

Hurricane Preparedness Workshop for 2020

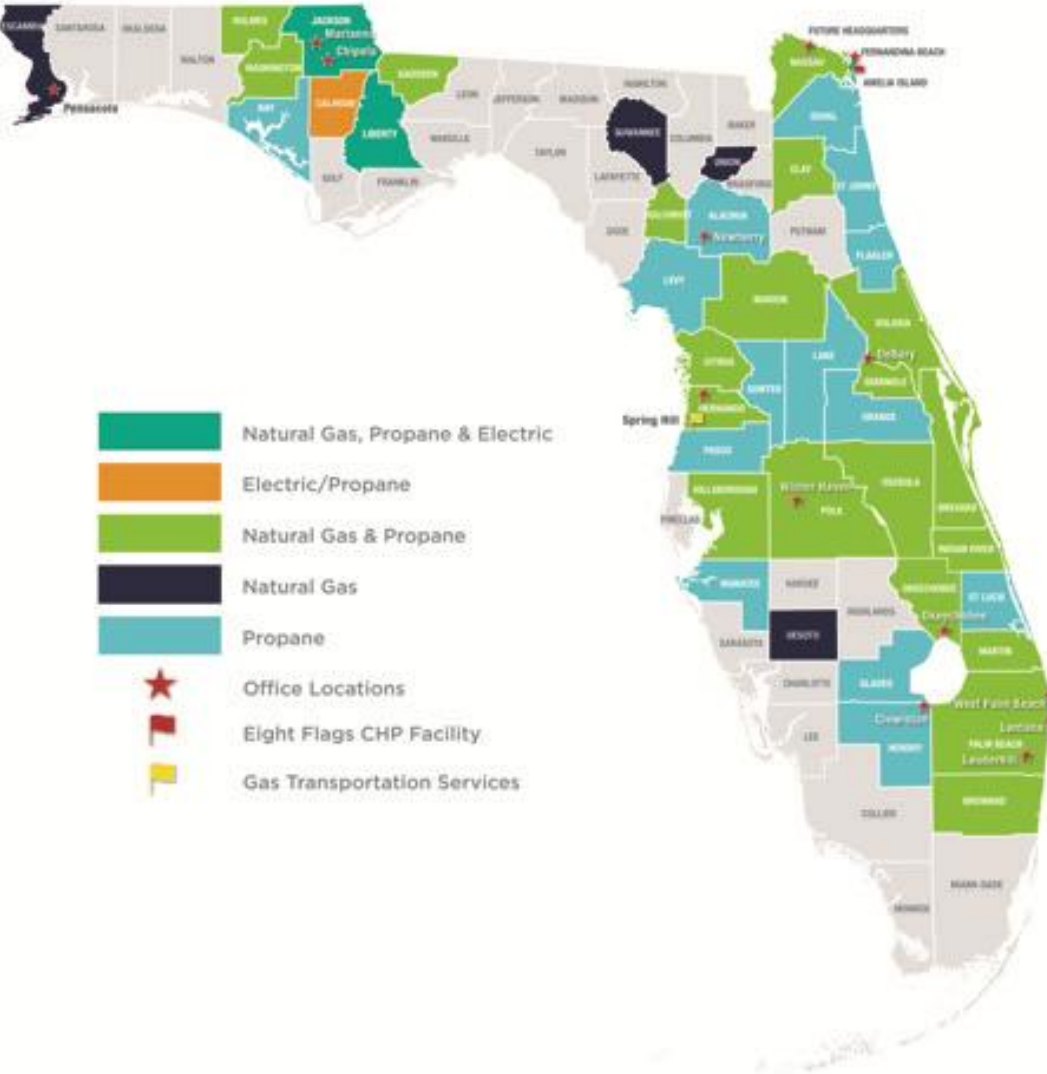
Jorge Puentes

Manager, Technical Engineering

May 19, 2020



Florida Public Utilities Company Service Areas



- Natural Gas, Propane & Electric
- Electric/Propane
- Natural Gas & Propane
- Natural Gas
- Propane
- Office Locations
- Eight Flags CHP Facility
- Gas Transportation Services

Service territory includes:

