	PJM Scheduling, System Control and Dispatch Service - Control Area Administration			
1302	SSO S	PJM Scheduling, System Control and Dispatch Service - FTR Administration			
1303	SSO S	PJM Scheduling, System Control and Dispatch Service - Market Support			
1304	SSO S	PJM Scheduling, System Control and Dispatch Service - Regulation Market Administration			
1305	SSO S	PJM Scheduling, System Control and Dispatch Service - Capacity Resource/Obligation Mgmt.			
1306	SSO S	PJM Scheduling, System Control and Dispatch Service - Advanced Second Control Center			

1307	SSO S	PJM Scheduling, System Control and Dispatch Service - Market Support Offset			
1308	SSO S	PJM Scheduling, System Control and Dispatch Service Refund - Control Area Administration			
1309	SSO S	PJM Scheduling, System Control and Dispatch Service Refund - FTR Administration			
1310	SSO S	PJM Scheduling, System Control and Dispatch Service Refund - Market Support			
1311	SSO S	PJM Scheduling, System Control and Dispatch Service Refund - Regulation Market Administration			
1312	SSO S	PJM Scheduling, System Control and Dispatch Service Refund - Capacity Resource/Obligation Mgmt.			
1313	SSO S	PJM Settlement, Inc.			
1314	SSO S	Market Monitoring Unit (MMU) Funding			
1315	SSO S	FERC Annual Charge Recovery			
1316	SSO S	Organization of PJM States, Inc. (OPSI) Funding			
1317	SSO S	North American Electric Reliability Corporation (NERC)			
1318	SSO S	Reliability First Corporation (RFC)			
1320	EDU	Transmission Owner Scheduling, System Control and Dispatch Service	2320	EDU	Transmission Owner Scheduling, System Control and Dispatch Service
1330	EDU	Reactive Supply and Voltage Control from Generation and Other Sources Service	2330	EDU	Reactive Supply and Voltage Control from Generation and Other Sources Service
1340	SSO S	Regulation and Frequency Response Service	2340	SSO S	Regulation and Frequency Response Service
1350	SSO S	Energy Imbalance Service	2350	SSO S	Energy Imbalance Service
1360	SSO S	Synchronized Reserve	2360	SSO S	Synchronized Reserve
1362	SSO S	Non-Synchronized Reserve	2362	SSO S	Non-Synchronized Reserve
1365	SSO S	Day-ahead Scheduling Reserve	2365	SSO S	Day-ahead Scheduling Reserve
1370	SSO S	Day-ahead Operating Reserve	2370	SSO S	Day-ahead Operating Reserve
1371	SSO S	Day-ahead Operating Reserve for Load Response	2371	SSO S	Day-ahead Operating Reserve for Load Response
1375	EDU	Balancing Operating Reserve	2375	EDU	Balancing Operating Reserve
1376	EDU	Balancing Operating Reserve for Load Response	2376	EDU	Balancing Operating Reserve for Load Response
1377	SSO S	Synchronous Condensing	2377	SSO S	Synchronous Condensing
1378	EDU	Reactive Services	2378	EDU	Reactive Services
1380	SSO S	Black Start Service	2380	SSO S	Black Start Service
1400	SSO S	Load Reconciliation for Spot Market Energy			

1410	SSO S	Load Reconciliation for			
		Transmission Congestion Load Reconciliation for			Load Reconciliation for
1420	SSO S	Transmission Losses	2420	SSO S	Transmission Losses
1430	SSO S	Load Reconciliation for Inadvertent Interchange			
1440	SSO S	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service			
1441	SSO S	Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund			
1442	SSO S	Load Reconciliation for Schedule 9- 6 - Advanced Second Control Center			
1444	SSO S	Load Reconciliation for Market Monitoring Unit (MMU) Funding			
1445	SSO S	Load Reconciliation for FERC Annual Charge Recovery			
1446	SSO S	Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding			
1447	SSO S	Load Reconciliation for North American Electric Reliability Corporation (NERC)			
1448	SSO S	Load Reconciliation for Reliability First Corporation (RFC)			
1450	EDU	Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service			
1460	SSO S	Load Reconciliation for Regulation and Frequency Response Service			
1470	SSO S	Load Reconciliation for Synchronized Reserve			
1472	SSO S	Load Reconciliation for Non- Synchronized Reserve			
1475	SSO S	Load Reconciliation for Day-ahead Scheduling Reserve			
1478	SSO S	Load Reconciliation for Balancing Operating Reserve			
1480	SSO S	Load Reconciliation for Synchronous Condensing			
1490	SSO S	Load Reconciliation for Reactive Services			
1500	SSO S	Financial Transmission Rights Auction	2500	SSO S	Financial Transmission Rights Auction
			2510	SSO S	Auction Revenue Rights
1600	SSO S	RPM Auction	2600	SSO S	RPM Auction
1610	SSO S	Locational Reliability			
			2620	SSO S	Interruptible Load for Reliability
			2630	SSO S	Capacity Transfer Rights
			2640	SSO S	Incremental Capacity Transfer Rights

