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New Jersey Administrative Code TITLE 14. PUBLIC UTILITIES CHAPTER 5. ELECTRIC SERVICE SUBCHAPTER 1. SCOPE AND APPLICABILITY

§ 14:5-1.2 Definitions

For the purposes of this chapter, the following words and terms shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this chapter can be found at N.J.A.C. 14:3-1.1.

"Agricultural crop" means a plant that is grown in significant quantities to be harvested as food, livestock fodder, or for another economic purpose. This term includes, but is not limited to, landscape nursery stock and Christmas tree plantation stock.

"Annual System Performance Report" or "Annual Report" means an annual report containing the information requested in N.J.A.C. 14:5-8.8. This report is to be submitted to the Board by May 31 of each year.

"ANSI" means the American National Standards Institute. ANSI codes and documents may be obtained at www.ansi.org.

"Arboriculture" means the cultivation of trees, shrubs, and other woody plants.

"Benchmark" means the five-year average (2010-2014) of CAIDI and SAIFI or a value determined by the Board.

"Board" means the New Jersey Board of Public Utilities.

"Border zone" means the space from the edge of the transmission line wire zone to the outer boundary of the right of way.

"Contractor" means a person or entity, other than the Board, with which a utility contracts to perform work, furnish information, or provide material. This term includes all

subcontractors engaged by a contractor to perform any of the obligations required by a contract.

"Corrective action" means the maintenance, repair, or replacement of EDC or utility system components and structures to allow them to function with the proper degree of reliability.

"Customer Average Interruption Duration Index (CAIDI)" represents the average time in minutes required to restore service to those customers that experienced sustained interruptions during the reporting period. CAIDI is defined as follows:

$$\text{CAIDI} = \frac{\text{sum of sustained customer interruption durations per reporting period}}{\text{total number of sustained customer interruptions per reporting period}}$$

"Danger tree" is any tree on or off the right of way that could contact electric supply lines if it were to fall.

"Distribution circuit" means a three phase set of conductors emanating from a substation circuit breaker serving customers in a defined local distribution area. This includes three phase, two phase and single phase branches.

"Distribution line" means a primary electric voltage line, wire, or cable operating at greater than 600 volts, including supporting structures and appurtenant facilities that would not be considered a transmission line.

"Electric distribution company" or "EDC" means a company that has an electric distribution system and meets the definition of a public utility at N.J.S.A. 48:2-13.

"Electric distribution system" means that portion of an electric system which delivers electric energy from transformation points on the transmission system to points of connection at the customers' premises.

"Electric overhead transmission corridor" refers to the expanse of land over which electric transmission lines are located. The corridor may be comprised of multiple electric utility rights-of-way and/or circuits. The EDC may own the land in fee, have a leasehold interest, own an easement, or have certain franchise, prescription, or license rights to construct and maintain the lines with respect to such land.

"Electric utility arborist" means a person engaged in the profession of electric utility vegetation management who, through appropriate certifications, experience, education, and related training, possesses the competence to provide for or supervise, an EDCs integrated vegetation management program. The person, at a minimum, must be certified as a Utility Specialist by the International Society of Arboriculture and also as a Certifed Arborist by the International Society of Arboriculture.

"Energized conductor" means an electric circuit or piece of equipment through which electricity is flowing or usually flows. This term includes both distribution and transmission circuits and equipment.

"Grass" means a type of plant with jointed stems, slender flat leaves, and spike-like flowers.

"Hazard tree" is a structurally unsound tree on or off the right of way that could strike electric supply lines when it fails. Structural unsoundness distinguishes a hazard tree from a danger tree, such that while all hazard trees are danger trees, not all danger trees are hazard trees.

"IEEE" means a professional association for the advancement of technology, which was originally named the Institute of Electrical and Electronic Engineers. The IEEE is located at

445 Hoes Lane, Piscataway, NJ 08854. Further information can be obtained on the IEEE website at http://www.ieee.org.

"Inactive transmission line corridor" means that unused segment of the right of way that does not have transmission towers or transmission lines overhead.

"Integrated vegetation management" or "IVM" means a system of managing plant communities whereby vegetation managers set objectives, identify compatible and incompatible vegetation, consider action thresholds, and evaluate, select, and implement the most appropriate vegetation control method(s) to achieve those objectives, based on the methods' environmental impact and anticipated effectiveness, along with site characteristics, security, economics, current land use, and other factors.

