















CUSTOMER GUIDE TO ELECTRICAL SERVICE

FREQUENTLY ASKED QUESTIONS

OPERATING COMPANY BY STATE Contact Number

Оню

OHIO EDISON 1-800-633-4766

THE ILLUMINATING COMPANY 1-800-589-3101

TOLEDO EDISON 1-800-447-3333

PENNSYLVANIA

MET-ED 1-800-545-7741

PENELEC 1-800-545-7741

PENN POWER 1-800-720-3600

WEST PENN POWER 1-800-686-0021

NEW JERSEY

JERSEY CENTRAL POWER & LIGHT 1-800-662-3115

MARYLAND/WEST VIRGINIA

MON POWER 1-800-686-0022

POTOMAC EDISON 1-800-686-0011

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NOTE

This document provides general information to customers and answers frequently asked questions regarding establishing upgrades to existing electrical service or new service. Until a work order has been created, please direct all additional questions to our Contact Center. This information is subject to change based on changes in regulatory requirements.

Please refer to your state's Customer Guide for more detailed information including the specific passages referenced within this document. To the extent there are any conflicts between this document and your state's Customer Guide, the Customer Guide should be followed.

CUSTOMER GUIDES

Ohio - Customer Guide for Electric Service

Pennsylvania - Customer Guide for Electric Service

New Jersey - Customer Guide for Electric Service

Maryland - Customer Guide for Electric Service

West Virginia - Customer Guide for Electric Service





- Q: Where can I find information regarding service and customer obligations?
- A: Information about service and customer obligations can be found here, You can also use the applicable link for your state's "Customer Guide for Electric Service".
- **Q:** How do work orders get created?
- **A:** Work orders are created via our <u>website</u> or by calling customer service for your specific operating company. Orders must be created prior to contacting regional departments like Engineering or Meter Services for requests.
- Q: When creating an order, is it okay if I do not have all the information?
- A: All details can be verified later, but a street name, service city, and state must be known for the work order to be created. Please understand incomplete information will cause delays. It is essential that your application includes the type of service (residential, commercial, etc.), the address where the service will be located (including detailed driving directions if there is no address) and contact information. These are essential for follow up and to verify next steps.
 - Q: Can I attach something to an operating company-owned pole?
 - A: Before attachments are permitted, there must be an approved attachment agreement in place. To establish a Pole Attachment Agreement, contact FirstEnergy Corporate Joint Use by email at com. Please note that the ability to attach to an operating company-owned pole is situation dependent and, depending on the nature of the attachment, may not be permitted in certain states.

NOTE

GENERAL (CONTINUED)

Q: Who should I call prior to excavation?

A: Always call 8-1-1 at least three days before excavating in any way.

Q: Will there be engineering fees?

A: Fees vary by operating company and by the type of work requested. Please consult with Regional Engineering for your specific operating company after a work order has been created.

Q: Are easements required?

A: Depending on the situation, yes. If electrical infrastructure will be placed on private property, an easement will be needed to provide rights for the utility to be there. Under applicable tariffs, the customer is required to obtain any necessary easements for the installation and maintenance of the utility's electrical infrastructure. Please consult with your assigned designer or Regional Engineering after a work order has been created.

Q: Am I able to add load without upgrading my service?

A: Always contact your operating company before adding load so it can be determined if company facilities are adequate. Customers should also contact an electrician or consultant to determine if the service is adequate. If an upgrade is required, customers may be responsible for additional costs associated with the upgrades.

Q: Can my qualified electrician break my meter seal?

A: Depending on the operating company, a qualified electrician may break the seal if maintenance is needed **but only with prior permission from the company**. Without written permission, a qualified electrician is prohibited from breaking the seal on a meter. The operating company will reseal the meter after work is complete. Please call the contact center for more information and to create an upgrade or meter reseal order.

Q: What type of access does the operating company need to install and maintain electrical equipment?

A: Permanent access is needed to install and maintain the electrical equipment on customer property.

NOTE

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PERMANENT & TEMPORARY SERVICE





Q: Are there costs associated with temporary services?

