

**CHAPTER 5****ELECTRIC SERVICE****Authority**

N.J.S.A. 48:2-13.

**Source and Effective Date**

R.1997 d.99, effective March 3, 1997.  
See: 28 N.J.R. 4080(a), 29 N.J.R. 786(b).

**Chapter Expiration Date**

In accordance with N.J.S.A. 52:14B-5.1c, Chapter 5, Electric Service, expires on August 30, 2002. See: 34 N.J.R. 1390(a).

**Chapter Historical Note**

Chapter 5, Electric, was filed and became effective prior to September 1, 1969. Subchapter 4, Regulation for Residential Electric Underground Extensions, was adopted as R.1971 d.183, effective December 31, 1971. See: 1 N.J.R. 9(a), 3 N.J.R. 277(c). Subchapter 7, was adopted as R.1973 d.106, effective April 19, 1973. See: 4 N.J.R. 134(c), 5 N.J.R. 167(a). Subsequent revisions to Subchapter 7 were filed and became effective January 21, 1975, as R.1975 d.12. See: 5 N.J.R. 353(a), 7 N.J.R. 62(b). Subchapter 7 was repealed by R.1977 d.37, effective February 17, 1977. See: 9 N.J.R. 139(a). Pursuant to Executive Order No. 66(1978), Subchapter 3 expired on April 23, 1984. A new Subchapter 3, Meters, was adopted as R.1985 d.625 effective December 16, 1985. See: 17 N.J.R. 2237(a), 17 N.J.R. 2998(a). Pursuant to Executive Order No. 66(1978), Chapter 5, Electric, expired on December 16, 1990.

Chapter 5, Electric, was adopted as new rules by R.1991 d.583, effective December 2, 1991. See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a). Pursuant to Executive Order No. 66(1978), Chapter 5, Electric, expired on December 2, 1996.

Chapter 5, Electric Service, was adopted as new rules by R.1997 d.99, effective March 3, 1997. See: Source and Effective Date. See, also, section annotations.

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**SUBCHAPTER 1. PLANT****14:5-1.1 Plant construction**

The construction and installation of plant and facilities of electric utilities must be in accordance with N.J.A.C. 14:3-2.1 and, except with respect to the protection and separation of conductors buried in earth, must be in accordance with the applicable requirements of the National Electrical Code and the National Electrical Safety Code in effect at the time of construction. When and if any controversy arises as to the necessity for adopting specifications

calling for construction of a higher standard, the matter may be referred to the Board for determination.

#### Case Notes

Electric utility practiced prudent field management in choosing site for proposed distribution substation. Matter of Appeal of Atlantic City Elec. Co., 93 N.J.A.R.2d (BRC) 75.

#### 14:5-1.2 Separation and protection of conductors buried in earth

(a) The separation between buried communication and buried supply conductors or cables shall consist of not less than 12 inches of well-tamped earth, four inches of brick or three inches of concrete.

(b) Exceptions to (a) above are as follows:

1. This separation and protection is not required where supply circuits having a potential of 550 volts or less between conductors and having a total transmitted power of not in excess of 3,200 watts are laid adjacent to communication cables, if all cables are used exclusively for the operation of a railway signal or supply system and are maintained by the same company.

2. This separation and protection is not required where supply circuits have a potential of 550 volts or less between conductors.

3. This separation and protection is not required where communication and power supply conductors or cables which have a potential of over 550 volts between conductors are buried in a common trench at the same depth with random separation under the following conditions:

i. The electric system shall be wye connected with grounded neutral and a voltage not exceeding 22,000 volts to ground;

ii. The power cables shall have a concentric solidly grounded neutral. When there is no covering over the concentric neutral, grounding may be by direct burial in earth; otherwise ground rods shall be driven at all cable terminations or a separate bare copper grounding conductor not smaller than # 4A.W.G. shall be buried in the earth not more than three inches from the power cable. All neutral and grounding conductors shall be interconnected at all power cable terminations. The power cables shall meet or exceed the test requirements of the Insulated Power Cable Engineers Association—National Electrical Manufacturers Association standards for cables for transmission and distribution of electrical energy;

iii. The communication cable shall contain a metallic sheath bonded to the electric system grounded neutral at intervals of not more than 1,000 feet.

4. No separation is required between communication and supply conductors or cables located beneath transformer switch and terminal cabinets or their supporting pads or structures.

As amended, R.1975 d.215, effective July 28, 1975.

See: 7 N.J.R. 277(a), 7 N.J.R. 437(a).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

#### Cross References

Fault protection of buried cables, see N.J.A.C. 14:5-1.5.

#### 14:5-1.3 Protection at crossing of cables

(a) At all crossings where buried supply conductors or cables are above communication conductors or cables, the supply conductors or cables shall be protected from digging operations by concrete or creosoted wood plank or equivalent mechanical protective covering extending at least two feet in each direction from the point of crossing.

(b) Exceptions to (a) above are as follows:

1. This separation and protection is not required where supply circuits having a potential of 550 volts or less between conductors and having a total transmitted power of not in excess of 3,200 watts are laid adjacent to communication cables, if all cables are used exclusively for the operation of a railway signal or supply system and are maintained by the same company.

2. This protection is not required where supply conductors over 550 volts between conductors are installed in accordance with N.J.A.C. 14:5-1.2(b)3 and 4.

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

Amended by R.1997 d.99, effective March 3, 1997.

See: 28 N.J.R. 4080(a), 29 N.J.R. 786(b).

Changed N.J.A.C. references.

