

COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION OF KENTUCKY

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APR 27 2012

PUBLIC SERVICE
COMMISSION

IN THE MATTER OF

APPLICATION OF KENTUCKY POWER COMPANY)
FOR COLLABORATIVE DEMAND-SIDE MANAGEMENT)
PROGRAMS AND FOR AUTHORITY TO IMPLEMENT)
A TARIFF TO RECOVER COSTS AND NET LOST)
REVENUES AND RECEIVE INCENTIVES ASSOCIATED)
WITH THE IMPLEMENTATION OF THE KENTUCKY)
POWER COMPANY COLLABORATIVE DEMAND-SIDE)
MANAGEMENT PROGRAMS)

CASE NO.
2012-00051

KENTUCKY POWER COMPANY RESPONSES TO
COMMISSION STAFF'S SECOND SET OF DATA REQUESTS

April 27, 2012

Kentucky Power Company

REQUEST

Refer to the Demand-Side Management (“DSM”) Collaborative Status Report (“2011 Status Report”), page 8. Provide the names of the vendors who received the \$9,222 for Total Evaluation and \$435,286 for Equipment/Vendor.

RESPONSE

American Electric Power Service Corporation energy efficiency/demand response analytics team (AEPSC EE/DR) received \$9,222 in Evaluation costs.

[REDACTED] was the vendor who received \$435,286 in Equipment/Vendor costs. Confidential treatment is being sought for this information.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 9. Provide the names of the vendors who received the \$12,236 for Total Evaluation and \$33,050 for Equipment/Vendor.

RESPONSE

AEPSA EE/DR received \$12,236 in Evaluation costs. A list of the vendors who received portions of the \$33,050 in Equipment/Vendor costs is listed on page 2 & 3 of this response.

WITNESS: E J Clayton

Vendor Names

Adams Heating
Air Concepts Htg & Cooling
Aire Serv
All Temp Htg
American Htg. & Cool
App. Refrigeration
Appalachian Appliance
Ar-tron Htg & Clg
Ashland Furnace
B & B Htg & Cooling
Barnett Plumbing & Htg
Big Sandy Htg
Blanton Htg & Clg
Bobby Howard & Sons
Breathitt Mechanical
Breeding's Plbg & Elec
Burchett's Htg & Clg
C & H Htg
Cadco Htg & Cooling
Castle Heating
Clays Htg & Cool
Clay's Htg & Cooling
CNC Services
Coleman Htg
Comfort Zone Htg Cooling
Cox Commercial
Cullop Htg & Cl'g
Damron Htg & Cooling
David Pike
Delta Supply Htg & Clg
Dickie Banks
Donnie Martin
East Hills Htg & Cooling
Elite Comfort HVAC
Elliott Supply
Eric Campbell
Fannin's Plumbin & Htg
G & W Heating
General Htg
Generation Htg & Air
Grayson Mechanical
Greg Clark
Hattons Htg & Cool
HCE Systems Inc.
Heaberlin HVAC
HELP AC & Htg
Howard Htg & Air
Huff Htg & Cooling
Imperial Htg & Cooling
Jack Dean
James Adames

KB HVAC
KY Wide Htg & Cool
LeMaster Inc
Long Branch Htg & Air-Grayson
Maggard Htg & Cooling
Marco Htg & Cooling
Mooney's HVAC & Ref., Inc
Patterson Repair
Popes Htg
Pratt's Htg & Cooling
Quality A/C & Htg
Randy Suttles Gen Con
Rickey Barnett
Roe Mechanical, LLC
Ron Hughes
Roosevelts Htg & Clg
Roy's Elect Repair
Scurlock
Slones Heating
Smith Htg Clg & Elec
Thompson Htg & Cool
Tri-Cities Air
Tri-County Htg & Cooling
Tri-State
Webb's Htg & Cooling
Williams Elec
Yoders Heating & Cooling

Kentucky Power Company

REQUEST

Refer to the Status Report, page 10. Provide the names of the vendors who received the \$9,609.60 for Total Evaluation, \$47,412.48 for Equipment/Vendor, \$2,383.38 for Promotional, and \$109.14 for Administration.

RESPONSE

AEpsc EE/DR received \$9,609.60 in Evaluation costs.

Niagara Conservation received most of the \$47,412.48 in Equipment/Vendor costs. AEP/KPCo stores overhead expense and state sales tax for CFLs are also included with Equipment/Vendor cost.