A: Yes, see chart:

New Service Work Types & Minimum Fees (Subject to Change)		
Notification Description	OPERATING COMPANY	MINIMUM FEE
	Ohio Edison, The Illuminating Company, Toledo Edison	\$200.00
Temporary Service New/Existing Customer is requesting electric service at location during initial construction phase. Met-Ed and Penelec fees are determined by the rate classification of the premise. *Minimum Fees are billed	Met-Ed and Penelec	Residential Service: \$225.00 General Service: \$560.00
	Penn Power	\$225.00
	West Penn Power	\$470.00
	Jersey Central Power & Light	\$266.56
	Mon Power, Potomac Edison (West Virginia)	\$802.33
	Potomac Edison (Maryland)	\$878.00

Q: What are the specifications of a temporary installation?

A: Detailed information is included in the applicable Customer Guide for Electric Service. For the typical requirements for temporary service structures, please refer to **Customer Guide Exhibit 3** for overhead and **Customer Guide Exhibit 4** for underground service.

PERMANENT & TEMPORARY SERVICE (CONTINUED)

Q: Where does the operating company's ownership end and customer ownership begin?

A: This varies by operating company and the nature of the service. Please refer to **Customer Guide Exhibit 1** for your operating company.

Q: How quickly will my project be completed?

A: Timeframes provided are dependent upon completion of customer obligations, easement acquisitions, storm restoration activity, and supply chain constraints — and are subject to change. See chart for **general** timeframes:

Type of Extension	LEAD-TIME*
Residential Service Drop/Lateral	4 weeks
Residential Line Extension	8 weeks
Commercial/Industrial Drop/Lateral	6 weeks
Commercial/Industrial/Line Extension	16 weeks
Residential/Commercial/Industrial Development	16 weeks
Large Residential/Commercial/Industrial Development (i.e., 20 or greater lots)	24 weeks

Above timeframes may not be possible in some cases. *Lead-times are longer in NJ. See NJ CGES for applicable timeframes.

Q: What documents do I need to supply to design/engineering?

A: Site plans & electrical loading information. Consult with Regional Engineering for any additional information that may be required after a work order has been created.

Q: How high should the single point attachment be on my building/house?

A: National Electric Safety Code (NESC) clearances must be met for the service drop/lateral over any driveway, road, or sidewalk. Please refer to **Customer Guide Exhibit 2**, and **article 5.2** for more info. Refer to **Customer Guide Exhibit 7** for typical overhead service drop attachments.

NOTE

PERMANENT & TEMPORARY SERVICE (CONTINUED)

- **Q:** What if I live in a rural area and would like to feed several locations on my property?
 - **A:** Please refer to **Customer Guide Exhibit 11** for information about Central Distribution Installation and **Customer Guide Exhibit 12** for information about Meter Installation.
- **Q:** What should my overhead or underground 400 amp or single-phase service look like?
 - **A:** Please refer to **Customer Guide Exhibit 6** for overhead and **Customer Guide Exhibit 8** for underground. For stand-alone underground services, refer to **Customer Guide Exhibit 12**.
- Q: Do I need to run my underground service lateral up the pole or into a nearby handhole where there is existing secondary?
 - **A:** It depends, your designer will consult with you about this once a work order has been created. In the meantime, please refer to **Customer Guide Exhibit 1** for service material and ownership guidelines. Please refer to **Customer Guide Exhibit 9**, **10**, **10A** and **10B** for guidelines surrounding the attachment of customer-owned secondary service laterals on company poles.
 - Q: How many service conductors can I run up the pole or into a handhole?
 - **A:** If there are two service laterals, it is possible to use a standoff bracket on the pole. Please consult with Regional Engineering after a work order has been created as a pad-mounted transformer, secondary handhole, or secondary pedestal may be better suited. Please refer to **Customer Guide Exhibit 1** for more service material and ownership guidelines.
 - **Q:** Who makes connections in a handhole or pad-mount transformer?
 - **A:** Your operating company will make final connections.
 - **Q:** What are the fees associated with requested electrical infrastructure work?
 - **A:** Please consult with your assigned designer or Regional Engineering after a work order has been created. Fees are based on extent of work scope.

