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Ms. Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

Louisville Gas and Electric
Company
State Regulation and Rates
220 West Main Street
PO Box 32010
Louisville, Kentucky 40232
www.eon-us.com

March 21, 2007

Kent W. Blake
Director
T 502-627-2573
F 502-217-2442
kent.blake@eon-us.com

RE: Application of Louisville Gas and Electric Company for an Order
Approving a Responsive Pricing and Smart Metering Pilot Program
Case No. 2007-00 117

Dear Ms. O'Donnell:

Enclosed please find and accept for filing the original and ten (10) copies of Louisville Gas and Electric Company's ("LG&E") Application and Testimony in the above-referenced matter.

LG&E files this Application pursuant to 807 KAR 5:001, in compliance with the Commission's December 21, 2006 Order in Administrative Case No. 2006-00045, and in compliance with Section 3.6 of the Partial Settlement, Stipulation, and Agreement approved by order of this Commission on June 30, 2004, in Case No. 2003-00433.

Should you have any questions concerning the enclosed, please do not hesitate to contact me.

Sincerely,

Kent W. Blake

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR AN ORDER)
APPROVING A RESPONSIVE PRICING)
AND SMART METERING PILOT)
PROGRAM)

CASE NO. 2007-00117

APPLICATION OF
LOUISVILLE GAS AND ELECTRIC COMPANY

Louisville Gas and Electric Company ("LG&E") hereby petitions the Kentucky Public Service Commission ("Commission") by application to issue an order approving a proposed responsive pricing and smart metering pilot program ("Pilot") based upon the illustrative tariff sheets attached to the testimony of Kent W. Blake, Residential Responsive Pricing Service ("RRP") and General Responsive Pricing Service ("GRP"). LG&E files this Application pursuant to 807 KAR 5:001, in compliance with the Commission's December 21, 2006 Order in Administrative Case No. 2006-00045,¹ and in compliance with Section 3.6 of the Partial Settlement, Stipulation, and Agreement approved by order of this Commission on June 30, 2004, in Case No. 2003-00433.² In support of this Application, LG&E states as follows:

1. Address: The applicant's full name and post office address is: Louisville Gas and Electric Company, 220 West Main Street, Post Office Box 32010, Louisville, Kentucky 40202.

¹ *In the Matter of Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-based Metering, Demand Response, and Interconnection Service.*

² *In the Matter of an Adjustment of the Gas and Electric Rates, Terms, and Conditions of Louisville Gas and Electric Co.*

2. Articles of Incorporation: A certified copy of LG&E's Articles of Incorporation are on file with the Commission in Case No. 2005-00471, *In the Matter of: Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Authority to Transfer Functional Control of their Transmission System*, filed on November 18, 2005, and is incorporated by reference herein pursuant to 807 KAR 5:001, Section 8(3).

3. There are no applicable statutes, regulations, or Commission orders that require LG&E to publish or file notice of this Application prior to, or contemporaneously with, the filing hereof. In particular, the provisions of 807 KAR § 5:011 do not require the publication or filing of notice.

4. LG&E is a public utility, as defined in KRS 278.010(3)(a), engaged in the electric and gas business. LG&E generates and purchases electricity, and distributes and sells electricity at retail in Jefferson County and portions of Bullitt, Hardin, Henry, Meade, Oldham, Shelby, Spencer, and Trimble Counties. LG&E also purchases, stores and transports natural gas and distributes and sells natural gas at retail in Jefferson County and portions of Barren, Bullitt, Green, Hardin, Hart, Henry, Larue, Marion, Meade, Metcalfe, Nelson, Oldham, Shelby, Spencer, Trimble, and Washington Counties.

Origins of the Pilot

5. On May 11, 2001, the Commission approved LG&E and Kentucky Utilities Company's ("KU") joint Demand-Side Management ("DSM") 2000-2007 Program Plan.³ Included in the approved Plan was a budget of over \$200,000 for LG&E and KU to investigate a "Residential Time of Use/Load Management Pilot Program":

³ *In the Matter of the Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Review, Modification, and Continuation of DSM Programs and Cost Recovery Mechanisms*, Case No, 2000-00459, Order (May 11, 2001).

The Companies have been researching new technologies that provide a price signal to the customer to encourage more efficient use of energy. The Companies plan to implement a small pilot program that would incent the customer to shift usage from high cost time periods into lower cost time periods.⁴

The Commission's approval of the Plan remains effective through the end of calendar year 2007, including its approval of the budgeting of over \$200,000 for the "Residential Time of Use/Load Management Pilot Program," among other DSM programs.

6. On June 30, 2004, the Commission issued an Order in LG&E's last base rate proceeding, approving the Partial Settlement, Stipulation, and Agreement ("Settlement Agreement") between LG&E and the intervenors in that case.⁵ In Section 3.6 of the Settlement Agreement, LG&E agreed to develop and implement a real-time pricing pilot program. (A copy of Section 3.6 of the Settlement Agreement is attached hereto as Application Exhibit 1.) The Pilot, as set out in the illustrative RRP and GRP tariff sheets attached to the testimony of Kent W. Blake, complies with the Settlement Agreement requirements.

7. On December 21, 2006, the Commission issued an Order in Administrative Case No. 2006-00045.⁶ Among other things, the Order required LG&E to "finalize its proposed residential real-time pilot pricing program in accordance with the settlement in Case No. 2003-00433 and submit the plan for Commission consideration within 90 days of the date of this Order."⁷

⁴ LG&E/KU Demand-Side Management 2000-2007 Program Plan § 7.3.e.

⁵ *In the Matter of an Adjustment of the Gas and Electric Rates, Terms, and Conditions of Louisville Gas and Electric Company*, Case No. 2003-00433.

⁶ *In the Matter of Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-Based Metering, Demand Response, and Interconnection Service*, Admin. Case No. 2006-00045, Order (December 21, 2006).

⁷ *Id.* at 18.

Technical Design of the Pilot

8. LG&E's research into other electric utilities' real-time pricing programs and pilots indicates that for LG&E, considering the costs of implementation, weather, and relatively low prices for electricity, a responsive pricing rate structure consisting of time-of-use and real-time, critical peak pricing components in conjunction with a DSM program will likely maximize demand response for residential and commercial customers in a cost-effective manner.

9. As set out in the illustrative RRP and GRP tariff sheets attached hereto, the Pilot provides a responsive pricing rate structure with time-of-use and real-time, critical peak pricing components. The time-of-use component provides published, known rates during published, known periods that will apply to approximately 99% of the hours in a year, dividing weekday and weekend hours into three kinds of time-of-use periods: low-, medium-, and high-cost. Approximately 87% of hours in a year (the low- and medium-cost hours) will have rates lower than those currently in LG&E's Rate RS and Rate GS tariffs. The high-cost hours, approximately 12% of total annual hours, will have a higher rate than LG&E's current tariff rates.

The Pilot's real-time, critical peak pricing component has a published, known rate that is significantly higher (i.e., approximately five times higher) than LG&E's current tariff rates. LG&E will implement this significantly higher rate only during hours of peak generation system demand, and in no event will LG&E implement such pricing more than 80 hours per year (approximately 1% of hours per year). To enable Pilot participants to shift usage away from critical peak pricing periods (or to eliminate such usage altogether), participants will receive notice at least half an hour before a critical peak pricing period

begins. Pilot participants will receive the appropriate pricing information from the Pilot program equipment they will receive, which is described further below.

10. LG&E designed the Pilot's RRP and GRP rate structures to be revenue neutral for a typical Rate RS or GS customer's load profile; in other words, a Rate RS or GS customer who maintains a typical load profile could participate in the Pilot without increasing or decreasing the customer's energy charges. The intent of the Pilot, however, is to provide appropriate time-of-use and critical peak pricing period signals to encourage customers to reduce their overall electric usage and to shift some usage from higher-demand and -cost time periods to lower-demand and -cost time periods, resulting in cost savings for the customer and LG&E.

11. The Pilot couples its responsive pricing rate structure with smart metering technology and information displays (displaying usage and pricing information). The "smart meter" required to implement the Pilot is actually a typical meter equipped with an electronic card that provides two-way communications (between LG&E and the meter) and that enables the meter to record and transmit to LG&E a customer's usage during different pricing periods.

To enable Pilot participants to know the pricing period that is in effect at a given time, an information display will accompany each Pilot participant's smart meter. In addition to current pricing period information, it is through these information displays that LG&E will provide Pilot participants at least one half-hour's advance notice of an upcoming critical peak pricing period. Because an information display receives pricing period information through radio contact with its assigned smart meter, a Pilot participant may place

the information display anywhere in the participant's home or business that is most useful and that remains within radio range of the smart meter.

12. In addition to the equipment discussed above, the Pilot will equip participants with additional DSM technology that should enable Pilot participants to maximize their savings through energy usage reduction and time-shifting. More particularly, the DSM component of the Pilot will utilize programmable thermostats and load control switches. Like the information displays, the programmable thermostats will be able to receive pricing period signals from the smart meters and will enable Pilot participants to pre-program different desired temperatures for the different pricing periods. (For example, during the summer, a Pilot participant could set a temperature of 70°F during the low-cost period, 72°F during the medium-cost period, 75°F during the high-cost period, and 80°F during critical peak pricing periods.) Using load control switches for electric water heaters and other larger loads in conjunction with programmable thermostats will automate the usage of these loads to allow Pilot participants to shift usage without manual intervention on a daily basis. LG&E expects that some Pilot participants will choose to find ways to reduce their overall usage of energy, as well as to shift additional energy uses from peak to off-peak periods.

