EAST KENTUCKY POWER COOPERATIVE

RECEIVED
APR 30 2008
PUBLIC SERVICE COMMISSION

April 30, 2008

HAND DELIVERED

CASE NO: 2008-00161

Ms. Stephanie L. Stumbo
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

Re: East Kentucky Power Cooperative, Inc., Direct Load Control Program

Dear Ms. Stumbo:

Please find enclosed for filing with the Commission an original and ten copies of the Application of East Kentucky Power Cooperative, Inc. ("EKPC"), for approval of a Demand-Side Management permanent Direct Load Control program for its Member Systems. EKPC is making this filing pursuant to KRS §278.285.

If you have any questions about this filing, please contact me at EKPC headquarters.

Very truly yours,

Charles A. Lile
Corporate Counsel

Enclosures

4775 Lexington Road 40391
P.O. Box 707, Winchester,
Kentucky 40392-0707

Tel. (859) 744-4812
Fax: (859) 744-6008
http://www.ekpc.coop

A Touchstone Energy Cooperative

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A PERMANENT DEMAND-SIDE MANAGEMENT DIRECT LOAD CONTROL PROGRAM	)))))	**CASE NO. 2008-00161**

APPLICATION

1. Applicant, East Kentucky Power Cooperative, Inc., hereinafter referred to as "EKPC", Post Office Box 707, 4775 Lexington Road, Winchester, Kentucky 40392-0707, hereby files this Application for authority to implement a permanent demand-side management ("DSM") direct load control ("DLC") program for its Member Systems. The proposed program is a result of the success of the pilot program conducted in 2006 and 2007 for the direct load control of water heaters and air conditioning at Blue Grass Energy Cooperative Corporation, and for water heaters at Big Sandy Rural Electric Cooperative Corporation, which was approved by the Public Service Commission (the "Commission") in PSC Case No. 2006-00048.

2. This Application is made pursuant to KRS §278.285, and related statues.

3. A copy of Applicant's restated Articles of Incorporation and all amendments thereto were filed with the Commission in PSC Case No. 90-197, the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct Certain Steam Service Facilities in Mason County, Kentucky.

4. Attached as Application Exhibit I is the Prepared Testimony of James C. Lamb, EKPC Senior Vice President of Power Supply, which explains the background and development of the proposed program. Attached to Mr. Lamb's testimony are Exhibit JCL-1, a report of the results of the Direct Load Control Pilot Program that was submitted to the Commission in December 2007; Exhibit JCL-2, a cost-benefit analysis supporting the proposed permanent DLC project; Exhibit JCL-3, which includes information responding to the specific requirements of KRS §278.285; Exhibit JCL-4, the EKPC Board Resolution approving the filing of a permanent direct load control program; and Exhibit JCL-5, the proposed Tariff Sheet for the permanent DLC program.

5. EKPC is not proposing to recover the costs of this program through the implementation of a demand side management surcharge at this time, but reserves the right to seek recovery of such costs in a future general rate case.

WHEREFORE, EKPC respectfully requests the Commission to approve its proposed permanent direct load control Program.

Respectfully submitted,

DAVID A. SMART

CHARLES A. LILE

ATTORNEYS FOR EAST KENTUCKY
POWER COOPERATIVE, INC.
P. O. BOX 707
WINCHESTER, KY 40392-0707

COMMONWEALTH OF KENTUCKY

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DIRECT TESTIMONY OF JAMES C. LAMB ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Q. Please state your name, business address and occupation.

A. My name is James C. Lamb, East Kentucky Power Cooperative (EKPC), 4775 Lexington Road, Winchester, Kentucky 40391. I am Senior Vice President of Power Supply for EKPC.

Q. Please state your education and professional experience.

A. I have a B.S. in Economics and Management from Centre College, Danville, KY, and an MBA from the University of Kentucky. My career began at the St. Louis Federal Reserve Bank as a research analyst. In 1981, I joined EKPC as a load forecaster. During my time at EKPC, I have worked in System Planning, Energy Control, and Market Research.

Q. Please provide a brief description of your duties at EKPC.

A. As Senior Vice President of Power Supply, I am responsible for a number of different functions at EKPC, including, Resource Planning, Fuel and Emissions,

Pricing, Transmission Planning, Power Supply Operations, and Contingency Planning.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide a description of the project, the reasons for the filing, to support and explain the cost-benefit analysis associated with the project and to provide information responding to the specific requirements of KRS §278.285.

Q. Are you sponsoring any exhibits?

A. Yes. I am sponsoring Exhibit JCL-1, a report of the Direct Load Control Pilot program that was submitted to the Commission in December 2007; Exhibit JCL-2, the cost-benefit analysis supporting the project; Exhibit JCL-3, information responding to the specific requirements of KRS §278.285; Exhibit JCL-4, the Board Resolution approving the filing of a permanent direct load control program; and Exhibit JCL-5, the proposed Tariff Sheet for the program.

Q. Will you please provide the background of the decision leading to this filing?

A. Yes. In January 2006, EKPC filed for approval of a pilot program for the direct load control of water heaters and air conditioning. Two of EKPC's Member Systems, Blue Grass Energy and Big Sandy RECC participated. The Pilot was approved and the direct load control program was implemented in the summer of 2006. The Pilot continued through September 30, 2007, and in December 2007 EKPC submitted the results of the Pilot. Exhibit JCL-1 contains the report submitted to the Public Service Commission.

Q. What were the major findings of the Pilot?

A. The Pilot provided important information about the cost and performance of residential direct load control in the EKPC service territory. The most significant result was that the direct load control of both water heaters and air conditioners will result in a reduction in peak demand. As indicated in the report, in the summer of 2007, for example, it was determined that a reduction in peak demand of 1.1 KW per air conditioning unit occurred. A full-scale program, as envisioned and projected for EKPC, would lead to a reduction of about 50 MW. The direct load control of water heaters also resulted in peak demand reductions. In the winter of 2007, the reduction was 0.59 KW per appliance and the reduction was 0.46 KW per appliance in the summer of 2007. In addition, EKPC had a high level of customer satisfaction, as measured by customer retention in the program. These findings are an indication that a permanent program is warranted.

Q. Has EKPC conducted a benefit-cost analysis of the proposed project?

A. Yes. Exhibit JCL-2 provides the summary of the benefit-cost analysis, key assumptions and the detailed support analysis. The major benefit of the program is its ability to defer the need to procure additional generating capacity to meet peak load and reserve requirements. These benefits accrue to all ratepayers. As indicated in the exhibit, the expected benefit-cost ratio for the Total Resource Cost Test (TRC) is 2.33, which is a very favorable result. The TRC is the most telling of the California DSM tests and a positive benefit-cost ratio is extremely important in determining the efficacy of the proposed project. The key assumptions used in the benefit-cost analysis are also contained in Exhibit JCL-2.

EKPC used conservative estimates of the peak reduction per appliance for the purpose of determining the cost-effectiveness of the program. The results of the benefit-cost analysis, coupled with the success of the Pilot program, led to the request for approval of a permanent program.

Q. Will the permanent direct load control program mirror the pilot program?

A. Yes, in large measure. For example, EKPC intends to use GoodCents Solutions (GoodCents) to administer the direct load control program. GoodCents did an excellent job during the pilot program and they are very familiar with direct load programs throughout Kentucky as a result of having served as the primary coordinator of E.ON's seven-year program. As in the pilot, GoodCents will be responsible for enrollment, installation and measurement and verification functions. In addition, they will be responsible for all customer contact on an on-going basis.

