



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

RECEIVED

APR 20 2007

**PUBLIC SERVICE
COMMISSION**

E.ON U.S. LLC
State Regulation and Rates
220 West Main Street
PO Box 32010
Louisville, Kentucky 40232
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Kent W. Blake
Vice President
T 502-627-2573
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April 20, 2007

RE: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for an Order Approving a Large Commercial and Industrial Real-Time Pricing Pilot Program
Case No. 2007-00 161

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") and Kentucky Utilities Company's ("KU") Joint Application and Testimony in the above-referenced matter.

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

Sincerely,

Kent W. Blake

cc: Lawrence W. Cook
Hon. Kurt J. Boehm
Hon. Michael L. Kurtz

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APR 20 2007

PUBLIC SERVICE
COMMISSION COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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APR 20 2007

PUBLIC SERVICE
COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE)
 GAS AND ELECTRIC COMPANY AND)
 KENTUCKY UTILITIES COMPANY) CASE NO. 2007-00/61
 FOR AN ORDER APPROVING A LARGE)
 COMMERCIAL AND INDUSTRIAL)
 REAL-TIME PRICING PILOT PROGRAM)

**JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY
AND KENTUCKY UTILITIES COMPANY**

Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively, the "Companies") hereby petition the Kentucky Public Service Commission ("Commission") by application to issue an order approving a real-time pricing pilot program ("RTP Pilot") for their large commercial and industrial customers and based upon the illustrative LG&E and KU tariff sheets for Real-Time Pricing Pilot Service ("RTP"), which illustrative tariff sheets are attached to the testimony of Kent W. Blake. The Companies file this Application pursuant to 807 KAR 5:001 and in compliance with the Commission's December 21, 2006 Order in Administrative Case No. 2006-00045.¹ In support of this Joint Application, the Companies state as follows:

1. Address: The full name and mailing address of LG&E is: Louisville Gas and Electric Company, Post Office Box 32010, 220 West Main Street, Louisville, Kentucky 40232. The full name and mailing address of KU is: Kentucky Utilities Company c/o Louisville Gas and Electric Company, Post Office Box 32010, 220 West Main Street,

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.*

Louisville, Kentucky 40232. Both LG&E and KU are Kentucky corporations authorized to do business in the Commonwealth of Kentucky.

2. Articles of Incorporation: Certified copies of LG&E's and KU'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 are 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 the Companies 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.

5. KU is a utility engaged in the electric business. KU generates and purchases electricity, and distributes and sells electricity at retail in the following counties in Central, Northern, Southeastern and Western Kentucky:

Adair	Edmonson	Jessamine	Ohio
Anderson	Estill	Knox	Oldham
Ballard	Fayette	Larue	Owen
Barren	Fleming	Laurel	Pendleton

Bath	Franklin	Lee	Pulaski
Bell	Fulton	Lincoln	Robertson
Bourbon	Gallatin	Livingston	Rockcastle
Boyle	Garrard	Lyon	Rowan
Bracken	Grant	Madison	Russell
Bullitt	Grayson	Marion	Scott
Caldwell	Green	Mason	Shelby
Campbell	Hardin	McCracken	Spencer
Carlisle	Harlan	McCreary	Taylor
Carroll	Harrison	McLean	Trimble
Casey	Hart	Mercer	Union
Christian	Henderson	Montgomery	Washington
Clark	Henry	Muhlenberg	Webster
Clay	Hickman	Nelson	Whitley
Crittenden	Hopkins	Nicholas	Woodford
Daviess			

6. Copies of all orders, pleadings and other communications related to this proceeding should be directed to:

Allyson K. Sturgeon
 Corporate Counsel
 E.ON U.S. Services, Inc.
 220 West Main Street
 Louisville, Kentucky 40202

Kent W. Blake
 Vice President State Regulation and Rates
 E.ON U.S. Services, Inc.
 220 West Main Street
 Louisville, Kentucky 40202

Kendrick R. Riggs
 William Duncan Crosby III
 Stoll Keenon Ogden PLLC
 2000 PNC Plaza
 500 West Jefferson Street
 Louisville, Kentucky 40202

7. On December 21, 2006, the Commission issued an Order in Administrative Case No. 2006-00045.² Among other things, the Order required the Companies to “develop voluntary pilot real-time pricing programs for their commercial and industrial customers.”³ The Commission further ordered the Companies to “submit the proposed real-time pricing tariffs for their large commercial and industrial customers for Commission consideration within 120 days of the date of this Order.”⁴

8. In accordance with the Commission’s Order, the Companies’ proposed RTP Pilot is voluntary and offers large commercial and industrial customers the opportunity to manage their electric energy costs by changing their electric consumption patterns in response to hourly cost-based prices.

9. The RTP Pilot will be available to LG&E customers who presently have been served for a minimum of one year under Rate LC-TOD, Rate LP-TOD, or Rate LI-TOD and KU customers who presently have been served for a minimum of one year under Rate LCI-TOD, Rate LMP-TOD, or Rate LI-TOD. Service under the RTP Pilot program will be available only 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 or by Commission Order.

