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## Energy Smart Florida

# Enhancing Service Reliability

You shouldn't have to think about what it takes to keep the lights on – that's our job. That's why FPL is working constantly to improve service to customers by strengthening the electric infrastructure – clearing vegetation near power lines, inspecting poles and reinforcing power lines and equipment. We prepare for storms and invest in year-round preventive maintenance and technologies to help predict potential power outages and prevent many of them before they occur.

Our Energy Smart Florida initiative will help keep service reliability high. Our investments in smart grid technologies include intelligent devices on the electric grid, enhancements to centers that monitor the performance of the grid and 4.5 million smart meters for our customers.

**Key reliability benefits:** These advanced smart grid technologies will improve the service we provide customers, offering real benefits today while paving the way for substantial future benefits.

- » **Preventing outages:** By analyzing data from the grid, we will perform predictive maintenance before minor issues become disruptive problems. Advanced monitors and sensors on substation power transformers will continuously collect and analyze data to determine the health of the electric system. Armed with more information, we can proactively maintain equipment to help prevent service interruptions for customers. This is much like anti-virus software on a computer, constantly scanning files and eliminating issues before the system is affected.



Our Energy Smart Florida initiative is funding enhancements to FPL's Performance and Diagnostic Centers to help shorten and reduce the impact of power outages, and prevent many potential outages before they occur.

## Energy Smart Florida

FPL is investing in smart grid technologies as part of our commitment to modernizing the electric grid. Smart grid technologies will help FPL maintain reliable, high-quality service and help customers better manage their monthly bills.

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## Did You Know:

- » FPL customers receive more than 99.98 percent service reliability.
- » FPL plans to complete more than 900 projects to make its transmission infrastructure smarter, improving the reliability of the equipment that transports electricity from power plants to substations and, ultimately, to neighborhoods.

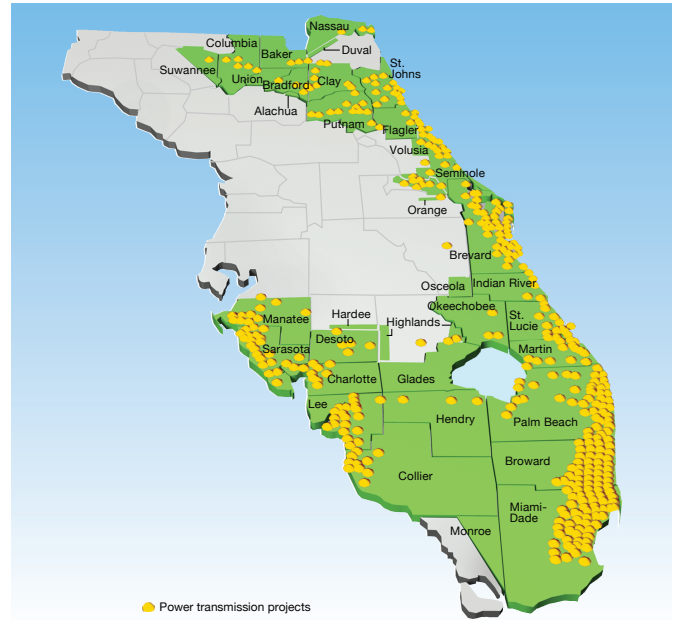
## National Significance:

By 2020, smart grid technologies could decrease the cost of power interruptions across the United States by 75 percent and potentially save American industry more than \$150 billion dollars when compared to future projections.

– *Electric Power Research Institute*



- » **Confining disruptions:** Advanced sensors and switches will quickly identify an outage and reroute power around the trouble spot, preventing it from spreading to other areas. Imagine that a car hits a utility pole, downing a power line. In deployment areas, intelligent sensors will notify FPL of the outage, enabling automated controls and switches to reroute power – much like a traffic detour around construction – to ensure that more customers stay in service. The sensors can then pinpoint the outage location, helping us deploy crews more quickly.
- » **Restoring service faster:** Advanced monitoring equipment will communicate an outage location for faster repair and service restoration. Smart meters and related technologies will help FPL see outages in the system so we can start restoring power more quickly.



FPL is installing “smart” technologies throughout its service territory. This map shows our service area and the locations where smart grid technologies are being installed.

**Smart grid devices and systems:** Here are examples of the advanced technologies that FPL is installing on power lines, equipment and substations:

- » **Predictive Diagnostic Software** applications will help our Performance and Diagnostic Centers quickly detect deviations from normal operations and initiate actions to minimize their impact on the grid.
- » **Phasor Measurement Units** at substations will help determine stress points on the electric grid and can assist in restoring the system more quickly after events such as major storms.
- » **Line Protection & Control Systems** will allow for the remote assessment of equipment operating conditions and help enable automated restoration.
- » **Digital Disturbance Recorders** at electrical substations will capture detailed information on system disturbances for analysis and correction.
- » **Feeder Breaker and Regulator Intelligent Devices** will help FPL identify fault locations and improve power quality by providing operators in FPL Control Centers with remote access to regulator control panels.

#### Florida Power & Light Company

Florida Power & Light Company is the largest electric utility in Florida and one of the largest rate-regulated utilities in the United States. FPL serves approximately 4.5 million customer accounts in Florida and is a leading employer in the state with more than 10,000 employees. The company consistently outperforms national averages for service reliability while customer bills are below the national average. A clean energy leader, FPL has one of the lowest emissions profiles and one of the leading energy efficiency programs among utilities nationwide. FPL is a subsidiary of Juno Beach, Fla.-based NextEra Energy, Inc. (NYSE: NEE). For more information, visit [www.FPL.com](http://www.FPL.com).

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