Q. Will EKPC continue to use the two-way AMR System for load control switches as was used at Big Sandy or Blue Grass?

A. As its primary communication system, EKPC will be using a radio frequency system or a "paging" system that will enable EKPC to reach more homes throughout the entire system. This system employs a one-way commercial paging (VHF – 152 MHz) message to activate devices connected to the participating customers' appliances. The two-way AMR technology will serve as the secondary alternative for situations where it provides superior performance. The two-way AMR systems in place at Blue Grass Energy and Big Sandy RECC will be utilized for those pilot participants that move into the permanent program.

Q. Will the on-peak time period remain the same as in the pilot?

A. Yes. For October through April, the periods are 6:00 a.m. to Noon and 4:00 p.m. to 10:00 p.m. and for May through September it is 10:00 a.m. to 10:00 p.m.

Q. What is the anticipated method of recruitment?

A. Much like the pilot, EKPC will initially use the direct mail method to inform participants.

Q. Will the form of incentive change?

A. Yes. EKPC intends to offer the option of a digital thermostat or an incentive payment. As in the pilot, the annual incentive payment will be $20 for each air conditioner being controlled by a switch (paid in $5 per month bill credits during the months of June through September) and $10 for each electric water heater.

Q. Why is EKPC offering a choice of an incentive payment or a programmable thermostat?

A. EKPC has been closely monitoring the E.ON direct load control program and has observed and learned that customers are more often opting for the thermostat option. It allows residential customers to potentially lower their energy usage over extended periods of time in addition to the reduction in peak demand from direct load control. Much like the Member Systems' "Button-Up" and "Tune-Up" energy efficiency programs, use of the programmable features on the thermostat can lead to more effective use of electricity. With choice, however, those customers that are interested in the bill credit option will retain that alternative.

Q. What is the proposed effective date of the program?

A. EKPC is requesting that the program become effective on June 1, 2008. This will enable EKPC and its Member Systems to begin marketing efforts for enrollment in early June and to begin direct load control activity for the peak summer months.

Q. Will the pilot program participants be eligible to take advantage of the permanent program?

A. Pilot program participants from Blue Grass Energy and Big Sandy RECC will be offered an opportunity to simply continue in the permanent program.

Q. Has EKPC addressed the specific filing requirements set forth in KRS §278.285?

A. Yes. Exhibit JCL-3 provides the response pertaining to the four specific sections of KRS §278.285. As indicated in the exhibit, EKPC intends to defer the request for recovery of the costs of the program and any lost energy revenues until the next base rate case.

Q. What is the anticipated level of participation and costs of the program?

A. EKPC's marketing efforts will be geared to achieving a participation rate of 9,000 customers per year for the next 5 years. This will result in a total participation level of at least 45,000 residences contributing a total of 50,000 air conditioners and 27,000 water heaters. With this level of participation, EKPC estimates that the program will require an annual budget in the range of $4 to $5 million for each of the next five years. Assuming that peak load reductions occur in a manner similar to the pilot, EKPC will be able to defer the need for

Combustion Turbine by that point in time Exhibit JCL-2 provides details about the anticipated costs of the program.

Q. Has the EKPC Board of Directors approved this filing?

A. Yes. Exhibit JCL-4 is a copy of the Board Resolution.

Q. Has EKPC prepared a Tariff Sheet for the proposed program?

A. Yes. Exhibit JCL-5 includes the proposed tariff sheet.

Q. Does this conclude your testimony?

A. Yes, it does.

COMMONWEALTH OF KENTUCKY

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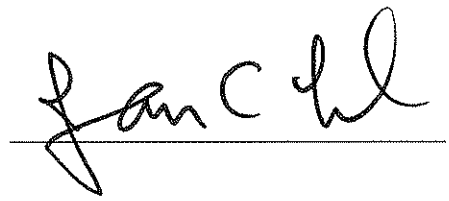
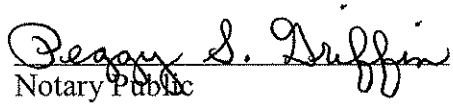
AFFIDAVIT

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

James C. Lamb, being duly sworn, states that he has read the foregoing prepared testimony and that he would respond in the same manner to the questions if so asked upon taking the stand, and that the matters and things set forth therein are true and correct to the best of his knowledge, information and belief.



Subscribed and sworn before me on this 29th day of April, 2008.



Notary Public

My Commission expires: December 8, 2009

Exhibit JCL-1

2007-00553

EAST KENTUCKY POWER COOPERATIVE

December 20, 2007

RECEIVED
DEC 20 2007
PUBLIC SERVICE COMMISSION

Ms. Beth O'Donnell
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, Kentucky 40601

Dear Ms. O'Donnell:

Re: East Kentucky Power Cooperative, Inc ("EKPC") - Section DSM-3 Rate Schedule Report Outlining the Results of the Direct Load Control of Water Heaters and Air-Conditioners Demonstration Project

Pursuant to the requirements set forth in East Kentucky Power Cooperative, Inc.'s Section DSM-3 tariff, Direct Load Control of Water Heaters Program and Direct Load Control of Air-Conditioners Program, attached are an original and six copies of the report outlining the results of this demonstration project.

In addition, based on the results herein, EKPC is requesting by separate filing a resumption of this program until a permanent program is approved by the Commission.

If you have any questions concerning this filing, or if additional information is required, please contact me or Bill Bosta at EKPC headquarters.

Very truly yours,

Charles A. Lile
Senior Corporate Counsel

c: Dan Brewer - Blue Grass Energy
Bobby Sexton - Big Sandy RECC
Bill Bosta - EKPC

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INTRODUCTION

In accordance with the Commission's Order of April 18, 2007 approving East Kentucky Power Cooperative's (EKPC) Request for a determination of a new demand-side management program, direct load control of water heaters and air conditioners, EKPC hereby submits its report of the results of the pilot DSM Program. This report consists of the following sections:

I. Description of Project
II. Results
III. Impact of the Weather
IV. Customer Satisfaction
V. Cost of Project
VI. Potential Impact of Full-Scale Program

I. DESCRIPTION of PROJECT

In January 2006, EKPC filed with the Kentucky Public Service Commission (PSC) a proposal to implement a demonstration project for the Direct Load Control of Water Heaters and Air Conditioners. Big Sandy RECC and Blue Grass Energy agreed to participate in a pilot program to determine whether the direct load control of air conditioners and water heaters (40 gallon minimum) would be a beneficial demand-side management program for the entire EKPC system. In April 2006, the Commission approved EKPC's application and authorized EKPC to proceed with the pilot program.

Following Commission approval, enrollment efforts for Blue Grass Energy began promptly in April 2006. The direct mail method was used as the means of communication, with potential customers receiving a letter from the CEO describing the demonstration project, the incentive, the terms and conditions of participation and other related information. A follow-up letter was sent in May 2006. Results were excellent. A total of 473 switches were installed on central air conditioning or heat pump units, and 244 switches were installed on electric water heaters. Installation work for the Blue Grass Energy participants was completed in July 2006.

Big Sandy RECC's enrollment process began in July 2006. The direct mail method was used for Big Sandy RECC as well. A reminder letter was mailed in August 2006 to potential customers. A total of 142 switches were installed on electric water heaters in the Big Sandy service territory. Installation work for the Big Sandy RECC participants was completed in October 2006.

The demonstration project covered two summers for air conditioning and 12-months for water heaters. The project was completed in September 2007.

EKPC and the participating member systems used a third party, GoodCents Solutions, located in Loganville, Georgia, to perform the enrollment, installation, and measurement & verification (M&V) functions during the demonstration project. GoodCents Solutions

is a privately owned energy management company that provides residential and small-commercial demand response and energy efficiency programs to investor-owned, municipal, and cooperative utilities across North America. GoodCents has completed over 1,000,000 installations of load control devices for its utility clients. GoodCents has extensive experience with both large and small load management programs. It has successfully run load management programs for Louisville Gas & Electric, Cinergy, Flint Energies, Southern California Edison, Georgia Power, Commonwealth Edison, Ontario Hydro One, and Toronto Hydro.

