



**Florida Public Service Commission
Staff Smart Meter Workshop
September 20, 2012**

Smart meters lay the foundation for important customer benefits now and for the future

Summary

- **Smart meters are an essential element of modernizing the grid to provide long-term benefits to all customers**
 - Better outage prevention
 - Faster outage identification that speeds restoration
 - Cost efficiencies to keep bills low
 - More information, control and convenience for customers
- **A small number of customers have raised concerns that have not been found to have merit**
 - About 14,000 (about 0.3% of FPL's customer base) have refused smart meters, primarily citing concerns over radio frequency, privacy, and fires
 - Concerns have been rebutted by experts or are unsubstantiated
- **Assuming a modest number of customers maintain refusal to allow FPL to install smart meters, the FPSC should assert jurisdiction to implement a program in which FPL will be authorized to recover all costs associated with maintaining an alternative metering process**
 - It would be unfair to ask all customers to subsidize the costs incurred as a result of other customers' decisions



Smart meter decisions have been methodically planned, FPSC approved and deployment scheduled for completion by May 2013

FPL Smart Meter Selection and Deployment

- **FPL began extensive research, testing and piloting of various smart meter technologies in 2006, long before finalizing design in 2009**
- **The FPSC approved and directed FPL to install the selected smart meter technology in the 2009 rate case**
- **Quality testing by vendor was required for 100% of meters, as well as additional sample testing by FPL and third party meter testing company**
- **Smart meters selected meet all commercially required standards**
- **Smart meters also meet various agency requirements with jurisdiction over health and safety**
- **Utilities are required by the FPSC to use commercially acceptable meters for their standard service**
- **As of May 2012, 36 million homes, or almost a third of all homes in the United States, have a smart meter**

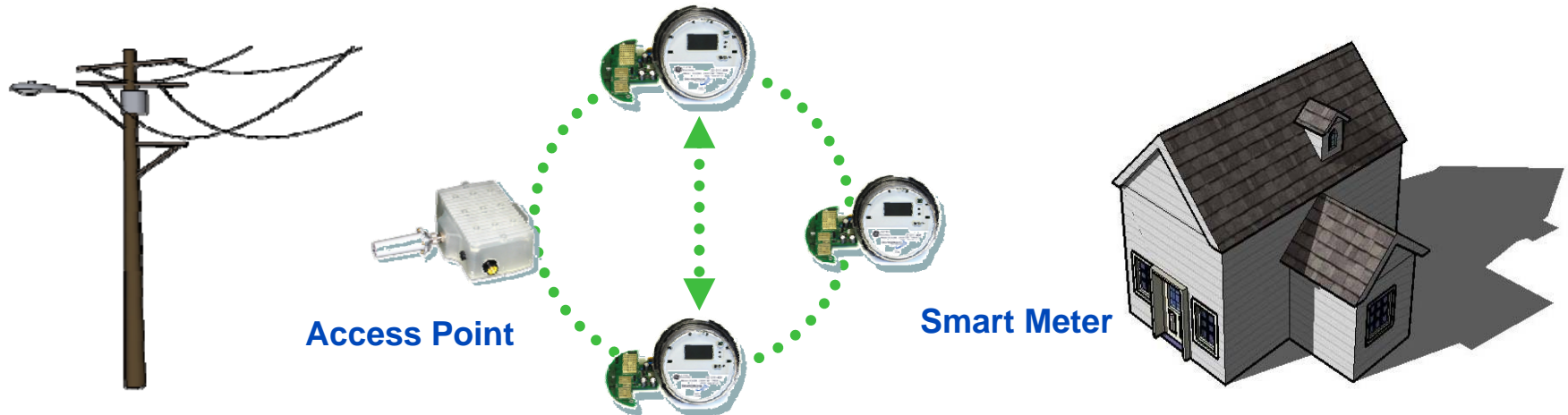
Two-way meter technology selected passed all due diligence reviews



FPL is installing the Silver Spring Networks (SSN) Radio Frequency Mesh technology with General Electric meters

Two-way Radio Frequency Mesh

- Radio Frequency (RF) Mesh technology provides a full two-way communications infrastructure to the customer's meter using a 900 MHz radio frequency band (same frequency used for other common devices such as baby monitors and garage door openers)



Features

- Self healing and failover properties
- Internet Protocol (IP) security and encryption
- Flexibility and scalability
- Routing and redundancy grow with scale

FCC letter to Senator Bill Nelson dated July 17, 2012

Federal Communication Commission (FCC) has Jurisdiction over Radio Frequency Standards

