

# Smart Meters

Smart meters are digital meters that measure a customer's electricity consumption and transmit billing data wirelessly to the utility. Florida investor-owned electric utilities (IOUs) have deployed two primary types of smart meters: advanced metering infrastructure (AMI) and automated meter reading (AMR). Advanced metering infrastructure meters provide two-way communications to and from a customer's meter. Automated meter reading meters are capable of transmitting a customer's usage data from the meter, but are not capable of two-way communication.

A public workshop was held on September 20, 2012, to gather information on smart meters and to address concerns raised by consumers. A summary of the issues that have been of concern to customers is provided below.

## **Jurisdiction**

The Florida Public Service Commission (FPSC) has jurisdiction over cost recovery of smart meters. The FPSC requires accurate, commercially available metering devices for the purpose of measuring utility service. However, the FPSC lacks specific statutory authority to mandate the specific metering technology deployed by IOUs. As required by Florida Statute, the FPSC has adopted and enforces the safety standards found in the National Electrical Safety Code (NESC) for all electric utilities.<sup>1</sup> However, the NESC does not address radio frequency (RF) emitted by a transmitter contained within the smart meter. RF emission standards are established by the Federal Communications Commission (FCC).

Florida Statutes require utilities to furnish to each customer reasonably sufficient, adequate, and efficient service upon terms as required by the FPSC.<sup>2</sup> Florida Statutes also give the FPSC jurisdiction over the planning, development, and maintenance of a coordinated electric power grid throughout Florida.<sup>3</sup> The FPSC requires utilities to use commercially acceptable measuring devices owned and maintained by the utility to measure their customers' energy usage.<sup>4</sup>

## **Health**

Smart meter transmitters are certified for compliance with RF emission standards by the FCC. The meter manufacturers who attended the workshop provided an overview of the process for ensuring compliance with the FCC's RF standards. The transmitter is tested by a third-party agency for compliance, then that information is filed with the FCC. Once approved, an FCC ID number is provided to transmitters that comply. Each FCC ID number is available to be verified on the FCC website, and consumers may reference the number that appears on any transmitter. In the event that a change is made to the transmitter, the testing and FCC filings must be resubmitted, and another FCC ID number would be assigned after compliance. Utilities and

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<sup>1</sup> Section 366.04, Florida Statutes.

<sup>2</sup> Section 366.03, Florida Statutes.

<sup>3</sup> Section 366.045, Florida Statutes.

<sup>4</sup> Rule 25-6.049, Florida Administrative Code.

manufacturers presented information that smart meters operate within established authorized standards.

Third-party testing was conducted on a multi-meter installation of 100 smart meters and found that at a distance of one foot, the RF was 15% of the allowable exposure limit. The testing company also tested banks of 80 meters and came to the same conclusion. A utility study found that exposure from multi-meter installations was well below the FCC RF emission standards.

### **Privacy**

Florida's IOUs all treat individual customer data as confidential, except for release for regulated business purposes and to comply with court orders. Municipal electric utilities must comply with Florida's Sunshine Law. Customer data that is maintained by a municipal utility must be disclosed as part of a public records request.

The Federal Trade Commission has regulations that are designed to prevent identity theft. Florida IOUs' privacy policies are designed to be consistent with Federal Trade Commission regulations. Further, these IOUs can use the FPSC confidentiality process to ensure that any customer information that is provided to the FPSC remains confidential.

### **Data Security**

Data transmitted by a smart meter does not contain personal customer identification information. Smart meters only transmit information about energy usage, the meter number, meter type, tampering indications, and error checking information. Moreover, the information transmitted by the smart meter is encrypted, so if someone did intercept a signal, he or she would not be able to decipher the signal.

Florida utilities transmit the encrypted information securely, and have cyber security policies in place. Florida IOUs have used third-party testing to ensure the security of the transmission of information from the meter to the utility, and IOUs consistently monitor their systems to ensure security.

### **Alternative**

Some consumers have expressed a desire to retain their existing analog meter instead of a smart meter; this is typically referred to as an "opt-out" option. Electric utilities in Florida are not in agreement regarding whether or not there is a need to offer an opt-out provision. Nevertheless, if an opt-out option is provided, the customer who requests a non-smart meter should be responsible for all costs incurred by an IOU due to this decision. An example of such a cost would be the travel time and labor costs associated with a person physically reading the meter. This is in accord with the FPSC's longstanding policy of ensuring that the cost-causer pays the costs associated with his or her request. An IOU may submit an opt-out tariff for consideration by the FPSC.