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

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**PUBLIC SERVICE
COMMISSION**

IN THE MATTER OF

**CONSIDERATION OF THE REQUIREMENTS
FOR THE FEDERAL ENERGY POLICY ACT OF
2005 REGARDING TIME-BASED METERING,
DEMAND RESPONSE AND INTERCONNECTION
SERVICE**

)
)
) **CASE NO. 2006-00045**
)

DIRECT TESTIMONIES

ON BEHALF OF KENTUCKY POWER COMPANY

May 18, 2006

COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

CONSIDERATION OF THE REQUIREMENTS)
FOR THE FEDERAL ENERGY POLICY ACT OF)
2005 REGARDING TIME-BASED METERING,) CASE NO. 2006-00045
DEMAND RESPONSE AND INTERCONNECTION)
SERVICE

DIRECT TESTIMONY
OF
STEPHEN E EARLY

ON BEHALF OF KENTUCKY POWER COMPANY

May 18, 2006

**DIRECT TESTIMONY OF
STEPHEN E. EARLY, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

CASE NO. 2006-00045

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**DIRECT TESTIMONY OF
STEPHEN E. EARLY, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

I. INTRODUCTION

1 Q: Please state your name, position and business address.

2 A: My name is Stephen E. Early. My position is Principal Engineer, Distribution
3 Engineering Services, American Electric Power Service Corporation, a subsidiary
4 of American Electric Power Company, Inc. (AEP). My business address is 1
5 Riverside Plaza, Columbus, Ohio 43215.

II. Background

6 Q: Please summarize your educational background and business experience.

7 A: I received a Bachelor of Science degree in Electrical Engineering from Ohio
8 University, Athens, Ohio in June 1972. I am a Registered Professional Engineer in
9 the State of Kentucky. After graduation I accepted the position of Distribution
10 Engineer with Kentucky Power Company (“Kentucky Power, KPCo or Company”) in
11 the Ashland Division in Ashland, KY. From 1972 until 1995 I held a succession
12 of positions of increasing responsibility at KPCo. After a corporate wide re-
13 organization in 1996, I became the System Improvements Manager for the
14 Kentucky Distribution Region of AEP. As System Improvements Manager I was
15 responsible for planning, designing, engineering and construction of major projects
16 involving the KPCo distribution system and portions of the distribution systems of
17 Appalachian Power Company, Ohio Power Company and Columbus Southern
18 Power Company. In 1999, I transferred to Gahanna, Ohio as an Engineer I with the

1 AEP Distribution Engineering and Operations Department's Columbus Branch. In
2 this position I was responsible for distribution system planning in parts of Ohio,
3 West Virginia and Kentucky. In 2000, I transferred to the Distribution Asset
4 Management Department where I first served as an Engineer I and then as a Senior
5 Engineer. My duties included distribution service reliability and asset utilization
6 improvement initiatives and new technology applications. I participated in
7 distribution generation interconnection rulemaking proceedings in the States of
8 Virginia, Indiana, Michigan and Ohio and I participated in the development of the
9 Institute of Electrical and Electronics Engineers (IEEE) standard 1547, which deals
10 with interconnections. In 2004 I was promoted to my current position as Principal
11 Engineer over the Distribution Standards Team in the Distribution Engineering
12 Services Department.

13 Q: What are your responsibilities as Principal Engineer?

14 A: My responsibilities are to supervise the preparation and maintenance of distribution
15 line construction and maintenance standards used by KPCo and other AEP electric
16 utility operating companies and to chair the AEP Distribution Standards Committee.
17 This committee, made up of representatives from each Operating Company, decides
18 what new standards are developed and what major revisions are made to existing
19 standards. I am also responsible for assisting KPCo and other AEP electric utility
20 operating companies in the formulation of distribution asset program strategy and
21 representing KPCo and other AEP electric utility operating companies in the
22 development of various industry standards including the IEEE 1547 family of
23 standards.

1 Q: To whom do you report?

2 A: I report to the Director of Distribution Engineering Services, Mr. John L.
3 Dickerman, who is also located in Columbus, Ohio.

4 Q: For whom are you testifying in this proceeding?

5 A: I am testifying on behalf of KPCo.

6 Q: Have you previously testified before this Commission?

7 A: Yes. I have testified before this Commission in regulatory proceedings involving
8 the establishment of tariffs for pole attachment space for CATV facilities.

