

BACKGROUND

Isaias formed into a tropical storm near the Bahamas on July 30, 2020, and strengthened into a Category 1 Hurricane on July 31, 2020. Isaias reached a peak intensity of 85 mph winds before changing back to a tropical storm as it made landfall along the North Carolina coast on August 3, 2020.

On Tuesday morning, August 4, 2020, Isaias reached New Jersey in the form of heavy rain followed by strong, persistent winds that were the strongest statewide since Super Storm Sandy. The winds brought down numerous trees, which in turn brought down power lines, blocked roads, and caused wide spread damage to buildings and vehicles. Eight weather stations in New Jersey recorded wind gusts of 60-69 mph, with one station in Cumberland County recording wind gusts of 71 mph.

Isaias' impact on New Jersey was especially devastating due to its unusual track. As the storm moved into New Jersey in a northerly direction, it veered inland toward the western part of the state, thus exposing most of New Jersey to the storm's right front quadrant where its winds were strongest. Multiple tornadoes were also observed as Isaias moved up the east coast. Two tornadoes formed in New Jersey, the first in Upper Township and the second in Manahawkin Bay between Ship Bottom and Brant Beach.

All of New Jersey's twenty-one (21) counties and each of the state's four (4) EDCs, experienced power outages with the most damage seen in Monmouth, Morris, and Union counties. As is characteristic of high wind and/or high precipitation events in the state, the electric overhead infrastructure sustained thousands of tree impacts which caused power disruptions and extended restoration times. The utilities requested, acquired, and deployed, over 13,000 utility workers and support personnel in response to this weather event.

Over 70 percent (70%) of utility customers had their service restored in 72 hours, on or before August 7, 2020, and full restoration of service to all customers impacted by Isaias was virtually completed on the evening of August 11th, approximately seven days from time the storm left the state.

Given the magnitude of the damage and severity of the storm, Governor Phil Murphy and BPU President, Joseph Fiordaliso, directed Board Staff to initiate a review of actions and activities undertaken by each EDC before, during, and after the weather event. The purpose of this review was to identify areas for improvement so that the impacts of future storms are minimized and restorations are conducted with the utmost efficiency and effectiveness.

THE REPORT

Staff examined each EDC's performance for compliance with requirements and directives issued by the Board following Hurricane Irene, Super Storm Sandy, and the March 2018 nor'easters. The Report is the culmination of Staff's review of the following categories:

- Pre-Storm Preparations
- Customer Communication/ETRs
- Vegetation Management
- Storm Impact on Utility Infrastructure

- Workforce Deployment
- Outage Response and Restoration Timelines
- Utility Hardening and Resilience
- Compliance with Prior Orders
- Advance Metering Infrastructure
- Pandemic Challenges

For such a damaging weather event that caused well over one million outages during the COVID-19 pandemic environment, Staff concluded that the overall restoration of electric utility service was reasonable, the weather event was closely tracked, mutual assistance acquisitions and deployments were prompt and effective and, with one exception, the pace of restoration was reasonable given the damage.¹ However, Staff also concluded that the following five (5) areas still warrant improvement:

- EDC communication and outreach with customers and public officials

Throughout the restoration process, the EDCs experienced difficulties with Call Center call volume and multiple inaccurate automated Estimated Time of Restoration (ETR) updates. Many customers expressed frustration over confusing and unreliable ETRs. Adding to the confusion was the lack of customer options for responding to ETR messages when prompted to do so through the automated system. Under the current system, the Outage Management System (OMS) only allows a customer to respond with a power restored or not restored option. Many customers who leave their home after service is disrupted may not know the status of their service when they receive automated messages on their mobile phones.

During the restoration process, all EDCs offered free water and ice to customers impacted by the storm. With the exception of JCP&L, stations were set up in hard hit areas to bring supplies to neighborhoods that needed relief. JCP&L instead offered vouchers that could be used at local stores. While this theoretically should have increased availability of outlets, complaints were heard that the stores were out of water and/or ice, ergo the vouchers were of no value.

Additionally, Public Officials were concerned that they were not getting adequate and timely information from the EDCs, particularly JCP&L, about ongoing restoration in their communities. Some expressed concern that their community was not being given priority. Although calls with officials were conducted daily, some elected officials were concerned about not getting updated and timely information concerning repair activities in their communities. Elected officials objected to being put in a position of acting as an intermediary between customers and the utility, especially without having sufficient information and awareness about outages and the restoration process.

