

Essential information: Review of Storm Preparedness and Restoration Workshop – May 2-3, 2018

In October 2017, the Florida Public Service Commission embarked on a process of refining storm preparation and restoration programs, using data from recent hurricanes to inform future strategies for further reducing outages and restoration times.

What this is – and isn't

The purpose of the workshop and related data gathering is to acquire lessons learned that can inform policy going forward. It does not evaluate storm recovery costs incurred by utilities, which are being reviewed in more formal proceedings in separate dockets.

Why we're doing it

Due to the extreme weather events of 2004 and 2005, in 2006 the PSC ordered electric utilities to put in place extensive programs to improve system resilience.

Those programs were implemented during 10 years without a major storm landfall in Florida, making the 2016-2017 hurricane seasons the first opportunity to gather performance data from the different components of the programs.

The beginning... 2006

In 2006, the Commission launched an ambitious drive that would strengthen Florida's storm preparedness. It ordered utilities to inspect wooden poles every eight years to assure weakened ones are replaced, and to implement 10 storm preparedness initiatives:

- Three-year Vegetation Management Cycle for Distribution Circuits
- Audit of Joint-Use Attachment Agreements (shared use of poles with telecom)
- Six-year Transmission Structure Inspection Program
- Hardening of Existing Transmission Structures
- Development of Transmission and Distribution Geographic Information System
- Collection of Post-Storm Data and Forensic Analysis
- Collection of Detailed Outage Data Differentiating Between the Reliability Performance of Overhead and Underground Systems
- Increased Utility Coordination with Local Governments
- Collaborative Research on Effects of Hurricane Winds and Storm Surge
- Development of Natural Disaster Preparedness and Recovery Program Plans

The Commission also ordered electric utilities to file updated storm hardening plans every three years. Each of those plans had to pass Commission review, and they have been the backbone of Florida's storm preparedness initiatives for the past 12 years.

What is storm hardening?

Storm hardening is upgrading electric facilities, as well as maintenance practices, so they are better able to withstand extreme weather such as high wind speeds and flooding.

- replace wood poles with stronger wood poles,
- replace wood poles with concrete or steel poles,
- add guy wires for pole support,
- add poles to decrease the span between poles,
- underground facilities at critical intersections, and
- waterproof underground transformer cabinets.

Current areas of study

The current process is collecting hardening performance data and forensic analyses of damage, and receiving input from stakeholders, including customers. The information collected will be used to keep Florida moving forward to minimize future infrastructure damage, outages, and recovery timelines.

Data requests have been issued to the electric utilities exploring topics such as:

- Pre-storm staging and causes of delays
- Damage assessments and accuracy of restoration forecasts
- Availability of staffing and materials, and workload assignment priorities
- Customer and local government communications
- Critical infrastructure (hospitals, police & fire stations, etc.) restoration results
- Relative performance of hardened vs non-hardened structures, overhead vs underground

Going forward

Upon the conclusion of data collection and analysis, and consideration of public comment, the PSC staff will analyze what works well and what opportunities for progress there may be.

Key issues:

- *Comparisons of restoration times for 2016-2017 storms to restoration times for 2004-2005 storms (recognizing the wide variation in wind intensity, rainfall, and duration among storms)*
- *Effectiveness of hardening and undergrounding*
- *Communication with the public and county emergency operations centers*

PSC staff is expected to present its analyses and recommendations to the Commission in June.