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**RULE PROPOSALS**

**PUBLIC UTILITIES  
BOARD OF PUBLIC UTILITIES**

*39 N.J.R. 3716(a)*

**Proposed Readoption with Amendments: *N.J.A.C. 14:5***

**Proposed Repeals: *N.J.A.C. 14:5-5.2***

**Proposed New Rules: *N.J.A.C. 14:5-1.1* and **6.2****

**Proposed Recodifications with Amendments: *N.J.A.C. 14:5-7.2* as **1.2** and **14:5-7.13** as **8.11****

[Click here to view Interested Persons Statement](#)

**Electric Service**

Authorized By: Board of Public Utilities, Jeanne M. Fox, President, Frederick F. Butler, Joseph L. Fiordaliso and Christine V. Bator, Commissioners.

Authority: *N.J.S.A. 48:2-12, 48:2-13, 48:2-16, and 48:2-25, and 48:3-96.*

Calendar Reference: See Summary below for an explanation of exception to calendar requirement.

BPU Docket Number: EX07070511.

Proposal Number: PRN 2007-284.

**Comments may be submitted through November 3, 2007** by email to [rule.comments@bpu.state.nj.us](mailto:rule.comments@bpu.state.nj.us), or on paper to:

Kristi Izzo, Secretary  
Board of Public Utilities  
ATTN: BPU Docket Number  
Two Gateway Center  
Newark, New Jersey 07102

The agency proposal follows:

## Summary

The Board is proposing to readopt with amendments the provisions of *N.J.A.C. 14:5*, Electric Service, which are scheduled to expire on February 17, 2008, pursuant to N.J.S.A. 52:14B-5.1c. The Electric Service rules delineate the requirements that electric distribution companies (EDCs) subject to the jurisdiction of the Board of Public Utilities (Board) must abide by in such areas as the construction, inspection and maintenance of utility plant, the testing and accuracy of electric meters, residential underground extensions, vegetation management and the maintenance and preservation of records and accounts. These rules are necessary in that they relate directly to the provision of safe, adequate and proper service by regulated New Jersey electric distribution companies.

The substantive provisions of the chapter proposed for re adoption by the Board are summarized as follows:

Proposed new *N.J.A.C. 14:5-1.1* delineates the scope and applicability of Chapter 5. Specifically, this subsection states that all EDCs are required to comply with the provisions contained in Chapter 5 and the provisions of the Board's rules for all utilities contained in Chapter 3.

*N.J.A.C. 14:5-7.2* has been recodified with amendments as *N.J.A.C. 14:5-1.2* and includes a list of definitions for terms that are used throughout Chapter 5. The new defined terms added are: Annual System Performance Report; Board; CAIDI; IEEE; quarterly; smart grid. Among the definitions that have been amended are: interruption, scheduled; major event and total customers served. The definition for "interruption, scheduled" has been amended to include the following phrase "the preservation of the system or supply interruptions due to the unavailability of transmission import capability," while the definition for "major event" was amended to add an "or" after the third type of major event in order to specify that any of the four enumerated occurrences would separately be considered major. Finally, the definition for "total number of customers served" has been amended to refer to the number of metered customers for the prior calendar year or average 12 months, rather than prior year or average 12 months.

Due to proposed new Subchapter 1, existing *N.J.A.C. 14:5-1* through 8 are recodified as *N.J.A.C. 14:5-2* through 9, and are discussed below based on that recodification.

*N.J.A.C. 14:5-2.1* pertains to the applicable standards for plant construction and has been amended to replace the term electric utilities with the term electric distribution companies. This section has been further amended to incorporate by reference the National Electric Code (NFPA 70), and the 2007 National Electrical Safety Code. The 2007 National Electrical Safety Code offers guidance to safeguard people when electrical supply and communication lines are designed, installed, operated and maintained, while the NFPA 70 establishes requirements for electrical wiring and equipment in virtually all buildings. Finally, the last sentence of the section has been proposed for deletion.

*N.J.A.C. 14:5-2.2* pertains to the separation and protection of communication and supply conductors or cables that are buried in the earth. Subsection (a) delineates the requirement that buried communication and supply conductors be separated by specified distances, depending on the type of material used to separate the buried cables. Subsection (b) provides four exceptions to the main requirement contained at subsection (a). Finally, subparagraph (b)3i has been amended by proposing to delete a typographical error.

*N.J.A.C. 14:5-2.3* pertains to the protection of buried supply conductors and cables at all crossings. Subsection (a) has been amended to replace the term "creosoted" with the phrase "rot-resistant treated," while subsection (b) contains a technical update.

*N.J.A.C. 14:5-2.4* pertains to the protection of communication and supply conductors or cables that are installed in the same trench generally parallel to each other. Subsection (a) has been amended to replace the term "creosoted" with the phrase "rot-resistant treated" and to correct two technical deficiencies, while subsection (b) remains unchanged.

*N.J.A.C. 14:5-2.5* requires fault protection for cables where buried communication and power supply conductors of

550 volts or more between conductors are installed in the same trench without separation.

*N.J.A.C. 14:5-2.6* requires each EDC to properly identify its underground cables. This section has been amended to replace the term "company" with the defined term "EDC."

*N.J.A.C. 14:5-2.7* requires specific ground protection where communication and power supply conductors are buried in the same trench without separation.

*N.J.A.C. 14:5-2.8* pertains to the required depths for communication and power supply cables of over 550 volts between conductors that are buried in the same trench without separation or mechanical protection. This section also specifies the depth that the cables should be buried.

*N.J.A.C. 14:5-2.9* requires electric utilities to inspect and maintain street lighting lamps and accessories pursuant to established practice and to perform safety and service inspections before reinstalling equipment in its system. Subsection (a) has been amended to replace the term "electric utility" with the defined term "EDC," while a new subsection (b) has been added, which requires EDCs to make routine streetlight repairs within three business days after they are notified that a repair is necessary. Finally, subsection (a) has been amended to add a cross-reference to *N.J.A.C. 14:3-2.7(a)*.

*N.J.A.C. 14:5-3.1* pertains to the supply of polyphase service and defines that term. This section has been amended to replace the phrase "rules and regulations" with the term "provisions" and the phrase "utility's" with the term "EDCs."

*N.J.A.C. 14:5-3.2* pertains to the adequacy of service provided by EDCs. This section sets out the requirements for the standard average value of voltage for EDCs supplying electric energy on a constant potential system and requires EDCs supplying alternating current to adopt and maintain a suitable standard frequency. Subsections (a) and (b) have been amended to replace the term "electric utilities" with the term "EDCs." In addition, subsection (b) has been amended to now require an EDC to supply alternating current at a standard frequency per industry standard, rather than requiring the electric utility to adopt a standard frequency. Further, subsection (b) has been amended to state that changes or variations of frequency, which are not due to a lack of proper equipment or reasonable care on the part of the EDC shall not be considered a violation.

*N.J.A.C. 14:5-3.3* sets out the conditions under which main service cabinets or cabinets enclosing main fuses or breakers may be sealed. This section has been amended to replace the term "electric utility" with the term "EDC," and to add how to obtain the National Electric Code.

*N.J.A.C. 14:5-3.4* requires the grounding of secondaries to be in accordance with the National Electrical Safety Code. This section has been amended to replace the term "electric utility" with the term "EDC."

*N.J.A.C. 14:5-3.5* sets out those instances in which an electric utility may refuse to connect with a customer's installation. This section has been amended to replace the term "electric utility" with the term "EDC."