- State-wide deployment of Advanced Metering Infrastructure (“AMI”) to identify outages and reduce outage response time

The Board is currently considering AMI petitions filed by PSE&G, ACE and JCP&L. AMI has potential in reducing the length of prolonged customer outages in a major weather event.

¹ See Report at p. 2.

- Enhanced vegetation management (“VM”) in targeted areas

The dominating cause of outages in tropical storm Isaias, as well as winter storms Riley and Quinn, Bow echo, etc. Irene, and Sandy, are tree-related outages, specifically off Right of Way (“ROW”) trees. Many of these trees were otherwise healthy trees outside of the ROW, but large enough to make contact with utility infrastructure, whether it was the EDC’s, telecommunications or cable infrastructure. While the EDCs do make some efforts to address “hazard trees” (trees outside the ROW that are dead, dying or in some way compromised and likely to fail that can contact electric utility infrastructure), this is not uniform across all of the EDC’s vegetation management plans. In addition, “danger trees” (otherwise healthy trees outside the ROW that could contact electric utility infrastructure) are not regularly addressed by the EDCs.

- Tracking and valuing infrastructure hardening and resilience projects

The effectiveness of recent EDC hardening and resilience projects (such as PSE&G’s Energy Strong Program and other projects completed pursuant to the Infrastructure Investment Program (IIP) rules which allow a utility to construct, install, or remediate utility plant and facilities related to reliability, resiliency, and/or safety) are difficult to measure without sufficient evaluation time, even in the context of a weather event. However, it appears the post-Sandy completed projects experienced less damage than the older, more vulnerable overhead infrastructure.

- **Reports and other metrics**

RECO’s pace of restoration, especially in the first 72 hours, was noticeably slower and out of sync with New Jersey’s other EDCs. Additionally, the information provided in the company’s Major Event Report following a major outage event is mostly aggregated for both Orange & Rockland Utilities (ORU) and RECO, making it difficult for Staff to evaluate RECO’s response to a major event.

DISCUSSION AND FINDINGS

The Board strives to ensure that all utilities are equipped with the resources to handle major storm events, to adequately assist customers during these events, and to communicate effectively with regulators, elected officials as well as the public throughout the event. The Report serves to address areas of concern, some of which have been discussed in previous orders, yet require subsequent review and modification based upon lessons learned during Isaias that significantly impacted the State and its residents.

After careful review of the Report, the Board **HEREBY ACCEPTS** the Report, **HEREBY AUTHORIZES** release of the Report, and **HEREBY ORDERS** that a copy of the Report be posted on the Board’s Website.

The Board **HEREBY FINDS** that the implementation of Staff’s recommendations provided in the Report is essential to facilitate the continued provision of safe, proper and adequate service, to help mitigate future outages, and to help develop more effective responses and coordination of resources among the EDCs and all utilities during such events. The requirements adopted herein supplement those requirements set forth in previous Board Orders, and are in addition to existing rules and regulations found in the New Jersey Administrative Code and applicable statutes.

The Board **HEREBY ORDERS** that the EDCs, shall implement Staff's recommendations as set forth below:

EDC Communication and Outreach with Customers and Public Officials

- ***Estimated Time of Restoration (“ETR”) Messaging Recommendations***

Recommendation # 1 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-1: The EDCs shall improve the ETRs automatically generated by their Outage Management System (OMS), and in particular, test the OMS under stressed conditions. Each utility shall file a plan to improve the accuracy of the ETRs, in order to provide more reliable information for elected officials and customers.

Recommendation # 2 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-2: The EDCs shall update the content of the automated outgoing ETR messages and add a customer response option for customers who are unaware of the status of their power at their residence.

- ***Call Center Recommendation***

Recommendation # 3 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-3: The EDCs shall provide a plan to improve Call Center peak volume during a Major Outage Event within 60 days, and the EDCs must provide standardized information including number of calls per hour, number of calls answered, call drops, and other metrics as requested.

- ***Customer Outreach Recommendation***

Recommendation # 4 (JCP&L)

TSI-JCP&L-1: JCP&L shall survey its customers and elected officials to determine whether the level of dissatisfaction warrants changing the method of distribution of water and ice. The survey should be completed within 90 days and the results should be shared with the BPU within 60 days after the completion of the survey with a plan to make improvements following within 60 days after the results are submitted.

