Hurricane Preparedness Workshop

To the Florida Public Service Commission

April 4, 2019
Vegetation Management

- **Distribution**
  - Four year cycle for feeders and laterals
  - 1,237 miles trimmed
  - 3,452 hotspots trimmed

- **Transmission**
  - Two year cycle on Bulk (230kV, 138kV)
  - Three year cycle on non-Bulk (69kV)
  - 509 miles trimmed
  - 2,369 acres of right-of-way mowed
Pole Inspections

- Distribution
  - Eight year cycle
  - 40,003 poles inspected
  - 2,673 poles failed
  - 2,536 poles replaced
  - 1,080 reinforced

- Transmission
  - Eight year cycle
  - 1,028 poles inspected
  - 169 poles failed
  - 149 poles replaced
Hardening Projects

• 164 transmission structures hardened.
• 26 distribution live-front critical switchgears replaced with dead-front, submersible gears.
• 34 downtown network protectors tested; 2 replaced.
• 16 overhead interstate crossings converted to underground through 2018.
• Dana Shores underground pilot project.
• No impacts to projects from last three hurricane seasons.
Storm Plan & Mock Drill

• Storm Plan changes:
  – Integrate Automated Roster Callout System (ARCOS) into more processes for greater tracking and visualization capabilities.
  – Clear transition from centralized to de-centralized control.
  – Response to and control of locked-out feeders.
  – Control of numbered switches on main feeders.

• Annual mock hurricane drill changes:
  – Scheduled for May 7, 2019.
  – Use ARCOS for tracking progress.
  – Transition control from centralized to dispersed.
  – Use of GIS for cut-and-clear process.
## EOC Meetings

<table>
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<tr>
<th>County</th>
<th>Critical Facilities</th>
<th>Community Outreach Workshop</th>
<th>Operations Group Meetings</th>
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<tr>
<td>Pasco</td>
<td>Jan 2019 Feb 2019 Mar 2019</td>
<td>May 2019</td>
<td>N/A</td>
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<tr>
<td>Pinellas</td>
<td>Jan 2019 Feb 2019 Apr 2019</td>
<td>May 2019</td>
<td>N/A</td>
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<td>Polk</td>
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Mutual Aid & Readiness Outreach

- Mutual aid agreements:
  - One with Southeastern Electric Exchange (SEE)
  - One with Edison Electric Institute (EEI)
  - Seven with municipalities within Florida
  - SEE & EEI gives access to over 100 utilities

- Storm readiness outreach:
  - Covers storm readiness by Tampa Electric, customer preparations, response, restoration, generator compliance and what customers can do to help in restoration.
  - Meeting with community leaders, emergency management officials, assisted living facilities, media, commercial customers.
  - Hosted at Tampa Electric facilities and webinars in April, May and June.
  - Bill inserts, media release, print ads, online guides & social media messages.
Customer Outreach

- Customer outreach during restoration:
  - Outage map continually updated throughout restoration about damage assessment, restoration progress percentage, Estimated Times of Restoration (ETRs), customer safety and outage reporting messages.
  - Twitter, Facebook, YouTube, Blog, email, media coverage with outage reporting solicitations, wire down & generator safety, restoration progress, restoration videos, and thank you messages.
Ownership & Inventory

- Delineating equipment responsibility:
  - Social media with link to illustration of delineation.

- Storm equipment inventory
  - “911” inventory stored separately and maintained by Stores.
  - Increase prior to storm season and decrease after.
  - Reviewed with operations for appropriateness.
Lessons Learned

• More resources for wires down & streamline process.

• Train internal and external management teams to operate additional incident bases.

• Develop enhanced granularity on ETRs to meet customer expectations.

• Vehicle fueling 3rd party agreement changes.

• Implement technology to gather more frequent damage assessment and restoration data from field and incorporate into Outage Management and Work/Resource Management Systems more efficiently.

• Use better technology to enhance tracking of crews and progress.

• Streamline outage communication technologies.

• Improve storm documentation and invoice review process.