*N.J.A.C. 14:5-3.6* requires EDCs to report accidents in accordance with the requirements of *N.J.A.C. 14:3-6.4*. This section has been amended to replace the term "electric utility" with the term "EDC."

*N.J.A.C. 14:5-4.1* describes the equipment to be maintained by EDCs for the testing of electric meters and to the inspection of such equipment. Specifically, subsection (a) requires the EDC to have a testing lab and the equipment necessary to test the accuracy of the meters. Subsection (b) requires the EDCs to have portable meter testing devices. Subsection (c) requires the EDCs to have the proper equipment to test the accuracy of portable watt-hour meters, while subsection (d) requires watt-hour meters to be certified. Subsection (e) requires all portable meters to be checked against reference standards at least once a week, while subsection (f) allows the instruments and standards mentioned in this section to be certified by a standardizing laboratory that has been approved by the Board. The term "electric public utilities" has been replaced with the term "EDCs" throughout this section.

N.J.A.C. 14:5-4.2 requires the periodic testing of electric meters according to the schedule contained in subsection (a). Subsection (b) identifies how the kilowatt rating of a direct current meter may be determined. Subsection (c) states how all alternating current watt-hour meters installed on customers premises shall be tested.

N.J.A.C. 14:5-4.3 pertains to the accuracy of electric meters. Subsection (a) states the percentage of error registration that is acceptable in a meter. Subsection (b) prohibits a meter, which registers "no load" from being put into service. Subsection (c) stipulates how the accuracy of a meter shall be determined during periodic testing. Subsection (d) identifies what "light load" is. Finally, subsection (e) identifies how accuracy shall be determined for complaint testing.

N.J.A.C. 14:5-4.4 requires that all electric meters installed outdoors must be compensated for temperature variations.

N.J.A.C. 14:5-4.5 pertains to the adjustment of electric meters after testing and the testing for accuracy prior to installation.

*N.J.A.C. 14:5-5.1* pertains to the applicability of the regulation for residential electric underground extensions.

*N.J.A.C. 14:5-6.1* adopts by references the Uniform System of Accounts (USOA) for Class A and B Electric Utilities promulgated by the Federal Energy Regulatory Commission. The purpose of the USOA is to require the affected electric utilities to adopt a uniform system of accounting by which to keep their books, records and accounts in a manner that will afford an intelligent understanding of the conduct of their business. The USOA creates a series of accounts and a related numbering system by which to record various financial transactions pertaining to operating expense accounts, utility plant accounts, balance sheet accounts, income accounts, operating revenue accounts and operation and maintenance expense accounts.

Proposed new N.J.A.C. 14:5-6.2 adopts by reference regulations proposed for adoption by the states by the National Association of Regulatory Utility Commissioners governing the preservation of records by electric utilities. These regulations place particular types of records into certain categories and establish period of times during which such records should be maintained. The categories established by the regulations include corporate records, automatic data processing records, general accounting records, insurance records, operation and maintenance records, personnel records, plant and depreciation records, purchase and store records, revenue accounting and collecting records, tax records and treasury records. Existing *N.J.A.C. 14:5-5.1* is proposed for repeal.

*N.J.A.C. 14:5-7.1* establishes guidelines to which EDCs must adhere in constructing overhead transmission lines. This section has been amended to replace the term "electric public utility" with the term "EDC."

*N.J.A.C. 14:5-8.1* sets forth the purpose and scope of Subchapter 8 as it pertains to measuring reliability and ensuring the quality of the electric service being delivered to New Jersey customers by electric distribution companies.

Due to the recodification of *N.J.A.C. 14:5-7.2* as *N.J.A.C. 14:5-1.2*, as discussed above, *N.J.A.C. 14:5-7.3* through 7.13 are recodified as *N.J.A.C. 14:5-8.2* through 8.12, and discussed below based on that recodification.

*N.J.A.C. 14:5-8.2*; pertains to reliability performance levels. Subsection (a) has been amended to include a cross reference to the requirements contained at *N.J.A.C. 14:5-8.5*. Subsection (b) has been amended to require EDC's to calculate their SAIDI and CAIFI numbers quarterly and annually at the end of each quarter and at the end of a calendar year.

*N.J.A.C. 14:5-8.3* pertains to service reliability programs and procedures. This section requires EDCs to ensure that they maintain minimum reliability levels for their respective operating areas. Further, the term "Board staff" has been deleted from the final sentence of subsection (c), so that interruptions will now have to be reported solely in compliance with *N.J.A.C. 14:3-3.9*.

*N.J.A.C. 14:5-8.4* requires EDCs to consider power quality in the design and maintenance of their distribution power-delivery system components and to maintain power quality programs designed to promptly respond to customer reports of power quality problems. Subsection (b) has been amended to include a reference to the requirements contained at *N.J.A.C. 14:5-3.2*, while subsection (c) has been amended to state that a report on the EDC's power quality program shall be filed with the Board in the Annual System Performance Report, rather than by January 31, 2001.

*N.J.A.C. 14:5-8.5* pertains to individual circuit reliability performance. Subsection (a) requires EDCs to identify the reliability of their circuits on a predefined basis, while subsection (b) requires EDCs to improve the reliability of their poorest performing circuits. New *N.J.A.C. 14:5-8.5(c)* is proposed, which will require EDCs to review their previous two reports in order to address the reliability performance for their operating areas. In addition, this subsection will require EDCs to examine the equipment and circuits for operating areas that have values higher than the minimum performance level of CAIDI and SAIFI in two of the past three reports. Finally, the worst performing four percent of circuits and equipment serving those circuits shall be identified and corrected.

*N.J.A.C. 14:5-8.6* requires each EDC to have inspection and maintenance programs for all their distribution facilities. Further, subsection (a) requires that a significant portion of the inspection programs should be focused on mitigating the causes of service interruption. Subsection (b), which details plans for inspections, maintenance and recordkeeping has been amended to require each EDC to submit compliance plans in their Annual System Performance Report, rather than by January 31, 2001. In addition, subsection (c) requires all EDCs to maintain records of inspection and maintenance activities.

*N.J.A.C. 14:5-8.7* provides for the submission by EDC's of an Annual System Performance Report, by May 31st of each year and sets out the components of such report, whereas the rules had previously required an annual system performance report on May 31 during 2001 and 2002. Further, the rules had required another system performance report on September 1, 2002, which was limited to CAIDI and SAIFI data between January 1, 2002 and June 30, 2002. In addition, subsection (b) requires EDCs to include their electric service reliability performance operating areas in relation to their SAIFI and CAIDI levels, with a summary value for each EDC's service territory as a whole in relation to their minimum service reliability levels for those metrics. In addition, the annual report must reflect for the previous calendar year and previous 10 years. Further, subsection (c) contains a list of the items that should be included in the EDCs annual report, including new requirements for information on each EDC's stray voltage program and planned vegetation management activities.

*N.J.A.C. 14:5-8.8* requires that electric utilities submit a report within 15 days of a "major event," and includes a list of the items that should be included in that report. In addition, subsection (c) has been amended to require EDCs to report the date and time that the their storm center or major event center opened.

