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July 9, 2010

**HAND DELIVERED**

R. Benjamin Crittenden  
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rcrittenden@stites.com

Jeff R. Derouen  
Executive Director  
Public Service Commission  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, Kentucky 40602-0615

**RECEIVED**

JUL 09 2010

**PUBLIC SERVICE  
COMMISSION**

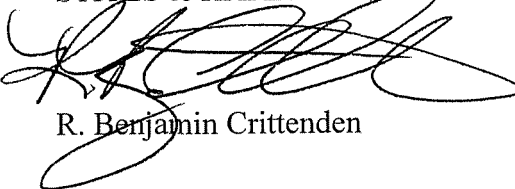
Re: P.S.C. Case No. 2010-00198

Dear Mr. Derouen:

Enclosed please find and accept for filing an original and ten (10) copies of Kentucky Power Company's responses to the Commission Staff's First Set of Data Requests.

Very truly yours,

STITES & HARBISON, PLLC



R. Benjamin Crittenden

RBC/las

Enclosure

cc: Dennis G. Howard, II

COMMONWEALTH OF KENTUCKY  
BEFORE THE  
PUBLIC SERVICE COMMISSION OF KENTUCKY

**RECEIVED**

JUL 09 2010

**PUBLIC SERVICE  
COMMISSION**

IN THE MATTER OF

In the Matter of

Joint Application Pursuant to 1994 House Bill No. 501 for the )  
Approval of Kentucky Power Company Collaborative )  
Demand-Side Management Programs and For Authority to )  
Recover Costs, Net Loss Revenues and Receive Incentives ) Case No. 2010-00198  
Associated with the Implementation of One New Residential, )  
One Combined Residential/Commercial and Two Commercial )  
Demand-Side Management Programs beginning January 1, 2010)

KENTUCKY POWER COMPANY RESPONSES TO  
COMMISSION STAFF FIRST SET OF DATA REQUESTS

July 9, 2010

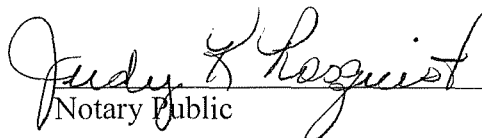
VERIFICATION

COMMONWEALTH OF KENTUCKY )  
COUNTY OF FRANKLIN ) CASE NO. 2010-00198

The undersigned, **Errol Wagner**, being duly sworn, states he is the Director of Regulatory Services for Kentucky Power Company, that he has personal knowledge of the matters set forth in the Data Responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

  
ERROL K. WAGNER

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 9<sup>th</sup> day of July 2010.

 (SEAL)  
Notary Public

My Commission Expires:

January 23, 2013



## Kentucky Power Company

### REQUEST

Refer to the Application, Item 1, Part 3-Participation Goals. Provide an estimate of participants by the incentive programs listed in Part 6 for each year indicated.

### RESPONSE

Listed below is an annual estimate of prescriptive and custom measure participants. Based on customer response and third party contractor recommendations, a direct install option may be implemented to increase program participation levels.

<u>Year</u>	<u>Prescriptive Measures</u>	<u>Custom Measures</u>	<u>Direct Install</u>
2010	7	-	-
2011	78	10	-
2012	153	19	-

**WITNESS:** Errol K Wagner



## Kentucky Power Company

### REQUEST

Refer to the Application, Item 1, Part 6-Incentives, Direct Install. In the second paragraph, Kentucky Power describes a "simple payback" method.

- a. State whether the incentives in this part of the program are to be paid back by the customer and, if so, what is the incentive paid directly to the customer.
- b. Kentucky Power states that "the total incentive per project can not exceed \$20,000 annually." State whether there is a limit per customer and the amount.

### RESPONSE

- a. Incentive payments would not be made to a customer until the project is approved by the Company, and inspected by the Company or its program implementation contractor following the completion of the project.
- b. The \$20,000 per customer account cap will help insure that a few, large projects do not consume the entire budget allotment for the program. If a single customer elects to pursue multiple projects at different sites with different accounts, that customer would be eligible for incentives up to the \$20,000 per account. The Company believes that providing incentives for multiple projects will encourage customers to expand energy efficiency improvements and measures to other sites within Kentucky Power's service territory and maximize energy savings from this program.

Based on program participation levels and budgetary expenditures, the Company may increase the customer account cap for large commercial customers to maximize energy savings.

WITNESS: Errol K Wagner





## Kentucky Power Company

### REQUEST

Refer to the Application, Item 1, Part 7-Implementation Plan.