9 **III. Purpose of Testimony**

10 Q: What is the purpose of your testimony?

11 A: The purpose of my testimony is to present the Company's position on one (1) of the
12 five (5) standards contained in the Federal Energy Policy Act of 2005. I
13 specifically address standard (15) interconnection service.

14 Q: What is the requirement set forth in the Energy Policy Act of 2005 for
15 interconnection service?

16 A: Paragraph (15) of Section 111(d) states:

17 (15) INTERCONNECTION. – Each electric utility shall make
18 available, upon request, interconnection service to any electric
19 consumer that the electric utility serves. For purposes of this
20 paragraph, the term “interconnection service” means service to an
21 electric consumer under which an on-site generating facility on the
22 consumer's premises shall be connected to the local distribution
23 facilities. Interconnection services shall be offered based upon the

1 standards developed by the Institute of Electrical and Electronics
2 Engineers: IEEE Standard 1547 for Interconnecting Distributed
3 Resources with Electric Power Systems, as they may be amended
4 from time to time. In addition, agreements and procedures shall be
5 established whereby the services are offered shall promote current
6 best practices of interconnection for distributed generation including
7 but not limited to practices stipulated in model codes adopted by
8 associations of state regulatory agencies. All such agreements and
9 procedures shall be just and reasonable, and not unduly
10 discriminatory or preferential.

11 **IV. EPAct Standard (15), Interconnection**

12 Q: Does KPCo currently have processes and procedures in place to provide
13 Interconnection service to any customer that it serves who may request such
14 service?

15 A: Yes, KPCo and the other AEP System operating companies have a well-
16 established process for handling inquiries for information regarding customer-
17 owned generation and the processing of applications for interconnection of
18 customer-owned generation to the Company's distribution system.

19 Only a small number of inquiries are received each year from customers
20 requesting information on interconnection of customer-owned generation to the
21 distribution system. The vast majority of customer interconnection applications
22 are for very small units having a capacity of less than 10 kW. AEP Operating
23 Companies serve portions of eleven states. Several of these states have developed

1 rules for interconnection of small generators. AEP has participated in rulemaking
2 proceedings in the States of Indiana, Michigan, Ohio, Texas and Virginia and at
3 the Federal Energy Regulatory Commission to develop rules for the
4 interconnection of small generators. While there are some differences between
5 the rules established in each state, the basic process and procedures are essentially
6 the same, especially for small units having a capacity of less than 10 kW.

7 Q: Would you please describe the process and procedures that KPCo customers who
8 desire more information on customer-owned generation and interconnection
9 would follow?

10 A: Customers interested in interconnecting generators can learn about customer-
11 owned generation from our www.aep.com website. At this same website they can
12 download a brochure on generator interconnection, send an e-mail to the
13 Distributed Generation Coordinator (Coordinator) requesting more information
14 and obtain the mailing address and phone number of the Coordinator.

15 Customers can also call our Customer Solutions Center at a toll free number to
16 request information about customer-owned generation and interconnection. For
17 KPCo the number is 1- 800-572-1113. This number is listed in local phone books
18 and is also available on our website and on customer bills. The Customer
19 Solution Center will connect the customer call to the Coordinator.

20 If the customer is interested in interconnection, the Coordinator will discuss the
21 interconnection process with the customer and forward the customer the
22 appropriate application form, interconnection agreement and technical
23 requirements documentation.

1 Q: Would you please describe the process and procedures that a KPCo customer who
2 desires to apply for customer-owned generation interconnection would follow?

3 A: Yes. A customer desiring to interconnect a customer-owned generator submits a
4 completed application to the Coordinator on the form provided by the Coordinator
5 along with an application fee. For single-phase generators with capacities of 25
6 kW and below the application fee is \$100. For single-phase generators larger than
7 25 kW and for three phase generators, the application fee is \$500. The
8 Coordinator reviews the application to make sure it is filled out completely with
9 all the pertinent information required to evaluate the proposed generator. If the
10 Coordinator determines that the application is incomplete, the Coordinator returns
11 the application to the customer with an explanation of what information is needed
12 to complete the application.

