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Mr. Jeff DeRouen  
Executive Director  
Kentucky Public Service Commission  
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June 22, 2012

**RE: Request of Louisville Gas and Electric Company to Cancel and  
Withdraw the Tariffs for its Responsive Pricing and Smart Metering  
Pilot Program**  
**Case No. 2011-00440**

Dear Mr. DeRouen:

On July 12, 2007, the Commission issued an Order in Case No. 2007-00117<sup>1</sup> approving a three-year Responsive Pricing and Smart Meter Pilot Program ("Smart Meter Pilot") for Louisville Gas and Electric Company ("LG&E"). Two tariffs were approved for use under the Smart Meter Pilot-the Residential Responsive Pricing Service tariff ("Rate RRP") and the General Responsive Pricing Service tariff ("Rate GRP"). The Commission's Order was amended on October 7, 2008 to allow employees of the General Electric Company to participate in the Smart Meter Pilot. On July 1, 2011, LG&E submitted its final evaluation report to the Commission regarding the Smart Meter Pilot.

On March 22, 2012, the Commission issued an Order in Case No. 2011-00440 approving discontinuance of LG&E's Smart Meter Pilot, and the cancellation and withdrawal of Rate RRP and Rate GRP tariffs. Additionally, the Commission ordered, "LG&E shall submit a report describing its efforts to develop a new program every three months until it has submitted a dynamic pricing or smart meter application for the Commission's consideration, with its first report to be filed three months from the date of this order."

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<sup>1</sup> Case No. 2007-00117, Application of Louisville Gas and Electric Company for an Order Approving a Responsive Pricing and Smart Metering Pilot Program (Ky. PSC, Jul. 12, 2007).

Mr. Jeff DeRouen  
June 22, 2012

Enclosed please find LG&E's report consistent with the Commission's March 22, 2012 order in Case 2011-00440.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

A handwritten signature in black ink that reads "Rick E. Lovekamp". The signature is written in a cursive style with a large, stylized "R" and "L".

Rick E. Lovekamp

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

REQUEST OF LOUISVILLE GAS AND ELECTRIC	)	
COMPANY TO CANCEL AND WITHDRAW THE	)	CASE NO.
TARIFFS FOR ITS RESPONSIVE PRICING AND	)	2011-00440
SMART METERING PILOT PROGRAM	)	

**Smart Meter Update Report**

On July 12, 2007, the Commission issued an Order in Case No. 2007-00117<sup>1</sup> approving a three-year Responsive Pricing and Smart Meter Pilot Program (“Smart Meter Pilot”) for Louisville Gas and Electric Company (“LG&E”). Two tariffs were approved for use under the Smart Meter Pilot: 1) the Residential Responsive Pricing Service tariff (“Rate RRP”) and 2) the General Responsive Pricing Service tariff (“Rate GRP”). The Commission’s Order was amended on October 7, 2008 to allow employees of the General Electric Company to participate in the Smart Meter Pilot. On July 1, 2011, LG&E submitted its final evaluation report to the Commission regarding the Smart Meter Pilot.

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The joint participants in Case No. 2008-00408<sup>2</sup> stated in Appendix B that dynamic pricing refers to pricing that varies according to the time at which the energy is used. It is normally tied directly or indirectly to prices in the wholesale market or to system conditions (peaks) and delivered to the customer via time-based rates or tariffs. Types of dynamic pricing include Time-of-Use or Time-of-Day Pricing, Critical Peak Pricing and Real-Time Pricing.

Dynamic pricing programs across the United States generally have low customer participation reflecting customer risk averseness and/or reservations about variable rate structures and a

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<sup>1</sup> Case No. 2007-00117, Application of Louisville Gas and Electric Company for an Order Approving a Responsive Pricing and Smart Metering Pilot Program (Ky. PSC, Jul. 12, 2007).

<sup>2</sup> Case No. 2008-00408, Consideration of the New Federal Standards of the Energy Independence and Security Act, Case Participants Joint Response to the Commission February 19, 2010 Guidance Document, Appendix B (Ky PSC March 25, 2011).

preference for fixed prices. Some prevalent attitudes suggest that customers prefer the rate stability that comes with fixed rate structures. In addition, the potential cost savings that could be realized by small electric customers could be more than offset by the cost incurred by the utility to offer and support dynamic rate offerings.

For example, Duke Energy Ohio in Case No.10-2326-GE-RDR<sup>3</sup> solicited over 6,300 customers through multiple channels including e-mail, community meetings, direct mail and outbound calling for its optional time-of-day rate for residential service with advanced metering (“TD-AM”) pilot program. Despite the multiple channel solicitations, only 20 eligible customers volunteered for the pilot program. Likewise, in Duke’s Peak Time Rebate (“PTR”) pilot, 2,800 customers were solicited and only 36 volunteered and were eligible to participate despite the no lose proposition for participants in this program. Duke Energy Ohio found the majority of customers sought three things from rate offerings: 1) the opportunity to have meaningful savings, 2) a rate structure that has a peak hour period shorter than 7 hours so as to not be disruptive to their lifestyles, and 3) rates that did not add complexity in different pricing periods and seasons.

