EAST KENTUCKY POWER COOPERATIVE

RECEIVED
JAN 14 2008
PUBLIC SERVICE COMMISSION

January 14, 2008 HAND DELIVERED

Mr. Robert A. Amato
Acting Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

Re: PSC Administrative Case No. 2007-00477

Dear Mr. Amato:

Please find enclosed for filing with the Commission in the above-referenced case an original and ten (10) redacted copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the data requests of Overland Consulting in this case, dated January 4, 2008. Attached to the responses is EKPC's Petition for Confidential Treatment of Information, relating to designated confidential information in the response to Request No. 21. One copy of this confidential information is enclosed.

Very truly yours,

Charles A. Lile
Corporate Counsel

Enclosures

Cc: Service List
Overland Consulting

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Kentucky 40392-0707

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A Touchstone Energy Cooperative

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN INVESTIGATION OF THE ENERGY AND REGULATORY ISSUES IN SECTION 50 OF KENTUCKY'S 2007 ENERGY ACT	))))	ADMINISTRATIVE CASE NO. 2007-00477

RESPONSES TO COMMISSION STAFF'S SECOND DATA REQUEST TO EAST KENTUCKY POWER COOPERATIVE, INC. DATED JANUARY 4, 2008

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

AN INVESTIGATION OF THE ENERGY AND REGULATORY ISSUES IN SECTION 50 OF KENTUCKY'S 2007 ENERGY ACT	))))	**ADMINISTRATIVE CASE NO. 2007-00477**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

William A. Bosta, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff Second Data Requests in the above-referenced case dated January 4, 2008, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

William A. Bosta

Subscribed and sworn before me on this 14th day of January, 2008.

Peggy S. Duffy
Notary Public

My Commission expires: December 8, 2009

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 12
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 12. Referring to Discovery Response, Item 1, page 27, reference is made to consideration of participation in a nuclear plant as part of the generation expansion plan. Please provide a brief discussion of this option; including who the potential partners might be, where the plant would be sited, when it would be placed into commercial operation, etc. Provide cost estimates, as available.

Response 12. As indicated on the referenced page, EKPC has not advanced this strategy beyond the concept stage, and has no other supporting information.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 13
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 13. Referring to Discovery Response, Item 1, page 28, reference is made to development of a board-level policy related to approval of pricing for large incremental loads. Please describe the proposed policy and explain the intended objectives.

Response 13. The proposed policy is not yet developed – EKPC and its member systems have established a task force to review this issue and other, related issues.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 14
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 14. Referring to Discovery Response, Item 1, page 30, number 6 states: "Integrate the impacts of potential carbon regulations into the expansion plan; develop a carbon strategy. Please provide a description, analyses and projections of carbon impacts, as well as a description of the current status of EKPC's "carbon strategy".

Response 14. As shown on the referenced page, these are draft strategies, and have yet to be done. EKPC is performing some production cost modeling, and is using a carbon cap and trade concept for one or two of its modeling scenarios. EKPC is conducting this modeling probabilistically, and the value of the carbon allowance varies greatly. At this time, EKPC does not have any analysis or projections of carbon impacts.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 15
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 15. Discovery Response, Item 1, at page 62, poses the question: "Should EKPC entertain other types of non-Kentucky coal to optimize and diversify coal costs?" Given the legislative mandates (and related subsidies) to provide a preference for Kentucky coal, what are the impediments to a non-Kentucky coal procurement option?

Response 15. There are no impediments to a non-Kentucky coal procurement option. EKPC's overall objective is to provide power supply to its member systems, regardless of fuel or technology. EKPC's 2006 IRP discusses this in greater detail.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 16
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 16. Referring to Discovery Response, Item 1, page 63, reference is made to environmental proceedings now pending; the outcome of which will require significant funding. Please provide a description of this matter, including the nature and amount of funding requirements.

Response 16. The reference cited in the question relates to two separate lawsuits brought by the Environmental Protection Agency (EPA) against EKPC. Shown below is a description of these legal actions and the associated funding requirements:

1. United States of America v. EKPC (Clean Air Act Enforcement) In this action the EPA sued EKPC claiming that modifications at the Dale and Spurlock Generating Stations should have triggered new source permitting. The lawsuit sought injunctive relief and civil penalties. The parties executed a Consent Decree on September 24, 2007, which was accepted by the Court. Attachment 1, which is the Company's Press Release on the matter, outlines the funding requirements of the Consent Decree.