RTP Pilot Rate Design

10. In order to comport with core rate design principles and to encourage participation, the Companies have designed the RTP Pilot with the intent that it be bill-neutral for each customer with respect to the customer’s historical usage pattern. The

² *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).

³ *Id.* at 13.

⁴ *Id.* at 18.

Companies implement this intent through the use of a Customer Baseline Load (“CBL”) and the applicable standard tariff. The CBL is one complete calendar year of hourly firm load data developed from metered interval data for the customer’s specific location. Because the CBL is the basis for achieving bill neutrality for an RTP Pilot customer, it must be mutually agreeable to the customer and LG&E or KU as fairly representing the customer’s electric energy usage under the applicable standard tariff.

11. The customer is billed for actual consumption for the month at their standard tariff rate. The CBL is adjusted upward or downward each month by the ratio of the actual total monthly consumption to the customer’s historic consumption for that month. This adjusted CBL is then subtracted from the actual consumption each hour with the difference charged or credited at the hourly real-time price. The Companies will determine hourly prices each day based on projections of the greatest hourly marginal generation supply cost for the next day.

The Companies will provide hourly prices on a day-ahead basis to RTP Pilot customers via the Internet, which prices will become binding at 4:00 p.m. of the preceding day. If posted earlier, the Companies may revise these prices during the day before they become effective but not after the 4:00 p. m. deadline.

Potential Benefits of the RTP Pilot

12. Day-ahead, binding quotes for hourly prices will allow RTP customers to structure their next-day activities to optimize energy cost savings by shifting usage from higher-cost hours to lower-cost hours. RTP customers are already familiar with the concept of shifting energy usage to lower-cost times because all such customers’ demand charges are divided into higher on-peak rates and lower off-peak rates. Providing such customers with

hourly, real-time energy rates may further aid such customers in fine-tuning their energy usage to achieve optimal savings.

RTP Pilot Implementation Details and Costs

13. The RTP Pilot will cost approximately \$935,000 to implement over the initial three years. This cost includes all variable and fixed costs associated with the RTP Pilot, including software and equipment purchases, installation, programming, operations and maintenance, billing, and other RTP Pilot administration. Exhibit SLC-1 attached to the testimony of Sidney L. “Butch” Cockerill is a budget for all the categories of costs associated with the RTP Pilot.

14. A program charge of \$140 per month will cover the additional billing, administrative, and communication costs associated with the RTP Pilot. However, as the RTP pilot is a voluntary program, we do not expect 100% participation. As a result the Companies are requesting recovery of any program costs not otherwise recovered through the program charge. The Companies expect to be provided such recovery through base rates in its next base rate cases

Duration of RTP Pilot, the Companies’ Reporting Thereon, and Number of Participants

15. Service under the RTP Pilot will be offered for an initial term of three years and will remain in effect until modified or terminated by order of the Commission. As required by the Commission, the Companies will report annually on the results RTP Pilot.⁵ The Companies suggest that such annual reports be filed within 90 days of the end of each program year. A final report will be submitted to the Commission with recommendations for

⁵ *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 14 (December 21, 2006).

modifying or discontinuing the RTP Pilot six months following the conclusion of the three year pilot program.

16. The Companies will not permit any customers to participate following the end of the second year of the pilot program.

Requested Timing of Approval

17. After the Commission approves this Application, it will take approximately eight months to implement the RTP Pilot.

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

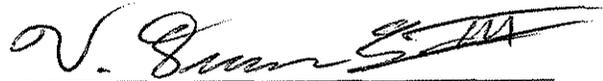
- The testimony of Kent W. Blake, Vice President State Regulation and Rates, E.ON U.S. Services, Inc., describes the regulatory history of the pilot and gives a brief description of the illustrative RTP tariffs, the revenue neutrality thereof, and how the tariffs will be implemented. Mr. Blake sponsors the following exhibits to his testimony:
 - Exhibit KWB-1 (Illustrative LG&E RTP tariff sheet)
 - Exhibit KWB-2 (Illustrative KU RTP tariff sheet)
 - Exhibit KWB-3 (Development of Program Charge)
- The testimony of Sidney L. "Butch" Cockerill, Director of Revenue Collections, E.ON U.S. Services, Inc., describes the various equipment that will be deployed for the pilot. Mr. Cockerill will also discuss the budget for the RTP Pilot. Mr. Cockerill sponsors the following exhibits to his testimony:
 - Exhibit SLC-1 (Pilot budget)
 - Exhibit SLC-2 (Bill mock-up for RTP pilot customer)

WHEREFORE, Louisville Gas and Electric Company and Kentucky Utilities Company respectfully request that the Commission issue an order:

1. Approving the proposed RTP Pilot program as described herein and as set out in the attached illustrative tariff sheet, Real-Time Pricing Pilot Service (“RTP”); and
2. Authorizing the Companies to begin the three-year RTP pilot program and *continue to offer the Pilot until otherwise directed by the Commission.*
3. Authorizing recovery in the Companies next base rate cases of Program Costs not otherwise recovered from customers volunteering to participate in the RTP Pilot.

