

# Section 1

# Definitions

## PURPOSE

These definitions are presented to establish a common understanding since some words have more than one meaning. All definitions are to provide clarity of meaning and to establish the intent of a word's usage in relationship to this manual.

### Access, Safe

*(Safe Access). A clear access to customer premises free from danger or the risk of bodily harm or injury; capable of being reached quickly for meter reading, maintenance, repairs, testing, installation or removal of the District's property per WAC 480-100-168 and WAC 480-100-308; without the need to make prior arrangements or notification; not guarded by dogs; not blocked by obstacles; not requiring those to whom safe access is a requisite to climb over, move or remove obstacles or resort to portable ladders, chairs, etc. Must have minimum working clearance for equipment involved per NEC, WAC and/or the ESR.*

### Accessible, Readily

*(Readily Accessible).*

*A clear access to customer premises free from danger or the risk of bodily harm or injury; capable of being reached quickly for meter reading, maintenance, repairs, testing, installation or removal of the District's property per WAC 480-100-168 and WAC 480-100-308; without the need to make prior arrangements or notification; not guarded by dogs; not blocked by obstacles, locked doors, elevation or other means; not requiring those to whom safe access is a requisite to climb over, move or remove obstacles or resort to portable ladders, chairs, etc. Must have minimum working clearance for equipment involved per NEC, WAC and/or the ESR.*

*A room, balcony, porch or attached deck is considered readily accessible to pedestrians if it can be casually accessed through a doorway, window, ramp, stairway or permanently mounted ladder by a person, on foot, who neither exerts extraordinary physical effort nor employs tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is 2.45 m (8 ft.) or more from the ground or other permanently installed surface. NESC 243.C.3.d.(1)b.*

## Section 1. Definitions

### **Ampacity**

*The current in amperes a conductor and/or equipment can carry continuously under the conditions of use without exceeding its temperature rating.*

### **Ampere (Amp)**

*The unit of current strength or rate of flow of electricity, represented by the letter “I”.*

### **Approved**

*Acceptable to the authority having jurisdiction.*

### **Appropriate Room**

*A suitable space free of obstruction, accessible for safe working conditions on all electrical equipment.*

### **Associated Equipment**

*As related to metering equipment—the meter socket, instrument enclosure, test switch, etc.*

### **Backfill**

*Select backfill shall be defined as; selected natural earth soil containing no rocks or other naturally occurring object larger than an averaged sized thumb nail. Backfill shall not contain crushed rock or other sharp objects which could cause damage to a conductor's insulation or to a conduit's integrity.*

### **Bonding**

*The permanent joining of metallic parts to form an electrically conductive path which will assure electrical continuity and the capacity to conduct safely any current likely to be imposed.*

### **Building**

*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.*

### **Cabinet**

*An enclosure designed for surface or flush mounting, and provided with a frame, mat or trim on which swinging doors are hung.*

### **Common Ground Point (Grounding Electrode Conductor)**

*The conductor used to connect the grounding electrode to the equipment grounding conductor and/or to the grounded conductor of the circuit at the service.*

### **Concealed**

*Rendered inaccessible by the structure or finish of the building. Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.*

## Section 1. Definitions

### Conductor

**Bare:** *A conductor having no covering or electrical insulation whatsoever.*

**Insulated:** *A conductor encased within material of composition and thickness as defined by NEC Code as electrical insulation.*

### Conduit

*A listed or approved wireway with a smooth interior surface so as to permit easy pulling of the electrical conductors. A conduit may be either metallic or non-metallic depending on its usage in accordance with NEC Code and District Standards.*

### Convenience Pole

*A service drop support/attachment pole specifically for the benefit of the customer, paid for by the customer, installed, owned, and maintained by the District.*

### Current Transformer Enclosure

*(Commonly called a CT Can) This is an enclosure used to house metering current transformers. These enclosures shall conform to the requirements of Section 5.K.5 on page 5-26.*

### Customer

*Any person, firm or corporation who requests, contracts for, or uses electrical energy from the District's facilities.*