"Interrupting device" means a device capable of being reclosed whose purpose includes interrupting fault currents, isolating faulted components, disconnecting loads and restoring service. These devices can be manual, automatic, or motor operated. Examples include transmission and distribution breakers, line reclosers, motor operated switches, fuses or other devices.

"Interruption" means the loss of electric service to one or more customers. It is the result of one or more component outages, depending on system configuration as well as other events. See "outage" and "major event." The types of interruption include momentary event, sustained and scheduled.

"Interruption, duration" means the period (measured in minutes, hours, or days) from the initiation of an interruption of electric service to a customer until such service has been restored to that customer. An interruption may require step-restoration tracking to provide reliable index calculations.

"Interruption, momentary event" means an interruption of electric service to one or more customers of duration limited to the period required to restore service by an interrupting device. Such switching operations by interrupting devices must be completed in a specified time not to exceed five minutes. This definition includes all reclosing operations which occur within five minutes of the first interruption. For example, if a recloser or breaker operates two, three, or four times and then holds within five minutes, the event shall be considered one momentary event interruption.

"Interruption, scheduled" means an interruption of electric power service that results when one or more components are deliberately taken out of service at a selected time, usually for the purposes of preventative maintenance, repair, construction, the preservation of the system or supply interruptions due to the scheduled unavailability of transmission import capability.

1. This interruption derives from transmission and distribution applications and does not apply to generation interruptions.

2. The key test to determine if the loss of electric service should be classified as a scheduled interruption is as follows: If it is possible to defer the interruption when such deferment is desirable, the interruption is a scheduled interruption. Deferring an interruption may be desirable, for example, to prevent overload of facilities or interruption of service to customers. Scheduled interruptions shall not be included in the CAIDI and SAIFI calculations.

"Interruption, sustained" means an interruption of electric service to one or more customers that is not classified as a momentary event interruption and which is longer than five minutes in duration.

"Interruption, unscheduled" means any interruption of electric service that is not an "interruption, scheduled."

"Lock out zone" refers to the portion of the EDC's distribution circuit, which begins at the substation or switching station and continues to the first protective device.

"Major event" means any of the following:

1. A sustained interruption of electric service resulting from conditions beyond the control of the EDC, which may include, but is not limited to, thunderstorms, tornadoes, hurricanes, heat waves or snow and ice storms, which affect at least 10 percent of the customers in an operating area. Due to an EDC's documentable need to allocate field resources to restore service to affected areas when one operating area experiences a major event, the major event shall be deemed to extend to those other operating areas of that EDC, which are providing assistance to the affected areas. The Board retains authority to examine the characterization of a major event;

2. An unscheduled interruption of electric service resulting from an action:

i. Taken by an EDC under the direction of an Independent System Operator;

ii. Taken by the EDC to prevent an uncontrolled or cascading interruption of electric service; or

iii. Taken by the EDC to maintain the adequacy and security of the electric system, including emergency load control, emergency switching and energy conservation procedures, which affects one or more customers;

3. A sustained interruption occurring during an event, which is outside the control of the EDC and is of sufficient intensity to give rise to a state of emergency or disaster being declared by State government; or

4. When mutual aid is provided to another EDC or utility, the assisting EDC may apply to the Board for permission to exclude its sustained interruptions from its CAIDI and SAIFI calculations.

Interruptions occurring during a major event in one or more operating areas shall not be included in the EDC's CAIDI and SAIFI calculations of those affected operating area(s). However, interruption data for major events shall be collected, according to the reporting requirements outlined in N.J.A.C. 14:5-8.9 and 8.10.

"Minimum reliability level" means the minimum acceptable reliability as measured by CAIDI and SAIFI data as specified in N.J.A.C. 14:5-8.10. Performance equal to or better than the minimum reliability level is acceptable. Performance that is worse than the minimum reliability level is unacceptable and may be subject to penalty.

"Mitigate" means the process of diminishing risk associated with hazard trees through application of prudent IVM techniques, which include tree removal or pruning, and

practical engineering solutions used in the judgment of the vegetation manager to make safe and eliminate or adequately reduce the risks of the hazard tree to the distribution system.

"NERC" means the North American Electric Reliability Corporation.

"Operating area" means a geographical subdivision of each EDC's franchise territory as defined by the EDC. These areas may also be referred to as regions, divisions or districts.

"Outage" means the state of a component when it is not available to perform its intended function due to some event directly associated with that component. This definition derives from transmission and distribution applications and does not apply to generation outages.