- ***Outreach to Public Officials Recommendations***

Recommendation # 5 (ACE, JCP&L, PSE&G, and RECO)

TSI-EDC-4: The EDCs shall develop a plan that proactively educates customers and elected officials on the restoration process. The plan should be completed within 90 days and address how customers and elected officials will be informed while restoration is ongoing.

Recommendation # 6 (JCP&L)

TSI-JCP&L-2: JCP&L shall establish a process of communicating with elected officials and providing situational awareness about real time restoration activity in their community. This process should include, but not be limited to:

- Major restoration work
- Any staging area activity
- Concerns regarding critical community needs
- Road closure issues

Recommendation # 7 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-5: The EDCs shall update contact information for municipalities and elected officials on a quarterly basis to ensure that updates and notices are reaching the correct municipal and elected officials.

State-wide deployment of AMI to identify outages and reduce response time

Recommendation # 8 (BPU)

TSI-BPU-1: The Board shall, in its review of the recently filed AMI plans, continue to consider AMI's potential in reducing the length of prolonged customer outages following a major weather event.

Enhanced Vegetation Management

Recommendation # 9 (BPU)

TSI-BPU-2: The Board shall continue its stakeholder process to update the 2015 Vegetation Management rules to include reporting of indices specific to tree related outages and major events, i.e. CAIDI and SAIFI, with a focus on circuits heavily damaged by trees. Circuits with disproportionately high indices of tree related damage and outages should be targeted for enhanced vegetation management to address off ROW hazard and danger trees. This work shall be performed as part of each EDC's normal trimming cycle and should focus on circuits with the worst performance indicators from tree-related outages.

Recommendation # 10 (BPU)

TSI-BPU-3: The Board shall evaluate potential legislative solutions to address the EDCs' rights to perform trimming or removal of off-ROW "hazard trees" where they threaten overhead facilities. Additionally, permission for the trimming or removal of off-ROW "danger trees" should be limited to the property owner and the EDC performing the work. In lieu of such legislation, the Board staff will continue its stakeholder process to continue to coordinate between all parties (DEP, the League of Municipalities, state and local shade tree commissions and EDCs) to develop a process by which hazardous vegetation can be addressed while still being cognizant of proper forestry management principles and environmental stewardship.

Tracking and Hardening infrastructure

Recommendation #11 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-6: The EDCs shall evaluate the resiliency impact of storm hardening projects as part of the Major Event Report.

- ***Undergrounding and Infrastructure Hardening***

Recommendation #12 (ACE, JCP&L, PSE&G, RECO)

TSI-EDC-7: The EDCs shall evaluate their five worst performing circuits or other metric to determine whether portions of the circuits would be candidates for undergrounding. The EDCs shall submit a cost/benefit analysis within 90 days to the BPU.

Reports and other metrics

Recommendation #13 (RECO)

TSI-RECO-1: For any Major Event that affects RECO/ORU service territory in New York and New Jersey, RECO/ORU shall have an average daily restoration rate in New Jersey that is approximately equal to the average daily restoration rate for their New York territory. Additionally, RECO/ORU shall report the average daily restoration rate of both states in their Major Event Report. The Board reserves the right to take additional action on this subject.

Recommendation #14 (RECO)

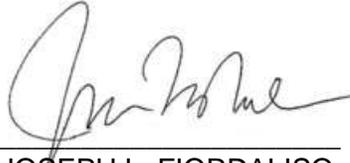
TSI-RECO-2: For all Major Events, RECO shall document and provide a complete breakdown of all equipment damage that occurred specifically in New Jersey, and New York specific infrastructure facilities directly impacting New Jersey (poles, transformers, cross arms, switch disconnects, feet of primary wire, feet of secondary wire, fuse cutouts, etc.), in the company's Major Event Report.

The Board **FURTHER ORDERS** that the time periods for submission for any report may be extended by the Board's Director of Reliability and Security for up to 30 days upon the request of the applicable party.

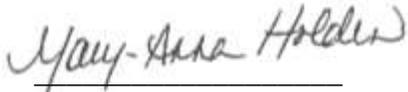
To the extent any information that is required to be submitted pursuant to this Order is claimed to be confidential, proprietary or raises a security concern, it should be submitted pursuant to the Board's regulations at N.J.A.C.14:1-12.1 through 12.18.

DATED: November 18, 2020

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SECRETARY

IN THE MATTER OF THE UTILITIES' RESPONSE TO TROPICAL STORM ISAIAS

DOCKET NO. EO20090607

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