In addition to the load control switches, GoodCents gathered end-use metered summer water heater data from 23 customers during the period of June 2006 through September 2006 and June 2007 through September 2007. Also, GoodCents gathered end-use metered winter water heater data from 24 customers during the period of November 2006 to March 2007. GoodCents gathered end-use metered air-conditioning data from 28 customers during the summer period of June through September of 2006 and June through September of 2007. This information was used in formulating the results of the project.

One of the key objectives of the program was to determine how DLC would perform in a field test before committing to a full-scale implementation.

Key measurements include (1) average demand reduction per switch, (2) the impact of weather on air conditioner and water heater load relief, (3) customer satisfaction, and (4) the potential impact of a full-scale program.

II. Results

Based on the load research information gathered during the study period, the demand reduction for both air conditioning and water heaters was significant.

In October 2007, GoodCents Solutions delivered its final report on measurement and verification results for the DLC demonstration project. Load impacts were reported in terms of kilowatts per water heater and per air conditioner. During the first summer of the pilot, for example, air conditioners were cycled using a 33% cycling strategy. The air conditioner compressor was not allowed to run for one out of every three 7 ½ minute intervals during the control period. In the summer of 2007, EKPC used a 50% cycling strategy. The air conditioner compressor ran every 7 ½ minute interval out of 15 minutes during the control period. The difference in the peak demand reduction was significant. As shown in Table 1, the 50% cycling approach resulted in a 1.1 KW reduction per appliance compared to a 0.60 KW reduction with 33% cycling. As indicated in the Customer Satisfaction section below, there was virtually no dissatisfaction with air conditioning comfort level during the study periods.

The demand reduction for water heater interruptions is also depicted in Table 1. As shown in the table, the demand reduction was 0.46 KW per appliance in the summer and 0.59 KW per appliance in the winter. The interruption of water heaters consisted of 4-

hour control during the on-peak period. This process was used for both the summer and the winter periods.

Table 1

Appliance	Summer Peak Savings per Unit (kW per appliance)	Winter Peak Savings per Unit (kW per appliance)
Central Air Conditioner Summer 2006 – 33% cycling	0.60 kW	N/A
Central Air Conditioner Summer 2007 – 50% cycling	1.10 kW	N/A
Water Heater	0.46 kW	0.59 kW

To perform direct load control, EKPC operated a button at EKPC headquarters and sent "signals" through the power line to the load control switch for air conditioning to Blue Grass Energy customers using the cycling strategy previously mentioned.

Water heaters were pre-programmed to shut down for a maximum time period of four hours. As water heaters are built to store water for future use, this time period is not unusual for accomplishing load reductions while maintaining customer comfort. Unlike air conditioning both participating cooperatives pre-programmed the control times.

During the demonstration project, EKPC initiated control during both primary control periods and secondary control periods. The primary control period was the four hour period where the EKPC peak most often occurs in a given month, while the secondary period is a different four hour period to cover other hours where EKPC might experience its peak for that month less frequently. For example, in winter months, the EKPC system most often peaks in the morning sometime between 6 AM and 10 AM, but occasionally in the winter the peak has occurred in the late afternoon.

Compared with the estimates included in the original Application, the actual measured impacts (both appliances) for the summer period are slightly higher than originally estimated (1.56 kW versus 1.37 kW), while the measured impacts for the winter are lower than expected (0.59 kW versus 1.03 kW). The measured results for water heater control in the winter were lower than expected. Upon investigation, it was found that these results are consistent with recent results at other utilities, and are consistent with trends in annual use for residential water heaters, which have shown a decline in the last decade stemming from more efficient appliances and shrinking household size (fewer people per dwelling).

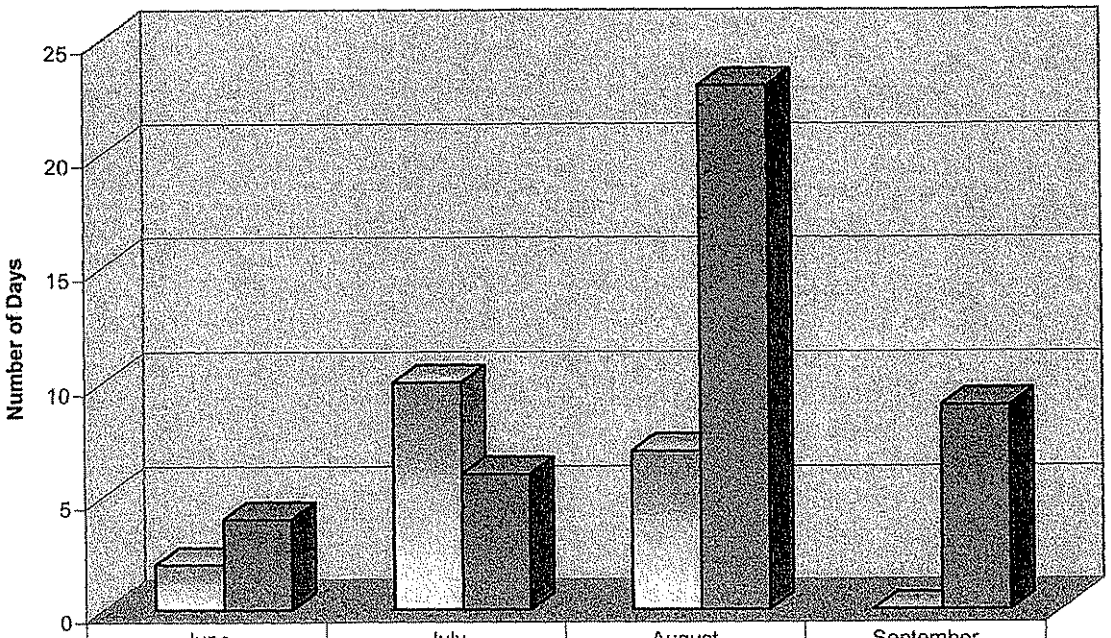
As indicated in its Application for approval, Blue Grass Energy and Big Sandy RECC used load control switches for their Automatic Meter Reading (AMR) systems to perform the direct load control function.

In addition, due to the nature of the program, the level of energy reduction during the study period was minimal. It is estimated that a very nominal reduction in energy cost (fuel and variable operation and maintenance cost) would result from this program.

III. Impact of the Weather

The variation of weather and climate can have a significant impact on the effectiveness of any load control program, particularly a program to control air conditioning in summer months. The central Kentucky area, for example, was slightly cooler than normal in the summer in 2006, while hotter than normal in the summer of 2007. Graph 1 below shows the number of days above 90 degrees for both 2006 and 2007. The summer of 2007 was much hotter than 2006 with 23 days in August reaching at least 90 degrees.

