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GULF POWER
A SOUTHERN COMPANY

October 12, 2012

Mr. Walter Clemence
Office of Industry Development and Market Analysis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

Re: Commission Staff Workshop on Smart Meters

Dear Mr. Clemence:

Gulf Power Company appreciates this opportunity to submit post-workshop comments in regard to the Smart Meter Workshop held on September 20, 2012. The comments provided herein supplement information presented at the workshop by Gulf Power as well as the responses previously submitted to Staff's Data Requests. Please let me know if you have any questions.

Sincerely,

Robert L. McGee, Jr.
Regulatory and Pricing Manager

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Enclosures

cc: Florida Public Service Commission
Mark Futrell

Gulf Power Company's Post-Workshop Comments on September 20, 2012 Smart Meter Workshop

October 12, 2012

On September 20, 2012, the Florida Public Service Commission (FPSC) Staff conducted a workshop on smart meters. The stated purpose was to "gather information on smart meters in order to address concerns raised by customers." This document provides Gulf Power Company's (Gulf Power) Post-Workshop comments, as requested by the FPSC Staff, and, unless otherwise stated, presents Gulf Power's position on the various elements discussed at the Workshop.

General Aspects

Smart meter systems are a natural evolution of the application of society's advancing technological capability. Their principal purpose is to increase the accuracy of energy consumption records for the purpose of rendering customer bills and to provide that consumption information at costs that are less than the costs required by antiquated, manual processes. Further, the additional capabilities of smart meters, particularly two-way AMI systems, to provide outage alerts, tamper alerts, information on interval consumption, voltage anomalies, transformer loading, reverse-power flows, and other electrical system characteristics yields significant additional benefits to the customer and utility beyond just meter readings for billing.

Jurisdiction

The FPSC, by virtue of a variety of provisions within Chapter 366, Florida Statutes, has jurisdiction over the types of metering systems to be used by electric utilities within the State of Florida. By virtue of the adoption of the National Electric Safety Code, the FPSC's jurisdiction and oversight provides adequate consideration of electrical safety issues with respect to metering.

The Federal Communications Commission (FCC), has jurisdiction over all components within a smart meter system (or otherwise) which emit radio frequencies. The FCC has exercised that jurisdiction through licensing and other activities, as demonstrated by information presented in the Workshop. In addition, the FCC acknowledged its jurisdiction over the radio frequency (RF) component of smart meters in a letter to Senator Bill Nelson dated July 17, 2012.

Radio-Frequency Health Effects

Although investigated in a variety of studies, there have been no scientifically-verifiable adverse health effects demonstrated as a consequence of a consumer's use or exposure to RF devices (e.g. cell-phones) that operate in the similar frequency spectrum utilized by most smart meter systems. In addition to cell-phones and cell-phone towers, there are other emitters (microwave ovens, computer WiFi systems, baby monitors, etc.) of RF in these similar

frequencies. While operating in similar frequency spectrums, the power level of RF emissions from smart meter systems is typically only a small fraction of that already present in the environment due to these other sources.

Further, the duty cycle (how often a smart meter transmits) is much less than consumer devices already in use. In the case of the tower-based, licensed-frequency system such as that implemented by Gulf Power, the transmission time of the average meter is less than one second per day, resulting in RF emissions at average power levels that are a small fraction of other types of smart meter systems (i.e. unlicensed spectrum mesh networks and "drive-by" systems) that are being deployed by other utilities. The RF emissions of Advanced Metering Infrastructure (AMI) systems, in general, are only a small fraction of the limits set by the FCC.

It has been generally reported in the industry and was specifically expressed in the Workshop that some members of the public claim to experience adverse health effects from RF emissions, including those from smart meters. However, as stated by Dr. Peter Valberg during the Workshop, the substantiated (via double-blind studies, etc.) scientific evidence indicates that these effects are not linked to any direct, physiological effect of RF emissions themselves, but rather to "radio frequency anxiety."