- a. State whether Kentucky Power has started the bidding process for the program implementation contractor. If so, provide a copy of the Request for Proposal.
- b. In the second paragraph, Kentucky Power refers to outreach activities. Provide a description of the activities anticipated to be used to market the program.
- c. In the sixth paragraph, Kentucky Power indicates that it will implement post-installation inspections and documentation review.
  - (1) What will be the frequency of these inspections and reviews and will they cover the entire payback period of the project?
  - (2) If savings and incentives are modified downward, explain how Kentucky Power anticipates recouping incentives already paid.

### RESPONSE

- a. KPCo has not started the bidding process for the program implementation contractor.
- b. Once a program implementation contractor is selected and contractor-based marketing activities and abilities have been fully identified, Kentucky Power will assess the need for additional customer outreach activities, such as website content and direct mail initiatives, that may be necessary to properly and effectively market the program.
- c. (1) The projects will be inspected once only. The inspections by the Company's contractor will occur at the completion of the project by the customer or its contractor.

(2) As part of the program process, the customer will submit an initial application to the Company related to the project that will include, among other things, estimated energy and demand savings. The purpose of the initial application is to (1) ensure the project meets the requirements of the program and (2) reserve funding in the program for the customer. Based on the program incentive guidelines, the customer will have an estimate of possible incentive payment based on the initial application. However, since incentive payments are not issued to the customer until after the project is completed and the post inspection performed, there will not be a need to recoup any incentives. Incentives will be based on the final approved application and post inspection results.

WITNESS: Errol K. Wagner



**Kentucky Power Company**

**REQUEST**

Refer to the Application, Item 2, Part 3-Participation Goals. Is Kentucky Power prepared to offer this program to more customers if interest exceeds expectations?

**RESPONSE**

The decision whether to consider expanding the program has not yet been made. The Company intends to collect sufficient load data for a full winter and summer season, at a minimum, to prepare an analysis of the program. A full evaluation report is planned to be completed during the first half of 2012. The report will be filed with the semi-annual DSM Status Report in August 2012. If the results of the cost-effectiveness tests are favorable, the DSM Collaborative may request Commission approval to expand the program at that time.

**WITNESS:** Errol K. Wagner



## Kentucky Power Company

### REQUEST

Refer to the Application, Item 2, Part 5-Incentives. In the second paragraph, Kentucky Power states that the program will not be available to customers in areas where communication infrastructure is not available.

- a. Explain what is meant by "necessary communication infrastructure."
- b. State whether Kentucky Power has knowledge of those affected areas or if that will only be determined at the delivery point identified in Part B-Delivery.
- c. If Kentucky Power knows the areas affected, will its marketing of the program be limited to only those areas known to have the necessary communication infrastructure?

### RESPONSE

- a. In the event of a direct load control event, the third party implementation contractor will use existing telecommunication equipment, such as a paging network to transmit the signal to switch the load cycling device on the customer's equipment. In some areas, due to mountainous terrain and possible limitations or unavailability of existing telecommunication equipment, some customers may be unable to receive the load control signal.

Program implementation contractors will be required to assess the adequacy of communications facilities in connection with each prospective application.

- b. KPCo is unaware of the location of affected areas. Those areas, if any, will be identified by the third party program implementation contractor.
- c. Once an affected area is identified, the Company will not actively market the program to those areas.

WITNESS: Errol K Wagner



## Kentucky Power Company

### REQUEST

The Application does not include a proposed revision to Kentucky Power's Demand-Side Management tariff and makes no mention of cost recovery. If the company is not planning to initiate recovery upon the implementation of the two proposed programs in August 2010, when does Kentucky Power plan to do so?

### RESPONSE

Dependent upon the Commission's approval of the two new proposed DSM programs, the Collaborative anticipates to begin incurring costs associated with the two new programs on or about October 1, 2010. Cost recovery is anticipated to begin on or about October 1, 2010. The cost recovery time table coincides with the required semi-annual status report of the DSM Collaborative which will be filed with the Commission on or about August 15, 2010. The August 15, 2010 filing will contain a proposed revision to the Kentucky Power Company's DSM Tariff which will reflect the calculation of costs associated with the two new DSM programs being requested in this application, as well as the other three new programs being requested in Case No. 2010-00095 and the other DSM programs previously approved by the Commission.

WITNESS: Errol K Wagner





## Kentucky Power Company

### REQUEST

Provide the calculations, spreadsheets, or other work papers used to derive the expected savings and benefits and benefit/cost ratios associated with each of the proposed programs.

