

Agenda Date: 2/20/13 Agenda Item: 2A

**ENERGY** 

# STATE OF NEW JERSEY

Board of Public Utilities 44 South Clinton Avenue, 9<sup>th</sup> Floor Post Office Box 350 Trenton, New Jersey 08625-0350 www.nj.gov/bpu/

IN THE MATTER OF THE BOARD'S INITIATIVE TO	)	ORDER
REVISE REPORTING REQUIREMENTS AND	j	•
IMPROVE RELIABILITY PROGRAMS BY THE	)	
ELECTRIC DISTRIBUTION COMPANIES OPERATING	)	
IN NEW JERSEY	)	DOCKET NO. EO12070650

## Parties of Record:

Philip J. Passanante, Esq., Atlantic City Electric Company
Margaret Comes, Esq., Rockland Electric Company
Marc B. Lasky, Esq. Morgan, Lewis & Bockius, LLP, on behalf of Jersey Central Power & Light Company
Tamara L. Linde, Esq., Public Service Electric and Gas Company

#### BY THE BOARD:

The New Jersey Board of Public Utilities ("Board") is empowered to ensure that regulated public utilities provide safe, adequate and proper service to the citizens of New Jersey. N.J.S.A. 48:2-23. In addition, pursuant to N.J.S.A. 48:2-13, the Board has been vested by the Legislature with the general supervision and regulation of, and jurisdiction and control over all public utilities, "so far as may be necessary for the purpose of carrying out the provisions of [Title 48]." The courts of this State have held that the grant of power by the Legislature to the Board is to be read broadly, and that the provisions of the statute governing public utilities are to be construed liberally. See, e.g. Township of Deptford v. Woodbury Terrace Sewerage Corp. 54 N.J. 418, 424 (1969); Bergen County v. Dep't of Public Utilities, 117 N.J. Super; 304 (App. Div. 1971); in re Public Service Electric and Gas Company, 35 N.J. 358, 371 (1961). The Board is also vested with the authority, pursuant to N.J.S.A. 48:2-19, to investigate any public utility, and, pursuant to N.J.S.A. 48:2-16 and 48:2-40, to issue orders to public utilities.

## PURPOSE OF THE OUTAGE REPORTING AND RELIABILITY INITIATIVE

As part of the Board's continuing efforts to ensure safe, reliable and adequate electric service to New Jersey customers, and on the heels of the recent investigation into the response and restoration efforts of Electric Distribution Companies ("EDCs" or "Companies") during Tropical Storm Irene and the October 2011 Snow Storm, Board Staff is recommending new EDC reporting requirements related to outages and reliability improvement measures. These new

requirements include four initiatives: 1) quarterly reporting requirements; 2) the inclusion of an additional annual report; 3) the modification of the rules and reporting requirements regarding the poorest performing circuits; and 4) a new tracking objective related to "Hazard Trees" 1 as detailed below.

The proposed modifications to the rules will enhance the ability to track potential and/or realized problem areas within the electric distribution systems, and to have the EDCs address these areas and improve system-wide reliability. The additional reporting requirements will aid in system evaluation and identification of high outage areas or equipment, help identify outage and fault catalysts, and allow Board Staff to better understand the current state of the electric systems and infrastructure, as well as identify issues that the EDCs and the Board should address. These recommendations would supplement the existing guidelines found under the current rules in N.J.A.C.14:5-8.

#### **BOARD STAFF RECOMMENDATIONS**

Board Staff recommends four changes and/or additions to the responsibilities of the EDCs under the current rules. These changes include: 1) a new quarterly outage and metric reporting requirement; 2) a new annual reporting requirement; 3) an increase in the percentage of poorest performing circuits ("PPC's") assessed and mitigated by the EDCs; and 4) a new tracking report related to Hazard Trees.

# **Quarterly Reporting:**

Under the current guidelines of N.J.A.C. 14:3-3.7, all utilities are required to report significant outages to the Board. There are lower level outages that occur on a routine basis, either due to equipment, weather, operational or outside influences. These outages can be for shorter periods of time which affect fewer customers. Some areas of the system can experience multiple occurrences of this type of outage. To provide more timely oversight of any developing problems, Board Staff recommends that the EDCs submit a report, in spreadsheet form<sup>2</sup>, to the Energy Division on a quarterly basis that lists, in detail, all outages (other than momentary outages as defined by IEEE 1366 and Major Events<sup>3</sup>, which are reported under current rules) experienced during that time period. The quarterly outage reports shall provide the following information.