*N.J.A.C. 14:5-8.9* sets forth the criteria for the establishment of service level values for each EDC's CAIDI and SAIFI levels. This section has been amended to change the EDC's benchmark standard to a five-year average for the years 2002-2006 from a 10-year average for the years between 1990 and 1999. Similarly, the same exact change has been proposed for the SAIFI benchmark standard. Further, the minimum reliability level has been changed to a five-year benchmark standard with 1.5 standard deviations from a 10-year standard with two standard deviations. Subsection (b) has been amended to require corrective action when the CAIDI or SAIFI of an EDC or its operating area fail to meet the minimum reliability performance levels contained in subsection (a). Subsection (c) has been amended to state that the Board may adjust an EDC's minimum reliability performance level for it or its assigned operating area for any of the reasons enumerated in subsection (c).

*N.J.A.C. 14:5-8.10* sets forth standards for the prompt restoration of service by EDCs. Subsection (a) requires EDCs to begin to restore service to an affected area within two hours of notification by two customers or more. Further, subsection (a) contains an amendment that would require EDCs to begin the prompt restoration of service if they are made aware of an outage by their operating management system. Subsection (b) limits this section to disruptions of service that are not caused by a major event. Subsection (c) states that EDCs shall place the highest priority on

responding to emergency situations. Finally, subsection (d) states that when the EDC is unable to respond within the two hours required by subsection (a), they shall respond as soon as possible.

N.J.A.C. 14:5-8.11 pertains to the outage management systems to be implemented by each electric utility. Further, new subsection (d) has been proposed, which would allow EDCs to introduce smart grid technology into their outage management system by using an appropriate cost benefit analysis.

N.J.A.C. 14:5-8.12, recodified from N.J.A.C. 14:5-8.11, sets forth the penalties for violations of the reporting and plan and program submission requirements and for other violations of the subchapter.

N.J.A.C. 14:5-9.1 pertains to the purpose and scope of the vegetation management standards contained in Subchapter 9. This section has been amended to replace the term "electric public utilities" with the term "EDCs."

N.J.A.C. 14:5-9.2 contains a list of defined terms that are used throughout Subchapter 9. Several amendments have been made to this section, and they are as follows:

1. The term "agricultural crop" has been amended to state that is a non-woody cash crop that can be used as food;
2. The term "electric public utility" has been proposed for deletion;
3. The term "electric utility arborist" is proposed for amendment to require that an electric public utility arborist be a person that meets both of the requirements contained in the definition and not merely one or the other;
4. A new term, "inactive transmission line corridor," has been added. This term refers to an unused part of the right-of-way;
5. A new term, "vegetation manager," has been added. A vegetation manager is a electric utility arborist; and
6. The term "wire zone" has been amended to state that the horizontal wire zone is bounded on each side by a location on the ground that is under the outermost transmission wire or transmission tower. Further, the wire zone for a vertical transmission array is the minimum safe distance as specified in the 2007 National Electric Safety Code, which has been incorporated by reference and provides requirements to ensure safety.

N.J.A.C. 14:5-9.3 pertains to the general requirements that EDCs must abide by in the performance of vegetation management activities. This section has been amended to replace the term "electric public utility" with the term "EDC" throughout. In addition, subsection (e) has been amended to clarify that each EDC shall be required to ensure that their employees and contractors abide by all Federal and State regulations and laws while performing vegetation management activities; thereby deleting county and municipal. In addition, subsection (f) has been amended to state that an EDC may require a municipality or government agency that requests vegetation management beyond what is required under the Board's rules, to require that party to pay an incremental cost. In addition, paragraph (g)4 has been amended to include the phrase "or other vegetation management." Further, subsection (i) has been amended to qualify the term energized conductor, as referred to in this subsection, is an energized conductor that "is part of its primary distribution or transmission system and represents a safety hazard" and a sentence has been proposed for deletion, which required a utility to make reasonable attempts to gain permission from a property owner so that the utility could gain access to their property to conduct vegetation management. Finally, a new subsection (j) has been added, which would require EDCs to perform the vegetation management required under the Board's rules on a pro rata basis in order to achieve compliance by December 18, 2010.

N.J.A.C. 14:5-9.4 pertains to the requirements placed upon EDCs for a vegetation management maintenance cycle. Throughout this section the term "electric public utility" has been replaced with the term "EDC." In addition, subsection (a) has been amended to modify the term "energized conductors" to "energized transmission conductors," which is a transmission line with an electric current and is defined in new paragraph (a)1.

N.J.A.C. 14:5-9.5 pertains to the technical standards of vegetation management, which requires that the EDC's ensure that vegetation management is conducted in accordance with the standards contained in the publications list contained at subsection (a). Throughout this section the term "electric public utility" has been replaced with the term "EDC." In addition, in subsection (d), an amendment has been proposed, which would require EDCs to include information on their vegetation management guidelines in their annual report. Further, the original date for submission of the EDC's vegetation management guidelines, January 17, 2007, has been proposed for deletion. Additionally, paragraph (g)1 has been proposed for amendment so that an EDC will only have to obtain consent, instead of written consent to leave the vegetation management trimmings. Finally, paragraph (g)2 has been proposed for deletion.

N.J.A.C. 14:5-9.6 pertains to the requirements on EDCs for transmission line vegetation management. Throughout this section the term "electric public utility" has been replaced with the term "EDC." Subsection (e) has been amended to provide an exception for those instances set forth in subsection (f). Further, paragraph (e)1 has been amended to limit the clearings under the transmission lines to those within the right of way. In addition, paragraph (e)3 has been amended to include that the preferred growth within a wire zone shall be grasses or low-growing shrub scrub plants. Further, the term "without prior notice and inspection by the electric public utility vegetation manager" has been proposed for deletion. Paragraph (e)4 has been proposed for amendment to require EDCs to post the information required in paragraph (e)4 on their websites. Paragraph (e)7 has been proposed for amendment to change the website listed in order to receive information on New Jersey's soil conservation districts to:

<http://www.state.nj.us/agriculture/divisions/anr/nrc/conservdistricts.html>. Paragraph (e)8 has been proposed for amendment to require EDCs to make reasonable efforts to actively remove from the entire right of way, vegetation that poses a threat to the maintenance of the right of way. Additionally, paragraph (e)9 has been proposed for amendment to require EDCs to advise customers of the requirements contained in subsection (e) through direct notification. Finally, new subsection (f) has been added, which states that EDCs may allow vegetation within the right of way where: 1) the easement, right of way document, indenture, deed, or other written land right executed prior to January 1, 2007 allows for it; 2) where the vegetation will grow to have more than 150 percent of the clearance requirements set forth for electrical path to ground, as stated in the 2007 National Electric Safety Code, which lists requirements to ensure the safety of people and is incorporated by reference; and 3) where trees are located in an inactive transmission corridor and at mature height will be more than 150 percent of the clearance requirements for an electrical path to ground as set forth in the 2007 National Electric Safety Code.

N.J.A.C. 14:5-9.7 pertains to the training, recordkeeping and reporting requirements for EDCs. Throughout this section, the term "electric public utility" has been replaced with the term "EDC." Subsection (a) has been amended to replace the phrase "all persons" with the phrase "qualified OSHA and ANSZ131.3, line clearance employees or contractors, which is herein incorporated by reference and supplemented at paragraph (a)5. Finally, the requirement that employees or contractors have demonstrated their ability to perform the work safely has been proposed for deletion. Further, subsection (b) has been amended to require EDCs to ensure that their contractors keep a record of all personnel used to conduct vegetation management for the EDC. In addition, subsection (c) has been proposed for amendment, which would require EDCs to retain the documentation listed in subsection (c) for five years. Finally, subsection (d) has been amended to require EDCs to include the information contained at subsection (d) in their Annual System Performance Report.