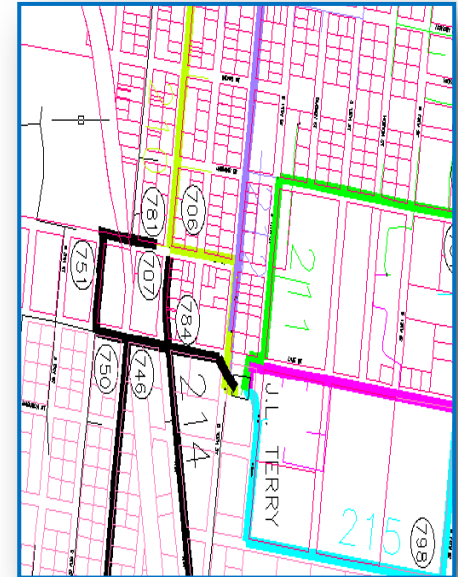
- Over 28,000 electric customers.
- 15.8 miles of transmission lines.
- 905 miles of distribution lines.

Overview of Preparation and Restoration Process

Preparation

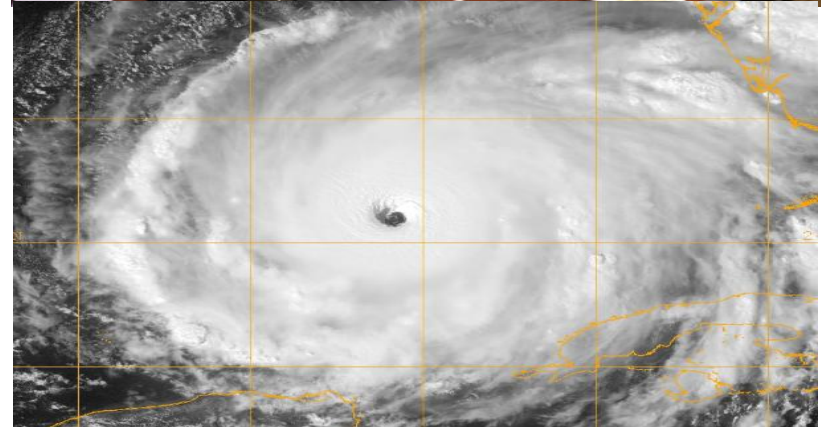
Activation

Restoration



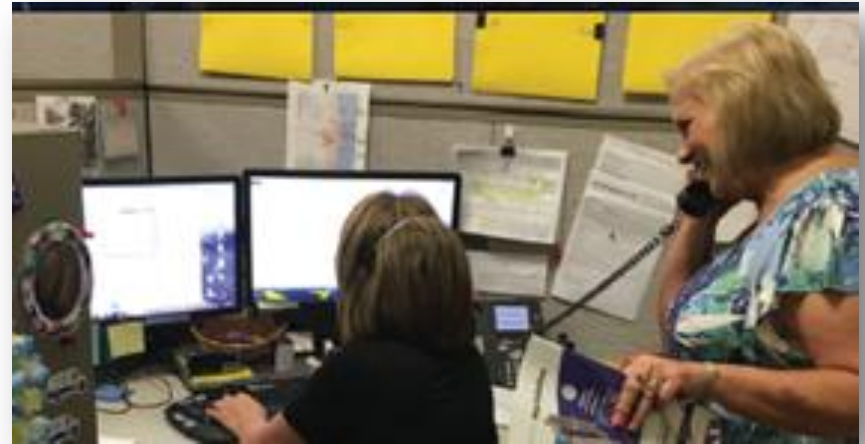
Pre-Storm Planning

- Culture of preparedness – safety first.
- COVID-19 preventive measures
 - New FPU Pandemic Procedures
 - Working conditions and logistics
 - Additional PPE
 - Customer interfaces
 - Mutual Aid Implications
- Response planning and company wide readiness exercises including electric, natural gas and propane operations.
 - Company wide table top drill scheduled for May 20th.
 - Focus on lessons learned from Hurricane Michael and other hurricanes
 - Several new procedures in logistics are being implemented this year



Pre-Storm Planning

- Customer Outreach Programs
 - Hurricane/Storm Brochures
 - Website Information & Bill Inserts
 - Public Service Announcements
- Emergency Procedures, Storm and Communication Plans.
- Consider alternative staging options depending on storm path.
- Review staff assignments for Operations, IT and Customer Care.
- Engage with contractors who have signed restoration agreements to ensure their support.



