

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION PURSUANT TO 1994	)	
HOUSE BILL NO. 501 FOR APPROVAL	)	
OF KENTUCKY POWER COMPANY	)	
COLLABORATIVE DEMAND-SIDE	)	
MANAGEMENT PROGRAMS, AND FOR	)	
AUTHORITY TO RECOVER COSTS,	)	CASE NO. 2008-00349
NET LOST REVENUES AND RECEIVE	)	
INCENTIVES ASSOCIATED WITH	)	
IMPLEMENTATION OF THREE NEW	)	
RESIDENTIAL DEMAND-SIDE	)	
MANAGEMENT PROGRAMS BEGINNING	)	
JANUARY 1, 2009	)	

O R D E R

On August 25, 2008, American Electric Power d/b/a Kentucky Power Company (“Kentucky Power”), on behalf of its Demand-Side Management (“DSM”) Collaborative,<sup>1</sup> applied for approval of three new residential DSM programs: (1) High-Efficiency Heat Pump; (2) Energy Education for Students; and (3) Community Outreach Compact Fluorescent Lighting. Kentucky Power seeks to implement these programs for a three-year period from 2009 through 2011. Kentucky Power also requests recovery of costs, including net lost revenues and incentives related to the proposed programs.

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<sup>1</sup> The DSM Collaborative includes Kentucky Power, the Attorney General, Kentuckians for the Commonwealth, Big Sandy Area Development District, Northeast Kentucky Area Development Council, Kentucky Tech Northeast Region, Christian Appalachian Project, Department for Energy Development and Independence, Coleman Oil, Cedar Knoll Galleria, Kentucky Industrial Utility Customers, Big Sandy Area Community Action Program, LKLP–Community Action Council, Middle Kentucky River Area Development Council, Appalachian Regional Defense Fund, and Appalachian Service Project.

## HIGH-EFFICIENCY HEAT PUMP PROGRAM

The High-Efficiency Heat Pump Program will offer financial incentives to customers living in site-built homes who upgrade from a less efficient electric heating and cooling system to a new high-efficiency heat pump. The program is designed to reduce residential energy consumption by retiring older inefficient heating and cooling systems and replacing them with high-efficiency heat pumps. It is expected to lower bills for residential customers while allowing Kentucky Power to manage its existing generating capacity more efficiently. It may allow Kentucky Power to defer plans to construct new generation facilities as well as conserve natural resources.

Eligible customers would include residential customers who use or plan to install an electric central heating and cooling system. Dealers who install high-efficiency heat pumps are also eligible for a financial incentive. A \$400 incentive will be offered to qualifying customers who are replacing an electric resistance heating system with a high-efficiency heat pump unit with SEER equal to or greater than 13 and HSPF equal to or greater than 7.7. Customers who are upgrading from a heat pump to an ultra-high efficiency heat pump with a SEER equal to or greater than 14 and HSPF equal to or greater than 8.2 also qualify for these incentives. In both cases, the participating HVAC dealer will qualify for a \$50 incentive.

The proposed annual budget for program incentives is \$45,000 in 2009 and will increase to \$90,000 in 2010 and 2011. Promotional costs will be \$8,000 each year. Program evaluations are expected to cost \$7,000 in years 2010 and 2011. Total costs are expected to be \$53,000 in 2009, \$105,000 in 2010, and \$105,000 in 2011.

Kentucky Power provided a Cost/Benefit Analysis based on the best available information available at the time of the program design. The Total Resource Cost Test yielded a 2.64 ratio, the Ratepayer Impact Measure ratio was 1.59, the Participant Test resulted in a ratio of 1.93, and the Utility Cost Test resulted in a 5.40 ratio. All these results are positive and indicate that the proposed High-Efficiency Heat Pump Program should be cost-effective.

#### ENERGY EDUCATION FOR STUDENTS PROGRAM

Kentucky Power proposes to partner with the National Energy Education Development Project ("NEED") to implement an energy education program at participating middle schools throughout its service territory. This program will be made available to all seventh grade students at participating schools. Kentucky Power's participation goal is 1,200 students in 2009; 1,700 students in 2010; and 2,000 students in 2011.