N.J.A.C. 14:5-9.8 pertains to the requirements for public notice that the EDCs are expected to abide by in order to provide their customers with sufficient notice of upcoming planned vegetation management activities. Throughout this section, the term "electric public utility" has been replaced with the term "EDC." In addition, in subsection (a), the term property owners is replaced with the word "customers." Further, subsection (a) has been amended to clarify that the vegetation management mentioned here, refers to vegetation management conducted on the EDC's distribution systems. Further, subsection (a) has been amended to require EDCs to make a diligent attempt to notify all municipal government of planed vegetation management activities. Subsection (b) has been amended to require EDCs to provide the notice required there for distribution circuits and also to utilize door hangers to provide that notice. New subsection (c) has been proposed, which requires EDCs to utilize a separate direct mailing to provide notice of planned vegetation



management on transmission circuits. In addition, new subsection (d) has been added which requires the notice of vegetation management required under subsection (a) to be made in the public notice section of two newspapers that serve the area where the vegetation management is scheduled to take place. Subsection (e) has been amended to require EDCs to maintain a record of the locations and activities contained in the notices provided to municipal governments, as required under subsection (a). In addition, subsection (f) has been proposed for amendment to require that the EDCs submit the notice required under this subsection to municipal governments. Finally, subsection (g) has been proposed for amendment to require EDCs to submit notice of vegetation management in a manner that is sufficient to explain each EDC's procedures and easement rights. Further, EDCs will now be required to provide the telephone number of their vegetation manager.

N.J.A.C. 14:5-9.9 pertains to the outreach programs that EDCs are required to conduct in order to let the public know about the importance of vegetation management activities. Throughout this section, the term "electric public utility" has been replaced with the term "EDC."

N.J.A.C. 14:5-9.10 has been proposed for amendment to change the word "fines" with the word "penalties." Further, subsection (a) has been proposed for amendment to remove the sentence which states that no penalties would be imposed on EDCs within the first six months after the initial date of enactment. Finally, new paragraph (d)6 has been proposed, which states that the Board would take into consideration the good faith efforts of EDCs to resolve any violations of the requirements of these rules, when considering instituting penalties.

As the Board has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to *N.J.A.C. 1:30-3.3(a)5*.

### **Social Impact**

The rules proposed for readoption with amendments, new rules and repeals relate directly to the provision of safe, adequate and proper service by New Jersey electric utilities. Said rules are necessary to ensure that electric plant is constructed and installed pursuant to acceptable standards and is maintained and inspected in a manner that will protect the safety and well-being of the public. The amendments and new rules will ensure that the State's EDCs continue to provide safe and reliable service to their customers. Amendments that have been proposed to achieve this goal include: 1. a requirement for an annual system performance report; 2. new requirements for street light repairs; 3. a new requirement that EDCs examine the equipment and circuits in operating areas whose performance does not meet the minimum performance level for CAIDI and SAIFI during two of their last three reports; and 4. a new requirement that the EDCs include in their annual report a summary value for each of their service territories as a whole in relation to their minimum reliability levels for CAIDI and SAIFI.

### **Economic Impact**

As a result of the rules proposed for readoption with amendments, new rules and repeals, EDCs, as they have in the past, will incur expenses for, among other things, inspecting and testing their plant and meters and maintaining required records, conducting vegetation management activities and providing notice of proposed vegetation management activities. Since these items represent appropriate business activities, all reasonable levels of costs associated with them will be passed along to ratepayers through rates for service.

### **Federal Standards Statement**

The rules proposed for readoption with amendments, new rules and repeals contain, in *N.J.A.C. 14:5-6.1*, the adoption by reference of the Uniform System of Accounts for Classes A and B Electric Utilities that have been promulgated by the Federal Energy Regulatory Commission (FERC), as well as any subsequent amendments, revisions, deletions and corrections, which FERC may make thereto. The remainder of the subject matter of the rules proposed for readoption with amendments, repeals and new rules is not the subject of any Federal law, rule or regulation.

### **Jobs Impact**

The Board does not anticipate that the rules proposed for readoption with amendments, new rules and repeals will either cause jobs to be generated or lost in any area of the State's economy.

### **Agriculture Industry Impact**

The Board does not anticipate that the rules proposed for readoption with amendments, new rules or repeals will have any impact on the agriculture industry of the State.

### **Regulatory Flexibility Statement**

The rules proposed for readoption with amendments, new rules and repeals will not impose reporting, recordkeeping or other compliance requirements on small businesses, as that term is defined in the Regulatory Flexibility Act, *N.J.S.A. 52:14B-16* et seq., in that no regulated New Jersey electric distribution company has fewer than 100 full-time employees.

### **Smart Growth Impact**

The Board anticipates that the rules proposed for readoption with amendments, new rules and repeals will have no impact on either the achievement of smart growth or the implementation of the State Development and Redevelopment Plan. The State Plan is intended to "provide a coordinated, integrated and comprehensive plan for the growth, development, renewal and conservation of the State and its regions" and to "identify areas for growth, agriculture, open space conservation and other appropriate designations." *N.J.S.A. 52:18A-199a*. Smart growth is based on the concepts of focusing new growth into redevelopment of older urban and suburban areas, protecting existing open space, conserving natural resources, increasing transportation options and transit availability, reducing automobile traffic and dependency, stabilizing property taxes, and providing affordable housing." These rules apply uniformly Statewide and the Board does not expect that they will affect the location of future development. Therefore, the rules will not impact smart growth or the State Plan.

**Full text** of the rules proposed for readoption may be found in the New Jersey Administrative Code at *N.J.A.C. 14:5*.

**Full text** of the proposed amendment and new rules follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

## **SUBCHAPTER 1. SCOPE AND APPLICABILITY**

### **14:5-1.1 Scope**

**(a) The requirements contained in this chapter shall govern the operation of all electric distribution companies (EDCs) operating within the State of New Jersey.**

**(b) In addition to complying with this chapter, each EDC described at (a) above shall also comply with the applicable provisions of the Board's rules for all utilities at *N.J.A.C. 14:3*.**

### 14:5-[7.2] **1.2** Definitions

[The] **For the purposes of this chapter, the** following words and terms[, as used in this subchapter,] 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*.**

**"Annual System Performance Report"** means an annual report containing the information requested in N.J.A.C. 14:5-7. This report is to be submitted to the Board by May 31 of each year.

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

...

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

...

**"IEEE"** means Institute of Electrical and Electronic Engineers.

...

"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, **the preservation of the system or supply interruptions due to the scheduled unavailability of transmission import capability**.

1.-2. (No change.)

...

"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. (No change.)

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] **or**

4. (No change.)

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]* **8.8 and 8.9**.

"Minimum reliability level" [is defined as] **means** the minimum acceptable reliability as measured by CAIDI and SAIFI data as specified in *N.J.A.C. 14:5-[7.10]* **8.9**. 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.

...

"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.

...

**"Quarterly" shall mean four times per year. The first quarter shall be January, February and March. The second quarter shall be April, May and June. The third quarter shall be July, August and September. The fourth quarter shall be October, November and December.**

...

**"Smart Grid" means an electrical transmission or distribution grid that uses advanced sensing and control technologies to distribute electricity more effectively, economically and securely.**

...

"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.