Dated: April 20, 2007

Respectfully submitted,



Kendrick R. Riggs
W. Duncan Crosby III
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500 West Jefferson Street
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Corporate Counsel
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Louisville, Kentucky 40232
Telephone: (502) 627-2088

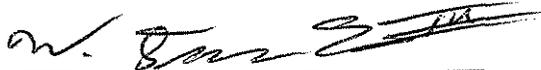
Counsel for Louisville Gas and
Electric Company and
Kentucky Utilities Company

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 20th day of April, 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



Counsel for Louisville Gas
and Electric Company and
Kentucky Utilities Company

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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

**PUBLIC SERVICE
COMMISSION**

In the Matter of:

**JOINT APPLICATION OF LOUISVILLE)
GAS AND ELECTRIC COMPANY AND)
KENTUCKY UTILITIES COMPANY)
FOR AN ORDER APPROVING A LARGE)
COMMERCIAL AND INDUSTRIAL)
REAL-TIME PRICING PILOT PROGRAM)**

CASE NO. 2007-00/61

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

Filed: April 20, 2007

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

2 A. My name is Kent W. Blake. I am currently employed as Vice President, 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 Company
5 (“KU”) (collectively, the “Companies”). My business address is 220 West Main
6 Street, Louisville, Kentucky 40202. A complete statement of my education and work
7 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. 2006-00045,¹
10 the Commission’s recent administrative proceeding concerning smart metering, real-
11 time pricing, and interconnection standards. Most recently, I filed testimony
12 accompanying LG&E’s Application for a responsive pricing and smart metering pilot
13 program for residential and general service customers, Case No. 2007-00117.

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

15 A. The purpose of my testimony is to discuss the regulatory history of the Companies’
16 large commercial and industrial real-time pricing pilot program (“RTP Pilot”) and
17 their illustrative Real-Time Pricing Pilot Service (“RTP”) tariffs, as well as the
18 planned implementation thereof. Also, I explain the Companies’ plans to report the
19 results of the RTP Pilot to the Commission.

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

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

- 22
- Exhibit KWB-1 (Illustrative LG&E RTP tariff sheet)

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 • Exhibit KWB-2 (Illustrative KU RTP tariff sheet)
- 2 • Exhibit KWB-3 (Development of Program Charge)

3 **Q. What is the regulatory history that has preceded the Companies' filing of its**
4 **Application for the RTP Pilot?**

5 A. On December 21, 2006, the Commission issued an Order in Administrative Case No.
6 2006-00045.² Among other things, the Order required the Companies to “develop
7 voluntary pilot real-time pricing programs for their commercial and industrial
8 customers.”³ The Commission further ordered the Companies to “submit the
9 proposed real-time pricing tariffs for their large commercial and industrial customers
10 for Commission consideration within 120 days of the date of this Order.”⁴ It is in
11 response to the Commission’s directive that the Companies file their RTP Pilot Joint
12 Application today.

13 **Q. Please describe briefly the RTP Pilot program for which the Companies seek**
14 **approval in this proceeding.**

15 A. In accordance with the Commission’s Order, the Companies’ proposed RTP Pilot is
16 voluntary and offers large commercial and industrial customers the opportunity to
17 modify their consumption patterns in order to manage their electric energy costs by
18 increasing or decreasing load in response to hourly cost-based prices. The
19 Companies will determine hourly prices each day based on projections of the greatest
20 hourly generation supply cost for the next day. The Companies will provide hourly

² *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).

³ *Id.* at 13.

⁴ *Id.* at 18.

1 prices on a day-ahead basis to RTP Pilot customers via the Internet so that customers
2 can plan their next-day activities to optimize energy cost savings.

3 **Q. Which customers will be eligible to participate in the RTP Pilot, and under what**
4 **terms?**

5 A. The RTP Pilot will be available to LG&E customers who have presently been served
6 for a minimum of one year under Rate LC-TOD, Rate LP-TOD, or Rate LI-TOD and
7 KU customers who have been served for a minimum of one year under Rate LCI-
8 TOD, Rate LMP-TOD, or Rate LI-TOD.

9 Service under the RTP Pilot program will be available only for a fixed term of
10 not less than one year and for such time thereafter until terminated by either party
11 giving 30 days written notice to the other of the desire to terminate.

12 Service under the RTP Pilot will be offered for an initial term of three years
13 and will remain in effect until modified or terminated by order of the Commission.

14 **Q. Please describe the RTP rate structure and how it was designed to ensure bill**
15 **neutrality.**

16 A. In order to comport with core rate design principles and to encourage participation the
17 Companies have designed the RTP Pilot with the intent that it be bill-neutral for each
18 customer with respect to the customer's historical usage pattern. The Companies
19 implement this intent through the use of a Customer Baseline Load ("CBL") and the
20 applicable standard tariff. The CBL is based upon one complete calendar year of
21 hourly firm load data developed from metered interval data for the customer's
22 specific location; in other words, for each hour of the year, the CBL provides an
23 historical and customer-specific baseline level of electric usage. Because the CBL is

1 the basis for achieving bill neutrality for an RTP Pilot customer, it must be mutually
2 agreeable to the customer and LG&E or KU as fairly representing the customer's
3 typical electric energy usage under the applicable standard tariff.