### Customer Engineer

*The designated representative of the District who is responsible for providing effective design and/or coordination of new or revised services to District customers and providing accurate responses to inquiries on policies, standards, practices, rates and energy utilization.*

### Demand

*The maximum average kilowatt load used by the customer for a specific period of time during the billing period.*

### Developer

*The person, firm or corporation who requests and contracts for the District's electrical service for the intent of developing some subdivision, trailer park, commercial and/or industrial structure for sale, rent or lease to others.*

### Direct Burial

*The installation of appropriate electrical conductors in a trench without the use of conduit.*

## Section 1. Definitions

### **Disconnect(s)**

*A device, or group of devices, or other means by which the conductors of a circuit can be disconnected from their source of supply.*

### **District**

*Public Utility District No. 1 of Snohomish County.*

### **District Service Policy**

*Used in reference to and in place of the Customer Electric Service Policies.*

### **Electrical Inspector**

*The qualified representative of the District, City of Everett, City of Lynnwood, City of Mountlake Terrace or the State of Washington Department of Labor and Industries who has been authorized by these governmental agencies to inspect electrical service installations on their behalf.*

### **Electrical Service**

*The supply of electrical energy from the District's electrical facilities to that of the customer.*

### **Enclosure**

*The case or housing of apparatus, or the fence or walls surrounding an installation to prevent personnel from accidentally contacting energized parts, and/or to protect the equipment from physical damage.*

### **Engineer**

- (1) *The designated representative of the District who designs and/or causes to be designed, construction drawings (work sketches) for the purpose of expanding and/or improving the District's electrical system.*
- (2) *The designated representative of the District who, because of his or her training, is assigned engineering responsibilities.*

### **EUSERC**

*Electric Utility Service Equipment Requirements Committee*

### **Ground**

*As used in context with the neutral system shall refer to that conducting connection whether intentional or accidental between an electrical circuit or equipment and earth, or to some conducting body which serves in place of the earth.*

## Section 1. Definitions

### Ground Rod

*(1) A rod that is driven into the ground to serve as a ground terminal, such as a copper-clad rod, solid copper rod, galvanized iron rod or galvanized pipe. (2) A conducting rod serving as an electrical connection with the ground. (Note: The District requires 5/8" x 8' copper-clad steel ground rods on it's system).*

### Group Installation

*More than one electrical device such as panels, meters, motors, etc., connected together by a common electric circuit.*

### Grout

*Cement mortar used for patching and for filling holes on and in concrete vaults and handholes.*

### Guying Facility

*Cables or braces used to relieve the strain on masts and poles due to overhead conductors.*

### Handhole

*Below grade enclosure for conductor termination. A handhole is typically prefabricated of concrete or polymer materials.*

### Hertz (Hz)

*Cycles per second, referring to the frequency of alternating current (60 HZ).*

### High Leg

*The phase leg that is at higher potential than any other two phase legs to ground (High, Wild, Odd). This leg shall be color coded "**Orange**".*

### Inspecting Authority

*The District's Representative shall have the authority to inspect the customer's wiring before or during the time service is supplied.*

*The District's Inspecting Representative has the authority to see that all service entrance equipment, customer provided transformer pad sites, trenching, conduits and meter poles are in compliance with all District Policies and the Electrical Service Requirements.*

*Other Inspecting Authorities have the obligation and authority to inspect a customer's wiring and service entrance equipment to see that they are in compliance with the local authority's requirements.*

## Section 1. Definitions

### **Instrument Transformer**

*Current and/or potential (voltage) transformers used in connection with metering equipment to monitor high current loads and/or high voltage potentials.*

### **Kilowatt**

*One thousand watts expressed in kW, equal to 1.341 Horsepower also equal to 56.92 BTU's/minute, or 1 kilowatt-hour equals 3413 BTU's (British Thermal Units).*

### **Listed**

*Equipment or material included in a list published by a nationally recognized testing laboratory, inspection agency, or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.*

### **Load Center**

*Necessary equipment usually consisting of circuit breakers, fuses or switches located near the entrance of the supply conductors intended to constitute the main control and means to disconnect the customer's electric service.*