Customer Privacy and Data Security

The energy consumption information transmitted by Gulf Power's AMI meters is simply the information physically visible on the face of the meter, i.e., the meter number identifier and the "register" reading. Actual consumption information must be derived by comparing the beginning register reading with the ending register reading for a specified period. The information transmitted is no more and no less private than it has been throughout the history of electric metering.

The sampling rate of the voltage and current waveforms by Gulf Power's AMI meters allow it to accurately capture and record the energy consumption of the entire premise on which the meter is located. The meter does not have the capability to make any conclusive determination about which specific electrical apparatus was consuming that energy.

The customer-identifying and energy usage and history information of Gulf Power's customers is Gulf Power's record of its service and sales to its customers, i.e. Gulf Power owns the usage data related to its customers. However, that account information is considered confidential and personal to each respective customer and is not sold or bartered to third parties; it is only used for legitimate utility purposes such as billing, specific assistance or provision of service to the customer of record, or in response to a government-issued subpoena.

The integrity of a utility's computer systems and the confidentiality of customer data are both of paramount concern to Gulf Power. Extensive policies, processes, and systems are in place to safeguard those elements from unauthorized access, including cyber-access. Gulf Power has

performed multiple security posture assessments of the AMI system. Through participation on the DOE Cyber Security Standards teams, National Institute of Standards and Technology (NIST) Cyber Security Working Group, and OpenSG Security, Gulf Power and its affiliates continually work with the industry to create the most beneficial guidelines and practices for adoption. For example, Gulf Power and its sister operating companies worked with the industry to develop the International Instrument Users' Association (WIB) vendor Cyber Security Certification. Sensus, the vendor for Gulf Power's FlexNet Network and the vast majority of deployed meters, was the first meter vendor to obtain certification and is required to maintain that certification in its contract with Gulf Power. This certification focuses on management practices, system development, and robustness testing, and it aids the industry in ensuring that smart meters and the associated systems are being designed and tested to meet certain security controls.

Electrical Safety of Smart Meters

The recent media reports with respect to "smart meter fires" are blatantly misstated in their general characterization. Gulf Power has reviewed many of these reports and is not aware of any fire at any premise at any location in the United States in which the fire or damage originated from within the electric meter – "smart meter" or otherwise. Any time a meter is changed for the purposes of a service disconnect, meter testing, or meter system changes, there is the possibility that pre-existing damage or deterioration conditions of a meter socket will surface. Gaps in meter lugs or other conditions can prevent good contact and undesired heating can occur. Again, these aspects are related to the condition of the meter socket and/or premise wiring related to the socket (which are the property and responsibility of the customer), and not the presence of a "smart meter."

Alternatives to a Smart Meter

Some customers have expressed a desire not to have a smart meter used on their premise, typically citing their concern related to RF health effects or privacy. With respect to power levels of RF emissions, as noted earlier in these comments, different smart meter systems have very different characteristics – the type AMI system deployed by Gulf Power has average RF power levels far below other types of systems. In addition to different utilities deploying different types of systems, the utilities in Florida are in various stages of deployment and are deploying in areas of differing demographics. The number and ratio of Gulf Power customers who have expressed objections to smart meters is extremely low (0.03 percent). Given Gulf Power's experience with its smart meter implementation, we do not believe an FSPC-mandated alternative to a smart meter is needed for Gulf Power. However, if a smart meter alternative for Gulf Power is required, any and all additional costs associated with any such smart meter alternative should be borne by the customers desiring or electing the alternative. The general body of Gulf Power's customers should not subsidize the costs associated with any smart meter alternative.

The utilities in the State of Florida have different smart meter systems, different deployment schedules, and different levels of the number or portion of customers who have expressed objections to smart meter installation. These differences will likely have an impact on the type of any smart meter alternative that could be considered for practical application. Further, particularly because of the different types of possible alternatives and the different level of customers that might elect for any offered alternative, the charges to opting customers to cover the costs of the alternative will, most likely, vary widely and should be allowed to vary among utilities. Consequently, it would seem reasonable to give careful consideration as to whether any alternative offering should be required of particular utilities, or required of all utilities, and/or whether the type of offering and associated costs should be required to be the same for all utilities.