#### 14:5-1.4 Protection of cables installed parallel

(a) Where buried communication and buried supply conductors or cables are installed in the same trench generally parallel to each other, the buried supply conductors or cables shall be covered with concrete or creosoted wood planking or equivalent mechanical protection, except that this covering may be omitted in the following cases:

1. Where the voltage of the supply conductors does not exceed 550 volts between conductors;

2. Where the supply conductors or cables are encased in a continuous metallic sheath effectively grounded;

3. Where the supply conductors or cables are installed more than two feet horizontally from communication conductors;

4. Where supply conductors over 550 volts between conductors are installed in accordance with N.J.A.C. 14:5-1.2(b)3.

(b) This separation and protection is not required where supply circuits having a potential of 550 volts or less between conductors and having a total transmitted power of

not in excess of 3,200 watts are laid adjacent to communication cables, if all cables are used exclusively for the operation of a railway signal or supply system and are maintained by the same company.

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

**14:5-1.5 Fault protection**

Where buried communication and power supply conductors of 550 volts or more between conductors are installed in the same trench without separation and in accordance with the requirements of N.J.A.C. 14:5-1.2, the cable shall be protected by devices capable of clearing phase to ground faults.

Amended by R.1991 d.583, effective December 2, 1991.  
See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).  
Editorial or stylistic change only.

**14:5-1.6 Identification of conductors**

Each company using a random burial method of the underground system shall properly identify their cable, and employees of a company shall know the identification of the cable belonging to their company.

**14:5-1.7 Ground protection**

(a) Where communication and power supply conductors are buried in the same trench without separation, the following ground protection shall be provided:

1. At each transformer and/or pedestal installation all grounds, sheaths and neutrals shall be interconnected. The common neutral conductor shall normally be continuous. Where straight splices are required in the common neutral, only two ends of the conductors shall be joined with one conductor. All interconnections, including equipment neutral connections, to the common neutral required by N.J.A.C. 14:5-1.2 through 1.8 shall be made by taps to the common neutral.

2. Telephone protectors, communication service cable shields and secondary neutrals shall be connected to a common ground at each customer's service entrance when communication circuits are underground without separation from power conductors.

Amended by R.1991 d.583, effective December 2, 1991.  
See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).  
Editorial or stylistic change only.

**14:5-1.8 Depth of buried cables**

Where communication and power supply cables of over 550 volts between conductors are buried without separation in the same trench or without mechanical protection, the power cable shall be buried to a minimum of 30 inches of cover except under railroad tracks where they shall be buried with a minimum cover of 42 inches. In rock, 24 inch minimum cover will be acceptable or a lesser cover will be accepted where an adequate means of mechanical protection is provided.

**14:5-1.9 Inspection of property**

Each electric utility shall inspect lamps and street lighting accessories and maintain such service in accordance with established practice. Whenever any transformers, high tension insulators, and equipment are removed from the system

for any reason they shall be inspected as to safety and serviceability before being reinstalled in the same or other location.

**SUBCHAPTER 2. SERVICE****14:5-2.1 Service connections; electric**

(a) In areas not specifically designated as "underground zones" each electric utility shall supply without cost to the customer at least 150 feet or more if no pole or structure is involved of overhead service connection as measured from the curb line nearest to the customer's facilities. Where the customer desires an underground service connection such facilities shall be provided, installed and maintained at the customer's sole cost and expense.

(b) In areas specifically designed as "underground zones" each electric utility shall supply without cost to the customer not more than 30 feet of underground service connection as measured at right angles to the curb nearest the point of service connection to the customer's facilities provided that an electric utility shall not be required to supply a service connection in whole or in part under or within a building.

(c) If the length of service connection exceeds the amount mentioned in (b) above, the customer may be required to pay for the cost of such excess.

(d) No utility shall be required to install service for a single phase motor having a rating greater than five horsepower.

Amended by R.1991 d.583, effective December 2, 1991.  
See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).  
Editorial or stylistic change only.

**14:5-2.2 Polyphase service**

Where polyphase service is available, or can be made available in accordance with the rules and regulations in the utility's tariff, an applicant for polyphase service for a motor installation shall be supplied polyphase service where any one motor is over ten horsepower, or where any one motor is between five horsepower and ten horsepower and the supply of such motor with single phase service is likely to have an objectionable effect on the service to the applicant or upon other customers.

**14:5-2.3 Adequacy of service**

(a) Electric utilities supplying electrical energy on a constant potential system shall adopt and maintain a standard average value of voltage as measured at the point of attachment to the customer's wiring; and the normal variations, as measured by a standardized voltmeter, shall not vary for periods exceeding five minutes for service supplied at 150 volts or less to ground more than four per cent above, nor

more than four per cent below said standard average voltage for said location which is in force at the time; provided, however, the variations in voltage caused by the operation of apparatus in customer's premises in violation of the utility's rules, the action of the elements, or other causes beyond the utility's control shall not be considered a violation of this provision.

(b) Each electric utility supplying alternating current shall adopt a standard frequency, the suitability of which may be determined by the Board, and shall maintain this frequency; provided, however, that changes or variations of frequency which are clearly due to no lack of proper equipment or reasonable care on the part of the utility shall not be considered a violation of this rule.

Amended by R.1991 d.583, effective December 2, 1991.  
See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).  
Editorial or stylistic change only.

#### 14:5-2.4 Sealing of main fuse cabinets or circuit breakers

In the interest of safety to the electric utility customer and as a measure of protection to the utility, main service cabinets or cabinets enclosing main fuses and circuits may be sealed; provided, however, that the main switches or circuit breakers in such cabinets are externally operable; that service entrance wires are installed in accordance with the National Electrical Code; and that fuses or circuit breakers other than above mentioned are made accessible to the customer. The utility's service department should be so organized and directed that its customers may be assured prompt restoration of service when interrupted through failure of main fuses or opening of the circuit breakers which are sealed.

#### 14:5-2.5 Grounding of secondaries

Secondaries shall be grounded by electric utilities in a manner which accords with the applicable provisions of the National Electrical Safety Code.