Term of Pilot and Number of Pilot Participants

13. As per the Settlement Agreement, the Pilot will have an initial term of three years, but will remain in effect until the Commission modifies or terminates it.

14. Up to one hundred customers under Rate RS and up to fifty customers under Rate GS may qualify for the program (i.e., no more than one hundred Rate RS customers and no more than fifty Rate GS customers will participate in the program). Although the Settlement Agreement provides that fifty Rate RS and fifty Rate GS customers should be

allowed to participate in the Pilot, because of increased interest in such energy efficiency programs and to obtain a more useful sample from the larger Rate RS customer population, LG&E is expanding the Pilot to allow more Rate RS customers to participate.

Pilot Cost and Cost Recovery

15. As shown in Exhibit SLC-1 to the testimony of Sidney L. "Butch" Cockerill, LG&E projects that the total cost of the Pilot for its initial three year term will be approximately \$1.9 million, an amount that includes the cost of the expanded DSM component of the Pilot, set out in greater detail below. Of that total amount, approximately \$28,950 is the total of customer-specific costs that LG&E will recover from Pilot participants as described below.⁸ The remainder of the \$1.9 million Pilot program cost comprises non-customer specific costs, including DSM equipment, modifications to LG&E's billing system, and other recurring and non-recurring items.

16. During the first six months of the Pilot, LG&E will recover customer-specific costs of the Pilot through a facilities charge incorporated into Pilot participants' customer charges. After six months, LG&E will evaluate the level of participation in the Pilot and consider modifying the treatment of customer-specific charges to encourage Pilot participation. Non-customer-specific costs and DSM equipment costs will be recovered from all Rate RS and Rate GS customers through the DSM Cost Recovery Component of LG&E's DSM Cost Recovery Mechanism. LG&E recognizes that recovering non-customer-specific costs from only Rate RS and Rate GS customers is a departure from the terms of the Settlement Agreement, which provided that LG&E should recover such costs from Rate RS,

⁸ The customer specific costs are the smart meter card and information display. Adding \$78 for a smart meter card to \$115 for an installed information display, then multiplying the sum by 150 customers produces \$28,950.

GS, and LP customers;⁹ however, because the Commission has since ordered LG&E to create an RTP pilot for large commercial and industrial customers,¹⁰ LG&E respectfully submits that it would not be appropriate to recover Pilot costs from such large commercial and industrial customers.

Expanded Smart Metering DSM Component of Responsive Pricing Pilot

17. While formulating the Pilot, LG&E hypothesized that Rate RS and Rate GS customers might obtain optimal cost-savings without the responsive pricing rate structure or with a less-inclusive complement of equipment. In order for LG&E to obtain for itself and provide to the Commission data about the costs and benefits of different combinations of smart metering, information displays, programmable thermostats, and load control switches, LG&E will include in the Pilot an Expanded Smart Metering-DSM component. To carry out the proposed program, LG&E will equip four complete metering routes (up to approximately 2,000 customers, including responsive pricing participants) with the same kind of smart meters used for customers participating in the responsive pricing component of the Pilot. (LG&E will draw all of the responsive pricing participants from these four metering routes.) The customers residing along the four selected metering routes who do not volunteer for the responsive pricing rate structure will nevertheless receive DSM equipment as follows (these figures are approximate): (1) one hundred fifty will receive programmable thermostats and information displays; (2) one hundred fifty will receive programmable thermostats and load

⁹ See Settlement Agreement § 3.6.

¹⁰ *In the Matter of Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-Based Metering, Demand Response, and Interconnection Service*, Admin. Case No. 2006-00045, Order at 13, 18 (December 21, 2006).

control devices; (3) one hundred will receive information displays; and (4) the remaining customers will receive smart meters only.

Responsive Pricing Pilot Overview, Including Expanded Smart Metering-DSM Component

	Responsive Pricing Participants	Expanded Smart Metering-DSM Component Participants			
		Thermo., Display, & Meter	Thermo., Load Control, & Meter	Display & Meter	Meter Only
Number of Participants	150	150	150	100	1450
Meter with Card	✓	✓	✓	✓	✓
Programmable Thermostat	✓	✓	✓		
Information Displays	✓	✓		✓	
Load Control Device	✓		✓		
Responsive Pricing Rate	✓				

All of the Pilot participants will have access to their usage data via the Internet on a dedicated site LG&E will establish for that purpose. None of the Expanded Smart Metering-DSM component participants will be on the Rate RRP or GRP tariff because the purpose of this component will be to determine whether providing customers with different blends of information and control devices without a change in tariff energy rates can produce energy- and cost-saving behavior comparable to that of responsive pricing participants.

Requested Timing of Approval

18. After the Commission approves this Application, it will take approximately six months to implement the Pilot, including ordering equipment, obtaining responsive pricing volunteers, installing the necessary equipment, and performing other required tasks. LG&E therefore respectfully requests that the Commission issue an order approving the Pilot by June 30, 2007, if possible. Such timing would allow LG&E to begin the Pilot on January

1, 2008, and run the full three-year course of the Pilot during the whole calendar years 2008, 2009, and 2010.

Pilot Program Reporting

19. At the end of the three-year term, LG&E will evaluate the performance of the Pilot for several purposes, including, but not limited to: (i) determining the impact of the Pilot on the affected customers; (ii) determining the amount of revenue loss from the Pilot, if any; (iii) evaluating customer acceptance of the time-of-use and responsive pricing period rate structure; and (iv) evaluating the potential for implementing the Pilot as a standard rate schedule. LG&E will file its evaluation report with the Commission within six months after the first three years of implementing the Pilot.

20. The following direct testimony of LG&E's witnesses supports this Application:

- The testimony of Kent W. Blake, Director of State Regulation and Rates, E.ON U.S. Services, Inc., describes the regulatory history of the Pilot and gives a brief description of the RRP and GRP tariffs and how they will be implemented. Mr. Blake sponsors the following exhibits to his testimony:
 - Exhibit KWB-1 (Illustrative RRP tariff sheet)
 - Exhibit KWB-2 (Illustrative GRP tariff sheet)
 - Exhibit KWB-3 (Revenue neutrality spreadsheet)
- The testimony of Gregory Ferguson, Demand-Side Management Program Manager, E.ON U.S. Services, Inc., describes in greater detail the mechanics of the Pilot and the functioning of the RRP and GRP tariffs.

- The testimony of Sidney L. “Butch” Cockerill, Director of Revenue Collections, E.ON U.S. Services, Inc., describes the smart meters, information displays, and DSM equipment that will be deployed for the Pilot. Mr. Cockerill sponsors the following exhibits to his testimony:
 - Exhibit SLC-1 (Pilot budget)
 - Exhibit SLC-2 (Bill mock-up for responsive pricing customer)

WHEREFORE, Louisville Gas and Electric Company requests that the Commission issue an order by June 30, 2007:

1. Approving the proposed Pilot program as described herein and as set out in the attached illustrative tariff sheets, Residential Responsive Pricing Service (“RRP”) and General Responsive Pricing Service (“GRP”), including the Expanded Smart Metering-DSM component of the Pilot;
2. Approving recovery of customer-specific costs of the Pilot through customer charges on Pilot participants’ bills, and approving recovery of all non-customer-specific costs, including all DSM and Expanded Smart Metering-DSM costs, through LG&E’s DSM cost recovery mechanism;
3. Authorizing LG&E to begin the three-year Pilot program reporting period effective January 1, 2008, running through December 31, 2010 (assuming the Commission approves the Pilot by June 30, 2007), at which time the period on which LG&E will report to the Commission will end, though LG&E will continue to offer the Pilot until otherwise directed by the Commission.

Dated: March 21, 2007

Respectfully submitted,



Kendrick R. Riggs
W. Duncan Crosby III
Stoll Keenon Ogden PLLC
2000 PNC Plaza
500 West Jefferson Street
Louisville, Kentucky 40202-2828
Telephone: (502) 582-1601

Allyson K. Sturgeon
Corporate Counsel
Louisville Gas and Electric Company
220 West Main Street
Post Office Box 32010
Louisville, Kentucky 40232
Telephone: (502) 627-2088

Counsel for Louisville Gas and
Electric Company

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Application was sent to the following attorneys of record by U.S. mail, postage prepaid, on this 21st day of March, 2007.

Dennis Howard II
Lawrence Cook
Assistant Attorneys General
Office of the Attorney General
Office of Rate Intervention
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

Michael L. Kurtz
David F. Boehm
Boehm Kurtz & Lowry
35 E. Seventh Street
Suite 1510
Cincinnati, OH 45202

Lisa Kilkelly
Legal Aid Society
416 W. Muhammad Ali Boulevard
Suite 300
Louisville, KY 40202

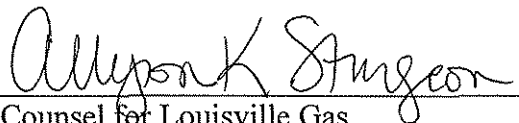
Joe F. Childers
Attorney at Law
201 West Short Street
Suite 310
Lexington, KY 40507

David McCormick
General Attorney
Department of the Army
U.S. Army Legal Services
901 N. Stuart Street, Room 713
Arlington, VA 22203-1837

Richard S. Taylor
Attorney at Law
Capital Link Consultants
225 Capital Avenue
Frankfort, KY 40601

Ellen Benzing
Attorney at Law
Commerce Cabinet
Division of Energy
11th Floor, Capital Plaza Tower
Frankfort, KY 40601

David C. Brown
Stites & Harbison PLLC
1800 Aegon Center
400 W. Market Street
Louisville, KY 40202


Counsel for Louisville Gas
and Electric Company

the sixtieth (60th) month until the Commission enters an order on the future ratemaking treatment of all VDT-related issues.

