# FILED MAR 20, 2015 DOCUMENT NO. 01574-15 FPSC - COMMISSION CLERK



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March 20, 2015

Ms. Carlotta S. Stauffer Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard, Room 110 Tallahassee, FL 32399-0850

Re: Docket No. 150002-EG – Smart Meter Progress Report

Dear Ms. Stauffer:

Pursuant to Order No. PSC-10-0153-FOF-EI ("Order 0153"), issued March 17, 2010, in Docket Nos. 080677-EI and 090130-EI, Florida Power & Light Company ("FPL" or the "Company") submits this annual progress report on its implementation of smart meters. This report also includes the additional information identified in Order No. PSC-15-0026-FOF-EI ("Order 0026") issued January 7, 2015 in Docket No. 130223-EI related to FPL's Non-Standard Meter Rider ("NSMR"). FPL is providing this informational update in the Energy Conservation Cost Recovery docket, as required by Orders 0153 and 0026.

#### **Progress Report**

Following the successful deployment of over 4.7 million smart meters to residential and small business customers through 2013, FPL initiated the last phase of smart meter deployment to the Company's remaining commercial and industrial customers in 2014. The Company also continued to expand the deployment of proven smart grid devices at FPL substations and distribution facilities.

These innovative technologies continue to enhance the value proposition to our customers by lowering costs and increasing benefits. Smart meters and other associated smart grid technologies have delivered important customer benefits, including more reliable electric service and unprecedented customer control over energy usage.

Importantly, smart meters also produce substantial cost savings for our customers. Notwithstanding a modification of the schedule to activate smart meters to allow for a more effective and efficient use of this technology, the Company achieved more than \$30 million in annual O&M savings from smart meters in 2014.

# Status of the Smart Meter Deployment Program

In 2014, FPL continued smart meter deployment to the remaining large commercial and industrial customers who had not yet received this technology. During the year, 150,000 smart meters were deployed to these customers, and the Company plans to complete deployment to the remaining 50,000 customers by the second quarter of 2015. More than half of the meters deployed to commercial and industrial accounts in 2014 have been activated, enabling these customers to better manage their energy use through access to an "Energy Dashboard" that now includes customized features for business customers.

### Greater Value for Customers through Strong System Performance

FPL sets high standards for the performance of its remote meter-reading system, which continues to achieve exceptional results. The 2014 billing "read rate", which is the percentage of successful remote meter reads each month, continued to be an outstanding 99.84 percent. Another example of the exceptional network performance was the 99.3 percent completion rate for FPL's Remote Connect Service ("RCS") transactions. This highly dependable network enables FPL to continue to improve customer service.

## **Enhancing Customer Outreach and Engagement**

During 2014, FPL continued to enhance its Energy Dashboard. The Energy Dashboard, which customers accessed more than 3 million times in 2014, enables customers served with smart meters to monitor their energy use by the hour, day and month, dramatically expanding their ability to manage their energy usage. Beginning in 2014, the Energy Dashboard was enhanced to allow FPL's net-metering customers to monitor both the energy they delivered to and received from FPL. These net-metering customers were provided a tutorial to assist them as they navigate through the site. FPL customers with a time-of-use rate were also provided enhanced Energy Dashboard features allowing them to see their energy usage during peak and off-peak hours. Other enhancements to the Energy Dashboard included a new video message for business customers and a more accurate bill projection calculation tool.

# **Continued Customer Benefits through Smart Meter Technology**

FPL continues to expand the benefits that smart meter technology provides to customers. This technology increasingly helps FPL deliver on its commitment to provide customers with highly reliable, affordable electricity. Each year, smart meters increasingly help identify power outages and further reduce service restoration times while improving operational efficiencies. These smart meter benefits contribute to FPL's ability to offer its customers a typical residential 1,000-kWh bill that is approximately 25 percent lower

than the national average, and in 2014, was the lowest in Florida among reporting utilities for the fifth year in a row.

# Better system reliability, fewer outages and faster restoration times

The reliability gains associated with FPL smart meters and smart grid technologies continue to drive significant benefits for our customers. From the start of FPL's smart meter deployment through 2014, FPL had about 170,000 fewer field visits based upon information received through smart meters and the smart grid. FPL also continues to improve its ability to use smart meter data to expedite outage tickets. Through 2014, more than 52,000 outage tickets were supplemented with beneficial information obtained with the help of smart meters.

In the great majority of cases, customers with smart meters do not have to call FPL to report an outage. In 2014, FPL generated over 10,000 outage tickets before a customer reported the outage, and for about 2,000 of these incidents power was restored before any customer called to report the outage. When customers do call with a power problem, FPL can quickly determine if the problem is with the Company's system or customers' equipment, thereby facilitating and expediting both customers' and the Company's ability to efficiently respond when repairs are required.