- Outage type: primary, secondary or service line, equipment (specific)<sup>4</sup>
- Circuit ID & type and Substation feeder
- · Location Isolation point (or damage location, if known) and municipality
- Number of customers affected by this outage
- Start date/time of outage and total duration of outage
- Cause of Outage: e.g., vegetation, equipment failure, outside influence.
- Optional provide an explanatory summary of any unique circumstances or potential problems identified.

<sup>&</sup>lt;sup>1</sup> A Hazard Tree shall be defined per ANSI A300 as "a structurally unsound tree that could strike a target when it falls. As used in this clause, the target of concern is electric supply lines."

<sup>&</sup>lt;sup>2</sup> Microsoft Excel compatible

<sup>&</sup>lt;sup>3</sup> As defined in N.J.A.C. 14:5-1.2

<sup>&</sup>lt;sup>4</sup> It is understood that each EDC has its own respective method for identification of the type of outage (so that each EDC report is not expected or anticipated to be identical in form or content).

Additionally, Board Staff recommends that the EDCs provide a spreadsheet file<sup>5</sup> with the following information for each substation where the cumulative Customer Average Interruption Duration Index ("CAIDI") and/or System Average Interruption Duration Index ("SAIFI") for that location exceeds the Company's minimum reliability level, as defined in N.J.A.C. 14:5-8.9(a).<sup>6</sup> The intention is for Board Staff and the EDCs to capture and analyze the data to identify issues that are not highlighted by the current metrics. The developed history will be used to identify anomalies, and areas that require further investigation or mitigation to improve the system reliability.

The spreadsheet will include the following columns:

- Substation ID
- CAIDI for the reporting period
- SAIFI for the reporting period
- The reported CAIDI and SAIFI should be calculated at the end of the guarter.
- The history (CAIDI and SAIFI index) from the prior period(s) for each substation (that exceeds the Company's minimum reliability level) should be included as it is developed over future reporting periods (i.e., the creation of the history will be done on a "going forward" basis).
- Optional: provide an explanatory summary of any unique circumstances or potential problems identified.

The reporting period for both sets of data will start on January 1<sup>st</sup>. These reports are to be submitted to the Board Secretary no later than sixty days after the end of each calendar quarter ending: March 31<sup>st</sup>, June 30<sup>th</sup>, September 30<sup>th</sup>, and December 31<sup>st</sup> of each year. The submissions shall include a summary analysis by the EDC of significant outage trends and metric trends above Minimum Reliability Levels within its system, equipment, circuits or geographical areas. The EDC shall summarize plans to address those areas identified or reasons that the EDC does not deem mitigation necessary.

Pursuant to N.J.A.C.14:5-8.7(h), the Board can require the EDCs to submit alternate reports covering a time period other than the annual requirement. Therefore, no modification to the rules is required for the EDCs to comply with the recommendations for quarterly reporting. However, Staff feels that it would be prudent to formalize this process and the requirements into the rules, and Staff recommends a subsequent rulemaking process be initiated.

## **New Annual Reporting Requirement:**

In an effort to have both Staff and the EDCs review and take a more granular look at their respective systems, Staff recommends a new annual report to be submitted to the Division of Energy by the EDCs to provide circuit specific information. This information will be used to compare the circuits' current reliability metrics (CAIDI and SAIFI) against future performance

<sup>&</sup>lt;sup>5</sup> Microsoft Excel compatible

<sup>&</sup>lt;sup>6</sup> The resulting CAIDI and SAIFI should be calculated at the end of the respective quarter and will be based on a 12 month rolling average. CAIDI is a measurement of the average time without service (cumulative) that a customer might experience over a one year period and SAIFI is the average number of outages that customer might see over a one year period.

<sup>&</sup>lt;sup>7</sup> Due to inclusion of security sensitive information included in the report, the information will be treated as confidential information pursuant to the Board's authority under N.J.A.C. 14:1-12.1(e).

results. The history will be created on a going forward basis, and developed over future reporting periods.

A spreadsheet will be submitted with the new report including the data listed below:

- Circuit ID
- Feeder Substation
- EDC Operating Division
- · Municipalities serviced by circuit (including County)
- Number of customers served by the circuit
- Annual CAIDI and SAIFI for the reporting period.

This report will be submitted separately from, but in addition to the EDCs' Annual System Performance Reports ("ASPR") due May 31<sup>st</sup> of each year. As with the quarterly report requirements, the submissions shall include a summary analysis by the EDCs of significant metric trends found in the circuits as the history is developed.

The current rules do not require the EDCs to submit this additional report to the Board. Therefore, a modification to the rules is required; specifically the creation of a new section of N.J.A.C. 14:5-8 to require the EDCs to comply with the recommendation. Staff recommends that this new requirement be incorporated within the rulemaking process to be initiated.