NOTE

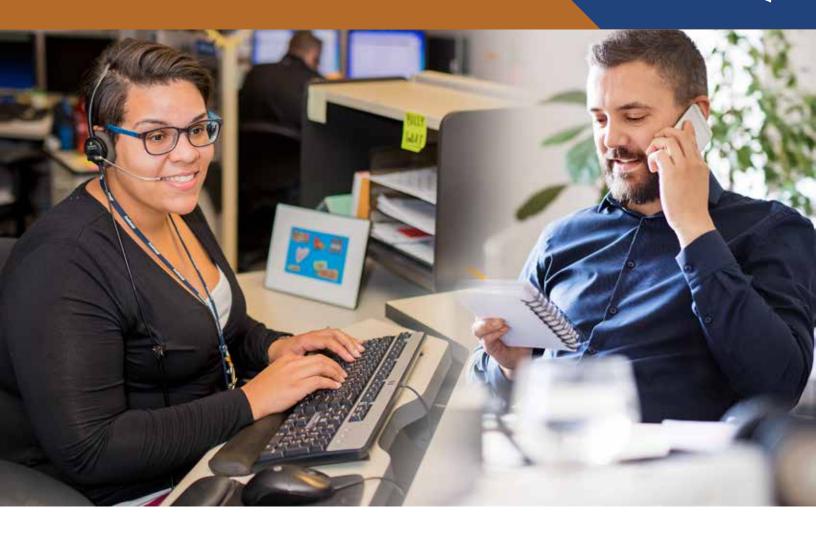
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CUSTOMER OBLIGATIONS





Q: What are the different customer obligations we should be aware of?

A: Customer obligations may include trenching, excavation, conduit purchase and installation, backfilling, tree trimming, easements, and right-of-way acquisition, among others. Please contact Regional Engineering after a work order is created, as it pertains to your specific project.

Q: What are the customer obligations for underground service?

A: In general, obligations include trenching, excavation, conduit purchase and installation, and easements. Please contact Regional Engineering after a work order is created for additional guidance. Please refer to **Customer Guide Exhibit 24** for details on typical trenching for conductor installation.

NOTE

CUSTOMER OBLIGATIONS (CONTINUED)

Q: What type of site prep is needed by the customer?

A: Truck access is needed via a drivable surface. A road may need to be built and maintained for future access. Also, vegetation may need cleared. The construction area will need to be at final grade.

Q: Do I need to purchase a transformer foundation for my service?

A: Single phase transformer foundations are provided by the operating company whereas the customer is responsible for three-phase foundations. Please consult with Regional Engineering for guidance after a work order is created. Please refer to Customer Guide Exhibit 25 for three-phase pre-cast concrete foundation, Customer Guide Exhibit 26, 27 & 28 for concrete flat-pad foundation, and Customer Guide Exhibit 29 for single-phase box pad foundation installation.

Q: What type of clearance is needed for a pad-mounted transformer or other oil filled pad-mounted equipment?

A: Please see Customer Guide Exhibit 22 & 23 for minimum clearance requirements.

Q: What are the rules for providing vehicular protection?

A: Consult with Regional Engineering after a work order is created. Generally, we may require installation of barriers. See **Customer Guide Exhibit 30**.



NOTE



- Q: Will an electrical inspection approval be needed for a new service, relocation of service, or capacity increase prior to meter installation?
- A: Yes, the electrical service is required to be inspected and approved by qualified inspectors or the electrical contractor for that specific area.
- Q: What if I would like to have my meter location moved or connections changed?
- A: The customer shall be responsible for moving the meter location and all costs incurred. The operating company will make permanent connections once the qualified electrician has completed the work on customer-owned equipment and inspection has been received (if applicable).
- Q: Where does the main electric panel disconnect switch need to be in relation to the meter?
- A: In general, the main disconnect switch is after the meter on the customer's side of the service. Refer to **Section 7.1 of Customer Guide** for exceptions. If needed, refer to **Customer Guide Exhibit 15, Exhibit 16** and **Exhibit 18**. Local electrical inspectors may have additional comments.

NOTE

METER (CONTINUED)

Q: Can I place my meter inside my building?