4 Each month the customer's CBL is then adjusted upward or downward by the
5 ratio of actual total energy consumption to the customer's historic consumption for
6 that month. The historic CBL is also adjusted to allow for the matching of days of the
7 week between the historic and current billing periods.

8 The customer is then billed for actual energy consumption for the month at the
9 standard tariff rate. The customer will then receive a charge or credit for the
10 difference in consumption for each hour compared to the customer's adjusted CBL.
11 This has the effect of adjusting the customer's standard bill for changes in their load
12 consumption patterns (not total energy consumption) at hourly "real-time" prices.

13 The Companies will determine hourly prices each day based on projections of
14 the greatest hourly marginal generation supply cost for the next day. The Companies
15 will provide hourly prices on a day-ahead basis to RTP Pilot customers via the
16 Internet, which prices will become binding at 4:00 p.m. of the preceding day. The
17 Companies may revise these prices the day before they become effective but not after
18 the 4:00 p. m. deadline.

19 LG&E or KU will calculate an RTP Pilot customer's bill by the following
20 formula:

$$\text{RTP Bill}_{Mo.} = \text{Standard Bill}_{Mo.} + \text{Program Charge}_{Mo.} + \sum [\text{Price}_{Hr.} \times (\text{Actual Load}_{Hr.} - \text{Customer Baseline Load}_{Hr.})]$$

21 An RTP Pilot customer's bill for a given month (RTP Bill_{Mo.}) begins with what would
22 have been the customer's bill under the customer's standard tariff (Standard Bill_{Mo.})
23

1 for the customer's actual metered billing determinants under that tariff with all
2 applicable adders. Added to the standard bill is a charge for customer-specific costs
3 (Program Charge_{Mo.}) associated with providing service under RTP. Added to the
4 customer's standard bill and the program charge is a charge or credit for the sum of
5 the products of the hourly price for energy (Price_{Hr.}) and the difference between the
6 customer's actual kVA load that hour (Actual Load_{Hr.}) and the customer's adjusted
7 baseline kVA load for that hour (Customer Baseline Load_{Hr.}).

8 **Q. What happens if a customer increases or decreases their total usage without**
9 **altering the load pattern?**

10 A. Under the format the Companies have chosen there would be no credit or charge on
11 the RTP portion of the billing. The customer would, of course, see an increase or
12 decrease in billing under the standard tariff just as if they were not on RTP but the
13 billing itself would only be different by the program charge. This design was chosen
14 because the intent is to encourage a shift from hours where the cost to serve is higher
15 to lower cost hours. The neutrality with respect to load shape is accomplished by
16 adjusting the total load of the historical CBL pro rata to the total load of the actual
17 current metered load. This adjustment allows for changes in total usage due to
18 weather or customer operations to be charged or credited at the standard tariff rate,
19 but does not allow for a charge or credit under RTP without a shift in the load pattern.

20 **Q. Why did the Companies elect to use this type of real-time rate structure rather**
21 **than a full market-based rate structure?**

22 A. Other utilities, such as Duke Energy Kentucky, do indeed utilize a Locational
23 Marginal Price (LMP) based pricing for their real-time tariffs and apply these rates to

1 all deviations in the customer's CBL. LMP-based pricing is a reasonable
2 methodology for such a utility which operates in a regional transmission organization
3 (RTO). However, as LG&E and KU are not members of an RTO. Given the fact that
4 LG&E/KU principally serve their load with their own generation, their recommended
5 methodology is a reasonable cost-based approach

6 **Q. Are there any other charges or rates associated with the RTP Pilot?**

7 A. Yes, in addition to the RTP Pilot's new method of calculating customers' energy
8 charges, there will also be a program charge (see Exhibit KWB-3) of \$140 per billing
9 period per site. This charge will cover the additional billing, administrative, and
10 communication costs associated with the RTP Pilot, including the cost to provide
11 Internet-based access to be used to provide customers with hourly, real-time, day-
12 ahead prices, provided all eligible customers participate in this pilot. However, as the
13 RTP pilot is a voluntary program, we do not expect 100% participation. As a result
14 the Companies are requesting recovery of any program costs not otherwise recovered
15 through the program charge. The Companies expect to be provided such recovery
16 through base rates in its next base rate cases.

17 **Q. When will the Companies report to the Commission concerning the results of the**
18 **Pilot?**

19 A. During the initial three-year of the RTP Pilot, the Companies will report annually
20 with respect to: (i) the impact of the RTP Pilot on affected customers; (ii) the amount
21 of revenue or loss from the RTP Pilot, if any; (iii) customer acceptance of the RTP
22 Pilot; and (iv) the potential for implementing the RTP Pilot as a permanent standard
23 rate schedule.

1 Q. Does this conclude your testimony?

2 A. Yes.

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Kent W. Blake**, being duly sworn, deposes and says that he is Vice President State Regulation and Rates for E.ON U.S. Services, Inc., that he has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Kent W. Blake
KENT W. BLAKE

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 20th day of April, 2007.