Section 3.6. The signatories hereto, including the **AG**, agree that LG&E shall establish a real time pricing (“RTP”) pilot program for LG&E’s electric customers. The term of the program shall be three (3) years. In each year, up to fifty (50) customers under Rate R and up to fifty (50) customers under Rate GS shall qualify for the program. During the second year of the program, LG&E shall propose to the Commission detailed plans, terms and conditions for the inclusion of customers under Rate LP in the program, such inclusion to take place during the second year of the program. Rate LP customers shall be eligible for participation in the program during the second and third years of the program in accordance with the Commission’s approval of LG&E’s proposal for inclusion of Rate LP customers. The customer-specific costs shall be recovered through a facilities charge incorporated into the applicable customer charges during the first six (6) months of the RTP pilot program. **After** six (6) months, the Utilities shall evaluate the level of participation in the pilot program and consider modifying the treatment of such customer-specific charges to encourage participation in the RTP pilot program. The non customer-specific costs of modifying LG&E’s customer billing system to bill customers under the RTP pilot program will be recovered pursuant to the RTP pilot program through a charge per kWh billed to customers taking service under Rates R, GS and LP in the same manner as the Demand-Side

Management (“DSM) Cost Recovery Component of LG&E’s DSM Cost Recovery Mechanism. After the end of the three year term, LG&E will evaluate the performance of the RTP pilot program for the following purposes, including, but not limited to: (i) to determine the impact of the pilot program on its affected customers; (ii) to determine the amount of revenue loss from the pilot program, if any; (iii) to evaluate customer acceptance of the real time pricing program and (iv) to evaluate the potential for implementing the RTP program as either a permanent demand-side management program or as a standard rate schedule. LG&E shall file a report with the Commission describing its findings within six months after the first three years of implementation of the RTP pilot program. The RTP pilot program shall remain in effect until the program is modified or terminated by order of the Commission.

Section 3.7. The signatories hereto, including the AG, agree that the notice period for an Operational Flow Order pursuant to LG&E’s Rate FT shall be twenty-four (24) hours.

Section 3.8. The signatories hereto, including the **AG**, agree that the miscellaneous charges of the Utilities shall be approved as proposed by the Utilities in the rate proceedings, except as follows: (i) the Disconnect-Reconnect Charge for LG&E electric customers, LG&E gas customers and KU electric customers shall be \$20.00; and (ii) the KU After-Hours Reconnect Charge shall be withdrawn.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR AN ORDER)
APPROVING A RESPONSIVE PRICING)
AND SMART METERING PILOT PROGRAM)

CASE NO. 2007-00117

TESTIMONY OF
KENT W. BLAKE
DIRECTOR OF STATE REGULATION AND RATES
E.ON U.S. SERVICES, INC.

Filed: March 21, 2007

1 **Q. Please state your name and business address.**

2 A. My name is Kent W. Blake. I am currently employed as Director of State
3 Regulation and Rates for E.ON U.S. Services, Inc., which provides services to
4 Louisville Gas and Electric Company (“LG&E”) and Kentucky Utilities
5 Company (“KU”) (collectively, the “Companies”). My business address is 220
6 West Main Street, Louisville, Kentucky 40202. A complete statement of my
7 education and work experience is attached to this testimony as Appendix A.

8 **Q. Have you previously testified before this Commission?**

9 A. Yes. I have testified several times, including Administrative Case No. 2006-
10 00045,¹ the Commission’s recent administrative proceeding concerning smart
11 metering, real-time pricing, and interconnection standards.

12 **Q. What is the purpose of your testimony in this proceeding?**

13 A. The purpose of my testimony is to discuss the regulatory history of LG&E’s
14 responsive pricing pilot program and the illustrative Residential Responsive
15 Pricing Service (“RRP”) and General Responsive Pricing Service (“GRP”) tariffs,
16 as well as the planned implementation thereof. Also, I explain LG&E’s plans to
17 report the results of the Pilot to the Commission.

18 **Q. Are you sponsoring any exhibits to your testimony?**

19 A. Yes, I am sponsoring the following exhibits:

- 20 • Exhibit KWB-1 (Illustrative RRP tariff sheet)
- 21 • Exhibit KWB-2 (Illustrative GRP tariff sheet)
- 22 • Exhibit KWB-3 (Revenue neutrality spreadsheet)

¹ *In the Matter of Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-based Metering, Demand Response, and Interconnection Service.*

1 **Q. What is the regulatory history that has preceded LG&E's filing of its**
2 **Application for the Pilot?**

3 A. The Pilot's history began on May 11, 2001, when the Commission approved
4 LG&E and Kentucky Utilities Company's ("KU") joint Demand-Side
5 Management ("DSM") 2000-2007 Program Plan.² Included in the approved Plan
6 was a budget of over \$200,000 for LG&E and KU to investigate a "Residential
7 Time of Use/Load Management Pilot Program":

8 The Companies have been researching new technologies
9 that provide a price signal to the customer to encourage
10 more efficient use of energy. The Companies plan to
11 implement a small pilot program that would incent the
12 customer to shift usage from high cost time periods into
13 lower cost time periods.³

14 Because it is a 2000-2007 Plan, the Commission's approval thereof remains
15 effective through the end of calendar year 2007, including its approval of the
16 budgeting of over \$200,000 for the "Residential Time of Use/Load Management
17 Pilot Program," among other DSM programs.

18 LG&E's Application in this proceeding also has its roots in LG&E's last
19 base rate case, Case No. 2004-00433.⁴ In its June 30, 2004 Order in that
20 proceeding, the Commission approved the unanimous resolution of a substantial
21 number of issues in a document entitled, "Partial Settlement Agreement,
22 Stipulation and Recommendation" (the "Settlement Agreement"). The Settlement
23 Agreement stated: "The signatories hereto, including the AG [Attorney General],

² *In the Matter of the Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Review, Modification, and Continuation of DSM Programs and Cost Recovery Mechanisms*, Case No. 2000-00459, Order (May 11, 2001).

³ LG&E/KU Demand-Side Management 2000-2007 Program Plan § 7.3.e.

⁴ *In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company*, Case No. 2003-00433.

1 agree that LG&E shall establish a real time pricing ('RTP') pilot program for
2 LG&E's electric customers."⁵

3 Section 3.6 of the Settlement Agreement states that the goals of the pilot
4 are: "(i) to determine the impact of the pilot program on its affected customers;
5 (ii) to determine the amount of revenue loss from the pilot program, if any; (iii) to
6 evaluate customer acceptance of the real time pricing program and (iv) to evaluate
7 the potential for implementing the RTP [Real Time Pricing] program as either a
8 permanent demand-side management program or as a standard rate schedule."

9 Following the June 30, 2004 Order, LG&E began studying possible designs for
10 the Pilot by examining the results other utilities across the nation had obtained in
11 similar programs.

12 LG&E was in the process of formulating the Pilot for implementation
13 when the Commission initiated Administrative Case No. 2006-00045, a
14 proceeding to determine whether the Commission would adopt certain smart
15 metering, real-time pricing, and interconnection standards embedded in the
16 Federal Energy Policy Act of 2005.⁶ Once the Commission initiated the
17 proceeding, LG&E temporarily stopped working on the Pilot to ensure that the
18 Pilot would comply with the real-time pricing, smart metering, or other standards
19 the Commission adopted, if any. In its Final Order, the Commission ultimately
20 determined not to adopt any smart metering or real-time pricing standards, but
21 required LG&E to "finalize its proposed residential real-time pilot pricing

⁵ *In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company*, Case No. 2003-00433, Final Order at 8 (June 30, 2004).

⁶ *In the Matter of Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-Based Metering, Demand Response, and Interconnection Service*, Admin. Case No. 2006-00045, Order (December 21, 2006).

1 program in accordance with the settlement in Case No. 2003-00433 and submit
2 the plan for Commission consideration within 90 days of the date of this Order.”⁷

3 The Pilot program and associated illustrative tariff sheets for which LG&E
4 seeks approval in this proceeding, therefore, are responsive to the commitment
5 LG&E made in its rate case Settlement and to the Commission’s Final Order in
6 Case No. 2006-00045.

7 **Q. Please describe briefly the Pilot program and the illustrative tariff sheets for**
8 **which LG&E seeks approval in this proceeding.**

9 A. As Gregory Ferguson more fully describes in his testimony filed in this
10 proceeding today, the Pilot will equip one hundred volunteer Rate RS customers
11 and fifty volunteer Rate GS customers along four geographically diverse but
12 demographically representative meter-reading routes with smart meters and
13 information displays, as well as Demand Side Management (“DSM”) equipment
14 such as programmable thermostats and load control devices. These Pilot
15 participants will use the equipment provided to them to obtain cost savings
16 available to them through the responsive pricing rate structure of the Pilot.

17 The Pilot’s responsive pricing rate structure, as set out in the illustrative
18 RRP and GRP tariffs, provides for three different time-of-use rates: low-,
19 medium-, and high-cost hours. The times during which these rates apply are set
20 out in the tariffs and will therefore be known to customers in advance so that they
21 can adjust their electric usage accordingly. The Pilot also includes critical peak
22 pricing periods, hours that have a set rate (\$0.30107 per kWh) and that LG&E
23 will implement only during times of very high demand for electricity

⁷ *Id.* at 18.