"Power quality" means the characteristics of electric power received by the customer, with the exception of sustained interruptions and momentary event interruptions. Characteristics of electric power that detract from its quality include waveform irregularities and voltage variations--either prolonged or transient. Power quality problems shall include, but are not limited to, disturbances such as high or low voltage, voltage spikes or transients, flickers and voltage sags, surges and short-time overvoltages, as well as harmonics and noise.

"Reliability" means the degree to which safe, proper and adequate electric service is supplied to customers without interruption.

"Right of way" or "ROW" means less than fee interest in property, which gives a public utility a limited right to use land owned by another person or entity for the purpose of transmitting or distributing electricity. This right is typically memorialized in an easement. This term also includes the parcel of land for which a public utility holds a right of way or easement.

"Smart Grid" means an electrical transmission or distribution grid that uses advanced sensing and control technologies, including state of the art hardware and software for monitoring and controlling electric power transmission and distribution, to distribute electricity more effectively, economically and securely.

"Step restoration" means the restoration of service to blocks of customers in an area until the entire area or circuit is restored.

"System Average Interruption Frequency Index" (SAIFI) represents the average frequency of sustained interruptions per customer during the reporting period. SAIFI is defined as:

$$\text{SAIFI} = \frac{\text{total number of sustained customer interruptions per reporting period}}{\text{total number of customers served per reporting period}}$$

"Total number of customers served" means the number of active metered accounts as of the last day of the prior calendar year or the average of 12 months of active monthly metered accounts. This number generally excludes all street lighting (dusk-to-dawn lighting, municipal street lighting, traffic lights) and sales to other electric utilities.

"Transmission line" means an electrical line, wire, or cable, (including the supporting structures) and appurtenant facilities that transmits electricity from a generating plant to electric substations or switching stations. An electric transmission line usually has a rating exceeding 69 kilovolts.

"Tree" means a tall perennial woody plant with a main trunk and branches forming a distinct elevated crown.

"Vegetation" means trees and other plants.

"Vegetation management" means the removal of vegetation or the prevention of vegetative growth, to maintain safe conditions around energized conductor(s) and ensure reliable electric service. Vegetation management consists of biological, chemical, cultural, manual, and mechanical methods to control vegetation in order to prevent hazards caused by the encroachment of vegetation on energized conductor(s), and to provide utility access to the conductor.

"Vegetation manager" or "VM" means an electric utility arborist, who is employed by an EDC to supervise and ensure the EDC's compliance with this chapter.

"Wire zone" means the land located directly under the widest portion of a transmission line. For a horizontal transmission line, the wire zone is bounded on each side by a location on the ground that is directly under the outermost transmission wire or the transmission tower, whichever is wider. For a vertical transmission array, the width of the wire zone shall be determined using the minimum safe distance specified in the North American Electric Reliability Corporation (NERC) FAC-003, version three, which is incorporated herein by reference, as amended and supplemented, and available at www.nerc.com.

"Woody plant" means any vascular plant that has a perennial woody stem and supports continued vegetative growth above ground from year to year and includes trees.

History

HISTORY:

Recodified from N.J.A.C. 14:5-7.2 and amended by R.2008 d.57, effective March 17, 2008.

See: 39 N.J.R. 3716(a), 40 N.J.R. 1684(a).

Rewrote the introductory paragraph; added definitions "Annual System Performance Report", "Board", "IEEE", "Smart Grid" and "Unscheduled interruption"; in definition "Benchmark", substituted "five-year" for "10-year" and "(2002-2006)" for "(1990-1999)"; substituted definition " 'Electric distribution company' or 'EDC' " for definition "EDC"; in definition "Interruption, scheduled", inserted "service" following "power", inserted ", the preservation of the system or supply interruptions due to the scheduled unavailability of transmission import capability", and substituted a comma for "or" following "repair"; in definition "Major event", substituted "areas" for "area(s)" and "areas(s)" and inserted a comma following "that EDC" in 1, inserted a comma following "event" in 3 and substituted "or" for "and" at the end of 3, and updated the N.J.A.C. reference in the last paragraph; in definition "Minimum reliability level", substituted "means" for "is defined as" and updated the N.J.A.C. reference; in definition "Outage", deleted 1 and deleted designation 2; and in definition "Total number of customers served", inserted "calendar". Former N.J.A.C. 14:5-1.2, Separation and protection of conductors buried in earth, recodified to N.J.A.C. 14:5-2.2.

Amended by R.2015 d.138, effective August 17, 2015.

See: 47 N.J.R. 631(a), 47 N.J.R. 2165(c).

Rewrote the section.

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