



Florida Power & Light Company Storm Secure Underground Program



Overview

- ▶ Discuss a new program that FPL will be undertaking to underground segments of power lines to help enhance the reliability of your service and speed the restoration of power after a severe weather event, like a hurricane



The way FPL delivers power

- ▶ FPL operates 75,000 miles of power lines
- ▶ Overhead power lines – 60 percent
- ▶ Underground power lines – 40 percent



Power is delivered by two different power lines and poles

Neighborhood power line



Main power line



Hardening is focused on strengthening our infrastructure to better withstand hurricane-force winds

- ▶ Installing stronger poles/shortening span lengths
- ▶ Inspecting all power poles for strength/loading
- ▶ Clearing vegetation near power lines
- ▶ Converting overhead facilities to underground



During Hurricane Irma, most outages caused by wind-blown debris, trees



Underground power lines perform well during everyday and storm conditions

- ▶ Advantages to undergrounding:
 - ▶ Better reliability in normal and severe weather conditions, such as lightning and wind
 - ▶ Reduces power interruptions, especially due to vegetation issues
 - ▶ Speeds restoration efforts

50%
better in
day-to-day
operations

This initiative is exploring the benefits of undergrounding specific neighborhood power lines

- ▶ **We started the program in 2018 and continue to identify projects throughout our entire service area**
- ▶ **We will work with communities, neighborhoods and customers once the projects are identified**

The criteria for the undergrounding projects

Power line performance during Hurricanes Irma and Matthew

Outages on power lines due to vegetation issues

Performance of power line during day-to-day operations

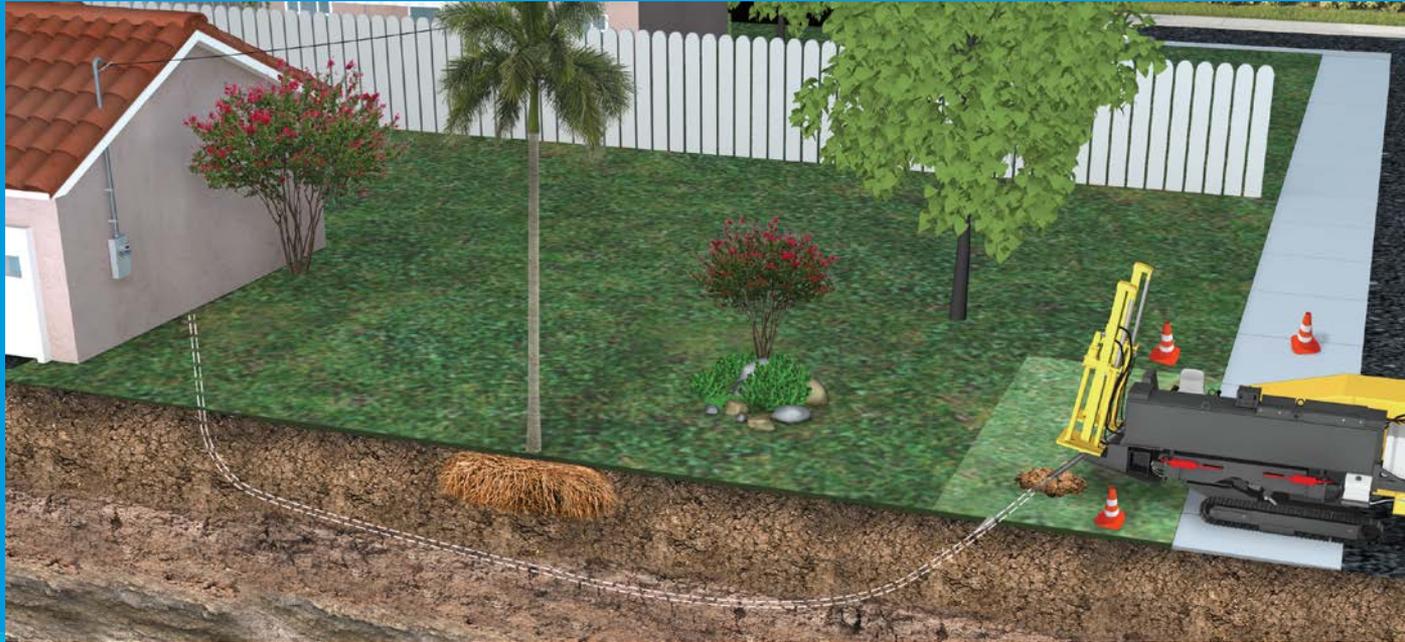
We are committed to communicating throughout the span of the project

- ▶ Obtaining easements and permits
- ▶ Project scheduling
- ▶ Site preparation
- ▶ Construction/installation of equipment
- ▶ Site restoration

Overview of Project



Equipment that will be commonly used in undergrounding projects



Directional Boring



Directional Boring



Equipment that will be commonly used in undergrounding projects



Meter enclosure adapter box connected to meter enclosure

Equipment that will be commonly used in undergrounding projects



Pad-mounted transformer



Handhole

Equipment that will be commonly used in undergrounding projects



Horizontal or directional boring equipment



Cable reel

Project Stats

- 43 neighborhood power lines selected
- Approximately 20 miles of aerial power lines
- Approximately 1,240 customers

- 10 neighborhood power lines undergoing customer outreach*
 - Approximately 5.3 miles of aerial power lines
 - Approximately 280 customers

* Contingent upon successfully completing the outreach process.