Graph 1
Number of Days Above 90 Degrees F



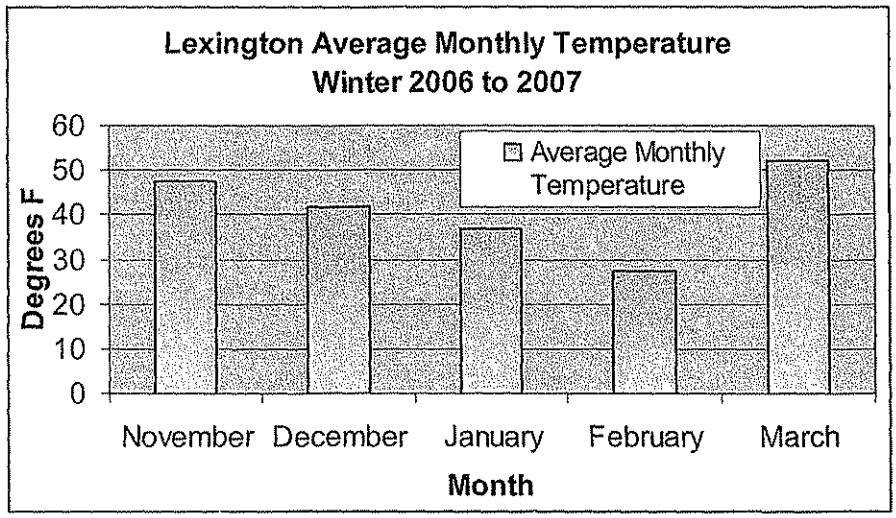
	June	July	August	September
2006	2	10	7	0
2007	4	6	23	9

Month

The summer of 2007 was an ideal time to be testing the impact of air conditioner load control. The range of weather conditions was conducive to obtaining a very good measurement of the air conditioner load response to the ambient temperatures. As a result, the demand reduction results for the summer of 2007 are representative of the per appliance reduction in demand anticipated under a permanent program.

As for water heating, the central Kentucky region had a fairly mild winter in 2006-2007, with most months recording a deficit of heating degree-days compared to past years. The month of February, however, recorded lower temperatures than normal and had a surplus of heating degree days compared to past years. Below, graph 2 shows the monthly average temperature for the winter.

The warmer winter in 2006-2007, when coupled with the hotter summer of 2007, resulted in what would be considered as a fairly normal weather period, resulting in very little, if any, weather effect on the water heating results.



IV. Customer Satisfaction

Customer Satisfaction, as measured by the level of customer retention, was very strong throughout the demonstration project. For example, out of 142 water heater project participants at Big Sandy RECC, only one customer asked to be removed from the program. Results were very good at Blue Grass Energy as well. Out of 473 air conditioning project participants, only 14 customers requested that the air conditioner controls be removed and only 8 out of a possible 244 participants in the water heater control project requested removal of their water heater switch..

V. Cost of Project

The total cost of the demonstration project was $368,393. This compares to EKPC's original estimate of $296,000. One significant factor that affected the ultimate cost level was the need to use a separate switch for each appliance within each home. EKPC had originally anticipated that one switch could perform both functions for water heater and air conditioning control in those Blue Grass Energy homes that participated in both functions. However, due to the location of each appliance in the home, EKPC determined that a separate switch had to be used for each appliance, thus increasing cost. In addition to increasing switch costs, this also increased the installation costs. The actual cost of the switches ranged from $130 - $150 per switch. This is slightly higher than the level estimated in the original Application.

The table below shows a comparison of actual costs to estimated cost for each major cost category.

	Cost Estimate	**Actual Cost**
Switches- BGE	$90,000	$115,717
Switches – BSRECC	$36,000	$ 21,497
GoodCents Solutions	$115,000	$188,815
Recruitment & Marketing	$10,000	$12,124
Leased Data Circuit	$12,000	-0-
Software & Training – BSRECC	$10,000	$7,950
Incentives – AC	$16,000	$18,600
Incentives – WH/BGE	$ 7,000	$2,350
Incentives – WH/BSRECC		$1,340
TOTAL	$296,000	$368,393

VI. Potential impact of a full-scale program

This demonstration project has provided important information about the cost and performance of residential DLC in the EKPC service territory. Results of this demonstration project show that demand reduction is likely and that customer satisfaction is high. To assure a positive benefit-cost ratio, EKPC will need volume to recoup its fixed costs (including program design, software and communications, marketing and call center, and M&V) thus displacing expensive blocks of power supply.

Attachment 1 to this report includes the results of a series of California DSM tests conducted using the results of the demonstration project as an estimate of the long-term effect of the demonstration project. EKPC prepared the attached analysis using 50,000 participants. The results of the California tests were all positive, with the Total Resource Cost test at a very robust 2.96 benefit-cost ratio.

The California DSM test results cited above are encouraging and EKPC anticipates filing an Application with the Commission for a permanent program during the first quarter of 2008. EKPC believes that the demand reduction results from the demonstration project are valid and that the key factors that will determine success or failure are (1) the number of member systems that will actually implement DLC, and (2) the participation rate among eligible end-user customers. EKPC intends to develop a permanent program that will enable the Company to maximize participation rates among its Members and experience the demand reductions that the Pilot program has demonstrated.

ATTACHMENT 1

SECTION III

KEY ASSUMPTIONS

1. EKPC has prepared the cost-effectiveness tests based on the costs and results experienced in the demonstration project.

2. For purposes of the cost-effectiveness test, EKPC has assumed that there would be 50,000 participants and that the expenses of the program would be shared equally between the Member Systems and EKPC, with the exception of the incentives to participants which would be paid by EKPC.

3. The benefits and costs for this program are expressed in terms of the Standard California cost-effectiveness tests. EKPC utilized the software package *DSManager* that was developed by the Electric Power Research Institute (EPRI). The tests include (1) Rate Impact Measure, (2) Participant Test, and (3) Total Resource Cost.

4. EKPC's generation capacity credit is based on the difference in the peak load contributions of two appliances with and without load control. The first is a typical residential central air conditioner versus that of a central air conditioner that is controlled during peak days in June through September using a 50% cycling control strategy. The second is a typical electric water heater versus that of an electric water heater that is shut off for 4 hours during peaks, January through December. Based on actual demonstration impacts, the peak summer reduction for the load control of both the appliances is 1.56 kW per participant, and the peak winter reduction is .59 kW.

5. EKPC's production energy cost savings are minimal due to the nature of this program, and are based on the estimated reduction in fuel and variable operating and maintenance expenses stemming from the very modest decrease in kWh generated as a result of the program. EKPC estimates that 10 kWh per year will be saved for each air conditioner that participates and 10 kWh per year for each water heater.

6. EKPC anticipates four categories of costs associated with a permanent program: one time system costs, one time costs per new participant, annual marketing and operating costs, and annual maintenance costs. EKPC estimates that the one time system costs will be approximately $820,000 and include software, program planning, and project setup. Annual marketing and operating costs are $401,800 and include marketing, communications, program administration, measurement & verification, and call center. EKPC estimates that the one time costs per new participant will be $323 per participant and cover the recruitment costs, load control switch costs, and the installation costs. Costs in future years escalate at an assumed 3% rate of inflation. For purposes of this analysis, these costs were assumed to be shared equally between EKPC and the member system. Finally,

EKPC estimates that the annual maintenance costs will be $2.10 per participant per year.

7. Wholesale demand and energy rates are based on EKPC wholesale tariff Schedule E-2, effective as of January 1, 2006.

8. Retail rates are based on South Kentucky RECC's residential rate (Average rate among the 16 distribution systems on a cents per kWh basis) as of January 1, 2006.

9. The incentive to the participants is $30 per customer per year for water heating and air conditioning.

10. There will be no cost to the participant.

11. For purposes of determining the present value of future benefits and costs of the program, a discount rate of 6.5% was used for both the Rate Impact Measure and the Total Resource Cost test and 13% for the Participant test.

12. The program assesses participation for five years. Demand and energy savings were evaluated for a program time of 20 years.

Direct Load Control
Standard California Tests
Summary of Benefits and Costs

Ratepayer Impact Test

Line		Total Benefits	Total Costs	Net Benefits	B / C Ratio
1	Distribution System	$ 49,508,383	$ 31,327,070	$ 18,181,313	1.58
2	EKPC	$ 68,770,174	$ 61,568,473	$ 7,201,701	1.12

Participant Test

		Total Benefits	Total Costs	Net Benefits	B / C Ratio
3	Participant	$ 12,035,228	$ -	$ 12,035,228	#DIV/0!