#### 14:5-2.6 Refusal to connect

An electric utility may refuse to connect with any customer's installation when it is not in accordance with the National Electrical Code and with standard terms and conditions of the utility furnishing the service, and where a certificate approving the customer's electrical installation has not been issued by a county or a municipality or by some person, agency or organization duly appointed by the county or municipality to make such inspections. When a county or municipality has not provided, in accordance with applicable statutes, for the regulation and inspection of wires and appliances for the utilization of electrical energy, or has not appointed any person, agency or organization to make such inspections, then an inspection certificate, issued by an inspection agency designated by the electric utility in its filed tariff, shall be accepted in lieu thereof.

### SUBCHAPTER 3. METERS

#### 14:5-3.1 Testing of electric meters

(a) Each utility furnishing electric service shall provide and have available a meter testing laboratory, standard meters and instruments, and such other equipment and facilities as may be necessary to make the tests required by these regulations, or by other orders of the Board.

(b) Each utility furnishing electric service shall provide and have available such portable indicating electrical testing instruments and portable watt-hour meters of suitable range and type for testing service watt-hour meters, switchboard instruments, recording voltmeters and other electrical instruments in use as may be deemed necessary by the Board.

(c) For testing the accuracy of the portable watt-hour meters, commonly known as "rotating standards," and the portable instruments used for testing customer's service meters, each utility shall provide and have available suitable indicating electrical instruments, watt-meters, watt-hour meters, or any or all of them hereinafter called "reference standards". Such standards may be of the service type of watt-hour meters, but, if so, such watt-hour meters shall be permanently mounted in the meter laboratory of the utility and shall be used for no other purpose than for checking standards. All reference standards may be tested, adjusted and sealed by the Board at its discretion.

(d) All portable watt-hour meters (rotating standards) of the commutator type shall be compared with reference standards at least once each week. Every portable watt-hour meter (rotating standard) shall at all times be accompanied by a certificate giving the date when it was certified, the corrections to be applied at various loads, and signed by the proper authority. These certificates, when superseded, shall be kept on file in the office of the utility at least one year.

(e) All portable, indicating electrical testing instruments, such as, voltmeters, ammeters and watt-meters, when in regular use for testing purposes, shall be checked against reference standards at least once a week when continuing in use.

(f) Instruments and standards may be tested and certified by any standardizing laboratory whose instruments and methods are approved by the Board.

#### 14:5-3.2 Periodic testing of electric meters

(a) All direct current meters installed upon customers' premises shall be periodically tested in accordance with the following schedule:

1. Up to and including six kilowatts—at least once in 3½ years;
2. Over six kilowatts, up to and including 100 kilowatts—at least once in 1½ years;

3. Over 100 kilowatts—at least once in one year.

(b) The kilowatt rating of a direct current meter is the product of the rated voltage and the rated current.

(c) All types of alternating current watt-hour meters installed upon customers' premises shall be tested as follows:

1. Self-contained polyphase meters and transformer rated meters:

i. Meters without demand register—at least once in 16 years;

ii. Meters with block-interval demand registers—at least once in 12 years;

iii. Meters with lagged demand registers—at least once in eight years.

2. Self-contained single-phase meters and three-wire network meters—at least once in eight years or by a variable interval or statistical sampling technique approved by the Board.

As amended R.1979 d.374, effective September 5, 1979.

See: 11 N.J.R. 402(c), 11 N.J.R. 585(c).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

#### 14:5-3.3 Determination of electric meter accuracy

(a) No meter that has an error in registration of more than plus or minus two percent shall be placed in service or allowed to remain in service without adjustment.

(b) No meter which registers upon "no load" shall be placed in service or allowed to remain in service. To determine that a meter is registering upon "no load", all load wires shall be removed, and if the meter disk then rotates at the rate of one revolution in five minutes or less it shall be considered as registering on "no load".

(c) For periodic testing, the accuracy shall be determined by taking the average of the percentage registration at light load and heavy load. In periodic testing where the average accuracy shows the meter to be in error by more than two percent, the complaint testing method as stated below shall be used to determine the final accuracy of the meter.

(d) As used in this section, light load shall be approximately five to ten percent of rated current and heavy load shall be not less than 60 percent nor more than 150 percent of rated current.

(e) For complaint testing, the accuracy shall be determined by taking the average of the percentage registration at light load and at heavy load, giving the heavy load registration a weight of four.

#### Case Notes

Minor error in electric meter readings did not exceed permissible margin of error. *Gross v. PSE&G*, 96 N.J.A.R.2d (BRC) 13.

Utility correctly billed customer for unmetered electrical service over a span of 11 years. *Licciardello v. Public Service Electric and Gas*, 95 N.J.A.R.2d (BRC) 35.

#### 14:5-3.4 Outdoor meters

All new electric meters installed outdoors shall be compensated for temperature variations.

#### 14:5-3.5 Readjustment of electric meters

Each meter after being tested shall be adjusted to record within a tolerance of plus 0.3 percent and minus one percent at both light and heavy loads. These tolerances are specified to allow for necessary variations and meters must be adjusted to within the allowable tolerances as nearly as practicable to zero error. Meters removed from service are to be tested and adjusted in the meter room before being put in service again. Each electric meter shall be tested for accuracy before installation or within 30 days after being set.

### SUBCHAPTER 4. REGULATION FOR RESIDENTIAL ELECTRIC UNDERGROUND EXTENSIONS

#### 14:5-4.1 Applicability

(a) Extension of electric distribution lines necessary to furnish an electric system to new residential subdivisions having three or more building lots, or to new multiple-occupancy buildings, shall be made underground.

(b) Such extensions of service shall be made by the utility in accordance with the provisions in this subchapter.

As amended, R.1973 d.335, effective December 3, 1973.

See: 6 N.J.R. 22(b).

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

Amended by R.1997 d.99, effective March 3, 1997.

See: 28 N.J.R. 4080(a), 29 N.J.R. 786(b).

Substituted "subchapter" for "regulation" and deleted reference to date of subchapter applicability.