1 (approximately 1% of hours during a year, and in no event more than 80 hours
2 annually). LG&E will implement critical peak pricing periods only after
3 providing customers notice by electronic signal at least one half-hour prior to the
4 implementation thereof.

5 In order to comply with the Settlement Agreement, and to provide
6 sufficient and meaningful data to evaluate the Pilot, LG&E will allow as many as
7 one hundred Rate RRP and fifty Rate GRP customers to participate in the Pilot.

8 **Q. Please summarize how the RRP and GRP rates were designed to ensure**
9 **revenue neutrality with LG&E's Standard Rates RS and GS?**

10 A. The customer and energy rates included in the RRP and GRP tariffs were
11 developed in consideration of the rates structures of successful and similar
12 programs of other utilities, LG&E's cost of service, sound ratemaking principles,
13 and revenue neutrality. It bears repeating that revenue neutrality is maintained if
14 there is no shift in energy usage or total consumption for the typical customers in
15 this Pilot. If the Pilot proves successful, however, the participating customers
16 should be able to reap energy cost savings resulting in a revenue reduction for
17 LG&E.

18 Attached as Exhibit KWB-3 is an analysis which calculates the difference
19 between LG&E's currently effective Residential Rate RS and General Service
20 Rate GS and the Residential Responsive Pricing and General Responsive Pricing
21 calculated revenues utilizing the respective base rates. The billing determinants
22 are based on sales for the twelve months ended September 30, 2003, from
23 LG&E's most recent base rate case (Case No. 2003-00433). LG&E's current

1 rates are based upon the final order in Case No. 2003-00433 adjusted pursuant to
2 the Commission's Order in Case No. 2004-00466 approving the transfer of fuel
3 costs from LG&E's fuel adjustment clause to base rates and pursuant to the
4 Commission's Order in Case No. 2006-00129 approving the roll-in of
5 environmental surcharge amounts into base rates. The Pilot's responsive pricing
6 rates are from the illustrative tariffs attached hereto, less the facilities charge for
7 customer-specific costs for the Pilot. The facilities charge for the Pilot is not
8 considered in the proof of revenue neutrality as that charge is being established to
9 recover the customer-specific incremental costs associated with the Pilot. The
10 calculated revenue percentage difference between the current rates and responsive
11 pricing rates is 0.00%.

12 **Q. How will LG&E recover the costs of the Pilot?**

13 A. During the first six months of the Pilot, LG&E will recover customer-specific
14 costs of the Pilot through a facilities charge incorporated into Pilot participants'
15 customer charges (see Exhibit KWB-3, p.2). After six months, LG&E will
16 evaluate the level of participation in the Pilot and consider modifying the
17 treatment of customer-specific charges to encourage Pilot participation. Non-
18 customer-specific costs and DSM equipment costs will be recovered from all Rate
19 RS and Rate GS customers through the DSM Cost Recovery Component of
20 LG&E's DSM Cost Recovery Mechanism.

21 **Q. The Settlement Agreement Section 3.6 requires that only as many as fifty**
22 **Rate RS customers must participate in the Pilot, and that LG&E should**
23 **recover non-customer-specific costs from customers taking service under**

1 **Rates RS, GS, and LP. Why does LG&E appear to be departing from the**
2 **Settlement Agreement requirements?**

3 A. LG&E is opening up the Pilot to up to one hundred Rate RS customers (who will
4 become Rate RRP customers) in order to obtain a larger and more useful body of
5 data concerning such customers, who are far more numerous than the customers
6 of any other rate class. This additional data should make the results of the Pilot
7 more useful in determining which, if any, Pilot components LG&E should deploy
8 more broadly in the future.

9 Concerning LG&E's proposed recovery of non-customer-specific costs
10 from Rates RS and GS customers only, though this is a departure from Settlement
11 Agreement Section 3.6, which provided for recovery of such costs from Rates RS,
12 GS, and LP, limiting recovery to Rates RS and GS is the right thing to do.
13 Settlement Agreement Section 3.6 clearly contemplated that the Pilot would begin
14 with only Rate RS and Rate GS customers, but would, if successful, expand to
15 include Rate LP customers; thus, it was not a cross-rate-class subsidy for Rate LP
16 customers to share in paying the non-customer-specific costs of the Pilot. But
17 because the Commission has since ordered LG&E to create an independent RTP
18 pilot program for large commercial and industrial customers,⁸ LG&E does not
19 intend to include Rate LP customers in the Pilot program. Therefore, it would no
20 longer be appropriate to require large commercial and industrial customers to pay
21 the cost of a Pilot program in which they will not participate.

22 **Q. Please describe briefly the expanded smart metering DSM program from**
23 **which LG&E will select its volunteers for the Pilot program.**

⁸ *Id.*

1 A. As more fully described in the Application and Gregory Ferguson's testimony,
2 LG&E is proposing an Expanded Smart Metering-DSM component of the Pilot.
3 To carry out the proposed Expanded Smart Metering-DSM program, LG&E will
4 equip four complete metering routes (up to approximately 2,000 customers,
5 including responsive pricing participants) with the same kind of smart meters
6 used for customers participating in the responsive pricing component of the Pilot.
7 LG&E will draw all of the Pilot's responsive pricing participants from these four
8 metering routes. The customers residing along the four selected metering routes
9 who do not choose to participate in the responsive pricing rate structure will
10 remain Rate RS or Rate GS customers but will receive various combinations of
11 DSM equipment to determine what kinds of cost- and energy-savings the
12 customers can achieve. All of the Pilot participants, including the Expanded
13 Smart Metering-DSM component customers, will have access to their usage data
14 via the Internet on a dedicated site LG&E will establish for that purpose. None of
15 the Expanded Smart Metering-DSM component customers will be on the RRP or
16 GRP tariffs because the purpose of this component will be to distinguish between
17 the effects of simply providing customers with different blends of information and
18 control devices compared to coupling that equipment with the responsive pricing
19 structure contained in the RRP and GRP tariffs.

20 **Q. When will LG&E report to the Commission concerning the results of the**
21 **Pilot?**

22 A. As per the Settlement, at the end of the Pilot's initial three-year term, LG&E will
23 evaluate the performance of the Pilot, including the Expanded Smart Metering-

1 DSM component, for various purposes, including: (i) the impact of the Pilot on
2 the affected customers; (ii) the amount of revenue loss from the Pilot, if any; (iii)
3 customer acceptance of the Pilot; and (iv) the potential for implementing the Pilot
4 as either a permanent DSM program or as a standard rate schedule. LG&E will
5 file its evaluation report with the Commission concerning these topics, and
6 possibly others, within six months of the end of the initial three-year Pilot period.

7 **Q. Why is LG&E requesting that the Commission issue an order approving the**
8 **Pilot by June 30, 2007?**

9 A. From discussions I have had with witnesses Gregory Ferguson and Sidney L.
10 "Butch" Cockerill, as well as other LG&E personnel who have been and will be
11 involved in the Pilot, it is my understanding and belief that it will require six
12 months to implement the Pilot from the time the Commission approves it. This
13 much time is required to order equipment, obtain responsive pricing volunteers,
14 and install the necessary equipment, among other tasks. On behalf of LG&E, I
15 therefore respectfully request that the Commission issue an order approving the
16 Pilot by June 30, 2007, if possible. Receiving such an order by June 30 would
17 allow LG&E to begin the Pilot on January 1, 2008, and run the full three-year
18 course of the Pilot during the whole calendar years 2008, 2009, and 2010.

19 **Q. Does this conclude your testimony?**

20 A. Yes.

APPENDIX A

Kent W. Blake

Director, State Regulation and Rates
E.ON U.S. Services Inc.
220 West Main Street
P. O. Box 32010
Louisville, Kentucky 40202
(502) 627-2573

Education

University of Kentucky, B.S. in Accounting, 1988
Certified Public Accountant, Kentucky, 1991
E.ON AG Executive Pool, 2005/2006
Leadership Louisville, 2007
Multiple industry and executive development programs

Previous Positions

LG&E Energy LLC, Louisville, Kentucky
2003 (Sept) – 2004 (Oct) – Director, Regulatory Initiatives
2003 (Feb) – 2003 (Sept) – Director, Business Development
2002 (Aug) – 2003 (Feb) – Director, Finance and Business Analysis

Mirant Corporation (f.k.a. Southern Company Energy Marketing)
2002 (Feb-Aug) – Senior Director, Applications Development
2000-2002 – Director, Systems Integration
1998-2000 – Trading Controller

LG&E Energy Corp.
1997-1998 – Director, Corporate Accounting and Trading Controls

Arthur Andersen LLP
1992-1997 – Manager, Audit and Business Advisory Services
1990-1992 – Senior Auditor
1988-1990 – Audit Staff

**ELECTRIC RATE SCHEDULE RRP
Residential Responsive Pricing Service**

APPLICABLE

In the territory served by the Company and falling in four meter reading routes selected by the Company for testing "smart meters" and customer reaction to responsive pricing.

AVAILABILITY OF SERVICE

RRP shall be available as an optional pilot program to single phase, single family residential service for three years and shall remain in effect until modified or terminated by order of the Commission.

