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MAR 23 2006

PUBLIC SERVICE
COMMISSION

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March 23, 2006

HAND DELIVERED

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Ms. Beth O'Donnell
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

RE: P.S.C. Administrative Case No. 2006-00045

Dear Ms. O'Donnell:

Enclosed please find an original and seven copies of Kentucky Power Company's Responses to the Staff's February 24, 2006 Data Requests. A copy of the Responses is being served on all parties of record.

Sincerely yours,

STITES & HARBISON PLLC

Mark R. Overstreet

cc: Parties of Record

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MAR 23 2006

**PUBLIC SERVICE
COMMISSION**

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,
DEMAND RESPONSE AND INTERCONNECTION
SERVICE**

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

**KENTUCKY POWER COMPANY RESPONSES TO
COMMISSION STAFF FIRST SET DATA REQUEST**

March 23, 2006

Kentucky Power Company

REQUEST

Provide a list of programs you offer at present or have offered at any time since the enactment of the Public Utilities and Regulatory Policies Act ("PURPA") that can be included under the definition of either time-based metering or demand response set forth in Section 1252 of EPAct 2005. Include a brief description of each program, the relevant tariffs (if applicable) and a cite to the Commission case number in which the program was approved (if applicable).

RESPONSE

The requested information is attached.

WITNESS: David M Roush

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

<u>Tariff/Rider</u>	<u>Description of Service/Provision</u>	<u>Currently in Effect</u>	<u>Commission Case</u>	<u>Order Date</u>
<u>Residential</u>				
Tariff RS	Storage water heating	X*	91-066	10/28/1991
	Load management water heating	X	91-066	10/28/1991
Tariff RS-LM-TOD	Load management time-of-day	X	7687	12/28/1979
Tariff RS-TOD	Time-of-day	X	7687	12/28/1979
<u>Commercial & Industrial</u>				
Tariff SGS	Load management time-of-day	X	9061	12/4/1984
Tariff MGS (formerly Tariff G.S.)	Recreational lighting	X	9061	12/4/1984
	Load management time-of-day	X	9061	12/4/1984
Tariff MGS-TOD	Time-of-day	X	91-066	10/28/1991
Tariff LGS	Load management time-of-day	X	91-066	10/28/1991
Tariff QP	Off-peak excess billing demand	X	91-066	10/28/1991
Tariff CIP-TOD	Time-of-day billing demand	X	8871	10/28/1983
Tariff IRP	Interruptible		8734	9/20/1983
Tariff CS-IRP	Interruptible	X	PSC Letter	6/22/1998
Rider TEC	Temporary emergency curtailable	X	98-345	7/7/1998
Rider ECS	Emergency curtailable	X	99-271	6/29/1999
Rider PCS	Price curtailable	X	99-271	6/29/1999

* Frozen provision available only to currently served customers

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. Customer receives reduced energy charge for fixed block of monthly kWh.

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. Customer is served under time-of-day energy charges

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 energy rates

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 either all off-peak demand or excess off-peak demands.

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

Kentucky Power Company

REQUEST

Provide a general discussion of the types of time-based metering or demand response programs that are possible using existing technologies and a specific discussion on which of these programs, if any, are feasible for current implementation in Kentucky.

RESPONSE

All of the Company's programs identified in response to question number 1 of this section are possible using existing technology. Please also see the Company's response to question number 3 of this section.

WITNESS: David M Roush

Kentucky Power Company

REQUEST

Provide, in narrative form, with all relevant calculations, workpapers and assumptions included, what you see as the potential impact of implementing the Smart Metering standard included in Section 1252 of EPAct in Kentucky. At a minimum, the response should address the costs of implementation, financial impact on the utility, who should bear the costs of implementation, and possible ratemaking and rate treatment issues.

RESPONSE

With the exception of commercial and industrial customers less than 10 kW and between 100 kVA and 1,000 kVA, Kentucky Power Company already meets this standard. For those customers, the Company's tariffs require the installation of Company approved energy storage devices with time-differentiated load characteristics in order to qualify for load management time-of-day service.

Should the PSC wish to implement a more generally available service for these customers, such offering should be optional. For the smaller customers (less than 10 kW), a virtually no-cost solution would be to remove the minimum size provision from the Company's Tariff MGS-TOD. For the larger customers (between 100 kVA and 1,000 kVA), an optional tariff provision could be introduced that is similar to the existing off-peak excess billing demand provision of the Company's Tariff QP. Any customer requesting service under such provision would be required to pay any difference in the cost of metering necessary for this service. All direct costs of implementation should be included in the cost of the service to the customer through up-front charges for up-front costs and through on-going charges for on-going costs.

In all instances, the capabilities of the Company's systems for metering and billing must be considered. Any program design that does not "work" with the capabilities of the Company's systems will likely be very expensive to implement. Such costs should be borne by the customers benefiting from that program.