A: The customer shall provide space for the installation of the operating company's meters and equipment at an outside location designated by the company. Outdoor meter locations are required for all meters except when the company gives prior approval. Generally, meters should be located at the nearest practical point to company facilities and should be readily accessible; however, the operating company will ultimately designate the location for the meter. Once a work order is created, please consult with your designer or scheduler with questions. Refer to **Section 7.2** of **Customer Guide** for exceptions.

Q: At what height should my meter be installed?

A: Meter should be installed so the center of the socket is approximately 5' above the finished grade. See **Customer Guide Section 7.2**.

Q: What type of clearance is needed for the meter?

A: Clearance in front of and to the sides of meter sockets and metering equipment shall be maintained per National Electrical Code (NEC) Article 110.26 (30" width and 36" in front of the meter and extend from the grade, floor, or platform to a height of 6'6" or the height of the equipment, whichever is greater). Please see **Customer Guide Exhibit 2** and **Section 7.2**.

Q: Can I install my meter on an operating company-owned pole?

A: A customer may install a meter on a company-owned pole or customer-owned pole **only** with prior company approval. See **Customer Guide Section 7.2.**

Q: Can the operating company's equipment be placed near natural gas?

A: No, electrical equipment shall not be closer than 3' to a natural gas pipe, or natural gas equipment. See **Customer Guide Section 7.2**.

NOTE

METER (CONTINUED)

Q: What if I have indoor metering?

A: Where an indoor installation is required, the meters should generally be located on the first floor or in the basement where they shall be readily accessible to authorized company representatives. In high-rise buildings, it may be necessary to have several meter locations, possibly every other floor, or every third floor as necessary. Please consult Meter Services with questions after a work order is created. See **Customer Guide Section 7.3**.

Q: What are the minimum meter socket requirements?

A: See Customer Guide Section 7.5.

Q: If my service is greater than 400 amp and Current Transformer (CT) metering is required, what equipment does the operating company provide and what do I need to provide?

A: Meter Services will provide the instrument transformers for metering and meter sockets. Depending on your operating company, state and meter type, the customer may be responsible for purchasing and installing the CT cabinet. In West Virginia, the operating company shall provide an approved CT cabinet. Please refer to **Customer Guide Section 7.10** and **Exhibit 1**.

Q: What should my CT metering look like?

A: Please refer to **Customer Guide Exhibit 19, 20, & 21** for details about the configuration of CT metering for outdoor services with a metering cabinet, outdoor services with a building-mounted CT cabinet and underground secondary services in a pad-mounted transformer with CTs, respectively.

Q: I want to change from secondary metered service to primary metered service. What is my first step?

A: All electrical loads and panel schedules must be provided such that Regional Engineering Planning and Protection can review the load and select an appropriate voltage level and circuit for the load. Please contact Regional Engineering for additional guidance after a work order is created.

NOTE

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METER (CONTINUED)

Q: What should my three-phase or single-phase meter install look like?

A: Please refer to **Customer Exhibit 18** for three-phase and **Exhibit 16** for single-phase.

Q: Where does the customer obtain a meter socket?

A: Meter sockets may be obtained as depicted below, based on the operating company. If the company provides the socket, please contact the designer or Meter Services Supervisor after a work order is created. An approved supplier may be considered.

OPERATING COMPANY	Self-Contained 200 amp meter or less	Self-Contained 320 amp meter (400 amp service)	Greater than 320 amp service
Ohio Edison	Customer	Customer	Company
The Illuminating Company	Customer	Customer	Company
Toledo Edison	Customer	Customer	Company
Med-Ed	Customer	Customer	Company
Penelec	Customer	Customer	Company
Penn Power	Customer	Customer	Company
West Penn Power	Customer	Customer	Company
Jersey Central Power & Light	Customer	Customer	Company
Mon Power	Company	Company	Company
Potomac Edison-WV	Company	Company	Company
Potomac Edison-MD	Customer	Customer	Company