- a) RRP is restricted to a maximum of one hundred (100) customers eligible for Rate RS in any year. The Company will notify all customers eligible for RRP and accept applications on a first-come-first-served basis.
- b) No customers will be accepted on RRP following the end of the second year of the pilot program. A customer exiting the pilot program or disconnected for non-pay will not be allowed to return to it until the Commission has issued a decision on the pilot program report.
- c) Non customer-specific costs of modifying the Company's customer billing systems to accommodate RRP will be recovered through a charge per kWh billed to customers taking service under rates RS and GS.
- d) The Company will file a report on RRP with the Commission within six months after the first three years of implementation of the pilot program. Such report will detail findings and recommendations.

RATE

Customer Charge: \$10.00 per month

Plus an Energy Demand Charge:

Low Cost Hours (P ₁):	3.990¢ per kWh
Medium Cost Hours (P ₂):	5.220¢ per kWh
High Cost Hours (P ₃):	10.638¢ per kWh
Critical Cost Hours (P ₄):	30.107¢ per kWh

DETERMINATION OF PRICING PERIODS

Pricing periods are established in Eastern Standard Time year round by season for weekdays and weekends. The hours of the pricing periods for price levels P₁, P₂, and P₃ are as follows:

Summer peak months of June through September

	Low (P ₁)	Medium (P ₂)	High (P ₃)
Weekdays	9 P.M. – 10 A.M.	10 A.M. – 1 P.M. 6 P.M. – 9 P.M.	1 P.M. – 6 P.M.
Weekends	6 P.M. – 1 P.M.	1 P.M. – 6 P.M.	

All other months October continuously through May

	Low (P ₁)	Medium (P ₂)	High (P ₃)
Weekdays	10 P.M. – 8 A.M.	8 A.M. – 6 P.M.	6 P.M. – 10 P.M.
Weekends	10 P.M. – 6 P.M.	6 P.M. – 10 P.M.	

Date of Issue:

Issued By

**Date Effective: With Service Rendered
On and After**

**John R. McCall, Executive Vice President,
General Counsel, and Corporate Secretary
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2007-00 dated , 2007

**ELECTRIC RATE SCHEDULE GRP
General Responsive Pricing Service**

APPLICABLE

In the territory served by the Company and falling in four meter reading routes selected by the Company for testing "smart meters" and customer reaction to responsive pricing.

AVAILABILITY OF SERVICE

GRP shall be available as an optional pilot program to any customer for alternating current service, single-phase or three-phase, for lighting, power, and other general usage, measured and delivered at one of Company's standard distribution secondary voltages for three years and shall remain in effect until modified or terminated by order of the Commission.

- a) GRP is restricted to a maximum of fifty (50) customers eligible for Rate GS in any year. The Company will notify all eligible customers of GRP and accept applications on a first-come-first-served basis.
- b) No customers will be accepted on GRP following the end of the second year of the pilot program. A customer exiting the pilot program or disconnected for non-pay will not be allowed to return to it until the Commission has issued a decision on the pilot program report.
- c) Non customer-specific costs of customer billing systems to bill customers will be recovered through a charge per kWh billed to customers taking service under rates RS and GS.
- d) The Company will file a report on GRP with the Commission within six months after the first three years of implementation of the pilot program. Such report will detail findings and recommendations.

RATE

Customer Charge: \$20.00 per meter per month for single-phase service
\$24.00 per meter per month for three-phase service

Plus an Energy Demand Charge:

Low Cost Hours (P ₁):	4.400¢ per kWh
Medium Cost Hours (P ₂):	5.890¢ per kWh
High Cost Hours (P ₃):	13.327¢ per kWh
Critical Cost Hours (P ₄):	30.107¢ per kWh

DETERMINATION OF PRICING PERIODS

Pricing periods are established in Eastern Standard Time year round by season for weekdays and weekends. The hours of the pricing periods for price levels P₁, P₂, and P₃ are as follows:

Summer peak months of June through September

	Low (P ₁)	Medium (P ₂)	High (P ₃)
Weekdays	9 P.M. – 10 A.M.	10 A.M. – 1 P.M. 6 P.M. – 9 P.M.	1 P.M. – 6 P.M.
Weekends	6 P.M. – 1 P.M.	1 P.M. – 6 P.M.	

All other months October continuously through May

	Low (P ₁)	Medium (P ₂)	High (P ₃)
Weekdays	10 P.M. – 8 A.M.	8 A.M. – 6 P.M.	6 P.M. – 10 P.M.
Weekends	10 P.M. – 6 P.M.	6 P.M. – 10 P.M.	

Date of Issue:

Issued By

**Date Effective: With Service Rendered
On and After**

**John R. McCall, Executive Vice President,
General Counsel, and Corporate Secretary
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2007-00 dated , 200

ELECTRIC RATE SCHEDULE GRP
General Responsive Pricing Service

The hours of the responsive pricing periods for price level P₄ shall be determined at the discretion of the Company. Each customer will be notified by electronic signal at least one half hour prior to the start of price level P₄. The cumulative hours for P₄ shall not exceed 80 hours annually or 6 hours daily.

ADJUSTMENT CLAUSES

The bill amount computed at the charges specified above shall be increased or decreased in accordance with the following:

Fuel Adjustment Clause	Sheet No. 70
Demand Side Management Cost Recovery Mechanism	Sheet No. 71
Environmental Cost Recovery Surcharge	Sheet No. 72
Merger Surcredit Rider	Sheet No. 73
Value Delivery Surcredit Rider	Sheet No. 75
Franchise Fee Rider	Sheet No. 76
School Tax	Sheet No. 77

MINIMUM CHARGE

The Customer Charge shall be the minimum charge.

LATE PAYMENT CHARGE

The bill will be rendered at the above net charges (including net minimum bills when applicable) plus an amount equivalent to 5% thereof, which amount will be deducted provided bill is paid within 15 days from date.

TERMS OF CONTRACT

For a fixed term of not less than one year and for such time thereafter until terminated by either party giving 30 days written notice to the other of the desire to terminate.

TERMS AND CONDITIONS

Service will be furnished under Company's Terms and Conditions applicable hereto. Customers served under this optional pilot program will not be eligible for the Company's Budget Payment Plan.

Date of Issue:

Issued By

Date Effective: With Service Rendered
On and After

**John R. McCall, Executive Vice President,
General Counsel, and Corporate Secretary
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2007-00 dated , 200

LOUISVILLE GAS AND ELECTRIC COMPANY
CALCULATION OF REVENUE NEUTRALITY FOR RESPONSIVE PRICING RATES TO CURRENT RATES
BASED ON SALES FOR THE 12 MONTHS ENDED SEPTEMBER 30, 2003 (CASE NO. 2003-00433)

Billing Determinants	Current Rates	Calculated Revenue at Current Rates	Responsive Pricing Rates	Calculated Revenue at Responsive Pricing Rates
RESIDENTIAL RATE RS				
Customer Charges	\$ 5.00	\$ 20,186,035	\$ 7.74	\$ 31,247,982
Energy Charges				
Low Cost Hours (P1)	1,950,613,642 kWh's	117,719,533	0.03990	77,829,484
Medium Cost Hours (P2)	1,260,472,923	76,069,541	0.05220	65,796,687
High Cost Hours (P3)	607,572,992	36,667,030	0.10638	64,633,615
Critical Cost Hours (P4)	46,247,231	2,791,020	0.30107	13,923,654
Total Energy		233,247,125		222,183,440
Total Rate RS @ base rates	\$ 3,864,906,788	\$ 253,433,160	\$	\$ 253,431,422
TOTAL RESIDENTIAL RATES RS		<u>\$ 253,433,160</u>		<u>\$ 253,431,422</u>
DIFFERENCE BETWEEN CURRENT AND RESPONSIVE PRICING RATES				
Percentage Difference				\$ (1,738) 0.00%

Billing Determinants	Current Rates	Calculated Revenue at Current Rates	Responsive Pricing Rates	Calculated Revenue at Responsive Pricing Rates
GENERAL SERVICE RATE GS				
Customer Charges - Single Phase	\$ 10.00	\$ 3,294,310	\$ 17.74	\$ 5,844,106
Customer Charges - Three Phase	\$ 15.00	2,351,820	\$ 21.74	3,408,571
Energy Charges				
Summer Season:				
Low Cost Hours (P1)	263,726,776 kWh's	19,107,005	0.04400	11,603,978
Medium Cost Hours (P2)	139,610,312	10,129,257	0.05890	8,234,827
High Cost Hours (P3)	87,877,209	6,366,704	0.13327	11,711,996
Critical Cost Hours (P4)	14,233,839	1,031,242	0.30107	4,285,382
Winter Season:				
Low Cost Hours (P1)	358,564,756	23,209,897	0.04400	15,776,849
Medium Cost Hours (P2)	372,163,382	24,090,136	0.05890	21,920,423
High Cost Hours (P3)	99,119,844	6,416,028	0.13327	13,209,702
Critical Cost Hours (P4)	-	-	0.30107	-
Total Energy		90,350,267		86,742,557
Total Rate GS @ base rates	\$ 1,335,496,118	\$ 95,996,397	\$	\$ 95,995,234
TOTAL GENERAL SERVICE RATE GS		<u>\$ 95,996,397</u>		<u>\$ 95,995,234</u>
DIFFERENCE BETWEEN CURRENT AND RESPONSIVE PRICING RATES				
Percentage Difference				\$ (1,163) 0.00%