#### Case Notes

General powers given to municipalities to regulate and inspect erection, alteration or repair of structures preempted by State with respect to installation and inspection of private home electrical wiring; ordinance mandating copper wiring use invalid as contravening legislative plan for regulation of electrical industry by Public Utilities Commission (citing former N.J.A.C. 14:5-7.5 and 7.9). *Warren Park Estates, Inc. v. Twp. Committee, East Windsor Twp.*, 136 N.J.Super. 180, 345 A.2d 346 (App.Div.1975).

**14:5-4.2 Definitions**

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

“Applicant” means the subdivider, developer, builder or owner applying for the construction of an electric distribution system in a subdivision.

“Board” means Board of Public Utilities.

“Building” means a permanent structure enclosed within exterior walls or fire walls, built, erected and framed of component structural parts and designed for single-family or duplex-family occupancy.

1. A duplex family building may consist of either a duplex apartment with rooms on two floors and a private interstairway, or a duplex house with two separate family units side by side.

“Cost” means actual expense incurred for materials and labor employed in the installation of an underground residential distribution system, including overheads directly attributable to the field work, but excluding overrides or loading factors, such as for back-up personnel, mapping, records, clerical, superintendence or general office.

“Existing street” means a public street, road or highway, traversing or abutting the applicant’s subdivision, that was in existence and utilized prior to the approval and establishment of the subdivision.

“Extension” means an extension of facilities located on streets, highways, and/or rights of way acquired by the utility for common distribution.

“Mobile home” means a dwelling unit constructed for permanent occupancy which is designed for moving along roads and highways by towing with a truck or tractor and which is installed on a permanent foundation.

“Multiple-occupancy building” means a permanent structure enclosed or with exterior walls or fire walls, built, erected and framed of component structural parts and designed to contain three or more individual dwelling units and consisting of not more than four stories.

“New street” means a public street, road or highway, traversing or abutting the applicant’s subdivision, that was or will be constructed subsequent to the approval and establishment of the subdivision.

“Subdivision” means the tract of land which is divided into lots as approved by the appropriate authorities for the construction of new residential buildings or the placement of mobile homes, or the land on which new multiple-occupancy buildings are to be erected.

“Utility” means an “electric company” as defined in N.J.S.A. 48:2-13.

As amended, R.1973 d.335, effective December 3, 1973.

See: 6 N.J.R. 22(b).

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Board designated as Board of Regulatory Commissioners pursuant to Reorganization Plan No. 002-1991.

Amended by R.1997 d.99, effective March 3, 1997.

See: 28 N.J.R. 4080(a), 29 N.J.R. 786(b).

Amended definition of “Board”.

**14:5-4.3 Rights-of-way and easements**

(a) Within the applicant’s subdivision the utility shall construct, own, operate and maintain underground distribution lines only along public streets, roads and highways which the utility has the legal right to occupy, and on public lands and private property across which rights-of-way and easements satisfactory to the utility both as to location and legal sufficiency are provided without cost to or condemnation by the utility.

(b) Rights-of-way and easements suitable to the utility must be furnished by the applicant in sufficient time to meet service requirements and at no cost to the utility. The rights-of-way or easements so granted must be cleared of trees, tree stumps and other obstructions above or below grade at no charge to the utility to a width sufficient to permit the use of machinery and equipment, and must be graded to within six inches of final grade by the applicant before the utility will commence construction. Such clearance and grading must be maintained by the applicant during construction by the utility.

**14:5-4.4 Installation of underground distribution system within subdivision**

(a) Upon receipt of a proper application the utility shall, after conditions in N.J.A.C. 14:5-4.3 have been met and after coordination with other utilities, install along new streets and along existing streets not already served by overhead facilities, using suitable materials, an underground electric distribution system reasonably equivalent to a comparable overhead system which will assure that the applicant will receive safe, adequate and proper electric service.

1. “Suitable materials” shall be construed to mean those components of a direct buried residential-type underground distribution system, including but not limited to transformers, which shall be pad mounted unless otherwise directed by the Board, cables, conduits, street lighting poles and fixtures, switch gear and enclosures, which the industry has adopted as standard consistent with the “state of the art” as it applies to the development of such components and also consistent with the service requirements of this rule. Such standards shall be understood to be reasonable standards designed to implement this rule with a minimum increase in the difference in cost between overhead and underground distribution systems.

2. At the request of the applicant, the utility may provide components which exceed such standards, provid-

ed that applicant shall bear the full cost of the excess facilities requested.

3. No utility will be obligated to furnish electric service to any building in a subdivision unless and until an application has been made for the distribution system in the subdivision in accordance with this subsection and a deposit has been made in accordance with N.J.A.C. 14:5-4.6, unless otherwise ordered by the Board.

(b) The applicant shall supply to the utility the preliminary or tentative subdivision map which has been submitted to and approved by the appropriate authorities, showing the subdivision of all of the applicant's property, together with the anticipated electric load requirements for each living unit, to facilitate planning for the ultimate supply in the form of branch circuit, main feeder and/or substation facilities required.

(c) The applicant shall also supply the final subdivision map of the section of the subdivision which has received the final approval of the appropriate authorities and which the applicant proposes to develop in the immediate future. This submission shall also detail the planned electric load requirements as described in (b) above.

(d) The applicant, in addition, shall supply an estimate of the date electric service will initially be required and the time schedule for the full development of the subject section.

(e) Semiannually, each electric utility may submit a proposed tariff, modifying existing undergrounding charges. These proposed tariffs shall be supported by unit costs of construction in a form as required for approval by the Board.

(f) For the installation of an underground electric distribution system, the applicant shall pay the utility the differential cost between the construction of an underground and an equivalent overhead distribution system as determined from the utility's approved tariff as provided by (e) above.

(g) Such amounts as the public utility receives pursuant to its tariff, in accordance with this Subchapter and not subject to further refund, shall be credited to the appropriate utility plant account or accounts.

(h) The total front footage shall be determined by measuring the total street footage of all property within the subdivision, excepting those portions of existing streets along which overhead facilities are already installed. Buildings in the subdivision facing an existing street on which overhead facilities are presently installed may be served overhead.