## **Poorest Performing Circuit Program:**

The worst/poorest performing circuits ("PPCs") program is utilized to identify the lowest ranking distribution circuits (feeders) based on a system and circuit evaluation by the respective EDCs. While each EDC has its own method for calculating and rating the circuits, the poorest performing circuits are identified using the standard metric parameters and other variables such as customer impacts, circuit characteristics, number of outages and impact to the system. In accordance with N.J.A.C. 14:5-8.7 (g), the PPCs listed in the ASPR for each EDC is the greater of either four percent of its total circuits in an operating region or five of its worst-performing circuits within that region. The circuits listed in the ASPR have been reviewed by the EDC to determine causes of outages, remediation actions were developed and corrective actions were taken to improve reliability of the circuits. The goal of this program is for the EDCs to take immediate corrective actions on these worst performing circuits to improve their reliability over a short period of time. The ASPR lists the PPCs that were mitigated over the reporting year.8

In an effort to increase overall reliability of the electric distribution systems, Staff recommends that the EDCs increase the amount of poorest performing circuits identified and mitigated each year from the current level (5 circuits or 4%) to ten percent (10%) for their overall territories. <sup>9</sup> Under the proposed rule amendment, the EDCs will list in the ASPR the circuits (i) that were addressed during the applicable performance year, and (ii) identified at the end of the applicable performance year to be addressed in the next performance year. The EDCs will be required to implement mitigation for these circuits as soon as possible, but no later than one year from submission of the ASPR with the goal of improving the circuit's reliability performance metrics. If an EDC contends that the mitigation work cannot be implemented within that timeframe, the EDC must provide a detailed explanation to the Board of the reasons.

<sup>8</sup> i.e. the 2013 ASPR lists circuits that were identified at the end of 2011 and addressed in 2012.

The cost impact and associated recovery of this increase in mandated work will be evaluated by Board Staff and the EDCs during the rulemaking process.

The proposed increase in the percentage of PPCs that the EDCs must address on a yearly basis will require a modification to <u>N.J.A.C.</u> 14:5-8.7(g) Annual System Performance Report. Therefore, Board Staff recommends a subsequent rulemaking process be initiated to incorporate these changes.

## **Hazard Tree Tracking:**

A major component of an overall approach to providing safe and reliable electric service is to maintain trees and other vegetation so as to prevent contact with electric facilities. To that end, the Board adopted the current vegetation management rules, based on NERC standards, in N.J.A.C. 14:5-9, that provide standards for tree trimming, foliage management, and right-of-way ("ROW") clearance management within transmission corridors and distribution infrastructure.

While Tropical Storm Irene, the October 29, 2011 Snow Storm and Superstorm Sandy are considered rare occurrences, Staff cannot ignore the obvious. A significant number of customer outages during Sandy, the major 2011 events, as well as during other storms, were due to vegetation interference on the electric <u>distribution</u> system. Distribution system reliability is subject to state, not federal, jurisdiction. The EDCs have the right to address trees that pose an immediate threat to their systems and those within their ROW. Board Staff realizes that the utilities do not have the ability to simply remove off-ROW trees they perceive to be hazardous. Additionally, the EDCs are sometimes hampered in their vegetation management efforts due to local or municipal influences. The attempt to trim or remove such trees can be contentious and result in costly and lengthy litigation.

Additional data may assist Board Staff and the EDCs in analyzing this situation, identifying the extent of the problem, and potentially aid in developing appropriate operational planning. To collect this data, Staff recommends that the EDCs shall, as part of their on-going vegetation management programs track and report Hazard Trees on the main line or trunk line of the distribution system that cannot be mitigated by the EDC. The respective EDC will conduct a visual Level 1 identification (as per ANSI A300, Part 9) and record hazard trees. This will only be performed by appropriately trained professionals as part of the EDC's planned vegetation management work for each cycle year of the four year cycle. The data for the preceding performance year<sup>10</sup> regarding Hazard Trees that cannot be mitigated by the EDC, shall be provided to the Board on an annual basis as part of the new annual circuit report discussed earlier with recommendations for potential mitigation.

Board Staff's intention is to have the EDCs specifically identify Hazard Trees deemed a potential threat to the distribution system by the EDC Vegetation Management professionals, both within and outside of the existing easement or ROW for the infrastructure, that the EDC cannot mitigate due to either municipal or property owner resistance. This proposed initiative is solely intended to start tracking and identifying the extent of the difficulties pertaining to Hazard Trees, and will be used to supplement a larger initiative if needed.