1650	SSO S	Auction Specific MW Capacity Transaction	2650	SSO S	Auction Specific MW Capacity Transaction
1660	SSO S	Demand Resource and ILR Compliance Penalty	2660	SSO S	Demand Resource and ILR Compliance Penalty
1661	SSO S	Capacity Resource Deficiency	2661	SSO S	Capacity Resource Deficiency
1662	SSO S	Generation Resource Rating Test Failure	2662	SSO S	Generation Resource Rating Test Failure
1663	SSO S	Qualifying Transmission Upgrade Compliance Penalty	2663	SSO S	Qualifying Transmission Upgrade Compliance Penalty
1664	SSO S	Peak Season Maintenance Compliance Penalty	2664	SSO S	Peak Season Maintenance Compliance Penalty
1665	SSO S	Peak-Hour Period Availability	2665	SSO S	Peak-Hour Period Availability
1666	SSO S	Load Management Test Failure	2666	SSO S	Load Management Test Failure
1670	SSO S	FRR LSE Reliability	2670	SSO S	FRR LSE Reliability
1680	SSO S	FRR LSE Demand Resource and ILR Compliance Penalty	2680	SSO S	FRR LSE Demand Resource and ILR Compliance Penalty
1681	SSO S	FRR LSE Capacity Resource Deficiency	2681	SSO S	FRR LSE Capacity Resource Deficiency
1682	SSO S	FRR LSE Generation Resource Rating Test Failure	2682	SSO S	FRR LSE Generation Resource Rating Test Failure
1683	SSO S	FRR LSE Qualifying Transmission Upgrade Compliance Penalty	2683	SSO S	FRR LSE Qualifying Transmission Upgrade Compliance Penalty
1684	SSO S	FRR LSE Peak Season Maintenance Compliance Penalty	2684	SSO S	FRR LSE Peak Season Maintenance Compliance Penalty
1685	SSO S	FRR LSE Peak-Hour Period Availability	2685	SSO S	FRR LSE Peak-Hour Period Availability
1686	SSO S	FRR LSE Load Management Test Failure	2686	SSO S	FRR LSE Load Management Test Failure
1687	SSO S	FRR LSE Schedule 9-5	2687	SSO S	FRR LSE Schedule 9-5
1688	SSO S	FRR LSE Schedule 9-6	2688	SSO S	FRR LSE Schedule 9-6
1710	SSO S	PJM/MISO Seams Elimination Cost Assignment	2710	SSO S	PJM/MISO Seams Elimination Cost Assignment
1712	SSO S	Intra-PJM Seams Elimination Cost Assignment	2712	SSO S	Intra-PJM Seams Elimination Cost Assignment
1720	SSO S	RTO Start-up Cost Recovery	2720	SSO S	RTO Start-up Cost Recovery
1730	SSO S	Expansion Cost Recovery	2730	SSO S	Expansion Cost Recovery
1900	SSO S	Unscheduled Transmission Service			
1910	SSO S	Ramapo Phase Angle Regulators	2910	SSO S	Ramapo Phase Angle Regulators
1911	SSO S	Michigan - Ontario Interface Phase Angle Regulators			
			2912	SSO S	CT Lost Opportunity Cost Allocation
1920	SSO S	Station Power			
1930	EDU	Generation Deactivation	2930	EDU	Generation Deactivation
<mark>1932</mark>	EDU	Generation Deactivation Refund	2932	EDU	Generation Deactivation Refund
1950	SSO S	Virginia Retail Administrative Fee	2950	SSO S	Virginia Retail Administrative Fee
1952	SSO S	Deferred Tax Adjustment	2952	SSO S	Deferred Tax Adjustment
1955	SSO S	Deferral Recovery	2955	SSO S	Deferral Recovery

1980	SSO S	Miscellaneous Bilateral	2980	SSO S	Miscellaneous Bilateral
1995	SSO S	PJM Annual Membership Fee			
			2996	SSO S	Annual PJM Cell Tower
			2997	SSO S	Annual PJM Building Rent
1999	SSO S	PJM Customer Payment Default			