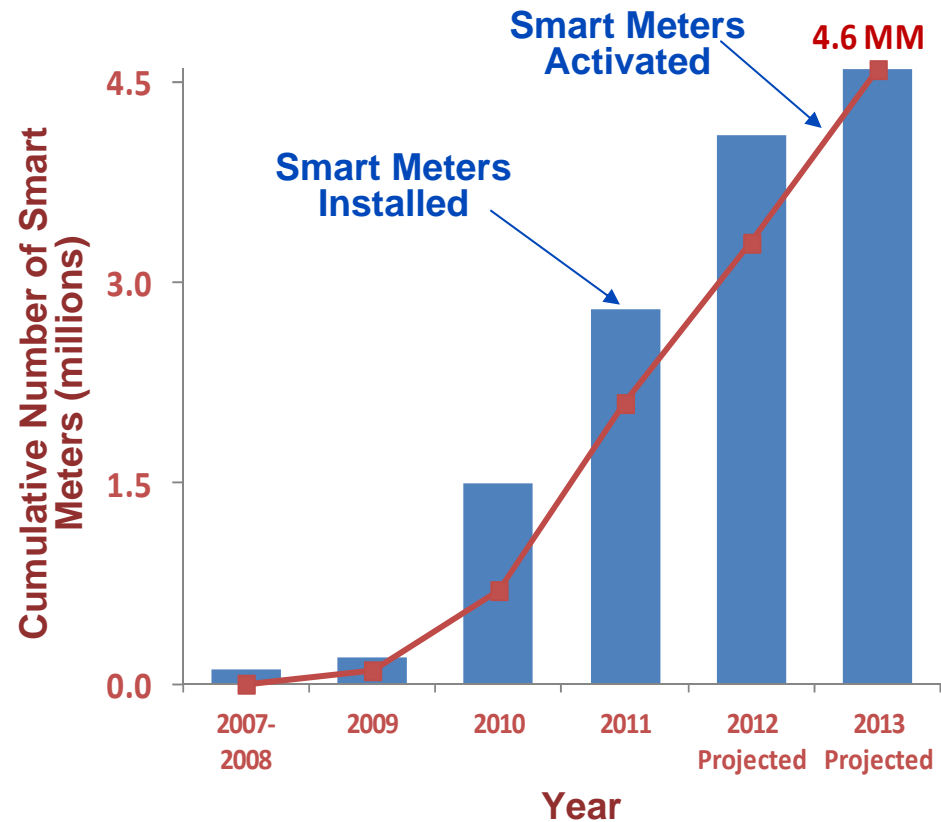
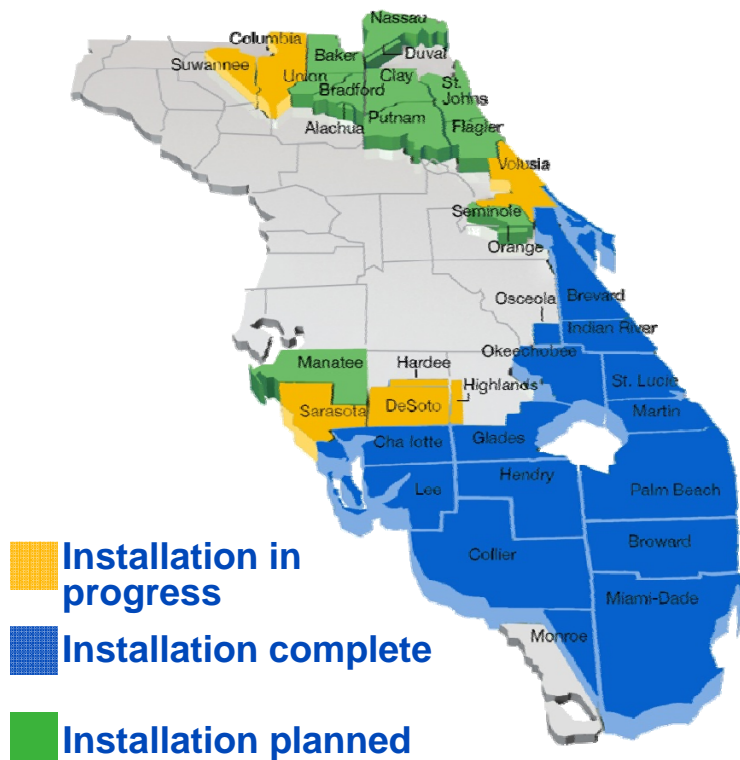
- **The radio frequency issue is within the jurisdiction of the FCC which has confirmed that “[o]ur exposure limits were developed to ensure that FCC regulated transmitters do not expose the public or workers to levels of RF energy that are considered by expert organizations to be potentially harmful”**
- **“In the case of smart meters, we note that FPL correctly cites in its fact sheet that “[t]he FCC has set limits on the maximum permissible exposure for emissions at RF-emitting devices. [T]he smart meters being installed by FPL operate at levels that are hundreds of times, lower than the FCC limit.”**

