



November 1, 2010

VIA ELECTRONIC MAIL  
Office of Electricity Delivery and Energy Reliability  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
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**Re: DOE Smart Grid RFI Addressing Policy and Logistical Challenges**

Southern Company Services, Inc., on behalf of itself and its operating affiliates (collectively, "Southern"), is pleased to have this opportunity to provide responses to the Department of Energy ("DOE") Request for Information ("RFI") referenced above regarding smart grid policy and logistical challenges.<sup>1</sup> Southern recognizes that many policy and logistical concerns must be addressed for the promises of smart grid technologies and applications to be fully realized in ways that are beneficial, secure, and cost-effective for utility customers.

To help address these smart grid issues, Southern has been actively participating in the continuing dialogue with DOE and others. For example, Southern submitted comments in response to the two prior DOE RFIs on customer data and communications requirements. In addition, Southern's Senior Vice President and Chief Information

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<sup>1</sup> 75 Fed. Reg. 57006 (September 17, 2010).

Officer, Becky Blalock, participated in DOE's June 17, 2010 public meeting regarding smart grid communications requirements as one of the investor-owned utility representatives at the meeting.

Southern has been both evaluating and deploying smart grid technologies for some time. For example, Southern has been collaborating with DOE on an Integrated Distribution Management System ("IDMS") since 2005. IDMS began as a demonstration project on how to construct and integrate a self-healing distribution system along with improved management of the distribution system. It has now transformed into a project that will ultimately make IDMS fully operational.

Southern has also been extremely active in the deployment of Advanced Metering Infrastructure ("AMI"). Through September 2010, Southern has installed over 2.89 million AMI meters and plans to ultimately install a total of 4.4 million. Other ongoing smart grid projects include the automation of its transmission and distribution networks, the replacement of substation electromechanical relays with microprocessor relays, and the installation of digital fault recording and monitoring equipment on critical assets.

Southern has actively participated in the development of the Edison Electric Institute ("EEI") response to this RFI and generally agrees with the comments that EEI is submitting. The EEI comments reflect the collaborative input of a number of investor-owned utilities that have a broad array of experience in evaluating, deploying, and utilizing smart grid technologies. Southern supports the EEI comments and encourages

DOE to carefully consider them as it continues to review issues associated with smart grid policy and logistical challenges.

One of the issues on which DOE sought comment in the RFI is the proper definition and scope of the term "smart grid." DOE noted that, for purposes of the RFI, it was using the definition contained in the Energy Independence and Security Act of 2007 ("EISAct").<sup>2</sup> However, DOE also invited comment on whether this was the best way to define "smart grid." Southern agrees that this broad definition properly reflects the wide range of smart grid technologies and applications commonly referred to as the "smart grid." At the same time, due to the new and evolving nature of smart grid technologies, Southern encourages DOE to refrain from using this definition in a restrictive manner that could potentially stifle the innovation or development of new and useful technologies.

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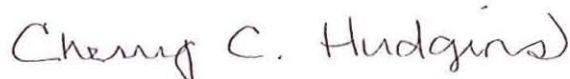
<sup>2</sup> Section 1301 of EISAct (entitled "Statement of Policy on Modernization of Electricity Grid") provides the following in its entirety: "It is the policy of the United States to support the modernization of the Nation's electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth and to achieve each of the following, which together characterize a Smart Grid: (1) Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid. (2) Dynamic optimization of grid operations and resources, with full cyber-security. (3) Deployment and integration of distributed resources and generation, including renewable resources. (4) Development and incorporation of demand response, demand-side resources, and energy-efficiency resources. (5) Deployment of 'smart' technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation. (6) Integration of 'smart' appliances and consumer devices. (7) Deployment and integration of advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning. (8) Provision to consumers of timely information and control options. (9) Development of standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid. (10) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services."

A common theme in the ongoing national discussion over smart grid technologies and applications is that they will create new opportunities for customers to better manage their energy usage and to realize cost savings. Some of the various electric rates and retail programs often mentioned in this regard include time-of-use rates, critical peak pricing, interruptible programs, real time pricing, and direct load control programs. These types of rates and programs may not have been available in some jurisdictions until the introduction of smart grid technologies. Southern, on the other hand, has been offering these types of rates and programs for many years – before smart grid technologies were a major subject of discussion. Nevertheless, Southern believes that the deployment of smart grid technologies will lead to the improved and more cost-effective implementation of these programs for its customers.

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Southern appreciates the opportunity to provide a response to DOE on these very important issues and looks forward to participating further in the ongoing discussion of smart grid issues. Should you have any questions, please let us know.

Respectfully submitted,



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