Construction Updates

- **16 neighborhood power lines completed in construction**
 - **Approximately 4.5 miles of aerial power lines removed**
 - **Approximately 345 customers**

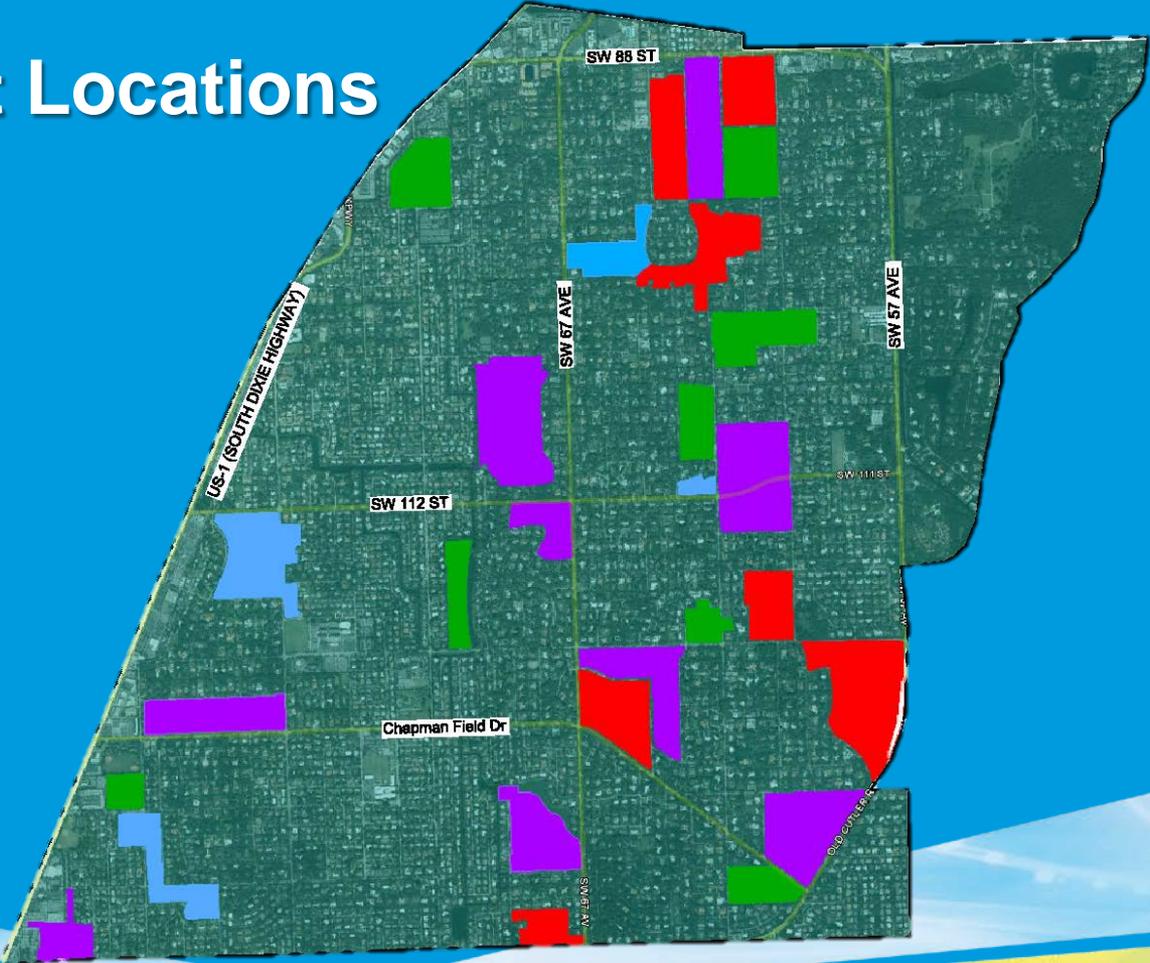
- **8 neighborhood power lines in active construction to be completed in 2020**
 - **Approximately 3.5 miles of aerial power lines to be removed**
 - **Approximately 190 customers**

- **8 neighborhood power lines planned for construction in 2021***
 - **Approximately 6 miles of aerial power lines to be removed**
 - **Approximately 380 customers**

* Contingent upon permits received.



Project Locations



<p><u>OUTREACH</u></p>
<p><u>FINAL DESIGN</u></p>
<p><u>IN CONSTRUCTION</u></p>
<p><u>COMPLETE</u></p>

Prior Completed Projects



Prior Completed Projects



Prior Completed Projects



Questions

**Please email your questions/comments to:
publicworks@pinecrest-fl.gov OR
ntobias@pinecrest-fl.gov**





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