(i) The service connection to each building will be at the nearest corner of the building to the point at which the service enters the property to be served. If such service length on property served is more than 50 feet, then the applicant shall pay the utility the amount per foot listed in the utility's approved tariff for the length in excess of 50 feet.

(j) For multiple-occupancy buildings, duplex family buildings and mobile homes, the underground distribution system within the subdivision shall be constructed by the utility in the most economical manner, as determined by the utility, and the applicant shall pay the utility the differential cost according to the component unit charges as listed in the utility's approved tariff. Any such buildings or mobile homes in the subdivision which abut an existing street on which overhead facilities are presently installed may be served overhead from the existing street. Should such buildings or mobile homes be served overhead, neither the number nor the frontage of such lots shall be included in the calculation to determine the applicant's contribution.

(k) The charges determined in accordance with this subchapter may not be waived or refunded unless such waiver or refund is specifically approved by the Board.

(l) Extensions of high-capacity main line distributing facilities, not exceeding 4MVA, solely within and for the applicant's subdivision, shall be made underground. The applicant shall pay the utility the differential cost for such extensions as determined from the component unit charge as listed in the utility's approved tariff:

1. Extensions of high-capacity main line distribution facilities, exceeding 4MVA, solely within the applicant's subdivision may be made overhead, unless otherwise ordered by the Board.

(m) Extensions of high-capacity main line distribution facilities, not exceeding 4MVA, solely within the applicant's subdivision and also necessary to serve adjacent residential, commercial, or industrial loads shall be made underground. The differential cost for such extensions shall be prorated in such a manner that the applicant shall pay the utility only for the capacity necessary to serve his subdivision. The utility may require a deposit and charge the balance differential cost to the other residential, commercial or industrial applicants, when service is requested for such loads, on a prorated basis.

1. Extensions of high-capacity main line distribution facilities exceeding 4MVA, solely within the applicant's subdivision and also necessary to serve adjacent residential, commercial or industrial loads, may be made overhead, unless otherwise ordered by the Board.

(n) Extensions of high-capacity main line distribution facilities, not exceeding 4MVA, to reach the applicant's subdivision, through another residential subdivision where the provisions of this subchapter are applicable, shall be made underground. The applicant shall pay the utility a prorated differential cost for such extensions only for that capacity necessary to serve his subdivision, in addition to the charges required pursuant to (f) above. The utility may require a deposit and charge the balance of the differential cost to the property owner or owners of the residential subdivision through which the extension is made, when such owner or

owners make an application for electric service, on a prorated basis.

1. Extensions of high-capacity main line distribution facilities exceeding 4MVA to reach the applicant's subdivision, through another residential subdivision where the provisions of this Subchapter are applicable, may be made overhead, unless otherwise ordered by the Board.

As amended, R.1973 d.335, effective December 3, 1973.

See: 6 N.J.R. 22(b).

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change; new language in (n).

#### 14:5-4.5 Connection to supply systems

The utility shall provide a connection, using the normal method of construction, from the boundary line of the applicant's subdivision to the utility's existing supply facilities.

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

#### 14:5-4.6 Advances by applicant

(a) Prior to the start of construction on a section of the subdivision, the utility shall require from the applicant a deposit equivalent to the estimated amount of charges payable to the utility in accordance with N.J.A.C. 14:5-4.4(f) for the total number of building lots shown on the subdivision map supplied to the utility by the applicant under the provisions of N.J.A.C. 14:5-4.4(c).

(b) Deposits will not carry interest.

(c) If the amount of the deposit is in excess of the charges payable to the utility in accordance with N.J.A.C. 14:5-4.4(f), then the excess amount shall be returned upon completion of the installation of the distribution construction facilities.

(d) Any portion of a deposit remaining unrefunded ten years from the date the utility is first ready to render service from the extension will be retained by the utility and credited to an appropriate account.

(e) When an applicant requests the installation of underground facilities in an area for which there is no planned immediate construction of dwelling units, the utility may require a deposit from the applicant in addition to a deposit required pursuant to (a) above. Such a deposit shall not be more than the estimated cost of providing equivalent overhead extension and shall be collected and refunded in accordance with N.J.A.C. 14:3-8.1.

As amended, R.1973 d.335, effective December 3, 1973.

See: 6 N.J.R. 22(b).

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

#### 14:5-4.7 Cooperation by applicant

(a) The charges specified in this subchapter are based on the premise that each applicant shall agree to cooperate with the utility in accordance with N.J.A.C. 14:5-4.3 in an effort to keep the cost of construction and installation of the underground electric distribution system as low as possible. This includes the scheduling of construction to preclude the necessity for trenching in frozen soils or in land fill operations before soils have become stabilized.

(b) Should unusual circumstances arise which unreasonably would delay underground service, temporary facilities may be installed in whatever manner is most practical under the circumstances, provided, however, that such temporary facilities shall be replaced as soon as practical with a permanent installation in accordance with the provisions of this Subchapter.

(c) Requests for adjustment of charges, specified in the tariff of any utility filed pursuant to N.J.A.C. 14:5-4.4(e), to cover excess cost, if any, due to temporary installations, may be referred to the Board in accordance with N.J.A.C. 14:5-4.11.

As amended, R.1973 d.335, effective December 3, 1973.

See: 6 N.J.R. 22(b).

As amended, R.1975 d.243, effective August 14, 1975.

See: 7 N.J.R. 29(a), 7 N.J.R. 437(b).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

#### 14:5-4.8 Construction

(a) Where practical, as determined by the affected utilities, electric cables, communication cables and cable television cables shall be installed in the same trench, care being taken to conform to any applicable codes and regulations.

(b) Where joint use of a trench is practical, a utility will not be obliged to commence work on an underground system unless and until the applicant has made all necessary arrangements with the communication utility and cable television company to commence work on their underground system.