The current vegetation management rules do not require the EDCs to submit this additional report to the Board. Therefore, a modification to the rules is required; specifically the creation of

<sup>&</sup>lt;sup>10</sup> i.e., 2013 data reported in annual report due May 31, 2014

a new section of N.J.A.C. 14:5-9 and/or 14:5-8 to require the EDCs to comply with the recommendation. However, Staff recommends that such modifications to the rules be done under the larger vegetation management initiative. A more sweeping analysis and modification of the current vegetation management rules is being performed by Staff.

## **DISCUSSIONS WITH EDCs**

Upon review of these initiatives with Board Staff, the four EDCs have offered initial comments and are receptive to discussions of the recommendations during a rulemaking process. More importantly, all of the EDCs have agreed to voluntarily start immediate implementation of <u>all</u> of these recommendations, subject to modification of the PPC recommendation as bulleted below.

Pending the rulemaking, the EDCs have agreed to voluntarily phase-in the PPC requirement by conducting a pilot program involving 8% of an EDC's worst performing circuits to provide data to (i) inform the rulemaking process, and (ii) enable the EDCs (and Staff) to evaluate the impact of the increase from 4% to 10% on the workforce and budgeting process, recognizing that the EDCs' 2013 budgets are already in place.

The first quarterly reports will be submitted to Board Staff by September 1, 2013, and be based on the second quarter results. The 8% PPCs that were identified at the end of 2012 will be listed in the 2012 ASPR to be filed in May, 2013. The first submission of the new annual report with circuit specific data will be due by May 31, 2013 with the ASPR. The first Hazard Tree tracking report will be submitted by May 31, 2014, to allow development of the database and information.

## **DISCUSSION AND FINDINGS**

The Board, having reviewed Board Staff's proposals and recommendations <u>FINDS</u> the reasoning to be persuasive. Implementation of these recommendations should provide the needed additional information for the Board and the EDCs to glean more details of the state of the electric infrastructure in the State, and to pinpoint problem areas that need to be addressed. The recommended increase to the percentage of worst performing circuits to be identified and repaired should result in a real and measurable improvement to the regional reliability of the systems. Additionally, the knowledge base for the EDCs that will be developed or enhanced by the Hazard Tree tracking can aid the EDCs in preparation and planning for potential storm events.

As such, this Order starts the process for implementing these reliability improvement measures. Changes to the rules will be required to formally and permanently initiate these objectives.

In the interim, while the regulatory processes commence, the Board <u>HEREBY DIRECTS</u> the EDCs to begin immediate implementation of these proposed recommendations, in good faith and as agreed upon with Board Staff, while the rulemaking and modification process proceeds.

## The Board **HEREBY ORDERS** the following:

 Submission of detailed quarterly outage and substation metrics reports and analysis to the Board by the EDCs which will include details of the outages such as cause, equipment, circuit type, and duration, as well as substation metrics for locations above the minimum reliability levels. The first submissions, based on second quarter 2013 data, will be due by September 1, 2013.

- The EDCs will prepare and submit a new annual report that will provide specific circuit data on reliability, as described above. The first submission of this report will due by May 31, 2013.
- The EDCs will increase percentage of Poor Performing Circuits addressed, mitigated, and reported in the Annual System Performance report. As this directive will require a modification to N.J.A.C. 14:5-8.7 (g), the EDCs will start with 8%, as agreed upon with Board Staff.
- The EDCs will initiate the tracking and reporting of Hazard Trees as described above.
- The EDCs will immediately implement these initiatives, as agreed upon with Board Staff and subject to the condition set forth regarding the worst performing circuits, which will be formalized in the rule making and modification process.
- Staff will initiate the appropriate process, rulemaking and rule modification, to incorporate these recommendations into N.J.A.C. 14:5-8 and 14:9.

Accordingly, after review, the Board <u>HEREBY DIRECTS</u> Board Staff to initiate a formal rule making process.

DATED: 2/20/13

BOARD OF PUBLIC UTILITIES BY:

ROBERT M. HANNA

PRESIDENT

EANNE M. FOX OMMISSIONER

JOSEPH L. FIORDALISO

COMMISSIONER

MARY-ANNA HOLDEN

ATTEST:

KRISTI IZZO SECRETARY

I HEREBY CERTIFY that the within document it is a true copy of the original in the files of the Board of Public

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# IN THE MATTER OF THE BOARD'S INITIATIVE TO REVISE REPORTING REQUIREMENTS AND IMPROVE RELIABILITY PROGRAMS BY THE ELECTRIC DISTRIBUTION COMPANIES OPERATING IN NEW JERSEY DOCKET NO. E012070650

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