Sammy J. Ely (SEAL)
Notary Public

My Commission Expires:
November 9, 2010

APPENDIX A

Kent W. Blake

Vice President 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

STANDARD RIDER

RTP

Real-Time Pricing Rider

APPLICABLE

In all territory served by the Company.

AVAILABILITY OF SERVICE

RTP shall be offered as an optional three (3) year pilot program and is available as a rider to the Company's LC-TOD, LP-TOD, or LI-TOD rate schedules for customers having received service under those schedules for a minimum of one (1) year. Service will be provided under RTP following its approval and shall remain in effect until modified or terminated by order of the Commission.

- a) No customers will be accepted on RTP 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.
- b) The Company will file a report on RTP with the Commission within six months after the first three years of implementation of the pilot program. Such report will detail findings and recommendations.
- c) Service under RTP may not be taken in conjunction with any other load reduction riders such as but not limited to CSR, LRI, or NMS.

BILLING

Customers participating in the RTP Pilot will be billed monthly based on the following calculation:

$$\text{RTP Bill} = \text{SB} + \text{PC} + \sum_{t=1}^n \{ \text{Price}_t \times (\text{AL}_t - \text{CBL}_t) \}$$

Where:

- RTP Bill = Customer's bill for service under this tariff in a specific month.
- SB = Customer's bill for the current billing period based on current usage and billed under the appropriate standard rate schedule.
- PC = Customer specific program charge.
- $\sum_{t=1}^n$ = Sum of all hours of the billing period from t=1 to n.
- Price_t = Real-time day-ahead marginal generation supply cost for hour t.
- AL_t = Customer's actual kVA load for hour t.
- CBL_t = Customer's baseline kVA load for hour t.

HOURLY PRICING

Hourly prices (Price_t) are determined each day based on projections of the marginal generation supply cost for the next day and adjusted for losses to the customer's delivery voltage. Hourly prices will be provided on a day-ahead basis to Customer. The Company may revise these prices the day before they become effective. Prices become binding at 4:00 p.m. of the preceding day. Service under RTP will require customer enter into a confidentiality agreement with the Company to protect the day ahead hourly prices.

Date of Issue:

Issued By

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

**Kent W. Blake, Vice President,
State Regulation and Rates
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2006-00045 dated December 21, 2006

STANDARD RIDER

RTP

Real-Time Pricing Rider

CUSTOMER BASELINE LOAD (CBL)

The CBL is based on one complete calendar year of hourly kVA firm load data developed from actual historical metered interval data for the Customer's specific service delivery. The CBL is determined by:

1. selecting the historical calendar period that corresponds to the current billing period,
2. shifting the historical calendar period back no more than 4 days or forward until the days of the week agree for the historical calendar period and the current billing period, and
3. adjusting on a pro rata basis each hour of the historical calendar period so that the sum of the hourly kVA loads for the historical calendar period matches the sum of the hourly kVA loads for the current billing period.

PROGRAM CHARGE (PC)

A program charge of \$140 per billing period shall be added to the Customer's bill to cover the additional customer specific costs associated with the pilot program.

MINIMUM CHARGE

The minimum charge in the applicable Standard Tariff shall apply plus PC, customer specific program charge.

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

Except as provided above, all other provisions of the power rate to which this schedule is a rider shall apply.

Date of Issue:

Issued By

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

**Kent W. Blake, Vice President,
State Regulation and Rates
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2006-00045 dated December 21, 2006

ELECTRIC RIDER

RTP

Real-Time Pricing Rider

APPLICABLE

In all territory served by the Company.

AVAILABILITY OF SERVICE

RTP shall be offered as an optional three (3) year pilot program and is available as a rider to the Company's LCI-TOD, LMP-TOD, or LI-TOD rate schedules for customers having received service under those schedules for a minimum of one (1) year. Service will be provided under RTP following its approval and shall remain in effect until modified or terminated by order of the Commission.

- a) No customers will be accepted on RTP 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.
- b) The Company will file a report on RTP with the Commission within six months after the first three years of implementation of the pilot program. Such report will detail findings and recommendations.
- c) Service under RTP may not be taken in conjunction with any other load reduction riders such as but not limited to CSR, LRI, or NMS.

BILLING

Customers participating in the RTP Pilot will be billed monthly based on the following calculation:

$$\text{RTP Bill} = \text{SB} + \text{PC} + \sum_{t=1}^n \{ \text{Price}_t \times (\text{AL}_t - \text{CBL}_t) \}$$

Where:

- RTP Bill = Customer's bill for service under this tariff in a specific month.
- SB = Customer's bill for the current billing period based on current usage and billed under the appropriate standard rate schedule.
- PC = Customer specific program charge.
- $\sum_{t=1}^n$ = Sum of all hours of the billing period from t=1 to n.
- Price_t = Real-time day-ahead marginal generation supply cost for hour t.
- AL_t = Customer's actual kVA load for hour t.
- CBL_t = Customer's baseline kVA load for hour t.