(c) Pavement cutting and restoration, rock removal, blasting and difficult digging conditions requiring equipment and methods not generally used by the utility's forces shall be at actual low bid differential cost on a job-by-job basis, with the applicant having the option to have the work done by himself or his agent, if qualified to do this type of work. This provision shall not apply where the utilities have entered into contractual agreements with agents to perform the above work. However, such agreements shall not be effective unless and until filed with and accepted by the Board.

**14:5-5.2 Adoption by reference of rules concerning preservation of records; electric utilities**

(a) On September 14, 1972, the then Board of Public Utility Commissioners in the Department of Public Utilities, pursuant to authority of N.J.S.A. 48:2-1 et seq. and in accordance with applicable provisions of the Administrative Procedure Act of 1968, adopted by reference the "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities" originally proposed to various states for adoption by the National Association of Regulatory Utility Commissioners as promulgated and published in April, 1972, for use by the electric, gas and water utilities.

(b) The Board of Public Utilities adopts these rules, as well as any modifications or changes that the National Association of Regulatory Utility Commissioners may make thereto, as its modified rules governing the preservation and destruction of records for all classes of electric, gas and water utilities subject to its jurisdiction and as a supplement to its uniform system of accounts for all classes of electric, gas and water utilities.

(c) Copies of the full text of these rules are available for examination in the Board's offices in Two Gateway Center, Newark, New Jersey 07102 and are included in the case files in these dockets. Additional copies may be purchased from the National Association of Regulatory Utility Commissioners, P.O. Box 684, Washington, D.C. 20044.

R.1972 d.181, effective September 18, 1972.

See: 4 N.J.R. 241(b).

Public Notice: Change of address.

See: 19 N.J.R. 890(a).

Amended by R.1991 d.583, effective December 2, 1991.

See: 23 N.J.R. 1519(a), 23 N.J.R. 3652(a).

Editorial or stylistic change only.

Amended by R.1997 d.99, effective March 3, 1997.

See: 28 N.J.R. 4080(a), 29 N.J.R. 786(b).

Changed name of Board and added reference to modifications to the rules.

4. Employ nonuniform clearing of the right-of-way and, wherever possible, in accordance with sound construction and maintenance practice as well as clearance requirements, allow a maximum number of mature trees to remain;

5. Landscape the right-of-way by planting low-growing shrubs where the right-of-way is visible from heavily traveled roads;

6. Wherever practical and feasible, consistent with municipal zoning laws, permit use of the right-of-way for farming, recreational and other appropriate purposes. If it is proposed by electric company that such use is not practical and feasible, the electric company shall send written notice, including its reasons, to the Board for final determination;

7. When the application of the foregoing provision shall be unreasonable in a specific instance, petition for relief from the specific provision may be filed by any aggrieved person.

R.1972 d.236, effective November 28, 1972.

See: 4 N.J.R. 224(b), 5 N.J.R. 19(a).

**Case Notes**

Action to enjoin tree removal on easement by utility within jurisdiction of Board of Public Utilities for Resolution as a contested case. *Boss v. Rockland Electric Co.*, 95 N.J. 33, 468 A.2d 1055 (1983).

Homeowner failed to prove that electromagnetic field allegedly created by nearby power lines posed health risk. *Karvounis v. Atlantic Electric*, 96 N.J.A.R.2d (BRC) 42.

Public utility, after showing that distribution supply lines are necessary for service, convenience, or welfare of public, need not comply with township's zoning and land use ordinances. In the Matter of the Petition of the Atlantic City Electric Company, 96 N.J.A.R.2d (BRC) 6.

Electric utility did not improperly trim blue spruce tree on property owners' land. *Orlandi v. Jersey Central Power and Light Co.*, 93 N.J.A.R.2d (BRC) 134.

**SUBCHAPTER 6. ELECTRIC TRANSMISSION LINES****14:5-6.1 Requirements for electric transmission lines**

(a) Whenever an electric company constructs an overhead transmission line, it shall:

1. Make use of available railroad or other rights-of-way whenever practicable, feasible and with safety, subject to agreement with the owners;

2. Locate towers whenever practicable and feasible in accordance with the topography so as to minimize their appearance;

3. Establish a program of painting towers initially and periodically in order to camouflage their appearance as much as possible;

**SUBCHAPTER 7. INTERIM ELECTRIC DISTRIBUTION SERVICE RELIABILITY AND QUALITY STANDARDS****Authority**

N.J.S.A. 43:2-13 and 48:3-96.

**Source and Effective Date**

R.2001 d.3, effective January 2, 2001.

See: 32 N.J.R. 2980(a), 33 N.J.R. 123(a).

**14:5-7.1 Purpose and scope**

(a) The rules in this subchapter set forth requirements based on a uniform methodology for measuring reliability and ensuring quality of the electric distribution service that is being delivered to New Jersey customers by the electric

distribution companies (EDCs) operating in New Jersey subject to the Board's regulatory authority.

(b) These rules, which include requirements for data maintenance, records retention and service interruption information, establish standards to measure the reliability of service on an annual and as needed basis under all operating conditions except major events. Major events shall be examined on a case-by-case basis to determine whether or not the EDC's preparation and response were adequate. It is the general obligation of a regulated EDC to provide sufficient resources in order to provide safe, adequate and proper service to its customers. The Board may also consider other factors in determining whether or not an EDC has provided adequate service.

(c) EDCs are encouraged to explore the use of proven state of the art technology and to promote distribution reliability service improvements.

(d) The rules in this subchapter also set forth requirements for the implementation and scope of outage management systems.

#### 14:5-7.2 Definitions

The following words and terms, as used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

"Benchmark" means the 10-year average (1990-1999) of CAIDI and SAIFI or a value determined by the Board.

"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:

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

"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.

"EDC" means electric distribution company.

"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.

"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 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 or construction.

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.

"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.

"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(s) 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 area(s). 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; and

4. When mutual aid is provided to another EDC or utility, the assisting EDC may apply to the BPU 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. 14:5-7.9.