2. United States of America v. EKPC (Clean Air Act Enforcement). In this case the EPA sued EKPC claiming that EKPC incorrectly reported the turbine nameplate ratings at the Dale Generating Station Units 1 and 2, thus placing the Units under the Acid Rain program. The issue for both units involves whether these units are subject to regulations as generators used to generate 25 megawatts or more of electricity. The parties executed a Consent Decree in the fall of 2007, which has now been accepted by the Court. The funding requirements from 2007 through 2012 are as follows: A fixed penalty amount of $1.9 million, payable in each year on January 1, plus a variable component of 14% of the difference in margin associated with a TIER between 1.10 and 1.20, or a variable component of 20% of the difference in margin of the actual TIER (if above 1.20) and 1.20. Attachment 2 contains the Company's Press Release on this issue and offers additional information.

PressRelease

EAST KENTUCKY POWER COOPERATIVE

A Touchstone Energy Cooperative

For immediate release: July 2, 2007

EKPC ANNOUNCES SETTLEMENT WITH FEDERAL GOVERNMENT

Includes Steps to Further Reduce Plant Emissions

WINCHESTER, Ky.—East Kentucky Power Cooperative (EKPC) today announced a settlement has been reached with the federal government to resolve a lawsuit that alleged New Source Review violations of the Clean Air Act.

The settlement is contained in a proposed consent decree filed today in U.S. District Court for the Eastern District of Kentucky in Lexington, Ky. It is the result of nearly three years of negotiations between the not-for-profit cooperative based in Winchester; the U.S. Department of Justice; and the U.S. Environmental Protection Agency. The proposed consent decree will be subject to a 30–day public comment period.

"We have worked diligently to bring about a settlement that allows our cooperative to continue to meet our members' future power needs while bolstering our commitment to the environment," said Bob Marshall, EKPC's president and CEO. "This settlement fits well with East Kentucky Power Cooperative's existing plans for complying with tougher environmental standards that go into effect in the next few years. It also removes the risks and high costs of this litigation so our cooperative can focus on serving our members."

The settlement calls for EKPC to pay a $750,000 civil penalty. The cooperative maintains it has been and remains in compliance with the Clean Air Act.

"We know our members are sensitive to cost impacts, so East Kentucky Power Cooperative is taking aggressive steps to cut costs," Marshall said. "As we implement the terms of this settlement, EKPC will strive to delay and minimize the impact on our member-owners' bills."

As part of the settlement, EKPC pledges to construct projects to further reduce emissions from its power plants at an estimated cost of $656 million over the next five to seven years.

The terms of the settlement include:

- The installation and year-round operation of flue-gas desulfurization equipment, or "scrubbers," and associated equipment to two generating units to meet tougher standards of the Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR);
- Annual caps on emissions of sulfur dioxide (SO2) and nitrogen oxide (NOx);
- Year-round operation of equipment to reduce emissions of nitrogen oxide;
- Continuous emissions monitoring for mercury and particulate matter;
- Strict limits on the purchase, sale or transfer of emissions allowances;
- By the end of 2009, EKPC must choose either to install emissions-control equipment on the cooperative's Cooper #2 generating unit, or to retire or re-power its Dale #3 and Dale #4 units.

— END —

Media contact:
Nick Comer, 859-745-9450

PressRelease

EAST KENTUCKY POWER COOPERATIVE

A Touchstone Energy® Cooperative

For immediate release: September 20, 2007

COOPERATIVE ANNOUNCES SETTLEMENT WITH FEDERAL GOVERNMENT

WINCHESTER, Ky.—East Kentucky Power Cooperative (EKPC) today announced it has reached a settlement with the federal government, resolving a lawsuit that alleged violations of the Clean Air Act.

The parties lodged the settlement today in the U.S. District Court for the Eastern District of Kentucky in Lexington, Ky. The lawsuit alleged EKPC's Dale #1 and Dale #2 generating units in Clark County should have been included in the government's regulatory programs for emissions of sulfur dioxide (SO2) and nitrogen oxide (NOx).

Under the settlement, EKPC maintains it has been and remains in compliance with the Clean Air Act.

The agreement resulted from more than a year of negotiations between the U.S. Department of Justice, the U.S. Environmental Protection Agency, and the not-for-profit cooperative based in Winchester, Ky.

"It is critical for East Kentucky Power Cooperative to put this costly, time-consuming litigation behind us so we can focus on the future and on serving our members," said Bob Marshall, president and CEO of EKPC.

The settlement includes penalties of at least $11.4 million to be paid over the next six years. EKPC will bear these costs and will not seek to recover them through a rate increase, Marshall said.

According to the terms of the settlement agreement, EKPC agrees to:

- Pay at least $11.4 million in penalties over the next six years. Additional penalties could apply, based on the cooperative's financial condition, to be paid between 2009 and 2013;
- Install nearly $2 million worth of equipment to reduce NOx emissions from the Dale #1 and Dale #2 generating units;
- Submit the Dale #1 and Dale #2 units for compliance with the state program that regulates emissions of NOx and SO2; and
- Retire some NOx and SO2 allowances to mitigate alleged excess emissions.