13 The customer can re-submit a completed application providing the additional
14 information necessary for review.

15 Once an interconnection application has been received with the applicable
16 application fee and the application is deemed to be complete by the Coordinator,
17 the application is sent to the Distribution Asset Planning Department (Planning)
18 for evaluation. Planning evaluates the proposed generator and the proposed
19 interconnection system to determine if they meet the Company's technical
20 requirements. If the generator and the proposed interconnection system met the
21 technical requirements, Planning then uses a screening process to determine if the
22 generator needs a more detailed study to determine its impact on the distribution
23 system or if it can be interconnected to the distribution system with no significant

1 negative impact. After completion of the technical review and screening process
2 evaluation, Planning will inform the Coordinator of the results.

3 If the proposed generator met the technical requirements and passed the screening
4 process, the Coordinator will execute the interconnection agreement and forward a
5 copy to the customer along with notification of approval of the interconnection.

6 Experience has shown that the majority of customer requests for interconnection are
7 very small generators of 1-2 kW capacity that pass the screening process and do not
8 require further study.

9 If the proposed generator did not meet the technical requirements or did not pass the
10 screening process, the Coordinator will notify the interconnection customer.

11 The customer can then decide if it would like to proceed with further evaluation
12 of the proposed generator or withdraw the application. If the proposed generator
13 or interconnection system failed to meet the technical requirements, the customer
14 may modify its proposal to meet the technical requirements. If the screening
15 process indicates that a system impact study is needed the customer must pay a
16 deposit to cover the estimated cost of the study. The system impact study
17 determines 1) if the proposed generator and interconnection system can be
18 interconnected safely with no significant negative impact or 2) what modifications to
19 the proposed generator and interconnection system, distribution system
20 modifications and/or distribution system improvements are required to safely
21 interconnect the generator and interconnection system so there is no adverse impact
22 on the distribution system. For single-phase generators up to 25 kW, the deposit is
23 \$500. For single-phase generators from 26 kW to 100 kW and three-phase

1 installation up to 100 kW, the deposit is \$1,000. For single phase and three phase
2 generators from 101 kW to 500 kW, the deposit is \$3,000. For single phase and
3 three phase generators greater than 500 kW, the deposit is \$5,000. Once the study
4 is completed the customer will be refunded or billed the difference between the
5 deposit amount paid and the actual cost of the impact study. If the impact study
6 determines the proposed generator will not have a negative impact on the
7 distribution system, the Coordinator will inform the customer of KPCo's approval of
8 the interconnection upon receipt of the executed interconnection agreement. If the
9 impact study determines the proposed generator will have a negative impact on the
10 distribution system, the Coordinator will inform the customer of the system
11 improvements or system modifications necessary to accommodate the proposed
12 generator and the estimated cost of such improvements or modifications.

13 If the customer wishes to proceed with the interconnection, the customer must pay
14 the estimated cost of the improvements or modifications. Once the improvements
15 or modifications are completed, the customer is informed that it has been
16 approved to interconnect the proposed generator upon receipt of the executed
17 interconnection agreement. Once the system improvements or modifications are
18 completed the customer will be refunded or billed the difference between the
19 estimated amount paid and the actual cost of the system improvements or
20 modifications. Prior to the first paralleling of the proposed generator, KPCo, at its
21 option, may inspect the generator and its interconnection system to verify the
22 equipment installed and witness the commissioning tests.

23 Q: Is the interconnection service KPCo offers based upon the IEEE Standard 1547?

1 A: Yes. AEP participated in the working group that developed IEEE Standard 1547
2 for Interconnecting Distributed Resources with Electric Power Systems. AEP
3 operating companies, including KPCo, but with the exception of the AEP Texas
4 Central Company and AEP Texas North Company, have adopted this IEEE
5 standard as the basis for their interconnection requirements. The State of Texas
6 requires the use of technical requirements that are similar to IEEE 1547.

7 Q: Do the process and procedures that would be used for interconnection of KPCo
8 customer generators represent best practices of interconnection for distributed
9 generation?

10 A: Yes. The process and procedures contain the basic elements found in practices
11 stipulated in the model code adopted by the National Association of State Utility
12 Regulatory Commissioners, including a method to expedite the interconnection of
13 small generators through the use of a screening process, a simplified application
14 for small generators, and a simplified interconnection agreement with reasonable
15 provisions. The process and procedures are overseen at an AEP System level to
16 insure that applicants are treated fairly, reasonably and non-preferentially.