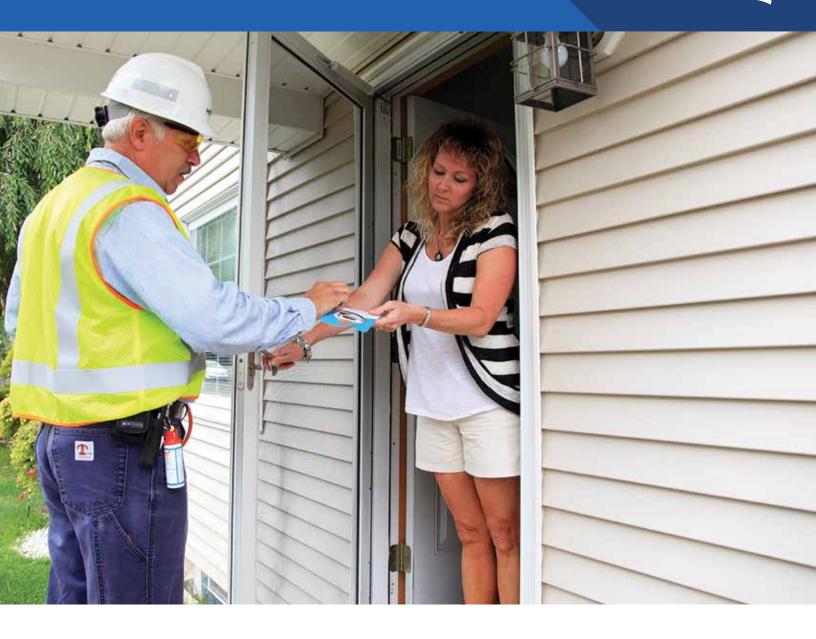
Q: How many meters per dwelling can I have? What about a multi-metered building?

A: Unless it is an apartment building or multi-tenant dwelling, only 1 meter is allowed per premise per rate type (unless there is an NEC exception). For a multi-meter premise, the customer will need to provide a distinct marking which indicates the unit being served. See **Customer Guide Section 3.4**.

Q: Can I install meter attachments or generator interfaces at the meter socket?

A: No. Please reference **Customer Guide Section 3.11**.

NOTE



Q: Are there special considerations I must be aware of if I will be installing large motors?

A: Customers need to protect their own equipment with their own relaying and/or fusing. Additionally, soft start equipment may need to be installed by the customer to avoid voltage drops on the power system and adverse effects to other customers. Anything over 10 horsepower needs to be reviewed by Regional Engineering after a work order is created. Please see **Customer Guide Section 8** and **Section 8.8**.

NOTE

CUSTOMER ISSUES (CONTINUED)

Q: What if I have low power factor?

A: Customers are required to maintain a power factor in accordance with the Customer Guide. If power factor corrective equipment is required, it must be provided and maintained by the customer at their own expense. See **Guide Section 8.2**.

Q: What if I have limited space for electrical equipment on my property?

- **A:** Customers shall provide the operating company with space to place equipment. If space is limited, a solution must be worked out with Regional Engineering after a work order is created. The operating company's equipment must always be accessible.
- Q: If I don't have space for the operating company's electrical equipment, can I furnish an electrical vault inside my building?
- **A:** It is possible. Please consult with Regional Engineering. If permitted, it is the customer's responsibility to install and maintain at the customer's expense. Only FirstEnergy equipment can be placed inside this area.
- Q: What if we cannot maintain clearance to the operating company's conductor for our site work?
- **A:** Please refer to federal, state, and NESC requirements for clearance and encroachment. Please consult with Regional Engineering after a work order is created and see **Customer Guide Section 3.20** as the operating company may cover, de-energize, or temporarily move its facilities in the work area, as it deems appropriate.



NOTE

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MISCELLANEOUS



Q: What size electric vehicle charger can I install?

A: Please consult with Regional Engineering after a work order is created.

Q: Who should I contact if I am adding generators at my facility?

A: Please visit <u>firstenergycorp.com/feconnect</u> for applications and information regarding generation interconnections as well as information surrounding solar panel installations and net metering. Consult with Regional Engineering after a work order is created for additional guidance.

NOTE

MISCELLANEOUS (CONTINUED)

Q: What type of protection will I need at my facility?

A: Customers need to protect their own equipment but surge protection is highly recommended. The operating company will supply short circuit current values for the customer to determine their appropriate protection needs. Please see **Customer Guide Section 8** and **Section 8.8**.