"Minimum reliability level" is defined as the minimum acceptable reliability as measured by CAIDI and SAIFI data as specified in N.J.A.C. 14:5-7.10. Performance equal to or better than the minimum reliability level is acceptable. Performance worse than the minimum reliability level is unacceptable and may be subject to penalty.

"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.

1. An outage may or may not cause an interruption of electric service to customers, depending on system configuration.

2. 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.

"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:

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

"Total number of customers served" means the number of active metered accounts as of the last day of the prior 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.

#### 14:5-7.3 Reliability performance levels

(a) Each EDC shall take reasonable measures to perform better than the minimum reliability levels.

(b) The SAIFI and CAIDI for each EDC's respective operating areas shall be calculated at the end of each calendar year or any reporting period established by the Board.

#### 14:5-7.4 Service reliability

(a) Each EDC shall have reasonable programs and procedures necessary to maintain the minimum reliability levels for its respective operating areas.

(b) The programs shall be designed to sustain reliability and, where appropriate, improve reliability. Each EDC shall utilize appropriate and qualified resources to maintain as a

minimum the minimum reliability levels for its respective operating areas.

(c) Interruptions shall not be reduced by unduly characterizing a sustained interruption as a series of momentary event interruptions. Electric service interruptions shall be reported to Board staff in accordance with N.J.A.C. 14:3-3.9.

#### 14:5-7.5 Power quality

(a) Each EDC shall consider power quality in the design and maintenance of its distribution power-delivery system components. Each EDC shall strive to avoid and to mitigate, to the extent feasible and cost effective, power quality disturbances under its control that adversely affect customers' properly designed equipment.

(b) Each EDC shall, as a minimum, maintain a power quality program that includes its objectives and procedures. The program shall be designed to respond promptly to customer reports of power quality problems. The program shall strive to prevent, mitigate or resolve power quality problems within the EDC's control to the extent cost-effective and practical.

(c) The EDC's power quality program shall be filed with the Board by January 31, 2001.

#### 14:5-7.6 Individual circuit reliability performance

(a) Upon request of the BPU, each EDC shall be able to identify reliability performance on a basis predefined by the EDC for any circuit on its system.

(b) Each EDC shall identify and analyze poor performing circuit(s) as identified by the reliability performance parameters of item (a) and take appropriate actions to improve reliability performance.

#### 14:5-7.7 Inspection and maintenance programs

(a) In accordance with N.J.A.C. 14:3-2.6 and 2.7, each EDC shall have inspection and maintenance programs for its distribution facilities, as appropriate to furnish safe, proper and adequate service. These programs shall be based on factors such as applicable industry codes, national electric industry practices, manufacturer's recommendations, sound engineering judgment and past experience. A significant portion of these inspection and maintenance programs shall be focused on mitigating those interruption causes with the greatest impact on reliability such as those related to equipment, vegetation, and animals. EDCs shall endeavor to utilize tree trimming, physical plant inspections, maintenance and protective measures and equipment to assist in the prevention and management of interruptions when appropriate.

(b) Each EDC shall submit to the Board, no later than January 31, 2001, compliance plans for the inspections, maintenance and recordkeeping required in this subchapter. These compliance plans shall include individual programs aimed at reducing specific outage causes.

(c) Each EDC shall maintain records of inspection and maintenance activities. These records shall be made available to Board Staff, who shall be permitted to inspect such records at any reasonable time.

#### 14:5-7.8 Annual System Performance Report

(a) Each EDC shall submit to the Board, on May 31, 2001, May 31, 2002 and September 1, 2002, an Annual System Performance Report (the "Annual Report"); provided, however, that the September 1, 2002 Report shall be limited to CAIDI and SAIFI performance data for the period January 1, 2002 to June 30, 2002.

(b) The Annual Report shall include the electric service reliability performance for the EDC's predefined operating areas in relation to their benchmark and minimum reliability levels of SAIFI and CAIDI. The report submitted in May 2001 shall cover the calendar year 2000, the report submitted in May 2002 shall cover the calendar year 2001 and the report submitted in September 2002 shall cover the period of January 1 through June 30, 2002.

(c) The Annual Report shall include a summary of:

1. The EDC's reliability programs, including inspection and maintenance programs;
2. Changes and exceptions to the EDC's current program(s);
3. The EDC's new reliability program(s);
4. The EDC's poor performing circuit program including the methodology used for circuit identification and any appropriate corrective actions;
5. The EDC's power quality program;
6. Technology initiatives to improve reliability;
7. The number of personnel (broken down by bargaining and non-bargaining unit) in each EDC's operating area(s) and a summary statement referencing each EDC's training program; and
8. Certification by an officer of the EDC of the data and analysis and that necessary maintenance programs and other actions are being performed and adequately funded by the Company and addressed in its business plans to help achieve the benchmark reliability levels and as a minimum to maintain the minimum reliability levels for each operating area.

(d) The Annual Report shall also include statistical tables and charts as follows for EDC reliability performance State-wide and by each operating area:

1. Ten years of trends of CAIDI and SAIFI; and
2. Ten years of trends of major causes of interruptions.

(e) The Annual Report shall include a summary of each major event.

(f) In the event that an EDC's reliability performance in an operating area does not meet the minimum reliability level for the calendar year, the Annual Report shall include the following:

1. An analysis of the service interruption causes, patterns and trends;
2. A description of the corrective actions taken or to be taken by the EDC and the target dates by which the corrective action shall be completed; and
3. If no corrective actions are planned, an explanation shall be provided.

(g) Each EDC shall include in its Annual Report the greater of two percent or a quantity of five of its worst-performing circuits identified in each of its operating areas in N.J.A.C. 14:5-7.6(b) based on the reliability performance parameters in N.J.A.C. 14:5-7.6(a) and the corrective actions taken or to be taken. If no corrective actions are planned, an explanation shall be provided.

