

RULES FOR ELECTRIC METER & SERVICE INSTALLATIONS



DEFINITIONS/TERMS/ACRONYMS

The terms used through these rules are defined as follows:

240 DELTA – HIGH LEG, WILD LEG, RED LEG, DELTA LEG - In a 4-wire, 3 phase Delta service, this is the phase with a higher voltage phase to neutral than the other two phases.

AMPERES INTERRUPTING CAPACITY (AIC) – The highest available symmetrical rms alternating current at which the protective device has been tested, and which it has interrupted safely under standardized test conditions. AIC is also known as fault clearing capacity.

ALTERNATE SERVICE – PPL EU furnishes one source of service to a single point of service to a premises. However, when a customer requests an alternate source of service, PPL EU will install the additional facilities required providing the customer agrees to compensate PPL EU for the estimated cost of the additional facilities maintained for the alternate service for the future estimated costs of continuing the alternate service.

BORDERLINE CUSTOMER – A customer located in the service area of an electric utility system and billed by such system but who is provided with electricity service from a neighboring utility system by appropriate arrangement between the two systems.

BUS – An electrical conductor which serves as a common connection for two or more electrical circuits. A bus may be in the form of rigid bars, either circular or rectangular in cross section or in form of stranded-conductor overhead cables.

COLD SEQUENCE – In a cold meter sequence a disconnecting device is located on the line side (before) of the metering equipment.

COMPANY - Herein after PPL Electric Utilities Corporation is called "PPL EU", "PPL", "the Company", or "PP&L".

CURRENT TRANSFORMER (CT) – A current transformer is an instrument transformer designed for the measurement or control of current. Its primary winding, which may be a single turn or bus bar, is connected in series with the load. It is normally used to reduce primary current by a known ratio to within the range of a connected measuring device.

CURRENT TRANSFORMER MOUNTING BRIDGE – Referred to as Benelex.

CUSTOMER – A customer is an individual, firm, organization or other electric utility which purchases electric service at one location under one rate classification, contract or schedule. **Note 1** – If service is provided to a customer at one location through more than one meter and under several rate classifications or schedules but only for one class of service (for example, separate meters for residential regular and water heating service), such multiple rate services shall be counted as only one customer at the one location. **Note 2** – Where service is used for only part of a month the bill will be prorated. **Note 3** – Those customers purchasing electricity for their own use and not for resale.

CUSTOMER POLE – A pole provided and owned by a customer. The pole is generally used as part of the customers' service facilities.

DEMAND – The rate at which electric energy is delivered to or by a system, part of a system, or a piece of equipment expressed in kilowatts or other suitable unit at a given instant or averaged over any designated period of time. The primary source of "demand" is the power-consuming equipment of the customer.

DISTRIBUTION – The act or process of distributing electric energy from convenient points on the transmission or bulk power system to the consumers.

DISTRIBUTION LINE – One or more circuits of a distribution system on the same line of poles, supporting structures or underground system operating at relatively low voltage as compared with transmission lines.

DISTRIBUTION SYSTEM – The distribution system includes all lines energized at voltages less than the nominal 69,000 volts (69 kv).

EDISON ELECTRIC INSTITUTE (EEI) – The association of United States shareholder-owned electric companies, international affiliates and industry associates worldwide.

FAST TRACK PROGRAM – A PPL EU program that authorizes electrical contractors to be allowed to upgrade existing service entrance facilities and make the permanent connection (within the scope of the Fast Track Program) between PPL EU's service drop and the customer's service entrance conductors, using approved connectors provided by PPL EU. See **REMSI Rule 34** for more information.

THE FEDERAL ENERGY REGULATORY COMMISSION (FERC) – An independent agency that regulates the interstate transmission of electricity, natural gas and oil.

FOREIGN ENERGY SOURCE – Customer owned energy sources including, but not limited to, back up generation, emergency generation, all renewable energy sources, fuel cells, etc.

FOREIGN UTILITY POLE - A pole owned by another utility company with whom PPL EU has an agreement or understanding for joint use of poles.

FURNISHED BY PPL EU, INSTALLED BY CUSTOMER – Materials as specified shall be provided by PPL EU at no expense to the customer and will be installed by the customer at their expense.

FURNISHED AND INSTALLED BY PPL EU – Either PPL EU or an authorizing agent acting on PPL EU's behalf shall provide labor and material at the expense of PPL EU for the items as specified.

HOT SEQUENCE – In a hot meter sequence there is not a disconnecting device located on the line side (before) the meter.

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) – A non-profit organization that is the world's leading professional association for the advancement of technology. The IEEE promotes the engineering process of creating, developing, integrating, sharing and applying knowledge about electro and information technologies and sciences for the benefit of humanity and the profession.

INSTRUMENT TRANSFORMER – A transformer that reproduces in its secondary circuit, in a definite and known proportion, the voltage or current of its primary circuit, with the phase relation substantially preserved. Instrument transformers allow standard meters to measure high currents and voltages.