Julius P. Knapp
Chief
Office of Eng. & Technology
Federal Communication Commission



FPL's smart meter deployment is on schedule for being essentially complete by May of 2013

Smart Meter Deployment Schedule



To date, FPL has installed about 3.8 MM smart meters and activated (1) approximately 3.2 MM smart meters

(1) Smart meter activation occurs approximately six months after installation following systems testing in local areas



Smart meters are a prudent investment and provide many benefits for our customers

Smart Meter Customer Benefits Today

- **More information and control**
 - With hourly energy usage information available to customers, they can make more informed energy choices throughout the month
- **Greater convenience**
 - We no longer need access to customers' properties to read their meters and are able to provide an accurate meter reading if they move instead of estimating or prorating the bills
- **Enhanced customer service**
 - When customers call with a billing question we are able to review detailed usage information with the customer to resolve issues faster, help customer project a monthly bill either in person or through our voice response system

Smart meters will have lasting benefits for our customers



Smart meters also provide the foundation for the smart grid

Smart Grid Benefits

- **Faster restoration**
 - Intelligent devices throughout the grid, from power generation to the meter, will lessen the impact of power outages. Smart meters will assist in notifying us if a customer's power goes out
- **Outage prevention**
 - Smart grid technologies will provide predictive maintenance analysis before issues become disruptive problems, enabling us to prevent some outages before they occur
- **Outage identification**
 - Smart grid advanced sensors and switches will help quickly identify an outage and reroute power around the trouble spots, confining the outage and preventing it from spreading to other areas

These are just some of the exciting benefits these new technologies will be delivering to our customers



We communicate directly with customers before and after the smart meter is installed

Customer Communication

- Before installation, customers receive notification in the mail
- Installers carry brochures and attempt to talk to every available customer
- Customers can also access information about installation via our interactive voice response system and on the FPL.com web site
- After installation, customers receive a letter describing benefits and instructions on how to use the energy dashboard



Notification
Example



After installation we reach out to educate customers through FPL.com, the media, bill inserts, newsletters, e-mails, presentations to local officials and community groups and classes at local colleges



The Energy Dashboard helps customers understand their energy usage information and reduce their bill

Energy Dashboard



A small number of customers have voiced concerns and requested FPL to postpone the installation of a smart meter

Customer Postponements

- **Approximately 14,000 customers currently postponed**
 - Assuming current trends continue, an estimated 20,000 – 25,000 customers out of 4.6 million will have requested postponement by end of deployment
 - Equates to between 0.3% - 0.5% of all smart meter installations
- **About one fourth of customers calling with concerns are satisfied with information provided by FPL and accept the installation of a smart meter after speaking to our customer advocates**
- **Based on experience of utilities that have implemented fees, we expect approximately half of customers initially requesting postponement to actually enroll for alternative non-standard meter with fees**

Concerns over smart meters lack credible evidence and have been rebutted by experts

The Facts

- **Privacy:** FPL's smart meters only measure energy usage and meter data. They do not store or transmit personal information
- **Radio frequency:** You would have to be exposed to the RF from a smart meter for 375 years to get a dose equivalent to that of one year of 15 minutes-per-day cell phone use⁽¹⁾
- **Fires:** Smart meters can't combust or ignite. If the customer's meter can is in poor condition, problems can arise that could affect the immediately surrounding property, including any meter type not just a smart meter

For more information:
www.FPL.com/energysmart/pdf/facts_about_smart_meters.pdf

(1) Smart Grid Consumer Collaborative, "Myth vs. Facts: The Truth about Smart Meters"



Smart meters are a foundational imperative, essential to a more modern, reliable and efficient electric system

Summary

- **Smart meters are providing important customer benefits now while laying the foundation for a host of new benefits over the long term**
- **While FPL disagrees with the concerns expressed by a small percentage of customers, out of respect for the people involved, we implemented a process to temporarily postpone installation**
- **FPL requires a mechanism for cost recovery that charges only those who would refuse installation of a smart meter**