Smart meters and associated technologies allow FPL field restoration crews to view realtime outage data and extensive network information while they're in the field. Using iPads loaded with FPL's Restoration Spatial View ("RSV") application, they now have smart grid data right in the palms of their hands. Developed in-house, RSV combines outage tickets, weather information, electrical network information, time sensor data, customer energy consumption and voltage, restoration crew location, meter status and more – all layered onto a map view on their iPads.

RSV uses smart meter information and telemetry from substation and distribution automation devices to provide a holistic view of the customer experience. It incorporates features like restoration confirmation, which allows restoration crews to confirm the power status of all smart meters affected by an outage before they leave an area. This has helped FPL identify embedded outages, resolve problems on the first visit, avoid unnecessary truck rolls, reduce repeat calls from customers and improve customer satisfaction.

#### Enhanced Customer Service and Operational Efficiencies

Remote Connect System - In addition to the highly efficient completion rate for transactions (99.3% in 2014 compared to 98.9% in 2013), FPL's Remote Connect System continues to enhance customer service and enable greater operational efficiencies with:

- Faster, more convenient service connection for customers who are opening new accounts
- Faster, more convenient service disconnection at the customer's request (e.g., moving out of a home or business)

- Faster service reconnection when payment is received for accounts that have been disconnected for non-payment (in just minutes, rather than within 24 hours, as previously)
- Lower costs for field service operations

Detection of Power Quality Issues - FPL conducted a study of customer-owned meter enclosure failures to attempt to determine whether communications received from the smart meter could help proactively identify conditions within the meter enclosure that would likely lead to power quality issues for our customers. A tool was developed to analyze the pattern of events and communication coming from the smart meter. The study was completed in 2014, and resulted in a 78 percent success rate in identifying meter enclosures with some level of damage indicative of a likely future power quality issue. Based on these results, FPL intends to start implementation of the tool in 2015. The new process will allow FPL to share valuable information about the condition of the customer-owned meter enclosure, which is essential to the safe and efficient delivery of electricity.

## Smart Devices for Grid Modernization

FPL continues to add more of the smart grid distribution and transmission devices that have proven to be the most effective and efficient, adding over 1,700 additional smart devices to the grid in 2014, which includes 1,600 automated switches, along with sensors and monitors to targeted transformers, and breakers and battery banks at substations, all of which assist the Company to predict and respond to potential power delivery issues.

The Company has also initiated a new project that will include the installation of communication devices, known as "smart nodes," on 75,000 existing full maintenance streetlights in the Miami-Dade area. By the end of 2014, over 10,000 of these smart nodes had been installed in the field. The use of this technology will reduce the need for our customers to call the Company about streetlight outages, provide FPL more efficient processes to make repairs through improved planning and scheduling, and provide the opportunity to improve reliability benefits for customers by enhancing network efficiency and redundancy.

#### **Responding to Customer Concerns**

Throughout the deployment process, FPL listened carefully to customer concerns about smart meters and worked hard to inform customers and identify fair and reasonable ways to address those concerns. FPL is proud of its smart meter program and the proven benefits it provides for our individual customers and the operation of FPL's power delivery system. Still, the Company recognized that a very small number of customers expressed a desire to forego the use of a smart meter.

As outlined in FPL's 2014 Smart Meter Progress Report filed in Docket 140002-EG, during deployment FPL addressed this customer concern by voluntarily creating a postpone list so individual customers could forego installation of smart meters without

paying the associated costs. At the same time, a dedicated group of employees, Customer Advocates, worked with these customers to continue to educate and address customer concerns.

With deployment to residential and small business customers complete, FPL proposed a cost-based opt-out tariff to provide customers the option to elect service that allows them to retain a non-standard, non-communicating meter. Under the proposal, customers who chose non-standard meter service would bear the costs associated with the program, just as they would with other optional services offered by the Company. This structure of the Non-Standard Meter Rider ("NSMR") is essential to ensure that customers who receive service through standard communicating meters do not bear the costs of the optional NSMR service.

During 2014, FPL's NSMR program was the subject of a fully litigated proceeding (Docket No. 130223-EI). Following substantial pleading practice, extensive discovery, submission of pre-filed testimony, and an evidentiary hearing, the Commission reaffirmed its approval of FPL's NSMR, with certain adjustments.<sup>1</sup> As reflected in Order 0026, customers choosing to opt out of FPL's smart meter program have the option to do so by paying the cost-based rate. This program allows customers to make a choice regarding the type of meter at their premise without placing the cost burden of that choice on the more than 99.8% of FPL's customers who have smart meters.