NEED staff will conduct workshops on a scheduled basis to ensure that all participating schools are provided the same opportunity during the calendar year. Materials on energy, electricity, environment, and economics will be provided along with a package of four 23-watt compact fluorescent lamps ("CFL") to every participating student. Providing the CFLs for students to directly install in their homes allows the students to study the capabilities and benefits of the CFLs and also offers direct savings from the program. NEED will assist Kentucky Power in recruiting and supplying participating middle schools within its service territory.

The proposed annual budget for program development and administration is \$4,000 in 2009 and \$3,000 in 2010 and 2011. Promotional costs will be \$1,000 each

year. Workshops are expected to cost \$5,000 per year. The CFLs are expected to cost \$12,000 in 2009, \$17,000 in 2010, and \$20,000 in 2011. Evaluations will be performed in 2010 and 2011 and are expected to cost \$5,000 each year.

Cost/Benefit Analysis results based on the best information available at the time of the program design were provided in Kentucky Power's application. The Total Resource Cost Test yielded an 11.21 ratio, the Ratepayer Impact Measure ratio was 2.84, the Participant Test resulted in a ratio of 29.31, and the Utility Cost Test resulted in a 21.64 ratio. All these results are positive and indicate that the proposed Energy Education for Students Program is expected to be cost-effective.

#### COMMUNITY OUTREACH COMPACT FLUORESCENT LIGHTING PROGRAM

This program is designed to promote the use of compact fluorescent lighting in customers' homes. A package of four 23-watt CFLs will be provided to residential retail customers attending Kentucky Power-sponsored community outreach activities. Participation goals are 3,500 customers in 2009 and 4,000 customers in 2010 and 2011.

Kentucky Power will assess participant satisfaction through survey responses from residential customers receiving the CFLs. Kentucky Power will study the characteristics of the customers utilizing the CFLs and attempt to determine how likely it is that the customers will install the CFLs. Kentucky Power intends to determine the energy savings (kWh), demand reduction (kW) and the potential program value to participants associated with the CFL program. Kentucky Power will assess the cost-effectiveness and the effectiveness of the delivery mechanism used to implement the CFL program to determine possible future program modification.

The budget for the CFL program is \$40,200 in 2009, \$53,900 in 2010, and \$54,000 in 2011. The expected costs for the CFL's are approximately \$10 per participating home, for a total of \$35,000 in 2009 and \$40,000 in 2010 and 2011. Promotional expenses are projected to be \$3,200 in 2009, \$3,900 in 2010, and \$4,000 in 2011. Administration expenses are projected to be \$2,000 per year. Evaluation costs are projected to be \$8,000 in 2010 and in 2011.

Cost/Benefit Analysis results based on the best information available at the time of the program design were provided in Kentucky Power's application. The Total Resource Cost Test yielded a 13.05 ratio; the Ratepayer Impact Measure ratio was 3.05; the Participant Test resulted in a ratio of 29.05; and the Utility Cost Test resulted in a 30.08 ratio. All these results are positive and indicate that the proposed CFL Program is expected to be cost effective.

Kentucky Power is expected to file its semi-annual status report on its DSM programs on or about February 15, 2009. This filing will contain a proposed revision to the existing DSM tariff which will reflect the costs, lost revenues, and incentives associated with the programs discussed above, as well as other programs approved by the Commission.

#### SUMMARY

Based on the evidence of record and being otherwise sufficiently advised, the Commission finds that:

1. Kentucky Power has sufficiently justified its request to implement the proposed DSM programs.

2. Kentucky Power will file proposed revisions to its residential DSM with its semi-annual status report on its DSM programs to reflect the recovery of the costs associated with its DSM programs.

IT IS THEREFORE ORDERED that:


1. Kentucky Power's request to implement the new DSM programs described in this order is approved.

2. Kentucky Power shall file a revised residential DSM tariff that includes the costs of the new DSM programs with its next semi-annual status report on its DSM programs.

Done at Frankfort, Kentucky, this 24<sup>th</sup> day of February, 2009.

By the Commission

ATTEST:

  
Executive Director

Errol K Wagner  
Director Regulatory Services  
American Electric Power  
101A Enterprise Drive  
P. O. Box 5190  
Frankfort, KY 40602