Total Resource Cost Test

		Total Benefits	Total Costs	Net Benefits	B / C Ratio
4	Total Resouce Cost Test	$ 68,770,174	$ 23,249,383	$ 45,520,791	2.96

Distribution System Ratepayer Impact Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided wholesale electricity payments, plus incentives received
2	D. S. Electric Acquisition Decrease	$30,163,195	2	PV of decrease in Distribution Systems' wholesale power expense paid to EKPC. Based on EKPC's Wholesale Tariff Schedule E-2.
3	Incentives Received from EKPC	$19,345,189	3	PV of incentives paid by EKPC to DS evaluated over 20 years.
4	Total Benefits	$49,508,383	4	Line 2 plus Line 3
5	*Costs*		5	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	D. S. Base Electric Revenue Decrease	$783,810	6	PV of D.S. reduction in electric revenues from decrease in kWh sales. Based on South Kentucky A rate.
7	Adjusted Revenue Decrease	$8,778	7	PV of Fuel Adjustment Clause evaluated over 20 years.
8	Fixed Administrative Cost	$2,954,316	8	PV of $348,400 in year 1, $194,052 in year 2, then escalated at 3% per year.
9	Distribution System Variable Cost	$8,234,977	9	PV of $162 one-time cost per new participant; $1.05 maint./yr/participant; esc. @ 3%/yr.
10	Incentives Paid	$19,345,189	10	PV of incentives over 20 years
11	Total Costs	$31,327,070	11	Line 6 plus Line 7 plus Line 8 plus Line 9 plus Line 10.
12	*Net Benefits*	$18,181,313	12	Line 4 minus Line 11
13	Benefit / Cost Ratio	1.58	13	Line 4 divided by Line 11

Note: Incentives are defined as Customer incentive payments of $30 per year per participant.

East Kentucky Power Cooperative Ratepayer Impact Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Electric Production Cost Decrease	$1,124,407	2	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
3	Generation Capacity Credit	$54,401,994	3	PV of EKPC's avoided capacity costs due to reduction in generation evaluated over 20 years.
4	Transmission Capacity Credit	$13,243,773	4	PV of avoided transmission capacity costs.
5	Total Benefits	$68,770,174	5	Line 2 + Line 3 + Line 4
6	*Costs*		6	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
7	Incentives Paid	$19,345,189	7	PV of incentives paid to Member Systems
8	Base Revenue Decrease	$30,154,401	8	PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
9	Adjusted Revenue Decrease	$8,794	9	PV of EKPC's Fuel Adjustment Clause revenue reduction, evaluated over 20 years.
10	Fixed Administrative Cost	$3,825,113	10	PV of $873,400 in year 1, $219,802 in year 2, then escalated at 3% per year.
11	Variable Costs	$8,234,977	11	PV of $162 one-time cost per new participant; $1.05 maint./yr/participant; esc. @ 3%/yr.
12	Total Costs	$61,568,473	12	Line 8 + Line 9 + Line 10 + Line 11
13	*Net Benefits*	$7,201,701	13	Line 5 minus Line 12.
14	Benefit / Cost Ratio	1.12	14	Line 5 divided by Line 12.

Note: Incentives are defined as Customer incentive payments of $30 per year per participant.

Participant Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Incentive from Distribution System, plus a reduction in electric bill.
2	Customer Electric Bill Decrease	$487,713	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on South Kentucky A rate..
3	Customer Incentives	$11,547,515	3	PV of incentives received from Distribution Systems.
4	Total Benefits	$12,035,228	4	Line 2 + Line 3
5	*Costs*		5	Participants' direct cost of participation.
6	Customer Investment	$0	6	No cost to the Participant to participate in these programs.
7	Total Costs	$0	7	Line 6.
8	*Net Benefits*	$12,035,228	8	Line 4 minus Line 7.
9	Benefits / Cost Ratio	#DIV/0!	9	Line 4 divided by Line 7. No ratio - division by zero.

Note: Incentives are defined as Customer incentive payments of $30 per year per participant.

Total Resource Cost Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided supply costs (e.g.production, transmission, and/or distribution) based on energy and load reductions.
2	EKPC Electric Prod Cost Decrease	$1,124,407	2	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
3	EKPC Generation Capacity Credit	$54,401,994	3	PV of EKPC's avoided capacity costs due to reduction in generation.
4	Transmission Capacity Credit	$13,243,773	4	PV of avoided transmission capacity costs.
5	Total Benefits	$68,770,174	5	Line 2 + Line 3 + Line 4
6	*Costs*		6	Total program costs to participants, the Distribution Systems, and EKPC. Ignoring transfers (incentives, bill payments).
7	Participants' Investment	$0	7	
8	Distribution System Fixed Cost	$2,954,316	8	PV of $348,400 in year 1, $194,052 in year 2, then escalated at 3% per year.
9	Distribution System Variable Cost	$8,234,977	9	PV of $162 one-time cost per new participant; $1.05 maint./yr/participant; esc. @ 3%/yr.
10	EKPC Fixed Admin Cost	$3,825,113	10	PV of $873,400 in year 1, $219,802 in year 2, then escalated at 3% per year.
11	EKPC Variable Cost	$8,234,977	11	PV of $162 one-time cost per new participant; $1.05 maint./yr/participant; esc. @ 3%/yr.
12	Total Costs	$23,249,383	12	Line 9 + Line 10 + Line 11
13	*Net Benefits*	$45,520,791	13	Line 5 minus Line 12
14	Benefit / Cost Ratio	2.96	14	Line 5 divided by Line 12

Exhibit JCL-2

SECTION III

KEY ASSUMPTIONS

1. EKPC has prepared the cost-effectiveness tests based on the costs and results experienced in the demonstration project, supplemented by updated cost information where appropriate.

2. For purposes of the cost-effectiveness test, EKPC has assumed that there would be 45,000 participants contributing 50,000 air conditioners and 27,000 water heaters under control. The 45,000 participants, projected to be recruited over a five year period, represent approximately 16% of the current eligible market - residential customers with central air conditioning. This analysis also assumes that the expenses of the program would be paid by EKPC.

3. EKPC estimates that 10% of the air conditioners in the program will be second air conditioners in the home. Also, 60% of the homes will contribute a water heater to the program in addition to the central air conditioner. These assumptions were derived from participation data in the demonstration project.

4. EKPC is proposing to offer both load control switches and digital thermostats as control devices for air conditioners. In addition, EKPC will be using paging technology as the communication medium for propagating the load control signals. EKPC projects, based on results from other utilities, that 40% of the participating homes will choose the thermostat to control the central air conditioner(s). Among homes using the switch technology for two appliances (either 2 air conditioners or 1 air conditioner plus 1 water heater), it is estimated that half will require 2 separate switches, while the other half of the homes will need just a single switch to control both appliances.

5. The benefits and costs for this program are expressed in terms of the Standard California cost-effectiveness tests. EKPC utilized the software package *DSManager* that was developed by the Electric Power Research Institute (EPRI). The tests include (1) Rate Impact Measure, (2) Participant Test, (3) Total Resource Cost, and (4) Utility Test.

6. EKPC's generation capacity credit is based on the difference in the peak load contributions of two appliances with and without load control. The first is a typical residential central air conditioner versus that of a central air conditioner that is controlled during peak days in June through September using a 50% cycling control strategy. The second is a typical electric water heater versus that of an electric water heater that is shut off for 4 hours during peaks, January through December. Based on actual demonstration impacts, the peak summer reduction for the load control of one air conditioner and one water heater is 1.27 kW per participant, and the peak winter reduction is .52 kW.