In compliance with Order 0026, each year through March 2019, or until its next rate case, whichever comes first, FPL will report in its annual Smart Meter Progress Report actual NSMR participation rates, actual costs associated with the operation and administration of the program, and actual revenues received in the form of Enrollment Fees and Monthly Surcharge payments. This information is reflected in the following table:

## NSMR Project to date as of Dec. 31, 2014

Customers enrolled as of 12/31/2014	6,546
Actual Capital and O&M Costs <sup>(a)</sup>	\$3,675,256
Revenue <sup>(6)</sup>	\$1,251,317

<sup>(a)</sup> The 2014 revenue requirement which includes return on investment and O&M was \$2,154,570. <sup>(b)</sup> Includes \$41,796 collected through 2014 that was refunded to NSMR customers in January 2015 to reflect adjusted enrollment fee as required by Order 0026. The \$41,796 will be deducted from the total revenues received through this program in 2015, and the deduction will therefore be reflected in next year's report.

<sup>&</sup>lt;sup>1</sup> The Commission's Order 0026 revised the Enrollment Fee to \$89 rather than the previously approved rate of \$95, with the Monthly Surcharge remaining at \$13. Order 0026 also added a requirement for a tariff provision relieving the NSMR customer of the obligation to pay the Monthly Surcharge if the enrolled customer is required to temporarily have a standard meter in place for more than one full billing cycle. This unlikely situation may occur if, for example, the non-standard meter needs to be replaced and there is no readily available substitute.

# **Recognition for Leadership in Providing Smart Grid Benefits to Customers**

FPL's successful implementation of its smart meter program and related smart grid technologies continue to receive accolades from industry and governmental organizations.

# 2014 DistribuTECH Awards, POWERGRID International magazine (January 2014):

Awards are given in four main categories: Demand Response/Energy Efficiency, Customer Engagement, Renewable Energy Integration and Smart Grid. FPL won the two awards below based on ingenuity, scope, practicality, vision and follow-through.

- 1. Smart Grid Project of the Year for our Reaping the Benefits of the Smart Grid Project
- 2. Renewable Energy Integration Project of the Year for our Smart Island Detection System

# 2014 ReliabilityOne<sup>™</sup> Awards, PA Consulting Group (November 2014):

The ReliabilityOne<sup>™</sup> Awards are given annually to utilities in North America that have achieved outstanding reliability performance and excelled in delivering the most reliable electric service to their customers. In 2014, FPL received awards for "Outstanding Technology and Innovation" and "Outstanding Reliability Performance in the Southeast Region." FPL believes that smart meters and other smart grid technologies have been an integral part of achieving these outstanding results.

## Best Practices Gold Award for Outage Communications, Chartwell (November 2014):

Chartwell is a specialized information provider that helps utilities improve customer experience and satisfaction. FPL won the award and was recognized for its RSV mobile application, which enhances operational efficiency, delivers significant cost savings and shortens power interruption durations. The RSV application was developed within FPL by the Smart Grid Applications Team and allows FPL restoration specialists to analyze real-time outage information in the area in which they are working.

# *Publication – Innovations Across the Grid – Volume 2, The Edison Foundation Institute for Electric Innovation (December 2014):*

FPL was featured as a case study in "Optimizing the Smart Grid to Enhance Service Reliability." *Innovations Across the Grid, Volume II*, features innovative electric utility projects that are helping the electric grid meet the needs of the 21st-century. Through a series of more than 50 case studies documenting "real world" projects, *Innovations Across the Grid* demonstrates how significant investments in grid technologies, data analytics, system monitoring, and customer-focused innovations are helping the electric grid evolve.

Publication - Smart Grid Investments Improve Grid Reliability, Resilience, and Storm Responses, US Department of Energy (November 2014):

FPL was highlighted as a leader in Smart Grid technologies that reduce outage restoration times, reduce the total number of affected customers, and improve overall service reliability, all reducing the customer impact from storm disruptions.

# In Conclusion: Smart Meters and associated Smart Grid technologies continue to deliver solid customer benefits and provide for continuing innovative improvements

FPL's smart grid is recognized as one of the most comprehensive, full-scale deployments of its kind. Smart grid technology is the keystone of the electric utility industry's efforts to modernize the nation's electric system. As of July 2014, over 50 million smart meters had been deployed in the U.S., covering over 43 percent of homes. FPL's smart grid, which includes smart meters as the foundation for all the associated smart grid technologies, has delivered measurable operational savings and strong customer benefits including improvements in efficiency, reliability and customer service. FPL will continue to leverage this smart technology investment to develop new tools to enhance service reliability and deliver even more value for our customers.

Thank you for your interest in this informational update. Please do not hesitate to contact me should you have any questions.

Sincerely,

Kenneth M. Rubin, Senior Counsel Florida Power & Light Company

cc: All parties on attached service list via e-service

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