A list of the vendors who received portions of the \$2,383.38 in Promotional costs is as follows:

- Big Sandy News/Tri-Rivers Advertiser
- The Independent
- The Mountain Citizen
- Leslie Co News
- Jackson Times
- Floyd Co Times

Hampton Inn received \$109.14 in Administration costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 11. Provide the names of the vendors who received the \$6,082 for Total Evaluation, \$11,913.00 for Equipment/Vendor, \$3,000 for Education Workshops, and \$3,000 for Administration.

RESPONSE

AEPSC EE/DR received \$6,082 in Evaluation costs.

AM Conservation Group received most of the \$11,913.00 in Equipment/Vendor costs. AEP/KPCo stores overhead expense for CFLs is also included with Equipment/Vendor cost.

National Energy Education Development (NEED) Project Inc. received \$3,000 in Education Workshops costs and \$3,000 in Administration costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 12. Provide the names of the vendors who received the \$4,756 for Total Evaluation, \$45,350 for Equipment/Vendor, and \$4,818 for Promotional.

RESPONSE

Applied Energy Group, Inc. received \$4,756 in Evaluation costs.

A list of the vendors who received portions of the \$45,350 in Equipment/Vendor costs is as follows:

Vendor Names

Aire Serv
American Htg & Clg
Appalachian Refrigeration
Ashland Furnace
Big Sandy Htg.
Bobby Howard
Breathitt Mechanical
Breeding's Plumbing and Electric
Burchett's Htg & Clg
C&H Heating
Cadco Heating & Cooling
Cox commerical
Delta Supply
Elliot Supply
General Htg & Clg
HELP AC & Htg
KY Wide Htg & Clg
Patterson Repair Ser
Scurlock Htg. & Clg
Webb's Htg & Clg

Kentucky Press Service received \$4,818 in Promotional costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 13.

- a. Provide the names of the vendors who received the \$8,793 for Total Evaluations and \$94,705 for Equipment/Vendor.
- b. Explain whether any or all of the evaluation costs have been recovered in previous filings.

RESPONSE

- a. Applied Energy Group, Inc. received \$8,793 in Evaluation costs and Consert, Inc. received \$94,705 in Equipment/Vendor costs.
- b. These evaluation costs have not been recovered with previous DSM filings.

WITNESS: E J Clayton


Kentucky Power Company

REQUEST

Refer to the Status Report, page 14. Provide the names of the vendors who received the \$6,068 for Total Evaluation and \$173,712 for Equipment/Vendor.

RESPONSE

Applied Energy Group, Inc. received \$6,068 in Evaluation costs.

 Inc. received \$173,712 in Equipment/Vendor costs. Confidential treatment is being sought for this information.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report page 18. Provide the names of the vendors who received the \$4,100 for Total Evaluation, \$7,300 for Equipment/Vendor, and \$4,818 for Promotional.

RESPONSE

Applied Energy Group, Inc. received \$4,100 in Evaluation costs.

A list of the vendors who received portions of the \$7,300 in Equipment/Vendor costs is as follows:

Vendor Names

Aire Serv
App. Refrige
Ashland Furnace
Bobby Howard
Breathitt Mechanical
Breeding's Plumbing and Electric

Kentucky Press Service received \$4,818 in Promotional costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 19. Provide the names of the vendors who received the \$3,815 for Total Evaluation and \$10,500 for Equipment/Vendor.

RESPONSE

Applied Energy Group, Inc. received \$3,815 in Evaluation costs and Consert, Inc. received \$10,500 in Equipment/Vendor costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 20. Provide the names of the vendors who received the \$4,780 for Total Evaluation, \$1,150 for Equipment/Vendor, and \$9,636 for Promotional.

RESPONSE

Applied Energy Group, Inc. received \$4,780 in Evaluation costs.

A list of the vendors who received portions of the \$1,150 in Equipment/Vendor costs is as follows:

- Appalachian Heating and Cooling
- Breathitt Mechanical
- Buckner HVAC
- Cadco Heating and Cooling
- Elliot Supply
- Howard Heating and Cooling
- Kentucky Wide Heating and Cooling
- Yoder's Heating and Cooling

Kentucky Press Service received \$9,636 in Promotional costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the Status Report, page 21. Provide the names of the vendors who received the \$17,189 for Total Evaluation and \$ 9,294 for Promotional.

RESPONSE

Applied Energy Group, Inc. received \$17,189 in Evaluation costs and Kentucky Press Service received \$9,294 in Promotional costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Commission Staff's First Request for Information ("Staffs First Request"), Item 6.b.