### **Locked Rotor Current**

*The steady-state current taken from the line with the rotor locked and with rated voltage (and rated frequency in case of alternating-current motors) applied to the motor.*

### **Meter Equipment**

*Any equipment associated with measuring electric energy.*

### **Meter Pole**

*The pole which supports the metering equipment, which is paid for, owned and maintained by the customer. The District may provide and install the meter pole for a fee to the customer.*

### **Metering Room**

*A permanently dedicated readily accessible, secured room with an exterior door entrance, used for the installation and maintenance of the customer's electrical metering equipment.*

### **Meter Socket**

*Any receptacle in which an electric meter may be installed.*

### **Motor Protective Device**

*A device which protects the motor against dangerous overheating due to overload, failure to start, or single-phasing in the case of a three phase motor.*

## Section 1. Definitions

### **Motor Starting Limitations**

*Limits placed by the District on maximum starting current for 60 HZ motor.*

### **NEC**

*The National Electrical Code, current edition at the time of reference, as adopted and administered by the Public Utility District No. 1 of Snohomish County or other jurisdictional agency. (Refer to State of Washington addendum to NEC).*

### **NEMA**

*National Electrical Manufacturers Association.*

### **NESC**

*National Electrical Safety Code.*

### **Non-Inductive Load**

*A resistive load being either capacitive or resistive.*

### **Ohm**

*A unit of electrical resistance or impedance.*

### **OSHA**

*Occupational Safety and Health Administration.*

### **Oxide Inhibitor**

*A compound used to retard oxidation of electrical connections.*

### **Pad**

*A reinforced concrete slab, sized to support particular electrical equipment, e.g., transformers and switchgear.*

### **Pedestal**

*A below grade plastic or concrete enclosure for termination of underground secondary service conductors.*

### **Permanent**

*Lasting or intended to last indefinitely or for a long time.*

## Section 1. Definitions

### Point of Connection

*The point at which the District's secondary conductors are attached to the customer's or the customer's conductors/equipment.*

*Overhead Residential or Commercial – at the customer's service entrance mast.*

*Underground Residential – at the metering point (meter base or current transformer).*

*Underground Temporary Residential or Commercial, at the pedestal, pad-mounted transformer or the secondary termination enclosure.*

*Underground Commercial Secondary Metered - at the pedestal, pad-mounted transformer or the secondary termination enclosure.*

*Underground Commercial Primary Metered - District Owned Transformer - at the transformer, secondary pedestal or secondary termination enclosure.*

*Underground Commercial Primary Metered - Secondary voltage customer's responsibility*

### Point of Service

*Refer to Point of Connection.*

### Primary

*The District's voltage and phase configuration used to transmit or distribute voltage to the high side of the transformation equipment. Normally greater than 600 volts.*

### Private Property

*Land owned in fee-simple title by an individual, individuals or corporations.*

### Private Right-of-Way

*Lands set aside and designated for use by private individuals, and public or private utilities.*

### Public Right-of-Way

*Land acquired by/or dedicated to a governmental agency for public use and for general public access and utilities, such as streets, alleys, boulevards and walkways.*

### RCW

*Revised Code of Washington.*

### Representative

*Any employee of the District authorized to act for the District in its behalf.*

### Readily Accessible

*See Accessible, Readily.*



## Section 1. Definitions

### **Residence**

*A space for a single-family dwelling.*

### **Safe Access**

*See Access, Safe.*

### **Seal**

*The locking device used to secure meter and/or service entrance equipment to assure safety and security for the unit.*

### **Sealing**

*The use of a putty or sealant product to seal a conduit end, service conduit or associated equipment to prevent entry of moisture or contaminants.*

### **Secondary**

*The lower voltage after transformation used to supply the customer with electrical energy. Normally less than 600 volts.*

### **Service**

*The conductors and equipment for delivering energy from the electric supply system to the wiring system of the premises served.*

### **Service Attachment Device**

*An approved mechanical and electrical insulator termination for the overhead service conductor termination of the District's system at the customer's point of attachment.*