7. EKPC's production energy cost savings are based on the estimated reduction in fuel and variable operating and maintenance expenses stemming from the decrease in kWh generated as a result of the program. EKPC estimates that 5 kWh per year will be saved from controlling each air conditioner that participates and 10 kWh per year for each water heater. In addition, EKPC estimates that homes having the digital thermostats will save 5% of their heating and cooling energy from the temperature setback feature. This results in savings estimates of approximately 114 kWh per air conditioner and 368 kWh per electrically heated home.

8. EKPC anticipates four categories of costs associated with a permanent program: one time system costs, annual marketing and operating costs, one time costs per new participant, and annual maintenance costs. Costs in future years escalate at an assumed 3% rate of inflation. For purposes of this analysis, these costs were assumed to be borne completely by EKPC.

9. EKPC estimates that the one time system costs will be approximately $115,000 and include software and program setup costs.

10. Annual marketing and operating costs are $460,000 per year and include marketing, communications, software maintenance fees, program management and administration, measurement & verification, and customer service center.

11. One time costs per new participant include recruitment/enrollment costs, transportation costs, load control device costs, and the installation costs. Recruitment/scheduling/enrollment costs are estimated to be $26.52 per participating home. Transportation costs vary depending on location, with the blended rate expected to be $35 per participant. EKPC estimates that the device costs will be $100 for a switch, and $200 for a digital thermostat. Installation costs are projected to be $35 per air conditioner switch, $60 per water heater switch, and $75 per thermostat.

12. Finally, EKPC estimates that the annual maintenance costs, on a per cumulative participant basis, will be $0.70 per cumulative participant per year for removals and reconnects, $6.50 for service calls at homes with thermostats, and $3.25 for service calls at homes with switches. The differential stems from the projection that 10% of homes with thermostats will require a service call in any given year, while 5% of homes with switches only will require a service call.

13. Wholesale demand and energy rates are based on EKPC wholesale tariff Schedule E-2, effective as of January 1, 2008.

14. Retail rates are based on South Kentucky RECC's residential rate (close to the average among the 16 distribution systems) as of January 1, 2008.

15. The incentive to the participants is $20 per customer per year for an air conditioner controlled by a switch, and $10 per customer per year for a water heater controlled by a switch. No incentive is provided for an air conditioner controlled by a digital thermostat, since the customer is being given a digital thermostat free of charge.

16. There will be no cost to the participant.

17. For purposes of determining the present value of future benefits and costs of the program, a discount rate of 6.5% was used for both the Rate Impact Measure, Utility Cost test, and the Total Resource Cost test, and 13% for the Participant test.

18. The program assesses participation for five years. Demand and energy savings were evaluated using a program life of 20 years.

Direct Load Control
Standard California Tests
Summary of Benefits and Costs

Ratepayer Impact Test

Line		Total Benefits	Total Costs	Net Benefits	B / C Ratio
1	Distribution System	$ 40,878,534	$ 18,038,293	$ 22,840,241	2.27
2	EKPC	$ 57,560,948	$ 65,544,506	$ (7,983,558)	0.88

Participant Test

		Total Benefits	Total Costs	Net Benefits	B / C Ratio
3	Participant	$ 10,847,231	$ -	$ 10,847,231	#DIV/0!

Total Resource Cost Test

		Total Benefits	Total Costs	Net Benefits	B / C Ratio
4	Total Resource Cost Test	$ 57,560,948	$ 24,665,972	$ 32,894,976	2.33

Power Supplier Utility Test

		Total Benefits	Total Costs	Net Benefits	B / C Ratio
5	EKPC Utility Test	$ 57,560,948	$ 35,886,274	$ 21,674,674	1.60

Distribution System Ratepayer Impact Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided wholesale electricity payments, plus incentives received
2	D. S. Electric Acquisition Decrease	$29,658,232	2	PV of decrease in Distribution Systems' wholesale power expense paid to EKPC. Based on EKPC's Wholesale Tariff Schedule E-2.
3	Incentives Received from EKPC	$11,220,302	3	PV of incentives paid by EKPC to DS evaluated over 20 years.
4	Total Benefits	$40,878,534	4	Line 2 plus Line 3
5	*Costs*		5	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	D. S. Electricity Revenue Decrease	$6,817,991	6	PV of D.S. reduction in electric revenues from decrease in kWh sales. Based on South Kentucky A rate.
7	Fixed Administrative Cost	$0	7	EKPC is paying for the administrative costs in this program
8	Distribution System Variable Cost	$0	8	EKPC is paying for the administrative costs in this program
9	Incentives Paid	$11,220,302	9	PV of incentives over 20 years
10	Total Costs	$18,038,293	10	Line 6 plus Line 9.
11	*Net Benefits*	$22,840,241	11	Line 4 minus Line 10
12	Benefit / Cost Ratio	2.27	12	Line 4 divided by Line 10

Note: Incentives are defined as Customer incentive payments of $10 per year per water heater, and $20 per year per air conditioner controlled by switch.

East Kentucky Power Cooperative Ratepayer Impact Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided supply costs (production and capacity) based on energy and demand reductions.
2	Electric Production Cost Decrease	$4,683,689	2	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
3	Generation Capacity Credit	$44,314,757	3	PV of EKPC's avoided generation capacity costs due to reduction in demand evaluated over 20 years.
4	Transmission Capacity Credit	$8,562,502	4	PV of avoided transmission capacity costs.
5	Total Benefits	$57,560,948	5	Line 2 + Line 3 + Line 4
6	*Costs*		6	Utility program costs (including incentives) plus net lost revenues caused by reduced sales (including energy and demand charges).
7	Incentives Paid	$11,220,302	7	PV of incentives paid to Member Systems
8	Electricity Revenue Decrease	$29,658,232	8	PV of EKPC's reduction in electricity revenues; based on EKPC's Wholesale Tariff Schedule E-2.
9	Fixed Administrative Costs	$6,937,641	9	Fixed one time or annual costs including program management, IT, communications, marketing, and measurement & verification (M&V).
10	Variable Costs	$17,728,331	10	Per participant costs including control devices, recruitment, enrollment, installation, and servicing
11	Total Costs	$65,544,506	11	Line 7 + Line 8 + Line 9 + Line 10
12	*Net Benefits*	-$7,983,558	12	Line 5 minus Line 11.
13	Benefit / Cost Ratio	0.88	13	Line 5 divided by Line 11.

Note: Incentives are defined as Customer incentive payments of $10 per year per water heater, and $20 per year per air conditioner controlled by switch.

Participant Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Incentive from Distribution System, plus a reduction in electric bill.
2	Customer Electric Bill Decrease	$4,149,617	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on South Kentucky A rate.
3	Customer Incentives	$6,697,614	3	PV of incentives received from Distribution Systems.
4	Total Benefits	$10,847,231	4	Line 2 + Line 3
5	*Costs*		5	Participants' direct cost of participation.
6	Customer Investment	$0	6	No cost to the Participant to participate in these programs.
7	Total Costs	$0	7	Line 6.
8	*Net Benefits*	$10,847,231	8	Line 4 minus Line 7.
9	Benefits / Cost Ratio	#DIV/0!	9	Line 4 divided by Line 7. No ratio - division by zero.

Note: Incentives are defined as Customer incentive payments of $10 per year per water heater, and $20 per year per air conditioner controlled by switch.