WITNESS: David M Roush

Kentucky Power Company

REQUEST

Provide a general discussion of what you perceive to be the pros and cons of implementing a Smart Metering standard in Kentucky and the policy issues that you believe the Smart Metering standard presents for the Commission.

RESPONSE

There are many different approaches to implementation, from very low cost to extremely high cost. To the extent that Kentucky's current electric rates are very low, it is unlikely that many programs are cost effective or that many customers will utilize and benefit from programs. The Kentucky Public Service Commission should not mandate significant investments in programs and meters that will provide little or no benefits.

It is important to note that the standard's focus is on the utility's cost to generate or purchase at wholesale, and not on a wholesale market price. Kentucky customers take service at utility cost and not at market prices. Any price signals provided or demand response credits given should also reflect cost rather than market prices.

WITNESS: David M Roush

Kentucky Power Company

REQUEST

Provide, in narrative form, with all relevant calculations, workpapers and assumptions included, what you see as the potential impact of implementing the Interconnection standard included in Section 1254 of EPAct in Kentucky. At a minimum, the response should address the costs of implementation, financial impact on the utility, who should bear the costs of implementation, and possible ratemaking and rate treatment issues.

RESPONSE

AEP Operating Companies have a long history of cooperation with customers who desire to interconnect generators with the AEP System. AEP Operating Companies serve portions of eleven states and several of these states have interconnection rules in place. AEP Operating Companies have participated in interconnection rulemaking proceedings in the states of Indiana, Michigan, Texas, Ohio and Virginia and at the Federal Energy Regulatory Commission.

If Kentucky develops interconnection service rules based upon current best practices, the implementation cost for Kentucky Power Company should be small since AEP Operating Companies including Kentucky Power already have procedures and processes in place to support interconnection service.

Interconnection customers should be responsible for the costs associated with making interconnection service available since these customers derive the benefits of interconnection. These costs would include the company's cost to review and evaluate the customer's interconnection request, to perform any studies required to determine the impact of the proposed generator on the power system and to make any system changes or upgrades required to accommodate the proposed generator interconnection.

WITNESS: Stephen E Early

Kentucky Power Company

REQUEST

Provide a general discussion of what you perceive to be the pros and cons of implementing an Interconnection standard in Kentucky and the policy issues that you believe the Interconnection standard presents for the Commission. Include discussion of the issues that must be addressed to comply with IEEE 1547.

RESPONSE

Kentucky Power Company customers have not expressed much interest in interconnection. Very few inquiries have been received. Development of an interconnection standard in Kentucky will require devoting time and expense where there does not appear to be much interest. Kentucky Power Company has an interconnection process and procedures in place to handle future inquiries and applications.

Implementation of an interconnection standard in Kentucky could potentially improve some customers' access to information regarding the interconnection process and procedures and provide customers who may desire to interconnect at locations in more than one Kentucky utility's service area more uniform interconnection processes and procedures.

AEP was involved in the development of the IEEE 1547 and 1547.1 standards. AEP continues to be involved in the development of other standards in the 1547 family of standards. AEP Operating Companies including Kentucky Power use the IEEE 1547 standard as the basis of their technical requirements for interconnection of small generators to the distribution system except in Texas. Texas requires the use of their own technical requirements that are similar to IEEE 1547.

IEEE 1547 has several limitations and some of these limitations will need to be addressed if Kentucky develops an interconnection standard. IEEE 1547 is limited to generators having an aggregate capacity of 10 MVA and below at the point of common coupling interconnecting at typical primary and secondary voltage levels, i.e. typically 34.5 kV and below. Also IEEE 1547 does not cover interconnection to secondary network systems and a number of other technical issues such as impact on the utility's over current protection system, the penetration limit for interconnected generators on a circuit or portion of a circuit, redundancy, acceptable methods to meet the requirements stated in 1547 and the dynamic character of the distribution system where loads can increase or decrease and the circuit configuration can change.

If Kentucky develops an interconnection standard, many details necessary for an efficient, quality interconnection process will need to be developed since IEEE 1547 covers only certain technical requirements. AEP stands ready to assist by sharing our experience of participating in interconnection rulemaking proceedings in the states of Indiana, Michigan, Texas, Ohio and Virginia and at the Federal Energy Regulatory Commission.

WITNESS: Stephen E Early

Kentucky Power Company

REQUEST

Identify any customer with on-site generation that is currently connected to your distribution system. Provide the customer's maximum demand in 2005 and current generating capacity.

RESPONSE

The only customer-generator that is connected in parallel to the Company's distribution system is a kW solar generator at Paul Blazer High School in Ashland. The school's peak demand is kW

WITNESS: David M Roush