## SUBCHAPTER[1.] 2. PLANT

### 14:5-[1.1] 2.1 Plant construction

The construction and installation of plant and facilities of [electric utilities] **EDCs** 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, **which is addressed in *N.J.A.C. 14:5-2.2***, must be in accordance with the [applicable] requirements of the National Electrical Code (**NFPA 70**), **which is available at [www.NFPA.org](http://standards.ieee.org/nesc/)**, and the 2007 National Electrical Safety Code, **which is available at <http://standards.ieee.org/nesc/>**, in effect at the time of construction, **which are incorporated herein by reference including amendments and supplements thereto.** [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.]

### 14:5-[1.2] 2.2 Separation and protection of conductors buried in earth

(a) (No change.)

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

1.-2. (No change.)

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 **joint power cable standards, available from ICEA PO Box 1568 Carrolton, Ga 30112 and** www.icea.net, for cables for transmission and distribution of electrical energy; **and**
- iii. (No change.)
4. (No change.)

14:5-[1.3] **2.3** 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] **rot-resistant treated** 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. (No change.)
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]* **2.2(b)3** and 4.

14:5-[1.4] **2.4** 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] **rot-resistant treated** wood planking or equivalent mechanical protection, except that this covering may be omitted in the following cases:

- 1.-2. (No change.)
3. Where the supply conductors or cables are installed more than two feet horizontally from communication conductors; **or**
4. Where supply conductors over 550 volts between conductors are installed in accordance with *N.J.A.C. 14:5-[1.2(b)3]* **2.2(b)3**.

(b) (No change.)

14:5-[1.5] **2.5** 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] 2.2*, the cable shall be protected by devices capable of clearing phase to ground faults.

14:5-[1.6] **2.6** Identification of conductors

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

14:5-[1.7] **2.7** 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] 2.2* through [1.8] **2.8** shall be made by taps to the common neutral.

2. (No change.)

14:5-[1.8] **2.8** (No change in text.)

14:5-[1.9] **2.9** Inspection of property

(a) Each [electric utility] **EDC** shall inspect lamps and street lighting accessories and maintain such service in accordance with **N.J.A.C. 14:3-2.7(a)** and established **industry** 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.

**(b) All routine streetlight repairs are to be made within three business days after notice that a repair is necessary. Routine repairs include bulbs, fixtures, globes, mantles or photocells. Other more extensive repairs including, but not limited to, those requiring excavation, shall be handled on a best efforts basis in order to ensure the restoration of safe, adequate and proper service as quickly as reasonably possible.**

SUBCHAPTER [2.]**3.** SERVICE

14:5-[2.1] **3.1** Polyphase service

Where polyphase service, **which means an electrical system that uses or generates two or more alternating voltages of the same frequency but differing in phase angle**, is available, or can be made available in accordance with the [rules and regulations] **provisions** in the [utility's] **EDC's** tariff, an applicant for polyphase service for a motor installation shall be supplied polyphase service where any one motor is over [ten] **10** horsepower, or where any one motor is between five horsepower and [ten] **10** 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-[2.2] **3.2** Adequacy of service

(a) [Electric utilities] **EDCs** 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 percent above, nor more than four percent 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 the customer's premises in violation of the utility's rules, the action of the elements, or other causes beyond the [utility's] **EDC's** control shall not be considered a violation of this provision.

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

#### 14:5-[2.3] **3.3** Sealing of main fuse cabinets or circuit breakers

In the interest of safety to the [electric utility] **EDC** customer and as a measure of protection to the [utility] **EDC**, 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, **available from National Fire Protection Association 1 Batterymarch Park, Quincy, Mass or www.nfpa.org**; and that fuses or circuit breakers other than above mentioned are made accessible to the customer. The [utility's] **EDC'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] **that** are sealed.

#### 14:5-[2.4] **3.4** Grounding of secondaries

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

#### 14:5-[2.5] **3.5** Refusal to connect

An [electric utility] **EDC** 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] **EDC** 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] **EDC** in its filed tariff, shall be accepted in lieu thereof.

#### 14:5-[2.6] **3.6** Accidents

Each [electric utility] **EDC** shall report accidents in conformance with the provisions of *N.J.A.C. 14:3-6.4*.

[14:5-2.7 (Reserved)]

### SUBCHAPTER [3.]**4**. METERS

#### 14:5-[3.1] **4.1** Testing of electric meters

(a) Each [utility] **EDC** 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] **EDC** 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] **customers'** service meters, each [utility] **EDC** 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] **EDC** 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] **EDC** at least one year.

(e)-(f) (No change.)

14:5-[3.2] **4.2** (No change in text.)

14:5-[3.3] **4.3** Determination of electric meter accuracy

(a) (No change.)

(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)-(e) (No change.)

Recodify existing *N.J.A.C. 14:5-3.4* and *3.5* as **4.4** and **4.5** (No change in text.)

#### SUBCHAPTER [4.]**5**. EXTENSION OF ELECTRIC SERVICE

14:5-[4.1] **5.1** (No change in text.)

#### SUBCHAPTER [5.]**6**. UNIFORM SYSTEM OF ACCOUNTS FOR CLASSES A AND B ELECTRIC UTILITIES

14:5-[5.1] **6.1** Adoption by reference of the Uniform System of Accounts

The Board adopts by reference the Uniform System of Accounts (USOA) for Classes A and B Electric Utilities that have been promulgated by the Federal Energy Regulatory Commission, as well as all present and subsequent amendments, revisions, deletions and corrections, which the Federal Energy Regulatory Commission may adopt, insofar as they relate to [electric utilities] **EDCs** subject to the jurisdiction of the Board and are in accordance with the Board's policies and procedures. **Information about the (USOA) may be obtained at**



<http://www.ferc.gov/legal/acct-matts/usofa.asp>.

[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. Copies of these rules may be purchased from the National Association of Regulatory Utility Commissioners, 1101 Vermont Avenue, NW, Washington, D.C. 20005.]

**14:5-6.2 Adoption by reference of rules concerning preservation of records**

**(a) Each EDC shall keep records as required by the National Association of Regulatory Utility Commissioners' 1985 "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities," incorporated herein by reference, as amended or supplemented, and available from the National Association of Regulatory Utility Commissioners, 1101 Vermont Avenue NW, Washington, D.C. 20005, or at [www.naruc.org](http://www.naruc.org).**

SUBCHAPTER [6.]7. ELECTRIC TRANSMISSION LINES

14:5-[6.1] **7.1** Requirements for electric transmission lines

(a) Whenever an [electric company] **EDC** constructs an overhead transmission line, it shall:

1.-3. (No change.)

(b) (No change.)

SUBCHAPTER [7.]**8.** [INTERIM] ELECTRIC DISTRIBUTION SERVICE RELIABILITY AND QUALITY STANDARDS

14:5-[7.1] **8.1** 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 (JEDCs)] operating in New Jersey subject to the Board's regulatory authority.

(b)-(d) (No change.)

**(Agency Note:** *N.J.A.C. 14:5-7.2* is proposed for recodification with amendments as *N.J.A.C. 14:5-1.2*.)

14:5-[7.3] **8.2** Reliability performance levels

(a) Each EDC shall take reasonable measures to perform better than the minimum reliability levels **in N.J.A.C. 14:5-8.5.**

(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] **8.3** Service reliability

(a) (No change.)

(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] **at 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] **8.4** Power quality

(a) (No change.)