Total Resource Cost Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided supply costs (e.g. production and capacity) based on energy and demand reductions.
2	EKPC Electric Prod Cost Decrease	$4,683,689	2	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
3	EKPC Generation Capacity Credit	$44,314,757	3	PV of EKPC's avoided generation capacity costs due to reduction in demand.
4	Transmission Capacity Credit	$8,562,502	4	PV of avoided transmission capacity costs.
5	Total Benefits	$57,560,948	5	Line 2 + Line 3 + Line 4
6	*Costs*		6	Total program costs to participants, the Distribution Systems, and EKPC. Ignoring transfers (incentives, bill payments).
7	Participants' Investment	$0	7	
8	Distribution System Fixed Cost	$0	8	
9	Distribution System Variable Cost	$0	9	
10	EKPC Fixed Admin Costs	$6,937,641	10	Fixed one time or annual costs including program management, IT, communications, marketing, and measurement & verification (M&V).
11	EKPC Variable Costs	$17,728,331	11	Per participant costs including control devices, recruitment, enrollment, installation, and servicing
12	Total Costs	$24,665,972	12	Line 10 + Line 11
13	*Net Benefits*	$32,894,976	13	Line 5 minus Line 12
14	Benefit / Cost Ratio	2.33	14	Line 5 divided by Line 12

East Kentucky Power Cooperative Utility Test

LINE			LINE	EXPLANATION
1	*Benefits*		1	Avoided supply costs (e.g. production and capacity) based on energy and demand reductions.
2	EKPC Electric Prod Cost Decrease	$4,683,689	2	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
3	EKPC Generation Capacity Credit	$44,314,757	3	PV of EKPC's avoided generation capacity costs due to reduction in demand.
4	Transmission Capacity Credit	$8,562,502	4	PV of avoided transmission capacity costs.
5	Total Benefits	$57,560,948	5	Line 2 + Line 3 + Line 4
6	*Costs*		6	*Utility program costs (including incentives)* plus net lost revenues caused by reduced sales.
7	Fixed Administrative Costs	$6,937,641	7	Fixed one time or annual costs including program management, IT, communications, marketing, and measurement & verificiation (M&V).
8	Variable Costs	$17,728,331	8	Per participant costs including control devices, recruitment, enrollment, installation, and servicing.
9	Rebates paid	$ 11,220,302	9	PV of incentives paid to Member Systems
10	Total Costs	$ 35,886,274	10	Line 7 + Line 8 + Line 9
11	*Net Benefits*	$ 21,674,674	11	Line 5 minus Line 10
12	Benefit / Cost Ratio	1.60	12	Line 5 divided by Line 10

Exhibit JCL-3

SECTION IV

RESPONSE TO KRS 278.285

KRS 278.285 Demand-side management plans - Review and approval of proposed plans and mechanisms - Assignment of costs - Home energy assistance programs.

(1) The commission may determine the reasonableness of demand-side management plans proposed by any utility under its jurisdiction. Factors to be considered in this determination include, but are not limited to, the following:

(a) The specific change in customers' consumption patterns which a utility is attempting to influence:

R. The primary purpose of the direct load control project is to reduce peak demand, resulting in benefits to Member Systems and their customers and EKPC. Based on the results of the Pilot program and the benefit-cost analysis contained herein, EKPC expects to reduce peak demand by 55 megawatts MW in the summer and 16 MW in the winter, assuming participation rates reach 50,000 air conditioners and 27,000 water heaters under control. In addition, with the option of a digital thermostat as an incentive, EKPC also anticipates that energy use will be reduced.

(b) The cost and benefit analysis and other justification for specific demand-side management programs and measures included in a utility's proposed plan;

R. Please see Exhibit JCL-2.

(c) A utility's proposal to recover in rates the full costs of demand-side management programs, any net revenues lost due to reduced sales resulting from demand-side management programs, and incentives designed to provide positive financial rewards to a utility to encourage implementation of cost-effective demand-side management programs;

R. EKPC does not propose at this time to recover the cost of this program through a DSM Surcharge. EKPC reserves the right to seek recovery of any lost revenues and/or relevant costs related to this DSM program in a future general rate case.

(d) Whether a utility's proposed demand-side management programs are consistent with its most recent long-range integrated resource plan;

R. The Direct Load Control Pilot was discussed in EKPC's Integrated Resource Plan filed in October 2006. The permanent program will be incorporated into EKPC's next integrated resource plan.

(e) Whether the plan results in any unreasonable prejudice or disadvantage to any class of customers;

R. This direct load control program is being offered to all qualifying residential retail customers on a voluntary basis, to the extent that the geographic terrain allows paging communication. If implemented on a permanent basis, all Member System customers will benefit through deferral of generation capacity or purchases.

(f) The extent to which customers representatives and the Office of the Attorney General have been involved in developing the plan, including program design, cost recovery mechanisms, and financial mechanisms, and if involved, the amount of support for the plan by each participant, provided however, that unanimity among the participants developing the plan shall not be required for the commission to approve the plan; and

R. The Member Systems of EKPC have participated in the development of this DSM project and the Board of Directors has approved it. The Board Resolution is included herein as Exhibit JCL-4. The Office of the Attorney General ("AG") is familiar with the project, having participated in the Pilot Program (Case No. 2006-00048) as well as in the case to allow the Pilot Program to resume until the permanent program is approved (Case No. 2007-00553).

(g) The extent to which the plan provides programs which are available, affordable, and useful to all customers.

R. This program is available to residential customers at this time. As indicated in the testimony of Mr. Lamb, all customers will benefit by virtue of deferral of generation capacity or purchases.

(2) A proposed demand-side management mechanism including:

(a) Recover the full costs of Commission-approved demand-side management programs and revenues lost by implementing these programs;
(b) Obtain incentives designed to provide financial rewards to the utility for implementing cost-effective demand-side management programs; or
(c) Both of these actions specified may be reviewed and approved by the Commission as part of a proceeding for approval of new rate schedules initiated pursuant to KRS 278.190 or in a separate proceeding initiated pursuant to this section which shall be limited to a review of demand-side management issues and related rate-recovery issues as set forth in subsection (1) of this section and in this subsection.

R. As indicated in EKPC's response to item (1)(c), EKPC does not intend to seek recovery of program costs or lost revenues at this time. Exhibit JCL-5 is a

proposed tariff sheet that incorporates the features of the direct load control project.

(3) The Commission shall assign the cost of demand-side management programs only to class or classes of customers which benefit from the programs. The Commission shall allow individual industrial customers with energy intensive processes to implement cost-effective energy efficiency measures in lieu of measures approved as part of the utility's demand-side management programs if alternative measures by these customers are not subsidized by other customer classes. Such individual customers shall not be assigned the cost of demand-side management programs.

R. EKPC is not assigning the cost of this DSM program to any class of customers for purposes of rate recovery at this time. However, EKPC reserves the right to propose an appropriate assignment of costs at such time recovery is sought.

(4) Home energy assistance programs may be part of a demand-side management program. In considering a home energy assistance program, the Commission shall only utilize the criteria set forth in subsections (1)(f) and (3) of this section.

R. The proposed DSM Project is not an energy assistance program.

Exhibit JCL-4

FROM THE MINUTE BOOK OF PROCEEDINGS
OF THE BOARD OF DIRECTORS OF
EAST KENTUCKY POWER COOPERATIVE, INC.

At a regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. held at the Headquarters Building, 4775 Lexington Road, located in Winchester, Kentucky, on Tuesday, April 8, 2008, at 10:45 a. m., EDT, the following business was transacted:

Permanent Direct Load Control Program

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

Whereas, East Kentucky Power Cooperative, Inc. ("EKPC") needs additional generating capacity to serve its peak load and reserve requirements;

Whereas, EKPC has conducted a pilot direct load control program, which verified that a direct load control program could provide beneficial and cost effective results for EKPC, its member systems and their member consumers;

Whereas, EKPC's pilot program has shown that controlling 40 gallon and larger water heaters and central air conditioning units in residential retail members' homes will help reduce the amount of capacity that EKPC needs to build; and

Whereas, Management and the Fuel and Power Supply Committee recommend the implementation of a permanent direct load control program, as further explained in the attached executive summary; now, therefore, be it

Resolved, That the EKPC Board hereby approves the implementation of a permanent direct load control program for control of residential water heaters and central air conditioning, and authorizes Management to request the Public Service Commission to approve such a permanent direct load control program and to allow the recovery of its associated costs.