- a. Explain whether 12/31/2010 PTD Summer Demand 1,058 kW should be 12/31/2010 PTD Summer Demand Savings 1,058 kW.
- b. Refer to the DSM Collaborative Status Report ("2010 Status Report") of the Application ("Application"), page 23, in Case No 2011-00055.¹ For the calendar year 2010, Kentucky Power realized 1,200 new participants with peak-demand reductions of 211 kW for Summer and 669 kW for Winter. For the calendar year 2011, Kentucky Power realized 1,201 new participants with peak-demand reductions of negative 40 kW for Summer and 320 kW for Winter. Explain the reasons for the material change in kW savings when the number of new participants remained almost the same for each year.

¹Case No. 2011-00055, Joint Application Pursuant to 1994 House Bill No. 501 for Approval of Kentucky Power Company Collaborative Demand-Side Management Programs, and for Authority to Implement a Tariff to Recover Costs, Net Lost Revenues and Receive Incentives Associated with the Implementation of the Kentucky Power Company Collaborative Demand-Side Management Programs (Ky. PSC May 25, 2011).

RESPONSE

- a. Yes. The reference should be 12/31/2010 PTD Summer Demand Savings 1,058 kW.

b. The 2010 status report impact values were based upon a program evaluation performed in 2008. The 2011 status report numbers were based on a program evaluation performed in 2011. Determination of actual demand savings would require expensive interval metering on every participant therefore the demand savings values are an estimate. The 2011 evaluation employed a different methodology for determining demand impact savings than was used in the 2008 evaluation. Net savings achieved from the program were determined through a billing analysis which compared the pre/post usage changes of the program participants to the same period usage changes of a selected similar group of nonparticipants. The demand impacts were then estimated by expanding monthly energy changes to daily values, then applying an hourly load profile to the daily energy changes to determine the expected demand change coincident with the Company peak demand. The material change in demand savings is likely due to a combination of variations in program participant usage in combination with a change in the methodology used for estimating demand impacts. A program impact evaluation is scheduled for completion June 30, 2013, and will be filed with the DSM status report August 15, 2013.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 7. In the 2010 Status Report, for the calendar year 2010, Kentucky Power realized 252 new resistance participants and 509 new non-resistance participants with peak-demand reductions of 133 kW for Summer and 1,062 kW for Winter. For the calendar year 2011, Kentucky Power realized 275 new resistance participants and 406 new non-resistance participants with peak-demand reductions of negative 52 kW for Summer and 425 kW for Winter. Explain the reasons for the change in kW between the two years when the number of new resistance participants increased by 23 (275-252) and the new nonresistance's decreased by 103 (406-509).

RESPONSE

The 2010 status report values were based upon a program evaluation performed in 2008. The 2011 status report numbers were based on a program evaluation performed in 2011. Determination of actual demand savings would require expensive interval metering on every participant, therefore demand savings values are an estimate. The 2011 evaluation employed a different methodology for determining demand savings than was used in the 2008 evaluation. Net savings achieved from the program were determined through a billing analysis which compared the pre/post usage changes of the program participants to the same period usage changes of a selected similar group of nonparticipants. The demand impacts were then estimated by expanding monthly energy changes to daily values, then applying an hourly load profile to the daily energy changes to determine the expected demand change coincident with the Company peak demand. The billing analysis showed that significant savings were achieved in winter, but that energy usage was overall slightly increased in the summer, thus leading to the conclusion that demand was also likely increased in summer. The Program is primarily focused on providing savings in the winter, when the Company faces the highest peak load requirements. The program includes replacement of resistance heat with a high efficiency heat pump. Since a heat pump provides both heating and cooling, in some cases the customer obtains the benefit of cooling and increased comfort, but that also translates into increased summer usage. The increased percentage of resistance heat participants means a higher percentage of participants added air conditioning, thus contributing to the summer kW savings differences.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 8.

- a. Explain whether the \$94,500 for fixed-vendor expense for project management is the expense fixed for each participant, or the expense fixed for the entire program no matter how many participants, or a fixed expense of \$13,500 per month, during the May-through-November time period, for the duration of the program.
- b. Explain whether it is Kentucky Power's expectation that the installed equipment cost per-participant will be approximately \$205 going forward.
- c. Kentucky Power stated in Item 8.a. that "Consert, Inc. was paid \$94,705. The amount includes \$94,500 for fixed vendor expense for project management (May through November) and \$205 for equipment installed for one residential customer." Refer to the 2011 Status Report of this Application ("Application"), page 13. It shows two A/C Switches participants and one Water Heater SW participant through November 2011. Provide an explanation of the differences in customer participation.