Q: Is the customer able to disconnect their own service lateral?

A: Customers will need to contact the operating company prior to the disconnect/ reconnect of their service lateral. Please reference **Customer Guide Section 3.12**.

Q: Can we place our swimming pool underneath/near the electric lines?

A: Swimming pools, sheds, patios, and similar structures near electrical equipment may pose a danger to people on your property due to the high-voltage power flowing through adjacent lines. Unless legal documents make provisions for such, these items are not permitted within the right-of-way under or near the company's electrical equipment. Please consult with Regional Engineering after a work order is created for possible options and NEC/NESC clearance requirements. See **Customer Guide Section 3.15**.

Q: Can I have 120/208 volt single-phase service?

A: Please consult with Regional Engineering for approval after a work order is created. 120/208 volt single-phase service is typically reserved for mixed used buildings or where underground networks may be present. Please refer to **Customer Guide Exhibit 17** for meter install info.



NOTE

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MOBILE HOMES





Q: If I am relocating my mobile home onto a property that already has a metered service, is an inspection required?

A: Generally, yes. Please consult with Regional Engineering after a work order is created.

Q: What should my mobile home serviced look like?

A: See Customer Guide Exhibit 13.

Q: What if I have multiple services at a mobile home park?

A: See Customer Guide Exhibit 14.

NOTE

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	GENERAL TIMELINE FOR DESIGN WORK		
Design work orders require engineering to review the electrical infrastructure to determine feasibility and costs to provide service.			
Day 1	Customer calls in to create order as soon as possible .		
Week 1	Job will be assigned. Designer will make contact.		
Week 2	Customer will provide load estimates and site plan.		
Weeks 2-8	Designer will visit site and meet customer to discuss project. Designer will have preliminary cost and design completed within 2-4 weeks of site visit.		
Weeks 9-11	Customer and designer will review and finalize design. Designer will provide cost estimate and other documents to be signed. Once payment is received, job package will be released to line shop for scheduling and construction. Job package will not be released to line shop for scheduling and construction until payment is received from the customer.		
Weeks 12+	During this time, customer should have an inspection completed by their local authority and sent to the operating company dependent on requirements. Please work with Pegional Engineering to determine if this		

This general timeline is dependent on customer readiness, easement acquisitions, storm restoration activity and the customer's ability to provide information.

Please consult with line shop for specific dates.

is applicable.

requirements. Please work with Regional Engineering to determine if this

After payment is received job will be scheduled by the local line shop.

NOTE

Weeks 10-16

GENERAL TIMELINE FOR ACCELERATED WORK

Accelerated work orders are generally for meter installation, or meter + service lateral installation.

Day 1	Customer calls order in.
Week 1	Line shop/designer reviews the order and contacts customer. During this time, the customer should have an inspection completed (if applicable, depending on operating company/region).
Week 2	Once inspection received, the operating company will provide service by installing a meter and/or connecting service lateral.



Contact regional designer/scheduler for scheduling timeframe.

Non-service-related accelerated work does not necessarily follow this timeline.

Contact information for regional departments will be provided once a work order has been created.

NOTE

CUSTOMER CHECKLISTS





Called to create work order as soon as possible.
Provided actual service address during work order creation process.
Electrical Loading and Panel Schedules provided to designer.
Site Plan provided to designer.
For new construction, customer site is surveyed and staked with appropriate markers.
Customer obligations met. This includes trenching, excavation, etc. Regional Engineering will provide specifications based on actual work being completed.
Understanding that all pertinent documents must be signed, and payment must be posted as received prior to jobs being released to local line shop for scheduling and construction.
Understanding of electrical inspection requirement dependent on operating company and this is the responsibility of the customer to coordinate.
Ensured work site is cleared of vegetation and is accessible for crews to complete construction and for future maintenance.
Provided adequate space for electrical infrastructure clearance.

NOTE

If there are additional questions, please refer to the <u>Customer Guide for Electric Service</u> for your state or call our <u>Contact Center</u>.



Ohio Edison • The Illuminating Company • Toledo Edison Met-Ed • Penelec • Penn Power • Jersey Central Power & Light West Penn Power • Mon Power • Potomac Edison