#### 14:5-7.9 Major event report

(a) The EDC shall, within 15 business days after the end of a major event, submit a report to the Board, which shall include the following:

1. The date and time when the EDC's storm center opened and closed;
2. The total number of customers out of service over the course of the major event over four hour intervals, identified by operating area or circuit area. For purposes of this count, the starting time shall be when the storm center opens and the ending time shall be when the storm center closes. Regardless of when the storm center is closed, the EDC shall report the date and time when the last customer affected by a major event is restored;
3. The number of trouble locations and classifications;
4. The time at which the mutual aid and non-company contractor crews were requested, arrived for duty and were released, and the mutual aid and non-contractor response(s) to the request(s) for assistance;
5. A timeline profile of the number of company line crews, mutual aid crews, non-company contractor line and tree crews working on restoration activities during the duration of the major event; and
6. A timeline profile of the number of company crews sent to an affected operating area to assist in the restoration effort.

(b) The EDC shall continue to cooperate with any Board request for information before, during and after a major event.

#### 14:5-7.10 Establishment of service level values

(a) For each of an EDC's operating areas, the reliability performance level is established as follows:

1. The operating area's CAIDI benchmark standard is set at the 10-year average CAIDI for the years 1990-1999;
2. The operating area's SAIFI benchmark standard is set at the 10-year average SAIFI for the years 1990-1999; and
3. The minimum reliability level for the years 2001 and 2002 for each operating area is attained when its annual CAIDI and SAIFI are no higher than the 10-year benchmark standard plus two standard deviations.

(b) When the CAIDI and SAIFI of an EDC's operating area do not meet the minimum reliability level, further review, analysis, and corrective action are required.

(c) The minimum reliability level to be assigned to each operating area shall be reviewed and may be adjusted for subsequent years after consideration of various factors, including:

1. A comparison of actual multi-year CAIDIs and SAIFIs;
2. Trends among indices;
3. The average high and low values of multi-year indices;
4. Local geography, weather and electric system design of an operating area;
5. The relative performance of an operating area in relation to other operating areas of a given EDC's franchise area;
6. A comparison of the performance of all operating areas of all EDCs; and
7. A comparison of the performance of the EDC to other states or industry statistics.

Amended by R.2001 d.445, effective December 3, 2001.

See: 33 N.J.R. 19(b), 33 N.J.R. 4149(a).

In (a)3. substituted "years 2001 and 2002" for "year 2001".

#### 14:5-7.11 Prompt restoration standards

(a) EDCs shall begin the restoration of service to an affected service area within two hours of notification by two or more customers of any loss of electric service affecting those customers served electrically by the same affected circuit protective device within the system. Beginning restoration of service shall be defined as the essential or required analysis of the interruption and dispatching an individual or crew to an affected area to begin the restoration process.

(b) The prompt restoration standards shall not apply to EDCs during major events.

(c) When possible, each EDC shall place the highest priority on responding to emergency (safety) situations and high priority on responding to other public facilities for which prompt restoration is essential to the public welfare. These priority requests may come from police, fire, rescue, authorized emergency service providers or public facility operators.

(d) In situations where it is not practicable to respond within two hours to a reported interruption (safety reasons, inaccessibility, multiple simultaneous interruptions, storms or other system emergencies), the EDC shall respond as soon as the situation permits.

#### 14:5-7.12 Penalties

(a) Civil administrative penalties for violations of the reporting and plan and program submission requirements set out in N.J.A.C. 14:5-7.4 through 7.9 and 7.11 shall be assessed as follows:

1. For failure to submit complete required reports, programs and plans on the due date set by rule, the EDC may be liable for a penalty of up to \$5,000 for each day beyond the due date that the report, program or plan is not submitted, up to a maximum of \$25,000 in total penalties for each violation; provided, however, that upon timely written request to Board staff demonstrating the need for an extension of time, the time for submitting required reports, plans and programs may be extended in appropriate cases.

2. A second or any subsequent failure to submit any required report, plan or program, the EDC may be liable for a penalty of up to \$50,000.

(b) Civil administrative penalties for violations of this subchapter other than those set out in (a) above may be assessed as follows:

1. For failure to implement the requirements set out in the programs and plans as submitted to the Board or for the willful misrepresentation of fact and/or intentional inaccuracies in any submitted report, plan or program or for violation of any other requirement of this subchapter, an EDC may be liable for a penalty of not more than \$25,000 for each violation unless mitigating circumstances can be demonstrated by the EDC. For a second or any subsequent violation of the same provision, the EDC may be liable for a penalty of not more than \$50,000.

2. Each violation of any rule of this subchapter shall constitute an additional, separate and distinct violation.

3. Each day during which a violation continues shall constitute an additional, separate and distinct violation.

(c) Any penalty which may be assessed under this section may be compromised by the Board. In determining the amount of the penalty, or the amount agreed upon in compromise, the Board may consider aggravating and mitigating circumstances including the nature and gravity of the violation; the degree of the EDC's culpability; any history of prior violations; and any good faith effort on the part of the EDC in attempting to achieve compliance.

(d) Penalty assessments are payable to the Treasurer, State of New Jersey and are due within 30 days of service upon the EDC of an order assessing a penalty unless the Board directs otherwise.

#### 14:5-7.13 Outage management systems (OMS)

(a) Each EDC shall substantially implement the OMS as described in this section by December 31, 2000.

(b) The OMS shall consist at a minimum of a fully integrated geographic information system (GIS), a sophisticated voice response unit (VRU), a software driven outage assessment tool and an energy management system/supervisory control and data acquisition (EMS/ SCADA).

(c) It is intended that when fully implemented the OMS shall be able to digitally map the entire electric distribution system, group customers who are out of service to the most probable interrupting device that operated, associate customers with distribution facilities, generate street-map indicating EDC outage locations, improve the management of resources during a storm, improve the accuracy of identifying the number of customers without electric service, accurately communicate the number of customers without electric service and improve the ability to estimate their expected restoration time, accurately communicate the number and when customers were restored and dispatch crews and/or troubleshooters via computer (mobile data terminals).