APPENDIX H

GENERAL CONTACTS

Any notices required under this Agreement shall be in accordance with the provisions of Articles 6 and 13. Non-notice general inquiries of the Company associated with invoicing, scheduling, payments and credit and collections should be made as follows:

Invoices:

FirstEnergy Corp. 76 South Main Street Akron, OH 44308 Attn: Robert D. Brown Manager, Regulated Settlements Finance Phone: (330) 384-5573 Facsimile: Email: rdbrown@firstenergycorp.com

Scheduling:

FirstEnergy Corp. 76 South Main Street Akron, OH 44308 Attn: Tiffanne Cowan Manager, Regulated Settlements Phone: (330) 761-4474 Facsimile: Email: cowant@firstenergycorp.com

Payments:

FirstEnergy Corp.
76 South Main Street
Akron, OH 44308
Attn: Robert D. Brown
Manager, Regulated Settlements Finance
Phone: (330) 384-5573
Facsimile:
Email: rdbrown@firstenergycorp.com
Duns: 13-490-0617
Federal Tax ID Number: 34-1968288

Wire Transfer:

BNK: JP Morgan Chase, NY FirstEnergy Service Co. ABA: 021000021 ACCT: 323-396496

Credit and Collections:

FirstEnergy Corp. 341 White Pond Drive Akron, OH 44320 Attn: Justin Gawne Analyst IV Phone: (330) 315-7226 Facsimile: (330) 436-1901 Email: jgawne@firstenergycorp.com

Glossary for the FirstEnergy Ohio Utilities' CBP Auctions

This Glossary applies to the competitive bidding process ("CBP") auctions for The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company (hereafter referred to as "the FirstEnergy Ohio Utilities" or "the Companies") to procure supply for the provision of Standard Service Offer supply ("SSO Supply") for all of their retail customers that take retail generation service from the FirstEnergy Ohio Utilities.

In the event of a conflict between this Glossary and the prevailing Master SSO Supply Agreement with respect to the definitions provided, the definitions included in the prevailing Master SSO Supply Agreement shall control.

Advisor is a person or persons who will be advising or assisting the Qualified Bidder with respect to bidding strategy, estimation of the value of any Tranche, or estimation of the risks associated with any Tranche.

Affiliate has the meaning set forth in the prevailing Master SSO Supply Agreement.

Announced Price is the price of a Product in effect during a bidding round of the auction.

Applicant refers to a Party that has submitted or has indicated that it intends to submit a Part 1 Application or a Part 2 Application.

Associated Bidders are two or more bidders with ties that could allow them to act in concert or that could prevent them from competing actively against each other.

Association exists between two or more Qualified Bidders if they are Associated Bidders.

Auction Manager for this CBP is the team at CRA International, Inc. d/b/a Charles River Associates ("CRA") working on this CBP.

Auction Software has the meaning set forth in the Bidding Rules document.

Authorized Representative is a designated person that is authorized to represent the Applicant in the CBP. The Authorized Representative must ensure that only authorized persons act on behalf of the Applicant in the CBP and is responsible for ensuring that no Confidential Information is disclosed improperly.

Backup Bidding Fax Number means any telephone number provided to Registered Bidders in advance of the auction for use in submitting a bid by fax in the event of a complication with access to the Bidding Website.

Bidder means any party that may become a Qualified Bidder in the CBP or that submits bids in the CBP.

Bidding Agreement is an arrangement involving joint or coordinated bidding with any other Party.

Bidding Consortium is a group of separate businesses or business people joining together to submit joint bids in the auction.

Bidding Website means the secure Website used by Registered Bidders to participate in the CBP auction. The URL address for the Bidding Website will be provided to Registered Bidders.

Business Day has the meaning set forth in the prevailing Master SSO Supply Agreement.

Capacity has the meaning set forth in the prevailing Master SSO Supply Agreement.

Capacity Proxy Price or "CPP" - has the meaning set forth in the prevailing Master SSO Supply Agreement

CBP stands for Competitive Bidding Process.

Charge has the meaning set forth in the prevailing Master SSO Supply Agreement.

Commission (PUCO) is the Public Utilities Commission of Ohio.

Companies (FirstEnergy Ohio Utilities) means The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company, or their representatives.

Competitive Retail Electric Service Supplier (CRES Supplier) has the meaning set forth in the prevailing Master SSO Supply Agreement.