LOUISVILLE GAS AND ELECTRIC COMPANY
 CALCULATION OF CUSTOMER CHARGE FOR RESPONSIVE PRICING SERVICE

Line	TYPE	Per Unit Cost (A)	Fixed Charge Rate (B)	Facilities Charge (A X B / 12)	Customer Charge
1	Customer Specific Costs for Facilities Charge:				
2	Communications Card for Meter	\$ 78.00	14.5%	\$ 0.94	
3	Energy Used Display	\$ 115.00	14.5%	\$ 1.39	
4	Total Customer Specific Costs for Facilities Charge (Line 1 + Line 2)	\$ 193.00		\$ 2.33	\$ 2.33
5	Residential Responsive Pricing Customer Charge (Blake Exhibit I, Page 1)				\$ 7.74
6	Total Residential Responsive Pricing Customer Charge (Line 4 + Line 5)				\$ 10.07
7	Rounded-Total Residential Responsive Pricing Customer Charge				\$ 10.00
8	General Service Responsive Pricing Customer Charge (Blake Exhibit I, Page 1)				\$ 17.74
9	Single Phase				\$ 17.74
10	Three Phase				\$ 21.74
11	Total General Service Responsive Pricing Customer Charge:				\$ 20.07
12	Single Phase (Line 4 + Line 9)				\$ 20.07
13	Three Phase (Line 4 + Line 10)				\$ 24.07
14	Rounded-Total General Service Responsive Pricing Customer Charge:				\$ 20.00
15	Single Phase				\$ 20.00
16	Three Phase				\$ 24.00

RECEIVED

MAR 21 2007

PUBLIC SERVICE
COMMISSION

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR AN ORDER)
APPROVING A RESPONSIVE PRICING)
AND SMART METERING PILOT PROGRAM)

CASE NO. 2007-00117

TESTIMONY OF
GREGORY FERGASON
DEMAND-SIDE MANAGEMENT PROGRAM MANAGER
E.ON U.S. SERVICES, INC.

Filed: March 21, 2007

1 **Q. Please state your name and business address.**

2 A. My name is Gregory Fergason. I am currently employed as Demand-Side
3 Management (“DSM”) Program Manager for E.ON U.S. Services, Inc., which
4 provides services to Louisville Gas and Electric Company (“LG&E”) and Kentucky
5 Utilities Company (“KU”) (collectively, the “Companies”). My business address is
6 220 W. Main St., Louisville, Kentucky 40202.

7 **Q. Have you previously testified before this Commission?**

8 A. Yes. I have testified in the Commission’s investigation into the Companies’ DSM
9 program filing (Case No. 2000-00459), as well as previously filed DSM proceedings.
10 Also, I testified in the recent Administrative Case No. 2006-00045 concerning smart
11 metering, real-time pricing, and interconnection standards.

12 **Q. What is the purpose of your testimony in this proceeding?**

13 A. The purpose of my testimony is to describe LG&E’s proposed responsive pricing
14 pilot program (“Pilot”), which will incorporate time-of-use (“TOU”) pricing with a
15 real-time, critical peak pricing component; smart metering and information displays;
16 and a Demand Side Management (“DSM”) component for those customers who
17 choose to participate in responsive pricing; and an Expanded Smart Metering-DSM
18 component to evaluate what kinds of savings customers can achieve with smart
19 meters and DSM equipment but without participating in responsive pricing. I will
20 also discuss the illustrative Residential Responsive Pricing Service (“RRP”) and
21 General Responsive Pricing Service (“GRP”) tariffs attached to Kent W. Blake’s
22 testimony, and discuss why LG&E chose the particular Pilot design for which it seeks
23 approval in this proceeding.

1 **Q. What is the basic structure of the Pilot?**

2 A. As set out in the illustrative RRP and GRP tariffs, up to one hundred Rate RS and
3 fifty Rate GS customers may qualify for, and participate in, the Pilot (such customers
4 will become Rates RRP and GRP customers, respectively). For reasons that I explain
5 toward the end of my testimony, the customers eligible to participant in the Pilot will
6 be from four meter reading routes that LG&E will select based upon the routes' being
7 representative of LG&E's overall Rate RS and Rate GS service territory.

8 The Pilot uses a variable rate structure, namely a TOU rate structure with
9 three different rates for different times during different days, and a real-time, critical
10 peak price with a set rate (\$0.30107/kWh) that will be in effect during times of
11 particularly high demand. The illustrative tariffs provide for the time periods during
12 which the different rates will be in effect, with the exception of critical peak pricing
13 hours, which will be implemented in real time with at least one half-hour's advance
14 notice to Pilot participants who have chosen to participate in responsive pricing.

15 The implementation of this variable rate structure will be possible through the
16 use of smart meters and information displays (displaying cost and usage information)
17 and DSM equipment such as programmable thermostats and load control switches.
18 Under LG&E's Pilot, Rates RRP and GRP customers will be provided programmable
19 thermostats equipped with a radio receiver to receive critical peak pricing signals (as
20 well as other pricing tier signals) and load control switches for water heaters and
21 other larger loads. Automation of the usage of these loads will allow Pilot
22 participants to shift usage without manual intervention on a daily basis. Indeed, our
23 investigation for the Pilot indicates that using such technology has been successful

1 with a large number of customers at Gulf Power resulting in high customer
 2 satisfaction and significant shifting of usage from hours of high demand.

3 **Q. What are the different Pilot rates and the times they will be in effect?**

4 A. The rates for the Rate RRP tariff are:

5	Monthly Customer Charge:	\$10.00
6	Energy Demand Charge:	
7	Low Cost Hours (P1):	3.990¢ per kWh
8	Medium Cost Hours (P2):	5.220¢ per kWh
9	High Cost Hours (P3):	10.638¢ per kWh
10	Critical Cost Hours (P4):	30.107¢ per kWh

11 The rates for the Rate GRP tariff are:

12	Monthly Customer Charge:	\$20.00 per meter for single-phase
13		\$24.00 per meter for three-phase
14	Energy Demand Charge:	
15	Low Cost Hours (P1):	4.400¢ per kWh
16	Medium Cost Hours (P2):	5.890¢ per kWh
17	High Cost Hours (P3):	13.327¢ per kWh
18	Critical Cost Hours (P4):	30.107¢ per kWh

19 The periods during which the above rates will be in effect are:

20 June through September

	Low (P ₁)	Medium (P ₂)	High (P ₃)
21			
22			
23	Weekdays	9 P.M. – 10 A.M.	10 A.M. – 1 P.M.
24			6 P.M. – 9 P.M.
25			
26	Weekends	6 P.M. – 1 P.M.	1 P.M. – 6 P.M.
27			
28			

29 October through May

	Low (P ₁)	Medium (P ₂)	High (P ₃)
30			
31			
32	Weekdays	10 P.M. – 8 A.M.	8 A.M. – 6 P.M.
33			6 P.M. – 10 P.M.
34			
35	Weekends	10 P.M. – 6 P.M.	6 P.M. – 10 P.M.

1 Because the Pilot's responsive pricing participants will know these rates and times in
2 advance, they will be able to alter their electric usage to gain savings. Only the
3 timing of critical peak pricing periods will not be known until at least one half-hour in
4 advance (notice will be given by electronic signal to Pilot participants' equipment,
5 allowing customers to curtail their usage if desired), though the price of critical peak
6 pricing periods is set out in the RRP and GRP tariffs.

7 **Q. What is a "critical peak pricing period"?**

8 A. A critical peak pricing period is a time of particularly restricted system demand due to
9 either transmission congestion or generation constraints. These will likely be during
10 the same time periods that our load control devices are activated, as well as during
11 winter peak periods and high-cost and -demand periods generally. Regardless of
12 LG&E's system demand, though, in no event will LG&E implement more than 80
13 hours of critical peak pricing annually. And it is important to remember that a critical
14 peak pricing period does not mean that the pricing during that period is in any way
15 variable; it is a fixed, tariffed rate that LG&E will implement only with at least one
16 half-hour's advance notice.

17 **Q. What is the expanded smart metering DSM component of the Pilot, and why is**
18 **LG&E including it in the Pilot?**

19 A. While formulating the Pilot, LG&E hypothesized that Rate RS and Rate GS
20 customers might obtain optimal cost-savings without the responsive pricing rate
21 structure or with a less-inclusive complement of equipment. In order for LG&E to
22 obtain for itself and to provide to the Commission data about the costs and benefits of
23 different combinations of smart metering, information displays, programmable

1 thermostats, and load control switches, LG&E will include in the Pilot an Expanded
 2 Smart Metering-DSM component. To carry out the proposed Expanded Smart
 3 Metering-DSM program, LG&E will equip four complete metering routes (up to
 4 approximately 2,000 customers, including the 100 Rate RRP and 50 Rate GRP
 5 participants) with the same kind of smart meters used for customers participating in
 6 the responsive pricing component of the Pilot. (LG&E will draw all of the responsive
 7 pricing participants from these four metering routes.) The customers residing along
 8 the four selected metering routes who do not volunteer for the responsive pricing rate
 9 structure will nevertheless receive DSM equipment as follows (these figures are
 10 approximate): (1) one hundred fifty will receive programmable thermostats and
 11 information displays; (2) one hundred fifty will receive programmable thermostats
 12 and load control devices; (3) one hundred will receive information displays; and (4)
 13 the remaining customers will receive smart meters only.