HOURLY PRICING

Hourly prices (Price_t) are determined each day based on projections of the marginal generation supply cost for the next day and adjusted for losses to the customer's delivery voltage. Hourly prices will be provided on a day-ahead basis to Customer. The Company may revise these prices the day before they become effective. Prices become binding at 4:00 p.m. of the preceding day. Service under RTP will require customer enter into a confidentiality agreement with the Company to protect the day ahead hourly prices.

Date of Issue:

Issued By

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

**Kent W. Blake, Vice President,
State Regulation and Rates
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2006-00045 dated December 21, 2006

ELECTRIC RIDER

RTP

Real-Time Pricing Rider

CUSTOMER BASELINE LOAD (CBL)

The CBL is based on one complete calendar year of hourly firm kVA load data developed from actual historical metered interval data for the Customer's specific service delivery. The CBL is determined by:

1. selecting the historical calendar period that corresponds to the current billing period,
2. shifting the historical calendar period back no more than 4 days or forward until the days of the week agree for the historical calendar period and the current billing period, and
3. adjusting on a pro rata basis each hour of the historical calendar period so that the sum of the hourly kVA loads for the historical calendar period matches the sum of the hourly kVA loads for the current billing period.

PROGRAM CHARGE (PC)

A program charge of \$140 per billing period shall be added to the Customer's bill to cover the additional customer specific costs associated with the pilot program.

MINIMUM CHARGE

The minimum charge in the applicable Standard Tariff shall apply plus PC, customer specific program charge.

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

Except as specified above, all other provisions of the power rate to which this schedule is a rider shall apply.

Date of Issue:

Issued By

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

**Kent W. Blake, Vice President,
State Regulation and Rates
Louisville, Kentucky**

Issued By Authority of an Order of the KPSC in Case No. 2006-00045 dated December 21, 2006

CUSTOMER-SPECIFIC COSTS
 DEVELOPMENT OF PROGRAM CHARGE
 Other RTP Systems -- Purchase -- MV90xi/MV-PBS

Description/Item	Comments	O & M Expense - Incremental	Capital Expense - Incremental	Fixed Charge Rate	Program Charge - Per Month
Customers		180	180		
Vendor Software Implementation - MV90 - PBS	Initial License Fee of \$125,000, covers up to 1000 meters.		\$ 125,000	31.49%	\$ 18.22
	Software Implementation Costs		\$ 80,000	31.49%	\$ 11.66
	Annual Maintenance (20% of Initial License Fee) + annual adjustment	\$ 75,000			\$ 11.57
Vendor Software Implementation - MV90 Enterprise Edition Customer Care (Bill Analysis)	Initial License Fee of \$50,875, covers up to 500 meters.		\$ 50,875	31.49%	\$ 7.42
	Software Implementation Costs		\$ 25,000	31.49%	\$ 3.64
	Annual Maintenance (20% of Initial License Fee) + annual adjustment	\$ 30,525			\$ 4.71
IT Interface - labor (MV90 PBS)	Hours to develop any interfaces in and out of MV90-PBS to current CIS's		\$ 121,600	31.49%	\$ 17.73
IT Interface - labor (SAP)	Hours to develop any interfaces in and out of SAP		\$ 81,396	31.49%	\$ 11.87
IT Hardware - MV90 PBS	Capital Cost is to set up database server		\$ 10,000	31.49%	\$ 1.46
	Server Maintenance/Support	\$ 3,000			\$ 0.46
IT Hardware - MV90 Enterprise Edition (Customer Care)	Capital Cost is to set up database server		\$ 10,000	31.49%	\$ 1.46
	Server Maintenance/Support	\$ 3,000			\$ 0.46
Customer Web-Site Production	Web-Site to Post Price Notifications		\$ 15,000	31.49%	\$ 2.19
Energy Marketing	Cost to calculate advance pricing and notify customers.		\$ 15,000	31.49%	\$ 2.19
Meter Assets: Communication Boards (Metrum digital cell)	Meter Cost: \$600/Communication board each.		\$ 108,000	17.65%	\$ 8.83
	Meter Installation: \$50/hr. @ 1 hrs. each programming/install.		\$ 9,000	17.65%	\$ 0.74
Meter Reading	Phone Line Costs (\$40 per month less \$12 standard meter reading cost).	\$ 181,440			\$ 28.00
Customer Accounting	MV90 translation time, Customer Accounting bill validation.	\$ 43,500			\$ 6.71
Revenue Accounting	Report balancing and system auditing.	\$ 4,500			\$ 0.69
Total Program Charge					\$ 140

RECEIVED

APR 20 2007

PUBLIC SERVICE
COMMISSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**JOINT APPLICATION OF LOUISVILLE)
GAS AND ELECTRIC COMPANY AND)
KENTUCKY UTILITIES COMPANY)
FOR AN ORDER APPROVING A LARGE)
COMMERCIAL AND INDUSTRIAL)
REAL-TIME PRICING PILOT PROGRAM)**

CASE NO. 2007-00161

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

Filed: April 20, 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 the Companies' most recent base rate proceedings, Case Nos.
9 2003-00433 and 2003-00434. More recently, I filed testimony accompanying
10 LG&E's Application for a responsive pricing pilot program for residential and
11 general service customers, Case No. 2007-00117.