17 Q: If the Commission were to establish a statewide standard, what should be
18 included at a minimum? What should be included as a maximum?

19 A: At a minimum the standard established should require each utility to use
20 interconnection processes and procedures that incorporate the IEEE 1547 standard
21 as the core of the technical requirements for interconnection. This approach
22 would allow each utility the flexibility to tailor its interconnection processes and
23 procedures to its unique situation. This flexibility would allow the utility to use

1 appropriate supplemental requirements and process differences to address
2 technical issues not covered by IEEE 1547 and harmonize interconnection with
3 other existing work processes and procedures. For example, KPCo could
4 continue to use the AEP interconnection processes and procedures that are
5 common to several state jurisdictions.

6 At a maximum the standard established should be based upon an informal process
7 facilitated by the Commission to establish uniform interconnection processes and
8 procedures in Kentucky that comply with Standard 15 of the Energy Policy Act of
9 2005.

10 Q: Does KPCo's current interconnection processes and procedures for
11 interconnection service comply with the Energy Policy Act of 2005?

12 A: Yes, the interconnection processes and procedures for interconnection service for
13 customer owned generators of 10 MVA or less proposing to interconnect to
14 distribution lines complies with the Energy Policy Act of 2005. Distribution lines
15 have voltage ranging from 120 volts up to and including 34,500 volts.

16 Q: Does KPCo have a program to take advantage of the generation owned by
17 customers with open transition switching?

18 A: Yes, a voluntary load curtailment program is in place. All AEP Operating
19 Companies request voluntary curtailment of customer demand during an extreme
20 emergency. For additional information please refer to Witness Roush's
21 testimony.

22 **VIII. Conclusion**

23 Q: Please summarize your testimony with respect to standard 15.

1 A: KPCo currently has processes and procedures in place to provide interconnection
2 service to its customers. Interconnection service to the distribution system is
3 based upon IEEE standard 1547. The interconnection process and procedures
4 used contain the basic elements found in practices stipulated in the model code
5 adopted by the National Association of State Utility Regulatory Commissioners.
6 The process and procedures are overseen at an AEP System level to insure that
7 applicants are treated fairly, reasonably and non-preferentially. Therefore, an
8 interconnection standard is already in place that complies with the requirements
9 of the Energy Policy Act of 2005.

10 KPCo and the other AEP Operating Companies have a voluntary load curtailment
11 program in place for a dire emergency.

12 Q: Does this conclude your pre-filed direct testimony?

13 A: Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

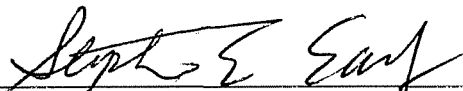
STATE OF OHIO

CASE NO. 2006-00045

COUNTY OF FRANKLIN

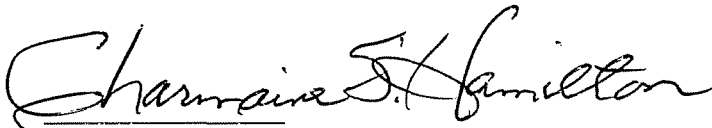
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Stephen E Early, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.



Stephen E Early

Subscribed and sworn to before me by Stephen E Early this 15th day of May 2006.



Notary Public

My Commission Expires _____



CHARMAINE S. HAMILTON
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES MAY 14, ~~2002~~

2007

COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

CONSIDERATION OF THE REQUIREMENTS)
FOR THE FEDERAL ENERGY POLICY ACT OF)
2005 REGARDING TIME-BASED METERING,) CASE NO. 2006-00045
DEMAND RESPONSE AND INTERCONNECTION)
SERVICE

DIRECT TESTIMONY AND EXHIBITS
OF DAVID M. ROUSH

May 18, 2006

**DIRECT TESTIMONY OF
DAVID M. ROUSH, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

CASE NO. 2006-00045

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**DIRECT TESTIMONY OF
DAVID M. ROUSH, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

1

I. INTRODUCTION

2 Q. Please state your name, business address, and position.

3 A. My name is David M. Roush. My business address is 1 Riverside Plaza,
4 Columbus, Ohio 43215. I am employed as a Manager - Regulated Pricing and
5 Analysis for American Electric Power Service Corporation (AEPSC), a wholly
6 owned subsidiary of American Electric Power Company, Inc. (AEP). AEP is the
7 parent company of Kentucky Power Company.