14 **Responsive Pricing Pilot Overview, Including Expanded Smart Metering-DSM Component**

	Responsive Pricing Participants	Expanded Smart Metering-DSM Component Participants			
		Thermo., Display, & Meter	Thermo., Load Control, & Meter	Display & Meter	Meter Only
Number of Participants	150	150	150	100	1450
Meter with Card	✓	✓	✓	✓	✓
Programmable Thermostat	✓	✓	✓		
Information Displays	✓	✓		✓	
Load Control Device	✓		✓		
Responsive Pricing Rate	✓				

15

1 All of the Pilot participants will have access to their usage data via the Internet on a
2 dedicated site LG&E will establish for that purpose. None of the Expanded Smart
3 Metering-DSM component participants will be on the Rate RRP or GRP tariff
4 because the purpose of this component will be to determine whether providing
5 customers with different blends of information and control devices without a change
6 in tariff energy rates can produce energy- and cost-saving behavior comparable to that
7 of responsive pricing participants.

8 **Q. Why did LG&E choose the particular type of Pilot it seeks to implement?**

9 A. As Kent W. Blake discusses in greater detail in his testimony, LG&E committed
10 during its most recent base rate case, Case No. 2003-00433, to design and implement
11 a real-time pricing pilot program. Following the conclusion of that proceeding,
12 LG&E began studying various different possible real-time pricing pilot
13 configurations. Speaking only for LG&E and its service area, considering the costs
14 of implementation, weather, and the relatively low prices for electricity, a time-of-use
15 with critical peak pricing period rate structure in conjunction with smart meters,
16 information displays, and DSM equipment should have costs and benefits that will
17 maximize demand response for residential and commercial customers in a cost
18 effective manner. (As I discussed above, through the Expanded Smart Metering-
19 DSM component of the Pilot LG&E will also explore the possibility that other
20 combinations of smart meters and DSM equipment will achieve optimal savings
21 without the need for any sort of real-time pricing rate structure.) The proposed Pilot
22 has pricing that is known to the customer at all times; with the exception of critical
23 peak pricing periods, the RRP and GRP tariffs establish all the other times during

1 which LG&E charges its various rates. The majority of hours in a year,
2 approximately 87%, would have rates lower than those currently in our tariffs. The
3 high-cost and critical peak pricing periods, approximately 13% of annual hours, have
4 rates significantly higher than our current tariff rates. (In no event will LG&E
5 implement more than 80 hours of critical peak pricing annually, which is
6 approximately 1% of hours per year.) This responsive pricing rate structure sends a
7 pricing signal to customers that likely will result in a reduction in overall electric
8 usage and in usage being shifted from higher-demand and -cost periods to lower-
9 demand and -cost periods. This tariff does not require the customer to make extreme
10 lifestyle changes and should appeal to a significant number of customers.

11 TOU programs offered by other utilities have required customers manually to
12 make the changes necessary to shift usage from higher-cost periods to lower-cost
13 periods, and have not sent sufficiently significant pricing signals to reduce peak
14 demand in a meaningful and sustained manner. The results seen at several utilities
15 indicate that customers on TOU rates initially respond by shifting usage from peak
16 hours to off-peak hours but that the effect is not sustained over time in large part due
17 to the need for customers' active participation in load shifting and the fact that the
18 large price signal that can occur with a critical peak pricing component is not possible
19 with a purely TOU rate structure. We believe that through the use of a real-time,
20 critical peak pricing component, prices will be better able to reflect peak conditions
21 being experienced by the generation system including system load, wholesale prices,
22 and operational events. Pilot participants' DSM equipment will include
23 programmable thermostats that will be equipped with a radio receiver to receive

1 critical peak pricing period signals, and load control switches for water heaters and
2 other larger loads. Because heating, cooling, and water heating make up significant
3 portions of Rate RS and Rate GS customers' total load, by automating temperature
4 settings with programmable thermostats and shutting off water heaters and other large
5 loads based on the current price, customers can reduce their usage or shift usage out
6 of the periods of highest cost and system demand without having manually to control
7 these systems on a daily or hourly basis. Customers can also make other lifestyle and
8 usage changes that will result in additional energy usage being shifted outside the
9 highest cost and demand periods for further savings. As I mentioned above, our
10 investigation for this program indicates that using such technology has been
11 successful with a large number of customers at Gulf Power resulting in high customer
12 satisfaction and significant shifting of usage from peak hours.

13 LG&E believes that more complex tariffs, such as hourly rates, would provide
14 little if any additional benefit to residential and general service customers, and likely
15 would result in lower customer participation rates and increased program costs. With
16 hourly pricing, metering and billing costs would increase and customers may react
17 negatively to the constant potential change in pricing that would occur.

18 **Q. How much of the Pilot cost will flow through LG&E's DSM cost recovery**
19 **mechanism?**

20 A. As shown in Exhibit SLC-1 to Sidney L. "Butch" Cockerill's testimony, LG&E
21 projects that the total cost of the Pilot for its initial three year term will be
22 approximately \$1.9 million. Of that total amount, approximately \$28,950 is the total
23 of customer-specific costs that LG&E will recover from the Pilot participants as

1 described below. The remainder of the \$1.9 million Pilot program cost comprises
2 non-customer specific costs, including DSM equipment (including equipment
3 necessary for the expanded smart metering DSM component of the Pilot referenced in
4 the Application), minimum required modifications to LG&E's billing system, and
5 other recurring and non-recurring items. It is this remainder of the \$1.9 million total
6 Pilot cost that LG&E will recover through the DSM Cost Recovery Component of
7 LG&E's DSM Cost Recovery Mechanism, and which LG&E will recover from all
8 Rate RS and Rate GS customers.

9 **Q. What is the estimated cost impact per customer of recovering the Pilot's non-**
10 **customer-specific costs through the DSM Cost Recovery Mechanism?**

11 A. For a typical residential customer's bill (using 1,000 KWH per month), the estimated
12 annual cost impact in the first year is \$2.97, or \$0.248/month. In the second year this
13 declines to \$0.046/month and in the third year is estimated at \$0.065/month. For a
14 typical general service customer's bill (using 3,100 KWH per month), the estimated
15 annual cost impact in the first year is \$6.64, or \$0.553/month. In the second year this
16 declines to \$0.103/month and in the third year is estimated at \$0.146/month.

17 **Q. Does this conclude your testimony?**

18 A. Yes.

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

MAR 21 2007

PUBLIC SERVICE
COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND)
ELECTRIC COMPANY FOR AN ORDER)
APPROVING A RESPONSIVE PRICING)
AND SMART METERING PILOT PROGRAM)

CASE NO. 2007-00117

TESTIMONY OF
SIDNEY L. "BUTCH" COCKERILL
DIRECTOR OF REVENUE COLLECTIONS
E.ON U.S. SERVICES, INC.

Filed: March 21, 2007

1 **Q. Please state your name and business address.**

2 A. My name is Sidney L. "Butch" Cockerill. I am currently employed by E.ON U.S.
3 Services, Inc., to act as Director of Revenue Collections for Louisville Gas and
4 Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively,
5 the "Companies"). My business address is 220 W. Main St., Louisville, Kentucky
6 40202. A statement of my qualifications is included in Appendix A attached hereto.

7 **Q. Have you previously testified before this Commission?**

8 A. Yes. I testified in LG&E's most recent base rate proceeding, Case No. 2003-00433.

9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. The purpose of my testimony is to describe the smart metering system, information
11 displays, programmable thermostats, and load control switches that will enable
12 customers to participate in LG&E's proposed responsive pricing pilot program
13 ("Pilot"). This equipment will allow Pilot participants to optimize potential cost- and
14 energy-savings from the Pilot's time-of-use and real-time, responsive pricing period
15 rate structure.

16 I will also discuss the budget for the Pilot and describe the process by which
17 LG&E will bill Pilot participants.

18 **Q. Are you sponsoring any exhibits to your testimony?**

19 A. Yes, I am sponsoring the following exhibits:

- 20 • Exhibit SLC-1 (Pilot budget)
- 21 • Exhibit SLC-2 (Bill mock-up for responsive pricing customer)

22 **Q. Why is it necessary to install a smart metering system for the Pilot to function,**
23 **and what sort of smart metering system will LG&E use in the Pilot?**

1 A. As more fully described in the Application and the testimonies of Kent W. Blake and
2 Gregory Ferguson, the Pilot's responsive pricing rate structure has time-of-use and
3 real-time, critical peak pricing components. The time-of-use component establishes
4 three different rates (low-, medium-, and high-cost) that apply during different times
5 of different days, all of which are set out in the illustrative Residential Responsive
6 Pricing Service ("RRP") and General Responsive Pricing Service ("GRP") tariffs
7 attached to Kent W. Blake's testimony. The Pilot further provides for a real-time,
8 critical peak pricing component, which LG&E will implement only after providing
9 Pilot participants notice at least one half-hour before a critical peak pricing period
10 begins.

11 The ability to track customers' electric usage during four different time
12 periods and to communicate to customers which price is in effect at any given time
13 requires meters with significantly more advanced capabilities than those LG&E
14 currently installs in residential and general service locations. LG&E will therefore
15 use "smart meters" as part of the Pilot equipment issued to each participant. The
16 increased capability of the meters used in the Pilot results from an electronic card
17 installed in the meter that can track and segregate a customer's usage into the
18 appropriate low-, medium-, and high-cost categories, as well as the responsive pricing
19 period category. The card's two-way communications capability further enables a
20 smart meter to transmit its usage data to LG&E, and also to receive pricing period
21 information from LG&E.