(b) Each EDC shall, as a minimum, maintain a power quality program that includes its objectives and procedures **and complies with N.J.A.C. 14:5-3.2.** 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] **in the Annual System Performance Report.**

14:5-[7.6] **8.5** Individual circuit reliability performance

(a)-(b) (No change.)

**(c) An EDC that files a report as identified in N.J.A.C. 14:5-8.8(d)4 and identifies operating areas that have quarterly values above the minimum performance level for CAIDI and SAIFI shall review its previous two reports for purposes of addressing operating area reliability performance. Any operating area that has values higher than the minimum performance level for CAIDI and SAIFI in two of the past three reports shall further examine its equipment and circuits for causes of systemic outages. The worst performing four percent of circuits and the equipment servicing those circuits in (a) above which show systemic outages shall be identified and corrective measures shall be implemented. The following report shall reflect the work proposed to address the problem and the anticipated date of completion.**

14:5-[7.7] **8.6** Inspection and maintenance programs

(a) (No change.)

(b) Each EDC shall submit to the Board,[no later than January 31, 2001] **in the Annual System Performance Report,** 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) (No change.)

14:5-[7.8] **8.7** 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 Annual Report shall be limited to CAIDI and SAIFI performance data for the period January 1, 2002 to June 30, 2002] **by May 31 of each year.**

(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.] **It shall also include a summary value for each EDC's New Jersey service territory as a whole in relation to their minimum reliability levels for CAIDI and SAIFI. The Annual Report shall reflect system performance for the previous calendar year and the previous 10 years with accompanying graphs.**

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

1.-5. (No change.)

**6. The EDC's stray voltage program;**

[6.] **7.** (No change in text.)

[7.] **8.** 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]

**9. The vegetation management work and planned activities as required in *N.J.A.C. 14:5-8.7*; and**

[8.] **10.** 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 [Statewide] **in its New Jersey service territory** and by each operating area:

1.-2. (No change.)

(e)-(f) (No change.)

(g) Each EDC shall include in its Annual Report the greater of [two] **four** 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)] 8.5(b)* based on the reliability performance parameters in *N.J.A.C. 14:5-[7.6(a)] 8.5(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] **8.8** 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 **or major event** center opened and closed;

2.-6. (No change.)

(b) (No change.)

14:5-[7.10] **8.9** Establishment of **reliability** service **performance** 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]5-year average CAIDI for the years [1990-1999] **2002-2006**;

2. The operating area's SAIFI benchmark standard is set at the [10]5-year average SAIFI for the years [1990-1999] **2002-2006**;

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 **CAIDI and SAIFI** [10] **five**-year benchmark standard plus [two] **1.5** standard deviations.

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

(c) The minimum reliability **performance** level to be assigned to [each] **an EDC and/or its** operating area shall be reviewed and may be adjusted **by the Board** for subsequent years after consideration of various factors, including:

1.-7. (No change.)

14:5-[7.11] **8.10** 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 **or identification by their operating management system** 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)-(d) (No change.)

14:5-[7.13] **8.11** Outage management systems (OMS)

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

(b) (No change.)

(c) [It is intended that when fully implemented the] **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).

**(d) As part of the outage management system, each EDC shall use appropriate cost benefit analysis for the purpose of adopting smart grid technology to improve reliability. The implementation of smart grid technology shall be reported in the Annual System Performance Report.**

14:5-[7.12] **8.12** Penalties

(a) Civil administrative penalties for violations of the reporting and [plan] **planning** and program submission requirements set out in *N.J.A.C. 14:5-[7.4]* **8.3** through [7.9] **8.8** and [7.11] **8.10** shall be assessed as follows:

1.-2. (No change.)

(b)-(d) (No change.)

**(Agency Note:** *N.J.A.C. 14:5-7.13* is proposed for recodification with amendments as *N.J.A.C. 14:5-8.11*.)

SUBCHAPTER [8.] **9.** Vegetation Management [(Tree trimming) standards]

14:5-[8.1] **9.1** Purpose and scope

This subchapter sets forth requirements that [electric public utilities] **EDCs** shall follow in managing vegetation in proximity to an energized conductor in order to ensure public safety and the efficient and reliable supply of electric power.

14:5-[8.2] **9.2** Definitions

The following words and terms, when used in this subchapter, shall have the following meaning 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 **non-woody** cash crop, which **can be used as a food and** is sold for money.

...

"Distribution line" means a primary electric voltage line, wire or cable including supporting structures and appurtenant facilities, which delivers electricity from transformation points on the transmission system to points of connection at a customer's premises, that would not be considered a transmission line as set forth in [ *N.J.A.C. 14:5-8.2*] **this section**.

["Electric public utility" means a public utility, as that term is defined in *N.J.S.A. 48:2-13*, that transmits and distributes electricity to end users within New Jersey.]

"Electric utility arborist" means a person that has been certified as a Utility Specialist by the International Society of Arboriculture and, in addition, meets [one or more of ]the following:

1. The person is certified as a Tree Expert by the New Jersey Department of Environmental Protection's Board of Tree Experts; [or] **and**

2. (No change.)

...

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

"Major event" means any of the following:

1.-3. (No change.)

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 Customer Average Interruption Duration Index (CAIDI) and System Average Interruption Frequency Index (SAIFI), as defined under *N.J.A.C. 14:5-[7.2]* **1.2**, 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]* **8.8**.

...

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

"Vegetation" means trees and other plants.

...

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

**"Vegetation manager" or "VM" means an electric utility arborist.**

"Wire zone" means the land located directly under the widest portion of a transmission line. [The] **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 wire zone shall be the minimum safe distance specified in the 2007 National Electric Safety Code, §232 to §235, which is incorporated herein by reference and available at <http://standards.ieee.org/nesc/>, that will allow maintenance on the wires.**

...

#### 14:5-[8.3] **9.3** General provisions

(a) An [electric public utility] **EDC** shall ensure that vegetation management is conducted in accordance with this subchapter on any energized conductors of 600 volts and higher, whether for distribution or transmission, that the electric public utility owns, in whole or in part.

(b) Each [electric public utility] **EDC** shall obtain, and shall ensure that its contractors obtain, all required permits and licenses prior to commencement of vegetation management.

(c) An [electric public utility] **EDC** that utilizes chemical or biological agents in vegetation management shall comply with any laws or regulations governing the use of those biological and chemical agents.

(d) Each [electric public utility] **EDC** shall employ a vegetation manager [(VM)], who is an electric utility arborist, as defined at *N.J.A.C. 14:5-[8.2]***9.2**. The VM shall be a utility employee, not a contractor. The electric public utility shall provide the VM with the authority and the resources to administer all aspects of the utility's vegetation management program, and the VM shall ensure that the electric public utility complies with this subchapter. The VM's name and contact information shall be posted on the electric utility's web site and shall be included on all notifications provided pursuant to the notice requirements of *N.J.A.C. 14:5-[8.7]***9.7**.

(e) Each [electric public utility] **EDC** shall ensure that all contractors hired to perform vegetation management inform their workers of all applicable Federal **and** [,]State[, county, and municipal] laws, rules or regulations that apply to the work performed under this subchapter. The [electric utility] **EDC** shall also ensure that all contractors comply with each applicable requirement of this subchapter and all other applicable law.

(f) An [electric public utility] **EDC** that performs vegetation management at the request of a municipality or government agency, other than vegetation management required under this subchapter, may require the requesting party to pay any **incremental** cost above the [electric public utility's] **EDC's** cost to perform the vegetation management required by this subchapter. An [electric public utility] **EDC** shall not perform such additional vegetation management if the additional vegetation management would decrease the reliability or safety of an energized conductor.