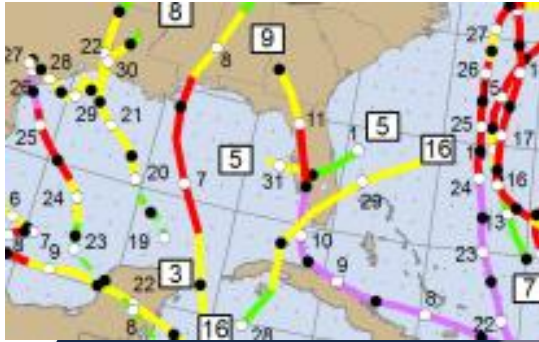
Pre-Storm Planning

- System, facility and inventory inspections
 - Emergency materials and supplies included in emergency plan
 - Emergency items ordered and stocked prior hurricane season
- Coordination with city/county/state EOCs and other utilities
 - Ongoing communications with each organization
 - Participation occurs at all meetings
- Participation with the Southeastern Electric Exchange Mutual Assistance Committee
- Mutual Assistance agreements various municipalities within Florida
- Participation in Edison Electric Institute Storm Drills



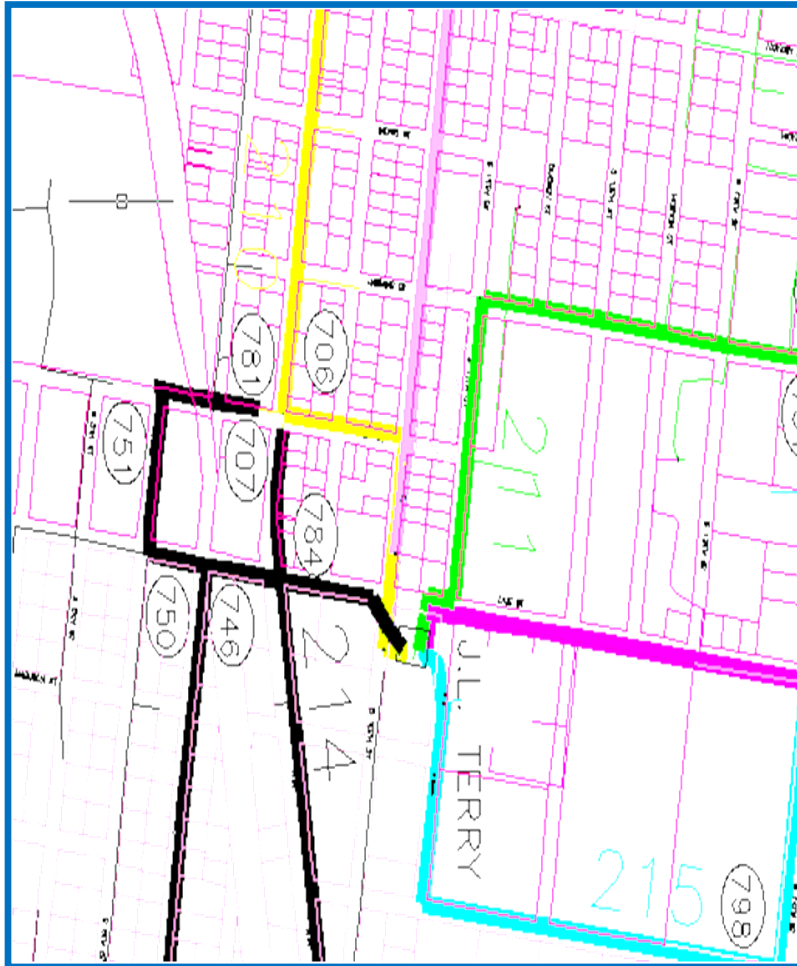
Activation

Electric, Natural Gas and Propane



- Storm Watch - initial activation.
- Duties and assignments reviewed.
- Inventory levels, logistics items, meals, hotels and outside vendors confirmed.
- Equipment, fuel and inventory levels checked for readiness.
- Storm Warning – active
- Secure our buildings/facilities.
- Contact county EOCs, other local officials, contractors, and energy partners (SEE).
- Employees activate their family storm plans.
- Redeploy Call Center resources.