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

13 A. The purpose of my testimony is to describe the hardware and software the Companies
14 will acquire and use to implement their proposed real-time pricing pilot program
15 ("RTP Pilot"). I will also discuss the budget for the RTP Pilot and describe the
16 process by which the Companies will bill RTP Pilot participants.

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

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

- 19 • Exhibit SLC-1 (Pilot budget)
20 • Exhibit SLC-2 (Bill mock-up for RTP Pilot customer)

21 **Q. What equipment will need to be installed at customers' sites to enable them to**
22 **participate in the RTP Pilot?**

1 A. The RTP Pilot will require each customer to have a meter capable of: (1) recording
2 the customer's usage in increments sufficient to bill the customer on both the standard
3 tariff and RTP; and (2) reporting that usage to the Companies. We anticipate a
4 minimal impact for most RTP Pilot customers because most, if not all, of the
5 Companies' customers who are eligible for the RTP Pilot currently have meters
6 capable of time-incremented usage, though they may require some reprogramming.
7 (A small number of eligible customers may not have such meters and thus will
8 require new meters.) It is anticipated that some of the meters with the ability to
9 record usage in time increments do not have adequate communications abilities and
10 will require the Companies to install communications cards inside the existing meters.
11 Otherwise, the RTP Pilot will not require that customers have additional equipment
12 installed to participate.

13 **Q. How will RTP Pilot customers receive day-ahead hourly pricing data?**

14 A. The Companies will post pricing information on a website that RTP Pilot customers
15 may access to obtain hourly, real-time, day-ahead prices. As described in the
16 Application, the Companies will determine hourly prices each day based on
17 projections of the greatest hourly marginal generation supply cost for the next day,
18 which prices will become binding at 4:00 p.m. of the preceding day.

19 **Q. What sorts of changes to the Companies' existing systems, and what additional
20 hardware and software, will be necessary to implement the RTP Pilot?**

21 A. The Companies will have to make changes to existing billing, accounting, energy
22 marketing, and meter reading communications systems in order to implement the
23 RTP Pilot.

1 First, the Companies will need to purchase a third-party “bolt on” complex
2 billing system and create the required interfaces to the current billing and accounting
3 systems, enabling them to process the additional pricing and usage data that an hourly
4 rate structure will create.

5 Second, in order to generate hourly prices, the Companies will have to modify
6 their energy marketing systems to generate and communicate day-ahead hourly prices
7 to customers via the Internet. The hourly prices will be the same for LG&E and KU.

8 Third, the Companies will make changes to their electric meter
9 communications and data processing systems. Customers’ meters will communicate
10 time interval usage information to the Companies over telephone lines. The
11 Companies will have to convert the metered interval data for the Companies’ billing
12 and accounting systems.

13 **Q. How much have the Companies budgeted for the RTP Pilot?**

14 A. As shown in Exhibit SLC-1 attached hereto, the Companies have budgeted
15 approximately \$935,000 for the RTP Pilot. This budget should cover all variable and
16 fixed costs associated with the RTP Pilot, including equipment purchases,
17 installation, programming, operations and maintenance, billing, and other RTP Pilot
18 administration.

19 **Q. How will the Companies bill customers who participate in the Pilot?**

20 A. Because the RTP Pilot rate structure is considerably more complex than the average
21 cost rate structures otherwise applicable to large commercial and industrial
22 customers, it would require significant modification to our existing customer billing
23 systems to enable them to bill RTP Pilot customers automatically. Because there will

1 be a relatively small number of customers participating in the RTP Pilot, it would not
2 be prudent for us to significantly modify our billing system at this time. Due to the
3 complexity and the volume of data necessary for the bill calculation, it will be
4 necessary for the Companies to purchase a third-party "bolt on" billing system. The
5 Companies will evaluate the current market for these types of systems through a
6 request for purchase process, and select a vendor to provide this system. Once the
7 bills are generated, summary data for each customer will be entered in our billing
8 system for reconciliation, payment processing, reporting, and internal controls.
9 Exhibit SLC-2 attached hereto is an example of a RTP participant's bill.