Additional concerns were expressed in an objection to a mandatory time-of-use tariff proposed by Baltimore Gas and Electric based on testimony by the Office of the People’s Advocate in Maryland. “The change from a constant per kWh rate for generation costs to a time-varying rate will have the effect of significantly reallocating the cost burdens among residential customers” where burdens would be put on “customers who cannot move usage off those peak periods, including most low-use customers of all incomes.” Overall, some of the key reservations with respect to condition-of-service, time-based pricing focused on the need to further study how programs apply differently across customer segments, the need to understand how pilot results can be sustained over time, and the need for more insight into how customers will actually behave in terms of consumption and peak load reductions.<sup>4</sup>

Customer access to pricing information depends on a variety of things:<sup>5</sup>

- What type of infrastructure is in place (*e.g.*, smart meters, customer portal, communications capabilities directly with home area networks that are owned and operated by the customer, *etc.*);
- What programs the pricing information is meant to support (*e.g.*, time of use rates, critical peak pricing, real-time pricing);
- What type of pricing data is being made available (*e.g.*, off peak, on peak, interval);

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<sup>3</sup> Case No. 10-2326-GE-RDR, In the Matter of the Application of Duke Energy Ohio, Inc. to Adjust Rider DR-IM and Rider AU for 2010 SmartGrid Costs and Mid-Deployment Review. (Ohio PUC, June 30, 2011)

<sup>4</sup> Direct Testimony Of Nancy Brockway On Behalf Of The Maryland Office Of People's Counsel in response to Maryland PUC Case Number 9208. August 2009.

<sup>5</sup> Case No. 2008-00408, Consideration of the New Federal Standards of the Energy Independence and Security Act, Case Participants Joint Response to the Commission February 19, 2010 Guidance Document, (Ky PSC March 25, 2011).

- What other data is being provided to the customer on an interval basis and for what purpose; and
- An assessment of customer needs with respect to energy information – is it supporting Home Area Networks (“HAN”), integration of Plug-in Hybrid Electric Vehicles (“PHEV”), customer-owned and -operated distributed generation (including photovoltaic).

Consequently, offering dynamic pricing or smart metering is a complex undertaking to assure even targeted deployment achieves scalable results. It requires a deliberate and methodical approach to deal with the considerable financial, technology, customer acceptance, customer education, and on-going regulatory utility business model, rate structure, and cost recovery mechanism development. LG&E has and continues to invest in technological improvements at the speed of value to customers in general, holding to a key principle of not outpacing technological developments that have a proven track record.

LG&E and Kentucky Utilities Company (“KU”) (collectively “the Companies”) have started evaluating the requirements and objectives for a possible set of targeted deployments that would focus on (1) building internal capabilities for smart meter and smart grid deployments through the implementation of a scalable meter data management system integrated with existing system infrastructure and (2) evaluating customer acceptance, adoption, impact, and behavior changes associated with smart meter technology and dynamic rates.

In addition to following the latest industry trends in smart meter and smart grid technologies, the Companies have conducted informational meetings with personnel from its parent company, PPL Corporation (“PPL”) to share best-practices concepts and learn about key findings in the areas of meter technology and continued operations. PPL implemented advanced meter technology in 2002, prior to Act 129 being signed into law in October 2008 by Pennsylvania Governor Edward Rendell. Act 129 required electric distribution companies (“EDCs”) in Pennsylvania to develop a smart meter technology plan. Act 129 further required EDCs to offer time-of-use rates to customers, and required EDCs to allow direct meter access and meter data available to third parties. Act 129 permitted EDCs such as PPL “to recover the reasonable and prudent costs of providing smart meter technology, including capital-related costs, through base rates or an automatic adjustment clause.”<sup>6</sup>

PPL experienced a peak adoption of TOU rates at approximately 2.1% of their customer base. However, with the competitive retail market in PA, customers have found that “shopping” generator suppliers provides greater economic benefits than TOU rates resulting in only about 0.3% of PPL’s customers remaining on a TOU rate.

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<sup>6</sup> PPL Electric Utilities Corporation Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123945, August 14, 2009, <http://www.puc.state.pa.us/pcdocs/1050906.pdf>, p. 2.

PPL continues to evaluate smart meter and smart grid value enhancements to its customers and the utility through pilot programs including remote connect/disconnect devices, in-home display units that utilizes smart meter data and next-generation software and hardware upgrades required to support the legacy smart meters and communications infrastructure. Information gathered in these discussions will be utilized in the design and analysis of future targeted deployment programs at the Companies.

The Companies actively participate in the Smart Grid Interoperability Panel (“SGIP”), a public/private partnership that defines requirements for essential communication protocols and other common specifications and coordinates development of these standards by collaborating organizations. SGIP was initiated by The National Institute of Standards and Technology (“NIST”) to meet its responsibility, under the Energy Independence and Security Act of 2007 (“EISA 2007”), to coordinate standards development for the smart grid. SGIP was established in late 2009, and is comprised of over 760 member organizations representing 22 stakeholder categories, including federal agencies as well as state and local regulators. More than 2,100 individuals participate in SGIP activities. The Companies also have an elected representative on the Smart Grid Implementation Methods Committee (“SGIMC”) of SGIP, a working group whose mission is to identify, develop and support mechanisms and tools for objective standards impact assessment, transition management and technology transfer in order to assist in deployment of standards based Smart Grid devices, systems and infrastructure.

An offering of dynamic pricing or smart metering deployment is a complex undertaking that requires a deliberate and methodical approach to deal with and address the potentially considerable and long term financial, technology, customer acceptance, customer education, ongoing regulatory utility business models, rate structure, and cost recovery mechanism, such that investments occur at the speed of value. Consequently, the Companies continue to evaluate the maturity and value of technological improvements to decide on proper timing for providing a dynamic pricing or smart grid program for the Commission’s consideration.