Systematic Approach



- OMS and SCADA systems organize/prioritize restoration.
- Physical damage survey.
- Teamed external crews with FPU crew leaders.
- Tree crews sent ahead to remove debris and clear areas.
- Restoration Priority Electric System:
 - Generation (Eight Flags, Inc)
 - Transmission (FPL Interconnection)
 - Substations
 - Distribution Feeders
- Restoration Priority Customers:
 - Hospitals
 - Police, Fire and EOC
 - Storm Shelters and Elderly Care Facilities
 - Water and Sewer Plants
 - Food Retailers and Restaurants

Customer Communication- Awareness Pre-Storm

In preparation for the storm, FPU published watch and warning notifications at the 72, 48 and 12 hour increments to local and national media outlets.

- Bill Inserts
- Print Ads
- Brochures
- IVR Messaging
- Press Releases
- E-Blasts
- Social Media Posts
- Website Updates
- Public Service Announcements

The collage displays various communication channels used by Florida Public Utilities (FPU) for hurricane preparedness. Key elements include:

- Website Screenshot:** Features a 'Hurricane Information' section with a red hurricane icon and an 'Account Center' with options to log in or view payment options. A 'NEED ASSISTANCE' button lists the number 800.427.7712.
- Storm Survival CHECKLIST:** A graphic with a checkmark icon, likely containing a list of essential items for storm survival.
- Social Media Post:** A tweet from FPU (@FPUCL) titled 'FPU Gas Customers - Hurricane Preparedness Tips To Prepare for Hurricane' with a link to a preparedness guide. The post includes a photo of a utility worker and a video thumbnail.
- Safety Graphics:** Multiple panels with titles like 'ELECTRIC SAFETY TIPS TO WEATHER THE STORM!', 'LEARN WHAT TO DO and how to stay safe:', and 'HURRICANE SAFETY VIDEO'. These graphics provide specific instructions for staying safe during a storm.
- Supplies List:** A detailed list of items for hurricane preparedness, including drinking water, food, flashlights, batteries, candles, kitchen supplies, sanitation, baby supplies, pet food, and medications.

Digital Communications

All Digital Communications Linked to One Main Update Landing Page

FPUC.com and mobile website



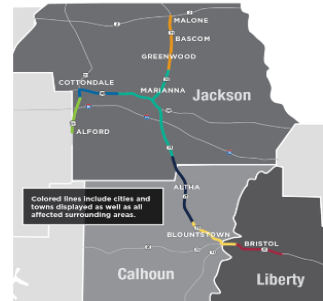
Hurricane Michael Updates
Visit this page for storm-related updates and safety information.

[October 20, 2018- 5:30 pm]

ATTENTION ALL FPU NORTHWEST TERRITORY CUSTOMERS:

Visit our Restoration Map page to see latest updates for your area at www.FPUC.com/HurricaneMichaelRestorationMap

- ALL REPORTED STOP MATERIALS (CUTTING TOOLS)**
Customers should be advised that the use of cutting tools (chainsaws, hand saws, etc.) is prohibited in areas where power is not yet restored. From the time a customer has been notified that power is not yet restored, the use of cutting tools is prohibited. Customers should be advised that the use of cutting tools is prohibited in areas where power is not yet restored.
- ALL REPORTS OF DOWNED POWER LINES**
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- RESTORATION MAP**
The Restoration Map is a tool that allows customers to see the status of power restoration in their area. The map is updated regularly and shows the progress of power restoration. Customers should be advised that the use of cutting tools is prohibited in areas where power is not yet restored.
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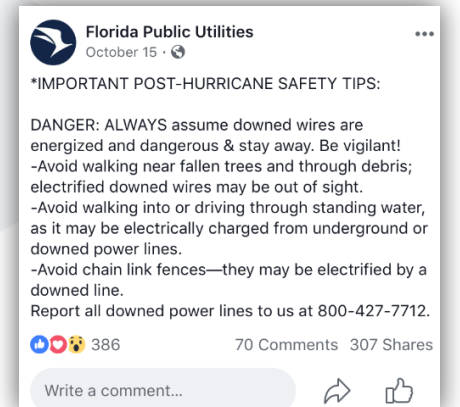
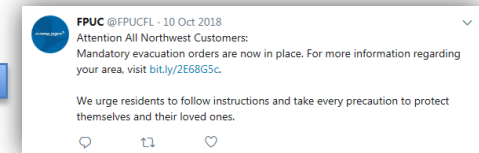
[October 20, 2018- 12:00 pm]