Confidential Information is non-public, competitively-valuable information that is meant to be kept nonpublic and for which precautions have been taken to have it remain non-public. Confidential information relative to bidding strategy includes information relating to a Bidder's bid, written or oral, which if it were to be made public or known to another Bidder would be likely to have an effect on any of the bids that another Bidder would be willing to submit in the CBP. Confidential information regarding the CBP includes information, written or oral, that is not released publicly by the PUCO or the Auction Manager and that a Bidder acquires as a result of participating in the CBP, which if it were to be made public could impair the integrity of the current or future CBPs, impair the ability of the Companies to hold future CBPs, harm consumers, or injure Bidders or Applicants.

Confirmed Bid is a bid submitted by a Bidder that is confirmed by the Bidding Website. A bid submitted by a Bidder is confirmed only if the Bidder receives a unique confirmation ID and time-stamp by the Bidding Website server. If the Bidder submits a bid but fails to complete the last step to confirm the bid, that bid will not be considered a Confirmed Bid.

Credit-Based Tranche Cap is the maximum possible Initial Eligibility for a Qualified Bidder based on its credit rating.

Credit Representative is the Applicant's designated in-house Credit Representative who can answer questions or provide information about the Applicant's credit with respect to the requirements for the CBP.

Customer has the meaning set forth in the prevailing Master SSO Supply Agreement.

Day(s) refer to Business Day(s), unless noted otherwise.

Default Bid refers to the bid that is assigned to a bidder with positive eligibility that does not confirm a bid in a round.

Defaulting Party has the meaning set forth in the prevailing Master SSO Supply Agreement.

Delegate is authorized by the Applicant to be a secondary point of contact for the Auction Manager.

Delivery Period has the meaning set forth in the prevailing Master SSO Supply Agreement.

Eligibility is the maximum number of Tranches a Bidder can bid across all Products in a bidding round. From round to round, a Bidder's Eligibility cannot increase; it can only stay the same or decrease.

Energy has the meaning set forth in the prevailing Master SSO Supply Agreement.

FERC has the meaning set forth in the prevailing Master SSO Supply Agreement.

FirstEnergy Ohio Utilities (Companies) means The Cleveland Electric Illuminating Company, The Toledo Edison Company, and Ohio Edison Company, or their representatives.

Form of SSO Supplier Letter of Credit is an attachment to the Master SSO Supply Agreement.

Goodwill is an intangible asset which is the amount by which the purchase price of an acquired entity exceeds its net tangible asset value.

Guarantor has the meaning set forth in the prevailing Master SSO Supply Agreement.

Guaranty has the meaning set forth in the prevailing Master SSO Supply Agreement.

Help Desk means the Auction Manager's resource available to provide technical assistance during a CBP auction.

Indicative Offer made by a Qualified Bidder specifies two (2) numbers of Tranches for each Product in the auction. For each Product, the first number represents the number of Tranches that the Qualified Bidder is willing to serve at the Minimum Starting Price for the Product and the second number represents the number of Tranches that the Qualified Bidder is willing to serve at the Maximum Starting Price for the Product.

Information Website means <u>http://www.firstenergyCBP.com</u> which is the website that will be the primary online source of information about the CBP auctions.

Initial Eligibility is the Bidder's Eligibility for round 1 of the auction.

Joint Venture is an enterprise entered into by two or more people for profit with the purpose of bidding in the CBP. A Joint Venture has most of the elements of a partnership, such as shared management, the power of each venturer to bind the others in the business, division of profits, and joint responsibility for

losses. However, unlike a partnership, a Joint Venture anticipates a specific area of activity and/or period of operation, so after the purpose is completed, bills are paid, profits (or losses) are divided, and the Joint Venture is terminated.

Legal Representative is a legal counsel authorized and willing to accept service of process on the Applicant's behalf, and having an address in Ohio.

Load Cap is a limit on the number of tranches that can be bid on and won by any individual bidder. The load cap will be a specified percentage on an aggregated load basis across all auction products for each auction date such that no bidder may bid on and win more tranches than the load cap.

Load Serving Entity (LSE) has the meaning set forth in the applicable PJM Agreements.

Master Standard Service Offer Supply Agreement (or Master SSO Supply Agreement or Agreement) is the standard contract that will be used by the SSO Suppliers and the FirstEnergy Ohio Utilities.

Maximum Starting Price is the maximum Announced Price for a Product that can be set for round 1.

Minimum Starting Price is the minimum Announced Price for a Product that can be set for round 1.