### RESPONSE

There were no expected savings or benefits or benefit/cost ratios calculated for the Pilot Residential and Commercial Load Management Program.

The calculations used to derive the expected savings and benefits and benefit/cost ratios for the Commercial Incentive Program are included on the attached CD. To determine the program cost as filed, we calculated the cost per MWH avoided ratio from the RFI, then adjusted for using internal marketing and evaluation costs (see "Program Costs" sheet).

WITNESS: Errol K Wagner



**Kentucky Power Company**

**REQUEST**

Provide the assumptions, calculations, schedules or other work papers used to derive the annual budgets for each of the proposed programs.

**RESPONSE**

Attached are the assumptions, calculations or other work papers used to derive the annual budgets for each of the proposed programs. The only schedules referred to were the "Timelines" included in the Application for each of the proposed program.

**WITNESS:** Errol K Wagner

## Calculations of Annual Budget

### Commercial Incentive Program

Kentucky Power issued an RFI to potential implementation vendors to assist with the estimation of program costs. The results of the RFI were then used, along with other Company-derived information and input, to prepare the final estimates. The calculation of the estimates of the various components is described in more detail below.

#### Customer Incentives

RFI responses from two program implementation vendors recommended an average incentive payment of \$0.11/kWh. Because the incentive payment is a variable cost that does not depend on the scale of the program, it was applied to the estimated energy savings for each year to estimate the annual total customer incentive costs:

Year 1: Total Annual kWh Energy Savings of 406,798 kWh x \$0.11/kWh = \$ 44,748

Year 2: Total Annual kWh Energy Savings of 5,114,032 kWh x \$0.11/kWh = \$ 562,544

Year 3: Total Annual kWh Energy Savings of 9,995,608 kWh x \$0.11/kWh = \$1,099,517

#### Contractor Administration Costs

The estimate from the vendors for the contractor administration costs ranged from 22% to 24% of the total 3-year budget cost. The administration costs include a large fixed cost component; therefore it was not practical to estimate program administration costs on a straight ratio basis when reducing program scale.

Instead, the Company discussed administration costs for a smaller scale program with implementation vendors. They suggested that administration costs would likely be at least 50% of the first year budget cost to account for program start-up during a partial calendar year. KPSC assumed a contractor administration cost of about 56% (\$98,450) of the first year program budget (\$176,198). The first year of the program will only cover a few months of 2010, and significant upfront work will need to be completed by the selected contractor to build the trade ally network, finalize program design, develop forms, applications and marketing collateral, and other requirements to launch the program.

For years 2 and 3, which represent full calendar years, the provided contractor administration cost percents were adjusted slightly upwards, based on vendor recommendations, to ~ 26.5% (\$236,268 and \$461,796, respectively) of the total budget cost (\$896,152 and \$1,728,483, respectively).

Program Promotion Costs

The vendor-supplied estimate of the promotion costs for a three-year program was approximately 6% of the total budget cost. Based upon input from the AEPSC Marketing Department that estimate was adjusted slightly higher. Higher promotion cost percentages are expected for the first year for start up. Annual Costs of flat fees of \$25,000 for Year 1, \$60,000 for Year 2 and \$98,960 for Year 3, totaling \$183,960, was approximately 6.5% of the total program budget cost (\$2,800,833).

Program Evaluation Costs

The total evaluation cost (\$113,550) for all three program years was estimated to be approximately 4% of the total 3-year budget cost (\$2,800,833), which was allocated for each of the three program years. The majority of the evaluation costs was allocated to years 2 and 3. A budgetary estimate of the evaluation costs from one vendor for the three-year program was 3.6% of the total budget cost. KPSC increased the percent of evaluation costs to 4% to cover costs for follow-up surveys in years 2 and 3 that were not in the RFI proposals.

### Calculations of Annual Budget

#### Pilot Residential and Commercial Load Management Program

KPCo issued an RFI to potential implementation vendors to derive estimated program costs. The various components of the total cost, as well as the expected portion of the cost realized in each year were based on the total expected cost.