8

Background

9 Q. Please summarize your educational background and employment history.

10 A. I graduated from The Ohio State University (OSU) in 1989 with a Bachelor of
11 Science degree in mathematics with a computer and information science minor.
12 In 1999, I earned a Master of Business Administration degree from The
13 University of Dayton. I have completed both the EEI Electric Rate Fundamentals
14 and Advanced Courses. In 2003, I completed the AEP/OSU Strategic Leadership
15 Program.

16 In 1989, I joined AEPSC as a Rate Assistant. Since that time I have
17 progressed through various positions and was promoted to my current position of
18 Manager – Regulated Pricing and Analysis in July 2003. My responsibilities
19 include the preparation of cost-of-service and rate design analyses for the AEP

1 System operating companies, and the preparation of special contracts and pricing
2 for customers.

3 Q. Have you previously submitted testimony in any regulatory proceedings?

4 A. Yes. I have submitted testimony before the Public Service Commission of
5 Kentucky (Commission), Indiana Utility Regulatory Commission, Michigan
6 Public Service Commission, the Public Service Commission of West Virginia and
7 the Public Utilities Commission of Ohio regarding cost-of-service and rate design
8 related issues.

9 Q. For whom are you testifying in this proceeding?

10 A. I am testifying on behalf of Kentucky Power Company, which I will refer to
11 throughout my testimony either as KPCo, or as “the Company”.

Purpose of Testimony

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

13 A. The purpose of my testimony is to present the Company’s position and provide
14 information to the Commission to assist in its consideration of the requirements of
15 the Energy Policy Act of 2005 (EPAAct 2005), Subtitle E Section 1252, Smart
16 Metering which entails time-based metering and demand response.

List of Exhibits

17 Q. What exhibits are you sponsoring in this proceeding?

18 A. I am sponsoring the following exhibit:

19 Exhibit DMR-1 Time-based Metering/Demand Response Tariff Provisions

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II. EPACK 2005 SECTION 1252

Q. What is the requirement set forth in EPACK for Time-based Metering and Communications?

A. EPACK 2005 requires that:

“Not later than 18 months after the date of enactment of this paragraph, each electric utility shall offer each of its customer classes, and provide individual customer upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance, if any, in the utility’s costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology.”

This section of EPACK 2005 goes on to state:

“... each State regulatory authority shall, not later than 18 months after the date of enactment of this paragraph conduct an investigation in accordance with 115(i) and issue a decision whether it is appropriate to implement the standards set out in subparagraphs (A) and (C).”

Clearly, these standards are not mandatory. It is up to the Commission to determine whether or not it is appropriate for KPCo to implement the Time-based Metering and Communications standards contained in EPACK 2005.

Q. Does the Company currently provide electrical service through any time-based tariffs or provisions?

A. Yes. The Company currently offers a variety of time-based or time-differentiated tariffs as well as several load management options designed to encourage customers to reduce on-peak usage.

Q. Would you please describe the Company’s current tariff offerings that contain time-based pricing or load management provisions?

1 A. Exhibit DMR-1 summarizes the wide variety of tariffs that the Company offers
2 which contain time-based pricing or load management provisions. The provision
3 of service under at least one of these tariffs is available to the vast majority of the
4 Company's customers, whether they are residential, commercial or industrial
5 customers. As such, the Company believes that KPCo and the Commission have
6 substantially met the proposed standard and that the Commission should not
7 require any further action on behalf of the Company to implement the time-based
8 metering and communications standards of EPAct 2005.

9 Q. What level of customer participation in these time-based pricing and load
10 management provisions has the Company experienced?