RESPONSE

- a. The expense is a monthly fee of \$13,500 for vendor project management services.
- b. In 2012, installation of two device controllers (HVAC and water heating) and a programmable communicating thermostat (PCT) is \$265 per participant.
- c. The Company files booked expenses for DSM recovery. The vendor submitted one invoice for 2011 equipment cost representing one customer installation. An installation fee of \$75 is also charged per customer premise but was not invoiced in 2011 by the vendor.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 9. Provide an explanation of why the evaluation cost-effectiveness increased from \$4,100 in 2011 to \$10,230 in 2012, or a 149.5 percent $((\$10,230 - \$4,100) / \$4,100)$ increase.

RESPONSE

The 2011 evaluation budget reflects only work performed in November and December of 2011 (two months). The 2012 evaluation budget reflects work performed from January through July of 2012 (seven months). The time spent on evaluation activities and the duration of the evaluation account for the budget differential by year. Further, evaluation tasks are not linear in terms of effort or cost.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 10.b.

- a. If there were no participants, explain what the vendor managed for the \$10,500 fee.
- b. Explain the basis for the fee.
- c. If there was no participation in the program, explain what the vendor evaluated for the \$3,815 payment.

RESPONSE

- a. Vendor fees for program administration include but are not limited to setup of utility and customer web portals, program manager staffing, evaluation of cellular coverage area, recruiting and training installers, development of forms and reports, customer applications and process development, required equipment testing, IT development of customer billing and data analysis.
- b. The allocation of fixed monthly expense for vendor project management is based on projected enrollment (1,000 residential and 100 commercial) as proposed with the original program filing from 2010 and is administered with approximately 90% allocation to residential and 10% allocation to commercial customers.
- c. Even though there was no participation in the program, the EMV contractor evaluated the structure of the program, documentation, and processes for participation. This evaluation included the development of key researchable issues, the development of a program logic model, the evaluation of program structure, interviews with contractors to determine their role and processes, and the development of an evaluation plan for the program.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 11.a. Provide a breakdown between air conditioner and heat pump participants, along with the amount of each incentive, to equate to the total \$1,050 air conditioner incentives and the total \$6,900 heat pump incentives.

RESPONSE

Incentives for each central air conditioner meeting the CEE (Consortium for Energy Efficiency) specifications include \$250 for a unit less than 36,000 Btu/h and \$400 for a unit greater than 36,000 Btu/h. Incentives for each central heat pump meeting the CEE specifications include \$300 for a unit less than 36,000 Btu/h and \$450 for a unit greater than 36,000 Btu/h.

Air conditioner - small unit(s) 1 - \$250
Air conditioner - large unit(s) 2 - \$800
Total 3 - \$1,050

Heat pumps - small unit(s) 14 - \$4,200
Heat pumps - large unit(s) 6 - \$2,700
Total 20 - \$6,900

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 12.

- a. Provide the names of the vendors that received the payments which totaled \$168,297.98 for labor and \$27,244.83 for expenses.
- b. Explain whether the \$13,208.64 for education, which was comprised of meetings with trade groups and individual customers, was performed by an outside vendor, Kentucky Power, or an American Electric Power employee.
- c. Kentucky Power states, "[t]he administrative costs are about 70% for start-up and 30% for normal operations of the program." Explain whether it is referencing the \$123,169.05 Administration costs in Kentucky Power's response to Staff's First Request, Item 12, page 2 of 3 of the table.
- d. Kentucky Power states, "[a]ll of the direct install (DI) and IT costs are in the program start-up costs." Explain whether Kentucky Power is stating the DI and IT costs are one-time costs, or would DI and IT costs continue to be in DSM filings going forward from this filing.
- e. Kentucky Power states, "[t]he program has certain fixed costs associated with the program." Provide an explanation of these fixed costs and whether these costs are one-time costs, or will these fixed costs be reoccurring costs regardless of the number of participants.

RESPONSE

- a. KEMA Services, Inc. received the payments which totaled \$168,297.98 for labor and \$27,244.83 for expenses.
- b. KEMA Services, Inc. was also the vendor for the educational meetings.