(g) Upon a written request from a municipality, an [electric public utility] **EDC** may, but is not required to, temporarily suspend compliance with one or more of the vegetation management requirements of this subchapter, within the following limits:

1.-2. (No change.)

3. The [electric public utility] **EDC** shall not suspend compliance with any requirement if the suspension would result in danger to the public; and

4. If the suspension results in additional costs to the [electric public utility] **EDC** due to lack of tree trimming **or other vegetation management**, the municipality shall reimburse the electric public utility for these costs.

(h) An [electric public utility] **EDC** may petition the Board for recovery of the distribution and transmission portion of vegetation management program costs required under this subchapter in future base rate proceedings.

(i) Upon [a utility's] **an EDC's** receiving notice of, or having actual knowledge of, any dead, rotten, or diseased vegetation, which overhangs, leans toward, or may fall into an energized conductor, **that is part of its primary distribution or transmission system and represents a safety hazard**, the [electric public utility] **EDC** shall promptly remove or remedy the potential safety concern as promptly as possible. [If removal of the vegetation requires the electric public utility to access or cross property for which it does not hold an easement or other legal authorization, the electric public utility shall take all reasonable steps to obtain any necessary permission from the property owner and remove or remedy the potential safety concern as promptly as possible.] In response to a major event, the utility will only be required to remedy the potentially dangerous condition.

**(j) EDCs shall perform vegetation management on a pro rata basis as identified in N.J.A.C. 14:5-9.4(b) to achieve full compliance by December 18, 2010.**

14:5-[8.4] **9.4** Maintenance cycle

(a) An [electric public utility] **EDC** shall perform an annual visual inspection of all energized **transmission** conductors, to determine whether vegetation management is needed. The visual inspection may be performed from the ground except in cases where the conductor is not visible from the ground. The [electric public utility] **EDC** shall take into account the height of the vegetation and the distance of the vegetation from the energized conductor, in determining whether vegetation management is needed.

**i. For the purposes of (a) above, "energized transmission conductors" means a transmission line with an electric current.**

(b) An [electric public utility] **EDC** shall perform vegetation management on vegetation that is close enough to pose a threat to its energized conductors at least once every four years.

(c) In addition to the maintenance required in (b) above, if an [electric public utility] **EDC** becomes aware either through notification or during the inspections required under (a) above or at any other time, of any vegetation close enough to pose a threat to its energized conductor, which is likely to affect reliability or safety prior to the next required vegetation management **activity**, the electric utility shall ensure that necessary vegetation management is promptly performed as required under *N.J.A.C. 14:5-[8.5]***9.5**.

14:5-[8.5] **9.5** Technical standards for vegetation management

(a) Each [electric public utility] **EDC** shall ensure that vegetation management conducted on its energized conductors is performed in accordance with the standards and accepted procedures set forth in the following publications, which are incorporated herein by reference including amendments and supplements thereto:

1.-9. (No change.)

(b) (No change.)

(c) Each [electric public utility] **EDC** shall develop its own vegetation management standards and guidelines, which shall be consistent with this subchapter. In developing these standards and guidelines, a utility shall prioritize work based upon:

1.-3. (No change.)

(d) Each [electric public utility] **EDC** shall provide a copy of [their] **its** vegetation management standards and guidelines to the Board [by January 17, 2007] **as a chapter in the Annual System Performance Report**. If an [electric public utility] **EDC** makes a change in its vegetation management standards and guidelines, the utility shall provide Board staff with a copy of the change no later than 30 days prior to implementing the change.

(e) Each [electric public utility's] **EDC's** vegetation management standards and guidelines shall cover, at a minimum, all of the following activities:

1.-6. (No change.)

(f) Among the factors the [electric utility] **EDC** shall consider in determining the extent of vegetation management to be performed at a particular site are:

1.-5. (No change.)



(g) The [electric public utility] **EDC** shall remove all trimmings and cut vegetation resulting from vegetation management activities that are part of the utility's regular maintenance cycle, within five business days after the vegetation was cut, except if:

[1.] The [electric public utility] **EDC** obtains [written] consent to leave the trimmings or cut vegetation, from the owner of the property upon which the trimmings or cut vegetation are located.[]; or]

[2. The vegetation management activities are performed as a direct result of a major event, in which case the electric public utility shall remove the trimmings and cut vegetation that was cut or trimmed as part of its vegetation management activities, after the conclusion of the major event.]

#### 14:5-[8.6] **9.6** Transmission line vegetation management

(a) In addition to the other requirements of this subchapter, transmission lines, as defined at *N.J.A.C. 14:5-[8.2]* **9.2**, are subject to the requirements in this section.

(b) An [electric public utility] **EDC** shall meet the requirements of the National Electric Safety Code (C-2 2002) for minimum clearances between any transmission line and the closest vegetation beneath it.

(c) (No change.)

(d) An [electric public utility] **EDC** may request an exemption from (b) and (c) above based upon exigent circumstances.

(e) In addition to meeting the other requirements in this section, each [electric public utility] **EDC** shall ensure that the following requirements for transmission lines are met, **except for those instances set forth in (f) below**:

1. Clearing under transmission lines shall be wide enough **within the EDC's right of way** so that no vegetation or parts of vegetation will grow or fall into the transmission lines;

2. An [electric public utility] **EDC** shall not allow any vegetation [that grows] taller than 15 feet at maturity to grow anywhere within a transmission line right of way;

3. **The preferred growth in a wire zone shall be grasses or a low-growing compatible shrub scrub plant community to obtain a meadow effect where possible.** An [electric public utility] **EDC** shall not allow woody plants that naturally mature above three feet tall to grow in the wire zone[without prior notice and inspection by the electric public utility vegetation manager];

4. The [electric public utility] **EDC** shall not allow any woody plant species that naturally matures above 15 feet to grow in the border zone. Mature height may be determined from a reliable text authorities either listed in, or equivalent to those listed in *N.J.A.C. 14:5-[8.5(a)]9.5(a)*. **Utilities shall provide this information on their web site or in a publication upon request by a ratepayer;**

5.-6. (No change.)

7. Where an [electric public utility] **EDC** has cleared a right of way of vegetation and bare soil is exposed, the [utility] **EDC** shall comply with the soil erosion requirements of the applicable soil conservation district in order to prevent soil erosion. A list of the soil conservation districts in New Jersey may be found at [<http://www.state.nj.us/agriculture/rural/natsrc.htm>] [www.state.nj.us/agriculture/divisions/anr/nrc/conservdistricts.html](http://www.state.nj.us/agriculture/divisions/anr/nrc/conservdistricts.html)];

8. To the extent that any plant species identified as invasive and non-indigenous to New Jersey poses a **threat to the maintenance of the right of way** or a hazard to electrical transmission conductors, the [electric public utility] **EDC** shall make reasonable efforts to **actively eliminate from the entire right of way** the species identified as invasive and non-[indigenous] **indigenous, see Snyder, David and Sylvan R. Kaufman, 2004**[, from the entire right of way]. An overview of non-indigenous plant species in New Jersey. New Jersey Department of Environmental Protection, Division of Parks and Forestry, Office of Natural Lands Management, Natural Heritage Program, Trenton, NJ (available at <http://www.nj.gov/dep/parksandforests/natural/heritage/InvasiveReport.pdf>, and incorporated by reference herein, including any supplements and amendments thereto). To do so, the [electric public utility] **EDC** shall use the best integrated vegetation management practices available and practical; and

9. Each year in the March billing cycle, or two months prior to the commencement of vegetation management work on a particular property, whichever is earlier, each [electric public utility] **EDC** shall [owners of land upon which the utility holds a right of way] **advise customers** of the requirements in this subsection, through a [separate] direct [mailing] **notification**.