INTERNATIONAL ASSOCIATION OF ELECTRICAL INSPECTORS (IAEI) – The association that plays a cohesive role among testing agencies, standards organizations, manufactures, distributors, contractors and inspectors in the electrical industry.

INTERNATIONAL RESIDENTIAL CODE (IRC) – The provisions of the *International Residential Code for One- and Two-Family Dwellings* shall apply to the construction, alternation, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structure. See Chapter 1 Section R101 of the *International Residential Code for One- and Two- Family Dwellings* for more information.

JUNCTION BOX – A junction box is an electrical box used to run multiple conductors in two or more directions. Metering and termination compartments (CT Cabinets) are not considered by PPL EU, to be junction boxes, they are defined as **See Metering Equipment**.

LINE EXTENSION – Any construction beyond the normal service facilities (which includes the service extension to the customer, transformers, transformer devices, service drop and meter) to extend the distribution system along the normal route of development of the distribution system to the point where the extension departs from the normal route of development and is being installed as a service extension solely for the customer.

LINE VOLTAGE – See **Primary Voltage and Secondary Voltage**.

METER BASE – A metal enclosure used to terminate service conductors and to accommodate the installation of PPL EU's self contained meter.

METER PANEL – A metal enclosure used to terminate PPL EU's secondary metering conductors and to accommodate the installation of PPL EU's secondary meter.

METER SEQUENCE - Refers to the position of the meter in the circuit. **See Hot Sequence and Cold Sequence**

METERING EQUIPMENT – Refers to self-contained meter bases, metering and termination compartment (CT Cabinets), manufactured meter stacks, metering compartments in customer owned switchgear, CT's, VT's, secondary metering panels, pad mounted metering and service termination cabinets, etc.

NATIONAL ELECTRIC CODE (NEC) – The standard as recommended by the National Fire Protection Association and adopted by the American National Standards Institute in effect at any given time for electrical wiring and apparatus.

NATIONAL ELECTRICAL SAFETY CODE (NESC) - The rules published by the Institute of Electrical and Electronics Engineers (IEEE) applying to grounding, installation, maintenance and operation of electric supply, communication, utilization equipment, lines and facilities which have been adopted as standard by the American National Standards Institute.

ON-PEAK – Energy provided during periods of relatively high system demands as specified by the suppliers.

OFF-PEAK - Energy provided during periods of relatively low system demands as specified by the suppliers.

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION (PUC) – The Pennsylvania Public Utility Commission ensures safe, reliable and reasonably priced electric, natural gas, water, telephone and transportation service for Pennsylvania consumers, by regulating public utilities and by serving as responsible stewards of competition.

PJM INTERCONNECTION (PJM) – The regional transmission organization that PPL EU is a member of. PJM ensures reliability of the largest centrally dispatched control area in North America by coordinating the movement of electricity in all or part of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

POINT OF CONTACT (POC) - The interconnection of customer facilities to the utility system generally at 138 kV and below. The point of interconnection for a customer facility will be the defined term Point of Contact (POC). Associated with the POC are the protective relay and control functions required by the utility to provide the necessary isolation of the customer facilities under fault conditions either in the customer facility or on the PPL EU system. See the PPL EU Point of Contact Document for more information.

POINT OF INTERCONNECTION – The electrical connection point where PPL EU’s service conductors meet the customers service conductors.

POINT OF SERVICE - The point in or on a premises where PPL EU’s overhead service drop or underground service lateral connects to the customer's service entrance conductors. The location is designated by PPL EU.

POTENTIAL OR VOLTAGE TRANSFORMER (PT OR VT) – An instrument transformer intended for measurement or control purposes which is designed to have its primary winding connected in parallel with a circuit, the voltage of which is to be measured or controlled.

POLYPHASE – Two phase or three phase voltages.

PREMISES - A building, group of buildings and/or contiguous parcels of land under the control of a single customer and used for a single purpose. Contiguous parcels of land separated by a public road are considered to be separate premises. Separate buildings and adjoining buildings in a group of buildings, which are directly accessible to the public and function independently from the others, are separate premises. A building is defined by the National Electrical Code as a structure which stands alone or which is cut off from adjoining structures by fire walls with all openings therein protected by approved fire doors. Fire walls and fire doors are defined by local building code.

PRIMARY VOLTAGE – Primary voltage is the voltage at which electricity is delivered from a substation to a distribution transformer. Primary voltage is greater than 600 volts.

RENEWABLE ENERGY SOURCE – An energy source which comes from natural resources such as sunlight, wind, rain, tides, bio-digestion, geothermal heat, etc. which are renewable (naturally replenished).

RESIDENTIAL DWELLING – A residential dwelling is defined as a living space consisting of at least permanent provisions for shelter, dining, sleeping, cooking and sanitation when all such amenities are served through the same meter.

ROADWAY – A roadway is any public or private road and unless otherwise specified it also includes other locations subject to vehicular traffic including but not limited to alleyways, driveways, loading docks and parking lot areas, etc.