#### Material and Installation Costs - Residential

RFI responses from the three implementation vendors are as follows:

Vendor	Material	Installation	Total
Vendor #1	\$350,000	\$75,000	\$425,000
Vendor #2	\$425,000	\$150,000	\$575,000
Vendor #3	\$340,000	\$167,000	\$507,000
Average	\$371,667	\$130,667	\$502,334
Average Cost Per 1000 Participants (C)	\$372.00	\$131.00	\$503.00

Our expected participation levels as filed are:

Year	Participants (P)	Materials (C <sub>materials</sub> * P)	Installation (C <sub>Installation</sub> * P)
2010	25	\$9,300	\$3,275
2011	475	\$176,700	\$62,225
2012	500	\$186,000	\$65,500

#### Material and Installation Costs - Commercial

RFI responses from the three implementation vendors are as follows:

Vendor	Material	Installation	Total
Vendor #1	\$35,000	\$7,500	\$42,500
Vendor #2	\$71,500	\$15,000	\$86,500
Vendor #3	\$34,000	\$17,100	\$51,100
Average	\$46,834	\$13,200	\$60,034
Average Cost Per 1000 Participants (C)	\$469.00	\$132.00	\$601.00

Our expected participation levels as filed are:

Year	Participants (P)	Materials (C <sub>materials</sub> * P)	Installation (C <sub>installation</sub> * P)
2010	10	\$4,690	\$1,320
2011	45	\$21,105	\$5,940
2012	45	\$21,105	\$5,940

Administration Costs - Both

RFI responses from the three implementation vendors are as follows:

Vendor	Software Licensing	Admin	Management	Total
Vendor #1	\$158,400	\$7,500	\$60,000	\$225,900
Vendor #2	\$36,250	\$21,750	\$224,000	\$282,000
Vendor #3	\$0	\$117,280	\$46,200	\$163,480
Average	\$97,325	\$48,843	\$110,067	\$256,235

Combined Costs<sup>1</sup>

RFI responses from the three implementation vendors are as follows:

Year	Residential (~90% of total)	Commercial (~10% of total)	Total
2010 <sup>2</sup>	\$115,305	\$12,810	\$128,115
2011	\$230,610	\$25,625	\$256,235
2012	\$230,610	\$25,625	\$256,235
Total	\$576,525	\$64,060	\$640,585

<sup>1</sup>First year admin costs for Residential and Commercial include projected start-up costs.

<sup>2</sup>Year 2010 uses 50% of Average Contractor Costs for 2011 and 2012.



Participant Incentives - Residential

Assumption: \$5/month for Air Conditioner Switch and \$1/month for Water Heater Switch

Year	P	Inc <sub>AC</sub>	Inc <sub>WH</sub>	Months <sub>AC</sub>	Months <sub>WH</sub>	Annual Incentive	Cumulative Incentive
2010	25	\$5	\$1	0	3	\$75	\$75
2011	475	\$5	\$1	4	8	\$13,300	\$14,000
2012	500	\$5	\$1	4	8	\$14,000	\$28,000
<b>Total</b>	<b>1000</b>					<b>\$27,375</b>	<b>\$42,075</b>

Participant Incentives - Commercial

Assumption: \$5/month for Air Conditioner Switch and \$1/month for Water Heater Switch

Year	P	Inc <sub>AC</sub>	Inc <sub>WH</sub>	Months <sub>AC</sub>	Months <sub>WH</sub>	Annual Incentive	Cumulative Incentive
2010	10	\$5	\$1	0	3	\$30	\$30
2011	45	\$5	\$1	4	8	\$1,260	\$1,540
2012	45	\$5	\$1	4	8	\$1,260	\$2,800
<b>Total</b>	<b>100</b>					<b>\$2,550</b>	<b>\$4,370</b>

Switch Maintenance Costs - Residential

Assumption: Annual Cost @ 2% of Annual Equipment + Equipment Installation Costs (Approx.)

Year	Rate	Cost	Total Cost
2010	2%	\$12,575	\$250
2011	2%	\$238,925	\$4,780
2012	2%	\$251,500	\$5,030

Switch Maintenance Costs - Commercial

Assumption: Annual Cost @ 2% of Annual Equipment + Equipment Installation Costs (Approx.)

Year	Rate	Cost	Total Cost
2010	2%	\$6,010	\$120
2011	2%	\$27,045	\$540
2012	2%	\$27,045	\$540

Program Promotion Costs

Assumption: Annual Costs of flat fees of \$15,000 for Year 1 and \$35,000 for Years 2 and 3 for Residential Marketing  
Annual Costs of flat fees of \$1,000 for Year 1 and \$3,000 for Years 2 and 3 for Commercial Marketing

Program Evaluation Costs

Assumption: Total evaluation costs for all three program years (\$72,250) for the proposed Residential and Commercial goals were estimated to be approximately 5% of the total 3-year budget cost (\$1,353,390 w/o evaluation costs), plus additional costs for a follow-up survey (\$5,000). The total evaluation costs were allocated to the Residential and Commercial goals for each of the three program years, with a majority of the evaluation costs allocated to years 2 and 3.