**(f) An EDC shall be permitted to leave trees and other woody vegetation within the transmission right of way, under any of the following conditions where:**

- 1. The right-of-way document, easement, indenture, deed or other written land rights, executed before Jan 1, 2007, expressly permit vegetation to be located within the transmission right of way;**
- 2. The slope of the topography exceeds 30 degrees and the transmission right of way is such that a tree or other vegetation at mature height will be more than 150 percent of the clearance requirements for an electrical path to ground set forth in the National Electric Safety Code, §232 to §235; or**
- 3. Trees are located within an inactive transmission corridor and at mature height will be more than 150 percent of the clearance requirements for an electrical path to ground set forth in the National Electric Safety Code, §232 to §235.**

[(e)] **(g)** For the purposes of this section, the mature height of woody and non-woody agricultural crops shall be determined in accordance with the publications listed in *N.J.A.C. 14:5-[8.5(a)]9.5(a)*, or equivalent publications.

[(f)] **(h)** Each year, before June 1, the [electric public utility] **EDC** shall develop a schedule for transmission line vegetation management, which shall be included in the [electric public utility] **EDC's** annual system performance report as required by *N.J.A.C. 14:5-[7]8*. The schedule shall:

1. List the transmission lines planned for vegetation management for the next four years in advance (one of the four-year cycles required at *N.J.A.C. 14:5-[8.4(b)] 9.4(b)*);
2. (No change.)
3. Be distributed to affected municipalities by the [electric public utility] **EDC**.

14:5-[8.7] **9.7** Training, recordkeeping and reporting

(a) Each [electric public utility] **EDC** shall ensure that [all persons who] **qualified OSHA and ANSI Z133 line clearance employees or contractors** perform vegetation management for the [utility] **EDC**, whether employees or contractors, **and** are trained in the proper care of trees and other woody plants in order to provide safe, reliable electric service, are knowledgeable regarding safety practices and line clearance techniques [, and have demonstrated the ability

to perform the work safely].

(b) Each [electric public utility] **EDC** shall ensure **that its contractors shall** keep a record of all personnel used by a contractor or the [utility] **EDC** to perform vegetation management for the [electric public utility] **EDC**, and the dates and types of training that each has received.

(c) The [electric public utility] **EDC** shall monitor and document all vegetation management and related activities. Documentation shall **be retained for five years and shall** include, but shall not be limited to:

1.-8. (No change.)

(d) Each [electric public utility] **EDC** shall include a summary of the information required in (c) above about its vegetation management work during the past year, and planned activities for the following year in [an annual report] **the Annual System Performance Report** to be filed with the Board by May 31[st] **of** each year. This information shall include, at a minimum, the name of each municipality in which the [electric public utility] **EDC** conducted vegetation management during the preceding year, and all circuits affected.

14:5-[8.8] **9.8** Public notice of planned vegetation management **activity**

(a) Each [electric public utility] **EDC** shall make a diligent attempt to notify all **municipal governments and** property owners that may be affected by planned vegetation management **activity on the EDC's distribution or transmission system. In addition, each EDC shall make a diligent attempt to notify all municipal governments and customers that may be affected by planned vegetation management activity on the EDC's distribution system.** This requirement will be satisfied if the [electric public utility] **EDC** provides written notice to [affected property owners] **those customers** at least seven days, but not more than 45 days, prior to performing any vegetation management activity. [Notice]

**(b) For distribution circuits, notice** shall be provided by separate direct mailing, **door hanger**, or any other Board-approved method.

**(c) For transmission circuits, notice shall be provided by the EDC initiating a separate direct mailing with a return receipt requested to verify a proper notification attempt, or any other Board-approved method.**

**(d) For vegetation management activity that is to be performed on transmission rights of way, notice shall be made by (a) and (c) above and through publication in the public notice of two newspapers that serve the area, within the timeframe set forth in (a) above.**

[(b)] **(e)** Each [electric public utility] **EDC** shall maintain a record of the dates, [content,] **locations** and [addresses to] **activities contained in the notices**, which [all notices] **were** provided **to the municipal government** under (a) above for a period of five years after notices are sent.

[(c)] **(f)** [Each electric public utility] **For municipal governments, each EDC** [or its contractor] shall provide written notice of any pending vegetation management activities to a primary contact. For a municipality, the mayor, town clerk or other person or position mutually agreed upon shall be the primary contact. For other government entities and for public authorities, the primary contact shall be selected by mutual agreement between the [electric utility] **EDC** and the entity or authority.

[(d)] **(g)** An [electric public utility] **EDC** shall notify all municipalities and public authorities that may be affected by vegetation management activities. The notice shall be made in writing to the primary contact designated under [(c)] **(f)** above, at least two months in advance of the planned vegetation management. This notice shall include the planned

dates and locations of the vegetation management. In addition, the notice of vegetation management shall be in a [form appropriate] **manner sufficient to explain** each [electric public utility] **EDC's** procedures and easement rights. **The EDC shall provide a telephone number of the vegetation manager to enable questions to be answered.**

14:5-[8.9] **9.9** Outreach programs

(a) Each [electric public utility] **EDC** shall conduct an annual public education program to inform its customers, as well as the municipalities and public agencies in the [electric public utility] **EDC's** service territory, of the importance of vegetation management, and of the [electric public utility] **EDC's** role and responsibility in managing vegetation near electric lines.

(b) (No change.)

(c) Each [electric public utility] **EDC** shall post its public education materials on its website.

14:5-[8.10] **9.10** Penalties

(a) Failure to comply with any provision of this subchapter shall subject the violator to penalties in accordance with the Board's regulatory and statutory authority. [No penalties would be imposed for violations of the subchapter for a period of six months from the initial date of enactment.]

(b) An [electric public utility] **EDC** that violates this subchapter may be subject to [fines] **penalties** of up to \$ 100.00 per day per violation, for each day the violation occurs. The Board shall notify the [utility] **EDC** of the violation(s) in writing. Upon receipt of the written notice of violation, the [utility] **EDC** shall have five business days to correct the violation(s). Any failure to correct the violation shall subject the [utility] **EDC** to [fines] **penalties** of \$ 100.00 per day for each violation, calculated from the day such written notice was received by the [electric public utility] **EDC**.

[(c) An electric public utility that violates this subchapter shall be liable for mitigating all costs incurred as the result of the violation.]

[(d)] (c) [Fines and costs] **Penalties** imposed under this subchapter are in addition to, not a replacement for, other fines and/or penalties that apply under Federal and State laws and regulations.

[(e)] (d) In determining the appropriate sanction for a violation of this subchapter, the Board shall consider the following criteria, and any other factors deemed appropriate and material to the electric public utility's failure to comply:

1.-3. (No change.)

4. The appropriateness of the [sanction or fine] **penalty** to the size of the company charged; [and]

5. Events judged to be beyond the violator's control[.]; **and**

**6. Good faith efforts on the part of the EDC to resolve any violations of the requirements contained in this subchapter.**

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