11 A. While time based pricing or load management provision are available to most
12 KPCo customers, less than ½ of 1% of the Company's customers have elected to
13 take service under one of these provisions. As of April 2006, that includes 341
14 residential, 211 commercial and 18 industrial customers. While estimates of the
15 load shifted from on-peak periods to off-peak periods by customers taking service
16 under these provisions is not available, the annual total energy used by these
17 customers is approximately 9.4 million kWh for residential customers, 6.6 million
18 kWh for commercial customers and 2.3 billion kWh for industrial customers. It
19 should be noted that virtually all of the kWh identified as industrial above are for
20 KPCo's largest customers (7,500 kW and above) that must take service under
21 Tariff C.I.P.-T.O.D. which requires time-of-day demand metering. The amounts
22 of energy used by customers taking service under the Company's time based
23 pricing or load management provisions represents less than 0.5% of total

1 residential and commercial energy usage, but nearly 68% of total industrial
2 energy usage.

3 Q. Should the Commission require the Company to implement the EAct 2005
4 Time-based Metering and Communications standards?

5 A. No. It is apparent that for a number of reasons, at the current price level of the
6 Company's rates, most customers have decided that the economic rewards
7 associated with participating in the various time-based programs do not outweigh
8 the inconvenience or cost associated with changing their usage characteristics. It
9 is also very clear that the Company currently offers a variety of time-based
10 options for its customers and that any further action on this matter would not be
11 beneficial to the customers of KPCo.

12 III. ADDITIONAL QUESTIONS

13 Q. Please discuss smart meters.

14 A. The term smart meter has generally been used to describe metering which is
15 capable of two-way communication. A non-smart or standard meter refers to a
16 meter that is either not capable of communication or is only capable to
17 communicate in one direction, that is from the meter to the utility.

18 Q. Are smart meters necessary to implement time-based pricing programs?

19 A. No. All of the Company's tariffs and provisions identified in Exhibit DMR-1 are
20 possible using existing technology and standard metering.

21 Q. Should the Commission mandate the installation of smart meters for all KPCo
22 customers?

1 A. No. Smart metering should be installed where and when it makes sense on a cost
2 and benefit basis. There are a number of different approaches and technologies
3 for smart metering available from various vendors. No single smart metering
4 solution will work in all circumstances, and each solution must be evaluated
5 based upon its merits and the costs and benefits of that approach. The actual cost
6 of the meter may only be a small portion of the total costs, as items such as the
7 communications infrastructure and modifications of the Company's metering and
8 billing systems can be quite expensive.

9 Q. Of the time-based schedules set forth in EAct 2005, which would more likely
10 result in a shift of load from peak to off peak periods given the circumstances in
11 Kentucky?

12 A. It has been the Company's experience that providing credits to consumers with
13 large loads who enter into pre-established peak load reduction agreements has
14 been the most cost-effective approach to control the Company's peak load.
15 Significant amounts of load can be reduced both quickly and in an
16 administratively simple manner. These consumers generally tend to be more
17 sophisticated, having the capability to understand and implement energy
18 management solutions. They often have energy managers and compete in global
19 markets on a daily basis. As such, they are generally more willing to modify their
20 usage patterns to achieve cost savings.

21 Q. What is the difference between the Company's Residential Storage Water Heating
22 Provision and Load Management Water Heating Provision?

1 A. The Company first introduced the Residential Storage Water Heating Provision
2 that provided for the installation of one of three different sizes of storage water
3 heating tanks and established a monthly kWh value for each size of tank. The
4 customer paid a reduced (off-peak) rate for the established kWh amount. As the
5 Company gained experience with the tanks and the program, it found that the
6 tanks and program needed to be modified to improve customer satisfaction and
7 reflect the actual shift in usage achieved. As a result, the Company froze the
8 existing Storage Water Heating provision and replaced it with the Load
9 Management Water Heating Provision.

10 At that time, the Company did not consider it appropriate to require that
11 all Storage Water Heating Provision customers switch to the Load Management
12 Water Heating Provision, since their original decision regarding the installation
13 and sizing of the water heater was based upon the costs and benefits of the then
14 existing Storage Water Heating Provision. The Company's policy is that as
15 existing Storage Water Heating customers replace their old tanks, or a new
16 customer takes service at a residence with a storage water heater, they are being
17 moved to the newer Load Management Water Heating Provision. At this time,
18 there are only 26 customers remaining on the Storage Water Heating Provision.

19 Q. Is there any reasonable program that can be developed to take advantage of the
20 generation owned by open transition customers in case of a dire emergency?