- c. The 70% for start-up and 30% for normal operations ratio is comprised of the vendor labor represented by administration costs (\$108,860.43) included with Kentucky Power's response to Staff's First Request, Item 12, plus the costs associated with direct install (DI \$1,716.75) and information technology (IT \$29,100.10). Therefore, Kentucky Power was referencing a total cost of administration + direct install (DI) + information technology (IT) = \$139,677.28. The start-up costs include database set-up, application development, measure development, and work papers. They also include travel for meetings and presentations.
- d. The start-up costs for DI and IT are not one-time costs. They are higher for start-up since funding is needed to develop documents, databases and many other basic items needed to successfully launch the program. There will always be some IT for program updates and any changes that might come during the program life. The DI costs shown were mostly for start-up documents. There will be other costs going forward but not for the same items. Once we begin to realize participation in the DI program, costs will move from start-up to normal operations.
- e. The fixed costs are for items that need to be in place for program implementation. These include work papers, application, and database. These are all needed before Kentucky Power can accept the first application. The work papers are needed to develop the deemed savings values. This information is then used to establish incentive levels for the measures. Once these are established, KEMA can design the application and other necessary materials for the program.

While the program is operating, many of these items may require periodic updating during program implementation, but such costs will be less over time. For example, KEMA establishes the incentive levels based on many inputs including the local cost of material. If the cost of material changes, it may be necessary to update the incentive levels. When this occurs, updates to the application, to the measure tables in the database, and to some of the marketing materials may be required. However, such costs should be minimal when compared with the initial start-up costs.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 13. Provide the names of the vendors who performed these evaluations and who received the amounts listed in the Company's response.

RESPONSE

AEPSC EE/DR provided the evaluations and was paid the total evaluation cost of \$69,924 for the programs referenced in Item 13.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 14. Provide the names of the vendors who performed these evaluations and who received the amounts listed in the Company's response.

RESPONSE

The evaluations referenced were performed by one program vendor, Applied Energy Group, Inc.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 16. Explain what fixed expenses are associated with the implementation of the Specialty Bulbs and LED Lights program.

RESPONSE

Expenses associated with the implementation of the Specialty Bulbs and LED lights programs include but are not limited to the following activities:

- Development of marketing plan;
- Development of marketing materials and handouts;
- Printing costs associated with marketing material; and
- Time allocated to events promoting these products.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 19.

- a. Explain whether the Total Residential Program Expense of \$103,498 is divided equally between the air conditioner program and the water heating program.
- b. Explain whether it would be more appropriate to allocate the \$103,498 based on the number of appliances, i.e. 60 percent to the air conditioners and 40 percent to the water heaters and, if not, provide an explanation of what would be appropriate.
- c. Explain whether the average air conditioner participant cost of \$8,624.83 is reasonable and cost-effective for six participants.
- d. Explain whether the average water heater participant cost of \$12,937.25 is reasonable and cost-effective for four participants.

RESPONSE

- a. The expense is divided equally representing vendors services for program administration and program evaluation.
- b. These expenses are administrative services required for program implementation and are considered independent of program participation. Therefore, it would not be appropriate to allocate these expenses based on the number of appliances.
- c-d. The evaluation of the pilot program, which is scheduled to be filed August 15, 2012, will provide recommendations on the cost-effectiveness of the program.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Refer to the response to Staff's First Request, Item 20. Explain what type of costs the EMV contractor incurred for implementation and evaluation of the program even when there are no participants.

RESPONSE

The EMV contractor incurred costs to develop key researchable issues, develop a program logic model, evaluate the program structure, interview program staff and contractors, and develop an evaluation plan. Please see the response to Item No. 16c for additional information.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

- a. Explain how DSM programs can have fixed expenses even though there are no participants.
- b. Explain what determines if a program cost is fixed for a DSM program.
- c. Explain the frequency at which fixed program costs are charged to a DSM program, for example, monthly or quarterly.

RESPONSE

- a. Specific DSM program activities including the development of marketing plans and materials, hiring of contractors, development of program processes and structure, ensuring procedures and systems are developed to track participation, costs and savings, and purchasing equipment are a fixed cost and independent of program participation. These fixed program costs can occur before a program is launched or in the very early stages of a program. After a program is launched an evaluation can occur to determine if a program was deployed effectively.
- b. Program costs are fixed if they are independent of program participation. These costs include program administration, development of a tracking and reporting system, marketing, and evaluation. The costs are independent of participation because these activities occur either before a program is released to the public, in an effort to drive participation, or after a program is launched to evaluate it.
- c. The frequency of fixed cost charges is dependent on the type of fixed cost, program structure, and when the cost is incurred. In general, the fixed costs are charged on an ongoing monthly basis.

WITNESS: E J Clayton

Kentucky Power Company

REQUEST

Explain whether there have been any changes to Kentucky Power's DSM Collaborative, and if so, provide any changes.

RESPONSE

There have been no changes to the DSM collaborative members referenced in the response to Item No. 40 of the First Set of Data Requests in Case No. 2011-00300.

WITNESS: E J Clayton