RULES FOR ELECTRIC METER AND SERVICE INSTALLATION (REMSI) – These are the Rules for Electric Meter and Service Installations as referred to in **Rule 2** of the electric service tariff of PPL Electric Utilities Corporation (PPL EU) on file with the Pennsylvania Public Utility Commission (PUC). Nothing in these rules shall in any way conflict with the requirements of the National Electric Code, the National Electric Safety Code or with any national, state or municipal ordinance applying to electrical installations. These rules are issued to advise the customer, architect, engineer or electrical contractor of the general type of wiring and electrical apparatus and method of installation acceptable to PPL EU. All sketches included in this document are for illustration only; PPL EU will provide detail construction drawings upon request from the customer.

SECONDARY SERVICE – Service provided at less than 600 Volts.

SECONDARY VOLTAGE – Secondary voltage is the voltage at which electricity is delivered from the distribution transformer to the customer. Secondary voltage is less than 600 volts.

SERVICE – As used herein refers to the supply of PPL EU's product "electric energy" to the customer.

SERVICE AREA – Territory in which a utility system is required or has the right to provide electric service to ultimate customers.

SERVICE DROP / SERVICE WIRES – That portion of an overhead service installation provided by PPL EU between its pole or aerial support and the point of connection to the customer's service entrance conductors.

SERVICE ENTRANCE – The customer owned common point of termination for PPL EU's service lateral/service drop. A service drop refers to an overhead service and a service lateral refers to an underground service.

SERVICE ENTRANCE CONDUCTORS – The portion of an overhead or underground service installation served by the customer between PPL EU's service drop or service lateral and the customer's service equipment.

SERVICE DISCONNECTING EQUIPMENT - The necessary equipment, usually consisting of circuit breaker(s) or switch and fuses and their accessories, located near the point of entrance of service conductors to a building or other structure, or an otherwise defined area, and intended to constitute the main control and means of cutoff of the service.

SERVICE INSTALLATION - The connection between PPL EU's distribution system and the customer's service equipment is a service installation and is commonly referred to as "a service". This generally consists of the Service Drop or Service Wires, Service Lateral, and Service Entrance Conductors.

SERVICE LATERAL – The portion of an underground service installation served by PPL EU between its overhead or underground distribution mains and the point of connection to the customer's service equipment.

SERVICE TERMINATION COMPARTMENT – The interconnection point where PPL EU's service conductors connect to the customer's service entrance conductors.

SERVICE VOLTAGE – Service Voltage is the voltage of PPL EU's service to a particular customer.

STANDBY SERVICE – Service that is not normally used but which is available through a permanent connection in lieu of, or as a supplement to, the usual source of service.

SUB-METERING – Re-metering of purchased energy by a customer for distribution to his tenants through privately-owned or rented meters.

SUBSTATION – A substation is an assemblage of equipment for the purpose of switching and/or changing or regulating the voltage of electricity. Service equipment, line transformer installations, or minor distribution or transmission equipment are not classified as substations.

SWITCHING STATION – An assemblage of equipment for the sole purpose of tying together two or more electric circuits through switches selectively arranged to permit a circuit to be disconnected, as in case of trouble, or to change the electric connections between the circuits, a type of substation.

TARIFF – The schedules of rates or charges of PPL EU and its associated rules and regulations as filed with the regulatory agency having jurisdiction over its operations.

TEMPORARY SERVICE – Service provided for construction purposes of limited duration and served to a single point through one meter.

TRANSFORMER – An Electromagnetic device for changing the voltage of alternating-current electricity.

TRANSFORMER BANK – The installation of two or more transformers in a single location to serve customer(s).

TRANSFORMER PAD MOUNT – A transformer sitting on a pad on the ground.

TRANSFORMER VAULT – Enclosure for housing transformers located either above or below grade to serve customer(s).

TRANSMISSION – The act or process of transporting electric energy in bulk from a source or sources of supply to other principal parts of the system or to other utility systems.

TRANSMISSION LINES – Lines with nominal phase to phase voltages of 69,000 Volts (69 kv) or higher.

UNIFORM CONSTRUCTION CODE (UCC) – The UCC was established to provide uniform standards for new construction and renovations around the state of Pennsylvania. Commercial buildings will comply with the *International Building Code (IBC)*; residential builders will choose either the, *International Residential Code (IRC)* or *CABO (Council of*

American Building Officials) code. The code applies to almost all buildings, excluding manufactured and industrialized housing (which are covered by other laws), agricultural buildings and certain utility and miscellaneous buildings.

U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH

ADMINISTRATION (OSHA) – Their mission is to assure the safety and health of America’s workers by setting and enforcing standards, providing training, outreach and education, establishing partnerships, and encouraging continual improvements in workplace safety and health.

VOLTAGE – The electric pressure measured in volts. It is generally a nominal rating based on the maximum normal effective difference of potential between any two conductors.

WORK REQUEST NUMBER – The unique number assigned by PPL EU for the purpose of designing, tracking, constructing and billing a project.

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