The foregoing is a true and exact copy of a resolution passed at a meeting called pursuant to proper notice at which a quorum was present and which now appears in the Minute Book of Proceedings of the Board of Directors of the Cooperative, and said resolution has not been rescinded or modified.

Witness my hand and seal this 8th day of April 2008.

A. L. Rosenberger, Secretary

Corporate Seal

A. L. Rosenberger

Board Agenda Item

APRIL

TO:	Fuel and Power Supply Committee & Board of Directors
FROM:	Robert M. Marshall
DATE:	March 28, 2008
SUBJECT:	Approval of a Permanent Direct Load Control Program (Executive Summary)
KEY MEASURE(S)	Reliable and Competitive Energy

Background

East Kentucky Power Cooperative, Inc.'s ("EKPC") need for capacity is greater than its stock of generating facilities. On January 25, 2008, EKPC's firm system peak demand reached 2,964 MW. Current baseload capability is approximately 1,600 MW, and current gas fired combustion turbine capability is approximately 850 MW. Wholesale power market purchases from 500 MW up to 1,000 MW are a regular occurrence. EKPC is currently expanding its generation fleet with a new CFB unit and two combustion turbines, which will add approximately 450 to 500 MW of capacity. Even then, EKPC will be considerably short of having its desired 12% capacity reserve margin. In addition to adding generating capacity, EKPC has the ability to control its peak demand by controlling appliances.

EKPC conducted a pilot direct load control program, which ended on September 30, 2007 with air conditioners and water heaters. The program was considered to be successful based on results. EKPC then requested that the pilot program be resumed until a permanent program is filed and approved by the Public Service Commission ("PSC"). The pilot program continuation was approved by the PSC on March 20, 2008. EKPC has a goal to install 50,000 switches on central air conditioning units and water heaters that are 40 gallons or larger. EKPC would hire GoodCents as the program manager for enrollment, installation, switch maintenance, trouble shooting, disconnects, savings verification and other miscellaneous duties. The projected annual cost of the program is $4 to $5 million and EKPC would be responsible for all costs. EKPC would seek PSC approval for program implementation and cost recovery.

Residential retail members who participate in the program would receive an incentive for participating via either a bill credit or a programmable thermostat. All other retail members who do not participate directly in the program will also benefit via an overall reduction in cost of power supply. The projected total benefits for the program are $46

Board Agenda Item

APRIL

million and the total costs are $24 million, providing a benefit to cost ratio of almost 2 to 1. EKPC expects to save 0.9 to 1.1 kW for each controlled air conditioner and 0.4 to 0.5 kW for each controlled water heater during the summer peak months. A winter peak savings of 0.7 to 0.9 kW for each controlled water heater is expected.

Justification and Strategic Analysis

The Direct Load Control program is a cost efficient and environmentally friendly method for EKPC to meet its peak load capacity obligations. Results of the pilot program indicate it is beneficial to EKPC, the member systems and the retail member consumers. This action supports EKPC key measure of reliable and competitive energy.

Recommendation

EKPC management recommends that the Board of Directors approve the implementation of a full-scale direct load control program and the required filing for PSC approval of the program.

RMM:JL:wk

Exhibit JCL-5

For All Counties Served
P.S.C. No. 32
First Revised Sheet No. 26
Canceling PSC No. 32
EAST KENTUCKY POWER COOPERATIVE, INC. Original Sheet No. 26

Section DSM - 3

Direct Load Control of Water Heaters Program

Direct Load Control of Air-Conditioners Program

Purpose

The Direct Load Control of Water Heaters and Air Conditioners will encourage the reduction in growth of peak demand, enabling the Company to utilize its system more efficiently and defer the construction of new generation. T

Availability

Both the Direct Load Control of Water Heaters Program and the Direct Load Control of Air Conditioners Program are available to residential customers in the service territories of EKPC. Availability may be denied where, in the judgment of the Member System, installation of the load control equipment is impractical. T

Eligibility

To qualify for these Programs, the participant must be located in the service territory of a participating Member System and have central air conditioning or heat pump units and/or 40 gallon electric water heating units. The above appliances may be electrically cycled or interrupted in accordance with the rules of this Tariff. T

Incentive - Direct Load Control of Water Heaters Program

EKPC and participating Member Systems will provide an incentive to the participants in this program. EKPC will credit the wholesale power bill of the participating Member System $10.00 per water heater annually. The participating Member System in turn will credit the residential power bill of the participant $10.00 per water heater. The participant will receive this credit regardless of whether the water heater is cycled. T T T

For All Counties Served
P.S.C. No. 32
First Revised Sheet No. 27
Canceling PSC. 32
EAST KENTUCKY POWER COOPERATIVE, INC. Original Sheet No. 27

Incentive - Direct Load Control of Air-Conditioners Program

EKPC and participating Member Systems will provide an incentive to the participants in this program. The customer may select one of two alternatives. One, EKPC will credit the wholesale power bill of the participating Member System $20.00 annually per air conditioner ($5 per summer months, June, July, August, and September). The participating Member System will in turn credit the residential power bill of the participant $20.00 per air conditioner ($5 per summer months, June, July, August, and September). The participant will receive this credit regardless of whether the air conditioner or heat pump is controlled. Two, alternatively, EKPC will pay for the cost of a digital thermostat for the participants. T T N N T, N

Time Period for the Direct Load Control of Water Heaters Program

A load control switch will be placed on the water heater and may be electrically interrupted for a maximum time period of four hours.

EKPC will cycle the water heaters only during the hours listed below.

Months	Hours Applicable for Demand Billing - EST
October through April	6:00 a.m. to 12:00 noon
	4:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

Time Period for the Direct Load Control of Air Conditioners

A load control device (switch or thermostat) will be placed on each central air conditioning unit or heat pump that will allow the operating characteristics of the unit to be modified (by cycling the unit off for periods of time up to 15 minutes, or by adjusting the temperature setting on the thermostat) to reduce demand on the system. T

EKPC will control the air conditioning units and heat pumps only during its summer on-peak billing hours listed below.

Months	Hours Applicable for Demand Billing - EST
May through September	10:00 a.m. to 10:00 p.m.

DATE OF ISSUE April 30, 2008 DATE EFFECTIVE: Service rendered on and after June 1, 2008

ISSUED BY _____ TITLE President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2006-00472 Dated December 5, 2007

For All Counties Served
P.S.C. No. 32
First Revised Sheet No. 28
Canceling PSC No. 32
EAST KENTUCKY POWER COOPERATIVE, INC. Original Sheet No. 28

Terms and Conditions

1. If a participant decides to withdraw from the program(s) or change to another load control option, the Member Systems will endeavor to implement the change as soon as possible.

2. Prior to the installation of load control devices, the Member Systems may inspect the participant's electrical equipment to insure good repair and working condition, but the Member Systems shall not be responsible for the repair or maintenance of the electrical equipment.

3. The Member Systems will install, own, and maintain the load management devices controlling the participant's air conditioner or water heater. The participant must allow the Member System reasonable access to install, maintain, inspect, test and remove load control devices. Inability of the Member System to gain access to the load management device to perform any of the above activities for a period exceeding 30 days may, at the Member System's option, result in discontinuance of credits under this tariff until such time as the Member System is able to gain the required access.

4. Participants in the Pilot program from Big Sandy RECC and Blue Grass Energy will have the opportunity to participate in this program. Equipment already installed on the premises may be used as part of this program. N