Notification of Qualification is sent by the Auction Manager to an Applicant once the Applicant becomes a Qualified Bidder. The Notification is in the format set forth in Part 1 Application.

Notification to Registered Bidders is sent by the Auction Manager to the Qualified Bidder once the Qualified Bidder becomes a Registered Bidder. The Notification is in the format set forth in Part 2 Application.

Over-Subscribed Product is a Product with supply (i.e., the number of Tranches bid) greater than the Product's Tranche Target.

Part 1 Application is the first of the two parts of the application process for prospective Bidders to participate in the CBP.

Part 1 Application Due Date is the date specified in the timeline on the Information Website.

Part 2 Application is the second of the two parts of the application process for prospective Bidders to participate in the CBP.

Part 2 Application Due Date is the date specified in the timeline on the Information Website.

Party has the meaning set forth in the prevailing Master SSO Supply Agreement.

Person has the meaning set forth in the prevailing Master SSO Supply Agreement.

PJM has the meaning set forth in the prevailing Master SSO Supply Agreement.

PJM Agreements has the meaning set forth in the prevailing Master SSO Supply Agreement.

Pre-Bid Security Letter of Credit is an acceptable form for Pre-Bid Security, subject to the letter of credit itself complying with FirstEnergy Ohio Utilities' requirements.

Pre-Bid Security is posted by each Qualified Bidder in amount sufficient for the Bidder's Indicative Offer. Pre-Bid Security to be posted by a Qualified Bidder must be included as part of its Part 2 Application and must be in the form of cash or a Pre-Bid Security Letter of Credit.

Price Decrement is the reduction in the Announced Price for a given Product from one round to the next round of the auction.

Product is the SSO Load of the FirstEnergy Ohio Utilities for the Delivery Period.

PUCO has the meaning set forth in the prevailing Master SSO Supply Agreement.

PUCO Consultant means any firm and/or individual(s) retained by the PUCO for purposes of assisting the PUCO or PUCO Staff.

Qualified Bidder refers to a Party that in the judgment of the Auction Manager has successfully completed a Part 1 Application.

Registered Bidder refers to a Party that has successfully completed a Part 2 Application.

Registered User refers to a Party that has registered through the Information Website to receive information about the CBP.

Secure Application Process is the process by which a prospective bidder submits a Part 1 Application to become a Qualified Bidder and a Part 2 Application to become a Registered Bidder.

SSO Customers has the meaning set forth in the prevailing Master SSO Supply Agreement.

SSO Load has the meaning set forth in the prevailing Master SSO Supply Agreement.

SSO Service has the meaning set forth in the prevailing Master SSO Supply Agreement.

SSO Supplier has the meaning set forth in the prevailing Master SSO Supply Agreement.

SSO Supply has the meaning set forth in the prevailing Master SSO Supply Agreement.

Standard Service Offer has the meaning set forth in the prevailing Master SSO Supply Agreement.

Starting Price is the announced price in effect for round 1 of the auction.

Subscribed Product is a Product with supply (i.e., the number of Tranches bid) equal to the Product's Tranche Target.

Total Initial Eligibility means the sum across all Registered Bidders of the Indicative Offers at the Maximum Starting Prices.

Tranche has the meaning set forth in the prevailing Master SSO Supply Agreement.

Tranche Size means the fixed percentage of SSO load assigned to each tranche.

Tranche Target for a Product is the number of Tranches intended to be procured for the Product in the auction.

Under-Subscribed Product is a product with supply (i.e., the number of Tranches bid) less than the Product's Tranche Target.

					2024		2025		2026		2027	:	2028
Auction Timing	Tranche Target	Load Cap	1 2	3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9 10 11 12	1 2 3 4 5	6 7 8 9 10 11 12
Feb-24	50	40	Feb.		12 month June 2024 - Ma								
Mar-24	50	40		Mar.		24 mc June 2024 -							
Oct-24	25	20			Oct.		12 month June 2025 - Ma						
Jan-25	25	20				Jan.			onths - May 2027				
Summer	19	29					mer		12 month June 2026 - Ma				
2025	18	25					Sum			24 m June 2026			
Winter	19	30						ter	12 month June 2026 - Ma				
2026	19	30						uiv		24 m June 2026			
Fall 2026	30	24							Fail		12 months June 2027 - May		
Winter 2027	33	26								Winter	12 months June 2027 - May		

Please note that the Companies propose holding the auctions in the designated months as outlined in the corresponding columns for the auction timing.