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

11 **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 Commercial and Industrial Real Time Pricing Pilot			
		Ongoing Annual O&M Cost	One Time Capital Cost
TYPE	DESCRIPTION		PRICE
One Time Capital Cost			
Vendor Software Implementation – MV-90 PBS	Initial License Fee		\$125,000
	Software Implementation Costs		\$80,000
	Annual Maintenance (20% of Initial License Fee) + Annual Adjustment Annual Maintenance Annual	\$25,000/yr.	
Vendor Software Implementation – MV90 Enterprise Edition Customer Care (Bill Analysis)	Initial License Fee, covers up to 500 meters		\$50,875
	Software Implementation Costs		\$25,000
	Annual Maintenance (20% of Initial License Fee) + Annual Adjustment Annual Maintenance	\$10,175/yr.	
IT Interface - Labor (MV90 PBS)	Hours to develop any interfaces in and out of MV90-PBS to current CIS's		\$121,600
IT Interface - Labor (SAP)	Hours to develop any interfaces in and out of SAP		\$81,396
IT Hardware - MV90 PBS	Capital Cost to set up database server		\$10,000
	Server Maintenance/Support	\$1,000/yr.	
IT Hardware - MV90 Enterprise Edition (Customer Care)	Capital Cost to set up database server		\$10,000
	Server Maintenance/Support	\$1,000/yr.	
Customer Web-Site Production	Web-Site to Post Price Notifications		\$15,000
Energy Marketing	Cost to calculate advance pricing and notify customers		\$15,000
Meter Assets: Meter w/LP & PF, Comm.. Boards (Metrum digital cell)	Meter Cost: \$250/meter and \$600/Comm. Board) each		\$85,000
	Meter Installation: \$50/hr @1 hr. each programming/install		\$5,000
	Meter Troubleshooting: \$50/hr @ 3 hrs (10% failure rate)	\$1,500/yr.	
Meter Reading	Phone Line Costs (\$40 per month for 200 minutes time)	\$48,000/yr.	
Corporate Communications	Program Communication for customers	\$500	
Business Service Center	Customer Contact Effort	\$0	
Customer Accounting	MV90 translation time, Customer Accounting bill validation. Assume ¼ FTE	\$14,500/yr.	
Revenue Accounting	Report balancing & system auditing	\$1,500/yr.	
Totals		\$102,675/yr \$500 one time	\$623,871



Customer Service: (859) 367-1200 Mon-Fri 7AM-6PM
 Walk-in Center Hours: Mon-Fri 8AM-5PM
www.eon-us.com
 Telephone Payments: (800) 807-3596

DATE DUE **AMOUNT DUE**
 02/13/07 \$123,091.74

You can now pay your bill over the telephone with a check or credit card for a minimal fee. Call (800) 807-3596 to take advantage of this exciting and convenient new payment option.

Averages for Billing Period	This Year	Last Year
Average Temperature	39 °	41 °
Number of Days Billed	28	32
Electric/kwh per Day	93762.0	93832.5

ACCOUNT INFORMATION	
Account Number:	123456-000 0
Account Name:	CUSTOMER NAME
Service Address:	STREET ADDRESS CITY, KY

BILLING SUMMARY	
Previous Balance	132,096.34
Payments as of 02/01	(132,096.34)
Balance as of 02/01	0.00
Electric Charges	109,551.20
Taxes and Fees	13,540.54
Utility Charges as of 02/01	123,091.74
Total Amount Due	\$123,091.74

ELECTRIC CHARGES			
Rate Type: RTP LCI-TOD PRIMARY			
Customer Charge	120.00	Meter Reading Information	
Total Energy	66518.13	Meter # C123456-A	
On Peak Demand (\$4.58 x 5402.20 KW)	24742.08	Actual Reading on 01/29	55555
89.75% on PK PF Adj to 90.00% (\$4.58 x 15.0 kw)	68.70	Previous Reading on 01/01	19092
Off Peak Demand (\$0.73 x 5400.00 KW)	3942.00	Current kwh Usage	36463
90.45% off PK PF Adj to 90.00%		Meter Multiplier	72
Other Charges For Above Rates		Metered kwh Usage	2625336
Fuel Adjustment (\$.00439 x 2625336 kwh)	11525.23		
RTP Program Charge	140.00		
Environmental Surcharge (4.070% x \$107,056.14)	4357.18		
Merger Surcredit (1.326% CR x \$111,413.32)	-1477.34		
Value Delivery Surcredit (0.350% CR x \$109,935.98)	-384.78		
Total Electric Charges	\$109,551.20		

Please see reverse side for additional charges.

Please bring entire bill when paying in person.

Customer Service (859) 255-0394

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT

Account Number	Previous Balance	Payment Due Date	Total Amount Due	Winter Care Donation	Amount Enclosed
123456-000 0	\$0.00	02/13/07	\$123,091.74	\$	\$

Home Phone # (502) 123-4567

Check here if plan(s) requested on back of stub.

OFFICE USE ONLY: G
C20, R8953, G311



an e-on company

P.O. Box 14242
Lexington, KY 40512-4242

#BWNHBWG
#123456000 1 5#

CUSTOMER NAME
STREET ADDRESS
CITY, KY ZIP

TAXES AND FEES

Rate Increase For School Tax (3.00% x \$109,551.20)	3286.54
Franchise Fee-Lexington (3.00% x \$109,551.20)	3286.54
Sales Tax (6.00% x \$116,124.28)	6967.46
Total Taxes and Fees	<u>\$13,540.54</u>

BILLING INFORMATION

Franchise Fee: A pass-through of fees paid by the Company to municipalities for the right to serve customers located in those municipalities.

New enrollment only - Please check box(es) below and on from of stub.

Automatic Bank Club (voided check must be provided)

Please deduct my Automatic Bank Club payment from my Checking Account.

I hereby authorize KU to debit my bank account for payment of my monthly energy bill. This authorization will remain in effect until revoked by me or KU.

Signature _____

Date _____