21 A. Yes. The Company has always recognized the need for procedures during
22 emergency circumstances. Those procedures are outlined in the Company's
23 Capacity and Energy Control Program that is filed as part of KPCo's Schedule of

1 Tariffs, Terms and Conditions of Service. One step of those procedures is the use
2 of voluntary load curtailments by customers. By working with its customers, the
3 Company has identified large customers that are willing to voluntarily reduce load
4 when requested to do so in an emergency. This can include those customers that
5 can shed load, as seen by KPCo, by operating their backup or emergency
6 generators. The load reduction for these open transition customers is
7 accomplished by first isolating from the Company and then operating their
8 generators (“break before make”). These customers are individually contacted by
9 the Company’s customer service personnel during an emergency. However, as
10 with any equipment, there is no guarantee that the customer’s generator will
11 operate as expected. Additionally, the generator operation may be limited by
12 environmental requirements.

13 The Company also offers Emergency Curtailable Service. Customers
14 taking service under this provision would be called upon prior to voluntary load
15 curtailment requests. In exchange for committing to reduce load during an
16 emergency, the customer receives a payment for actual load reduced. To date, no
17 customers have elected to take service under this provision.

18 IV. CONCLUSION

19 Q. Would you please summarize your testimony?

20 A. KPCo currently offers a wide variety of tariffs that reflect time-based pricing
21 differentials and even with these offerings the Company is seeing minimal
22 customer interest in these voluntary programs. The Commission has complied
23 with a standard comparable to EPCAct 2005 by approving the Company’s existing

1 tariff offerings. Therefore, the Commission should not feel compelled to take any
2 further action with respect to KPCo regarding the implementation of the Time-
3 based Metering and Communications standards set out in EPAct 2005.

4 Q. Does this conclude your direct testimony?

5 A. Yes, it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

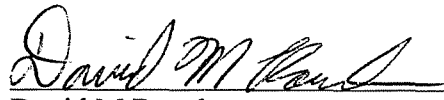
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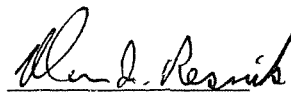
AFFIDAVIT

David M Roush, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.



David M Roush

Subscribed and sworn to before me by David M Roush this 12th day of May 2006.


Notary Public
MARVEN I. RESNIK, Attorney At Law
NOTARY PUBLIC - STATE OF OHIO
My Commission Expires
LIFE TIME COMMISSION

Kentucky Power Company
Time-based Metering/Demand Response Tariff Provisions

Exhibit DMR-1

<u>Tariff/Rider</u>	<u>Description of Service/Provision</u>
<u>Residential</u>	
Tariff RS	Storage/Load Management water heating
Tariff RS-LM-TOD	Load management time-of-day
Tariff RS-TOD	Time-of-day
<u>Commercial & Industrial</u>	
Tariff SGS	Load management time-of-day
Tariff MGS (formerly Tariff G.S.)	Recreational lighting Load management time-of-day
Tariff MGS-TOD	Time-of-day
Tariff LGS	Load management time-of-day
Tariff QP	Off-peak excess billing demand
Tariff CIP-TOD	Time-of-day billing demand
Tariff IRP/CS-IRP	Interruptible
Rider TEC/ECS	Emergency curtailable
Rider PCS	Price curtailable

Service Description

Storage/Load Management Water Heating - Available to customers who install a Company approved water heating system which consumes electrical energy during off-peak hours and stores hot water for use during on-peak hours.

Load Management Time-of-Day Service/Provision - Available to customers who use devices with time-differentiated load characteristics that consume energy only during off-peak hours and store energy for use during on-peak hours.

Time-of-Day Service - Optional tariff for customers that are capable and willing to consume electrical energy primarily during the Company's designated off-peak period to take advantage of the price differential between on-peak and off-peak

Recreational/Athletic Field Lighting Service - Available to customers for separately metered lighting of non-profit outdoor recreational facilities

Off-Peak Excess/ TOD Billing Demand - Available to customers who operate primarily during the off-peak period and request installation of time-of-day metering in order to take service under this provision. A reduced rate is applied to

Interruptible Service/TEC/ECS/PCS - Available to customers that are willing to reduce load upon request by the Company. Customer either receives a reduced