ATTENTION ALL FPU NORTHWEST TERRITORY CUSTOMERS:

For information and resources related to Power Restoration, please visit FPUC.com/huricanerestorationresources. Learn about:

- [Electric Rules and Standards](#)
- [Customer / Utility Responsibilities](#)
- [Steps to Restore Power](#)
- [Electrical / HVAC Contractors in the Area](#)
- [Frequently Asked Questions](#)

Social Media Sites



Plans and Initiatives

- Vegetation Management:
 - Three year trim cycle for all distribution feeders (4 Total cycles completed)
 - Six year trim cycle for distribution laterals (2 Total cycles completed)
 - Three year trim cycle for transmission lines
- Accomplishments in 2019:
 - Trimmed 45.97 miles of distribution feeders
 - Trimmed 77.04 miles of distribution laterals.
 - Perform “hot spot” distribution trimming prior to hurricane season. Miles trimmed are included in totals above.

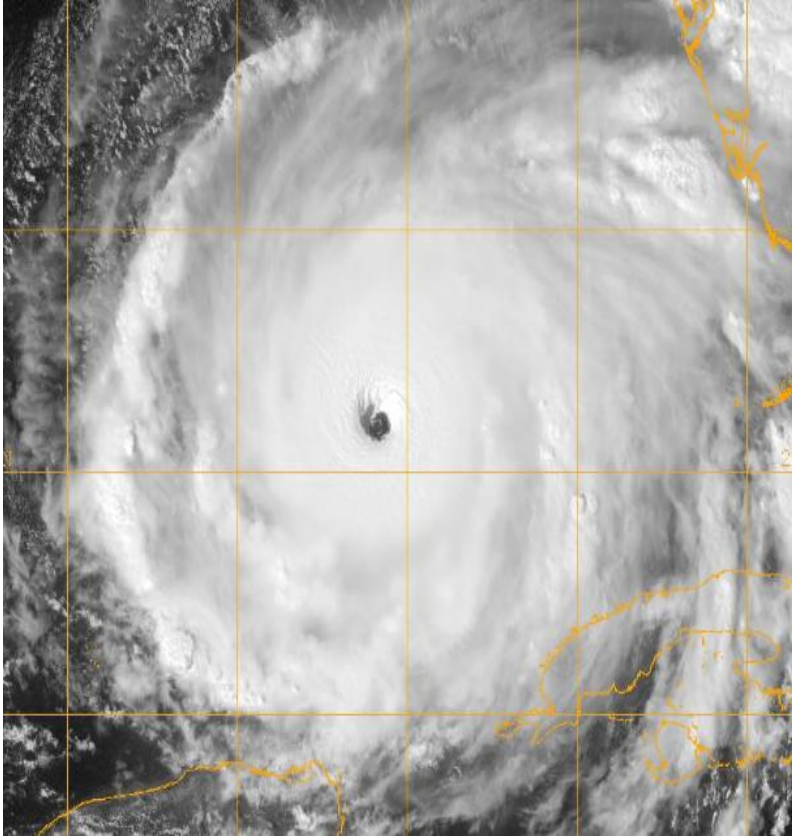


Plans and Initiatives

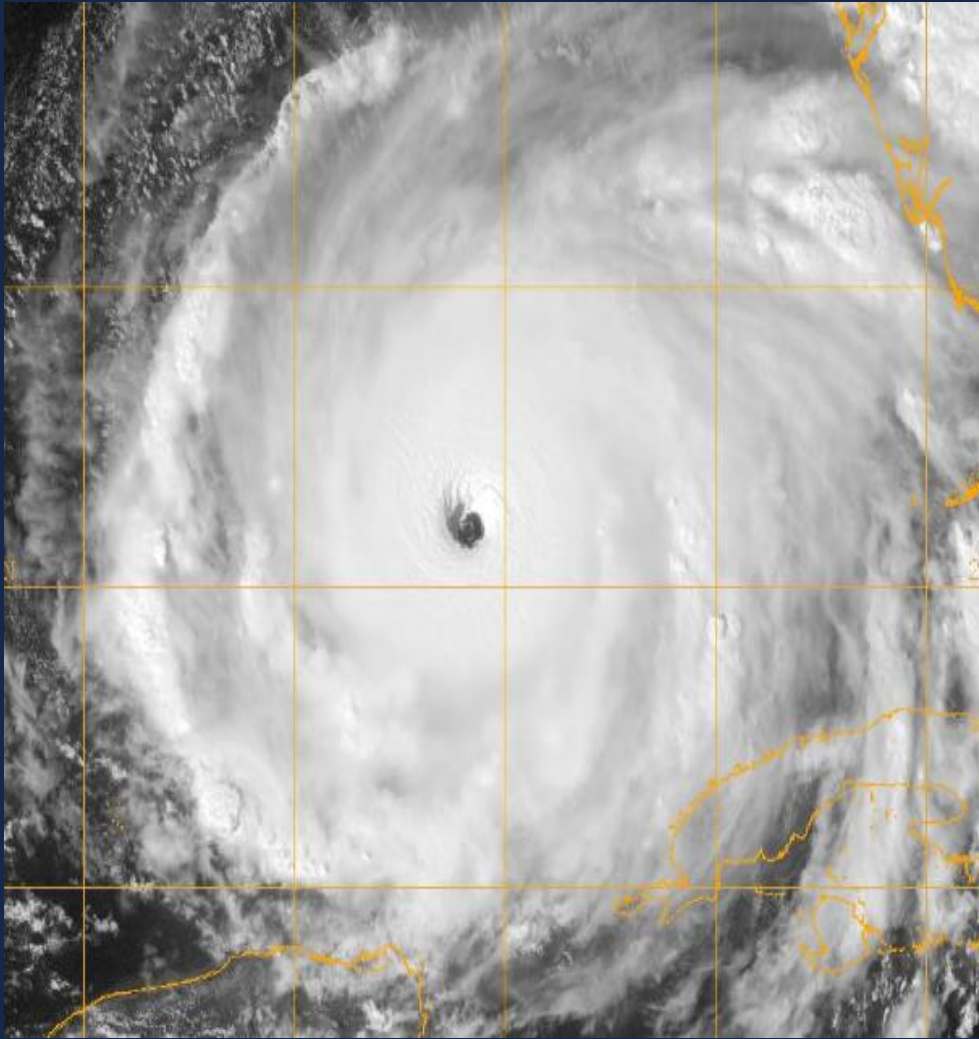
- Wood Pole Inspection:
 - Eight year cycle (1.5 Total cycles completed)
 - Transmission and Distribution inspections on the same cycle
 - Total poles inspected from beginning of this eight year cycle 13,998
 - During 2019, inspected poles scheduled for inspection in 2018 (delay due to Hurricane Michael) . In addition to 2019 poles. Total of 7,415 poles inspected.
 - 2019 Poles replaced in 42
 - Poles that need to be replaced in upcoming years 522.



Suggested Improvements Based on Lessons Learned



- Continue to invest in all Storm Hardening initiatives
- Continue to invest in technology that advances hurricane prediction and communications.
- Continue to improve GIS,OMS, IVR implementations and other technologies.
- Finalize adjustments to vegetation management feeder and lateral cycles.
- Work closely with customers to avoid storing debris on top of pad-mounted transformers.
- Continue to improve internal resource allocation as well as effectively securing mutual aid resources.
- Continue to enhance communications with local officials, EOCs and customers.



Questions?

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