22 LG&E has selected a particular type of smart metering system for the Pilot
23 that requires the meters to be in reasonable physical proximity for their

1 communications systems to function properly. This is why LG&E will select four
2 meter reading routes from which to draw its Pilot participants. Each meter route will
3 have installed in it two “collection points”, devices with which the smart meters
4 communicate to send and receive information to and from LG&E. Each meter does
5 not communicate directly with the collection point; rather, the smart meters
6 “leapfrog” their communications, one meter sending its information to another, which
7 passes the information on to another, until it reaches the collection point. This
8 approach permits each smart meter to have less powerful (and less expensive)
9 communications devices, but does necessitate a certain degree of proximity between
10 meters. This is why LG&E will not draw Pilot participants from the entire body of its
11 Rate RS and Rate GS customers, but will draw them from four selected meter reading
12 routes.

13 **Q. What are the information displays LG&E will use in the Pilot and what purpose**
14 **do they serve?**

15 A. To enable Pilot participants to know the pricing period that is in effect at a given
16 time, an information display device will accompany each Pilot participant’s smart
17 meter. In addition to current pricing period information, it is through these
18 information displays that LG&E will notify Pilot participants at least half an hour
19 before an upcoming critical peak pricing period begins. Because the information
20 display receives pricing period information through radio contact with its assigned
21 smart meter, a Pilot participant may place the information display anywhere in the
22 participant’s home or business that is most useful and remains within radio signal
23 range of the smart meter. LG&E expects that making Pilot participants aware of the

1 current pricing period and their current usage through information displays will
2 encourage Pilot participants to make manual changes to reduce their overall usage or
3 to shift usage to lower-cost and -demand periods. For example, if a Pilot participant
4 used the information display to determine that a low-cost period would be in effect in
5 an hour, the participant might delay starting a load of laundry or running a dishwasher
6 until that time.

7 **Q. Please describe the functions and purposes of the programmable thermostats
8 and load control switches LG&E proposes to supply to Pilot participants.**

9 A. The programmable thermostats and load control switches are optional devices which
10 can be used in combination with the Pilot smart meters and displays but are not
11 required for a customer to participate in the Pilot. LG&E will provide them to allow
12 Pilot participants to automate their electric usage reduction and time-shifting. Like the
13 Pilot program information displays, the programmable thermostats will be able to
14 receive pricing period signals from their respective smart meters and will enable Pilot
15 participants to set different desired temperatures for the different pricing periods. For
16 example, during the summer a Pilot participant could set a temperature of 70°F
17 during low-cost periods, 72°F during medium-cost periods, 75°F during high-cost
18 periods, and 80°F during critical peak pricing periods.

19 To automate further Pilot participants' reduction and time-shifting of electric
20 usage, LG&E will supply participants with load control switches that are controlled
21 by the communications system I described above. These switches attach to large load
22 items, such as electric water heaters or pool pumps, and allow such items to be
23 disconnected during times the participants choose by programming their schedules

1 accordingly. Using load control switches for electric water heaters and other larger
2 loads in conjunction with programmable thermostats will automate the usage of these
3 loads to allow Pilot participants to shift usage without manual intervention on a daily
4 basis. LG&E expects that such automation will assist and motivate Pilot participants
5 to find ways to reduce their overall usage of energy, as well as to shift additional
6 energy uses from peak to off-peak periods.

7 **Q. How much will the Pilot cost?**

8 A. As shown in Exhibit SLC-1 attached hereto, LG&E projects that the total cost of the
9 Pilot for its initial three year term will be approximately \$1.9 million. Of that total
10 amount, approximately \$28,950 is the total of customer-specific costs that LG&E will
11 recover from the Pilot participants as described in the testimony of Kent W. Blake
12 and as shown in Exhibit KWB-3, p.2.¹ The remainder of the \$1.9 million Pilot
13 program cost comprises non-customer specific costs, including DSM equipment
14 (including equipment necessary for the expanded smart metering DSM component of
15 the Pilot referenced in the Application), minimum required modifications to LG&E's
16 billing system, and other recurring and non-recurring items.

17 **Q. How will LG&E bill customers who participate in the Pilot?**

18 A. Because the time-of-use and critical peak pricing rate structure is considerably more
19 complex than ordinary Rates RS and GS, it would require significant modification to
20 our existing customer billing system to enable it to bill Pilot customers automatically.
21 Because there will be a relatively small number of customers participating in the
22 Pilot, it was not prudent for us to significantly modify our billing system at this time.

¹ The customer specific costs are the smart meter card and information display. Adding \$78 for a smart meter card to \$115 for an installed information display, then multiplying the sum by 150 customers produces \$28,950.

1 Therefore, LG&E will manually bill the Pilot participants. The smart meters will
2 collect all the necessary consumption data, which information LG&E personnel will
3 manually enter into Microsoft Excel spreadsheets to generate Pilot participants' bills.
4 Once the bills are generated on the Excel spreadsheets, summary data for each
5 participant will be entered in our billing system for reconciliation, payment
6 processing, reporting, and internal controls. Exhibit SLC-2 attached hereto is an
7 example of a Pilot participant's bill generated from our Excel spreadsheet.

8 **Q. Does this conclude your testimony?**

9 **A. Yes.**

APPENDIX A

S. L. "Butch" Cockerill

Director, Revenue Collections
E.ON U.S. Services Inc.
220 West Main Street
P. O. Box 32010
Louisville, Kentucky 40202
(502) 627-4772

Education

Spaulding University, B.A. in Business Administration - 1998

Previous Positions

Louisville Gas and Electric Company, Louisville, Kentucky
2002-2003 – Director of Distribution Operations
2000-2002 – Director of Gas Control and Storage
1997-2000 – Manager of Gas Storage Operations
1995-1997 – Manager of Gas Distribution
1990-1995 – Manager of Transportation Department

Professional/Trade Memberships

American Gas Association
Kentucky Gas Association
Electric Utilities Fleet Management

Civic Activities

Kentucky Derby Festival, Director

Assumptions & Costs for Responsive Pricing Program/Smart Meter Pilot					
Customer Specific Costs					
TYPE	DESCRIPTION	Unit Cost PRICE	Quantity	Total Cost	
Communications Card for Meter	Mesh communications card	\$ 78.00	150	\$ 11,700	
Energy Used Display	Mesh enabled energy use display	\$ 115.00	150	\$ 17,250	
Total Customer Specific Costs				\$ 28,950	
Non-customer Specific Costs					
DSM and Program Costs					
Vendor Supplied Components	Communications cards, area collectors, thermostats, load control switches, energy use displays, software, vendor training and program management.			\$ 696,550	
Installation Costs					
Meter Testing	1ph 15 min. @ \$50/hr x 50 meters	\$ 12.50	50	\$ 625	
	3ph 15 min. @ \$50/hr x 400 meters	\$ 12.50	400	\$ 5,000	
Install Meter (electric & gas)	Res 1ph 30 min. @ \$53/hr x 1,600	\$ 26.50	1,600	\$ 42,400	
	Comm 3ph 45 min. @ \$53/hr x 400	\$ 39.75	400	\$ 15,900	
Install Thermostats	Goodcents Contract Price	\$ 80.00	450	\$ 36,000	
Install Display Devices Along With Thermostats	Goodcents Estimate	\$ 15.00	150	\$ 2,250	
Install Water Heater Switches	Goodcents Contract Price	\$ 41.00	300	\$ 12,300	
Install Stand Alone Display Device	Goodcents Estimate	\$ 45.00	100	\$ 4,500	
One Time Communications Setup				\$ 1,800	
Back Office Order Creation & Completion	2 min. @ \$30.77 x 2,000	\$ 1.03	2,000	\$ 2,051	
	5 min. @ \$30.77 x 2,000	\$ 2.56	2,000	\$ 5,128	
Marketing Cost - Responsive Pricing Participants		\$ 150.00	150	\$ 22,500	
Marketing Materials				\$ 10,000	
Program Evaluation Costs				\$ 525,000	
IT CIS Modification Cost				\$ 100,000	
IT labor for LG&E/vendor interface	375 hrs @ \$76/hr	\$ 76.00	375	\$ 28,500	
Total One Time Costs				\$ 1,510,505	
Annual Operating Costs:					
Annual Communications Cost	8 points x 12 month x \$80	8 \$ 80.00	12	\$ 7,680	
	Communications contingency 10%			\$ 768	
Troubleshooting	5% of units per year x \$50 per unit	\$ 50.00	100	\$ 5,000	
Program Management	1/2 Manager @ \$85,000 base rate			\$ 75,000	
Billing System Labor	1 FTE			\$ 57,000	
Total Annual Operating Costs				\$ 145,448	
Total one time costs				\$ 1,510,505	
3 years operating costs				\$ 436,344	
Total 3 year pilot cost				\$ 1,946,849	

GAS CHARGES (Summary from Gas Residential bill detail)

Rate Type: Gas Residential

Gas Charges: See Residential Gas Bill:

NOTE: Please send in both stubs when sending in payment.

OTHER CHARGES

	<u>Amount</u>
Late Payment Charges Assessed	\$ -
Other Charge 1	\$ -
Other Charge 2	\$ -
	<hr/>
	\$ -

TAXES & FEES (Commercial Only)

		Base	Rate		
Sales Tax	Electric	\$ 47.32	6.0%	\$	-
Sales Tax	Gas	\$ -	6.0%	\$	-
Rate Increase for School Tax	Electric	\$ 47.32	3.0%	\$	-
Rate Increase for School Tax	Gas	\$ -	3.0%	\$	-
				<hr/>	
				\$	-

BILLING INFORMATION

Important: Please see your Gas Residential Bill for detail of gas billing charges.

Charge to be Assessed After Due Date. \$ 2.37

IMPORTANT INFORMATION

To request a copy of your rate schedule, please call (502) 589-1444.