### **Service Conductors**

*The supply conductors that extend from the street main or from transformers to the service equipment of the premises supplied.*

### **Service Drop**

*The overhead conductors from the last pole or other aerial support to and including the splices, if any, connecting to the service-entrance conductors at the building or other structure.*

### **Service-Entrance Conductors, Overhead System**

*The service conductors between the terminals of the service equipment and a point usually outside the building, clear of building walls, where connected by tap or splice to the service drop.*

### **Service-Entrance Conductors, Underground System**

*The service conductors between the terminals of the service equipment and the point of connection to the service lateral.*

## Section 1. Definitions

### Service Equipment

*The necessary equipment, usually consisting of a meter socket, circuit breaker or switch and fuses, and their accessories, located near the point of entrance of supply 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 supply.*

### Service Mast

*The conduit above the meter used to provide mechanical protection for the service conductors and support for the overhead service drop from the District's system.*

### Service Pole

*A service drop support/attachment pole necessary to provide adequate clearance and support of the service conductor, installed, owned, and maintained by the District.*

### Service Point

*The point of connection between the facilities of the serving utility and the premises wiring.*

### Service Riser

*The conduit below the meter used to provide mechanical protection for the service conductors and support for the underground service drop from the District's system.*

### Single Service

#### Overhead

Single Family, Duplex, Commercial, Multiple-Occupancy and Mixed Use Buildings:  
*Customer installed service entrance conductors and equipment shall be grouped at one location and installed in compliance with the District's Electrical Service Requirements and in such a manner so as to enable a single District installed service drop to supply and connect to all sets of service entrance conductors at a single location. (continued on page 1-10)*

#### Underground

Single Family and Duplex Dwellings:  
*Customer provided metering and service entrance equipment shall be located and configured per the District's Electrical Service Requirements so as to enable one set of District owned service conductors to supply and connect to service conductors at a single location.*

Commercial, Multiple-Occupancy and Mixed Use Buildings:  
*Customer owned and supplied service conductors shall be installed in compliance with the District's Electrical Service Requirements, connected together at the District's supply end, and connected together at the load end in a single enclosure (on a common bus) at the customer's metering or service equipment. Additional service or metering enclosures (busses) may be allowed by special permission.*

## Section 1. Definitions

### **Span**

*The length of conductors between two supporting structures.*

### **Standards**

*The authorized or accepted design principles as they apply to engineering, construction, and operation of the District's electrical facilities. Standards may be either pictorial or written.*

### **Temporary Service**

*An electrical service installed by the District to provide power on a temporary basis to a customer, **for a maximum period of 18 months.***

### **Temporary Service Equipment**

*The necessary equipment, usually consisting of a meter socket, circuit breaker or switch and fuses, and their accessories, on an approved temporary structure, intended to constitute the main control and means of cutoff of the supply.*

### **Underground Residential**

*A residential area supplied by an underground electrical distribution system.*

### **UL**

*Underwriters Laboratories Inc., a nationally recognized not for profit, independent organization which tests devices, systems and materials for public safety. UL produces directories which list products, systems and devices which have demonstrated the ability to meet its requirements.*

### **Vault**

*A District-approved chamber used for mounting electrical equipment therein. A vault is typically prefabricated of steel-reinforced concrete.*

### **Volt**

*A unit of electro-motive force, electrical pressure, or difference of potential, represented by the letter "E".*

### **WAC**

*Washington Administrative Code.*

### **Watt**

*Unit of Electrical Power: 1 Watt = 1 Ampere x 1 Volt*

### **Weatherhead**

*Mast conduit top fitting for supporting conductors and to prevent rain/water from entering the conduit and/or related service equipment.*

## Section 1. Definitions

### **Working Platform**

*A safe, clean unobstructed floor area with safe access to all electrical equipment.  
The access and railing shall meet OSHA Regulations.*

### **Working Space**

*An area free of obstruction in front of the meters, service panels and electric equipment which provides safe access to all electric equipment and metering.*