In July, EKPC announced a settlement with the federal government of a lawsuit involving alleged New Source Review violations of the Clean Air Act.

— MORE —

Marshall reiterated EKPC's commitment to the environment.

"East Kentucky Power Cooperative remains committed to complying fully with all environmental laws and regulations," Marshall said

Media contact:
Nick Comer, (859) 745-9450

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 17
RESPONSIBLE PERSON: **Jeffrey M. Brandt**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 17. Referring to Discovery Response, Item 3, a study for potential wind generation was produced. What was the estimated capital cost for this project? Is this project currently under EKPC consideration in its resource planning? If so, provide a description of current assumptions – commercial operation date; transmission issues, if any, etc.

Response 17. No estimated capital cost was developed for the conceptual project. This project has not been developed further and currently is not part of EKPC's expansion plan.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 18
RESPONSIBLE PERSON: **Jeffrey M. Brandt**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 18. Referring to Discovery Response, Item 3, a biomass feasibility study dated May 2006 was provided. What is the current status of EKPC consideration of this project? Has any economic analysis been performed? If so, provide available cost-benefit and/or other economic analyses.

Response 18. The biomass feasibility study has resulted in no further development of this project. An economic analysis has not been performed.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 19
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 19. Discovery response, Item 4, provides information about current DSM programs.

Request.

- Please provide a summary schedule providing an estimate of the peak demand (MW) reduction and/or total energy savings (MWh per year) associated with each of these programs. Provide the percent of participation currently achieved, and indicate the expected or target participation (penetration) level.

Response. Please see Attachment 1. This is a summary of the data provided in the response to Item 4.

- Provide a summary of the computation and results of the tests currently used by EKPC for analyzing the economics for all existing and currently proposed programs.

Response. Please see Attachment 2, Exhibits DSM-6 and 7 Summary Sheets from the 2006 IRP DSM Technical Appendix.

Request. Are there energy and capacity benefits attributed to DSM programs in the test(s)?

Response. Yes.

Request. Are there any avoided capacity margin and transmission loss savings attributed to the program benefits?

Response. Yes.

Request.
- Please explain how these estimates of demand reduction were developed.

Response. The estimates are based on metered end use data studies by EKPC or by use of industry standards. Please see Attachment 3, Exhibits DSM-4 and 5 from the 2006 IRP DSM Technical Appendix. This shows the load impact.

Request.
- What measurements and verification protocols does the utility employ for operating these programs?

Response. These programs are evaluated on a three-year cycle. Good Cents Solutions, a third party vendor, will help provide this function for the permanent Direct Load Control project.

DSM Programs
Impact on Winter Peak
(MW)

Year	ETS	Electric Water Heater	Geothermal Heating & Cooling	Air Source Heat Pump	Tune-Up HVAC Maint	Button-Up	Touchstone Energy Heat Pump	Touchstone Energy Manufactured Home	DLC AC/Water Heaters	Total Impact Winter Peak
1995	(6.9)	0.0	(7.4)	0.4	(0.6)	(3.2)				(17.7)
1996	(10.8)	0.0	(9.3)	0.5	(1.6)	(5.3)				(26.5)
1997	(14.7)	0.1	(11.5)	0.6	(2.4)	(7.1)				(35.0)
1998	(16.8)	0.1	(13.5)	0.8	(2.7)	(8.5)				(40.6)
1999	(18.4)	0.1	(15.4)	1.6	(2.8)	(9.5)				(44.4)
2000	(20.3)	0.1	(17.1)	2.6	(2.9)	(10.6)				(48.2)
2001	(21.5)	0.1	(18.9)	3.7	(3.1)	(11.5)				(51.2)
2002	(22.4)	0.2	(20.4)	5.0	(3.3)	(12.5)				(53.4)
2003	(23.1)	0.2	(21.3)	6.6	(3.6)	(13.5)				(54.7)
2004	(23.6)	0.2	(22.0)	8.5	(4.2)	(14.5)				(55.6)
2005	(24.5)	0.2	(22.7)	9.7	(4.6)	(15.4)				(57.3)
2006	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.2)	0.0	(5.6)	(64.5)
2007	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.3)	(0.1)	(11.3)	(70.4)
2008	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.5)	(0.1)	(16.9)	(76.2)
2009	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.6)	(0.1)	(22.5)	(81.9)
2010	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.7)	(0.2)	(28.1)	(87.7)
2011	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(0.8)	(0.2)	(33.8)	(93.5)
2012	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.0)	(0.2)	(39.4)	(99.3)
2013	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.1)	(0.3)	(45.0)	(105.1)
2014	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.2)	(0.3)	(50.7)	(110.9)
2015	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2016	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2017	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2018	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2019	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2020	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)
2021	(25.4)	0.2	(23.4)	11.3	(5.0)	(16.4)	(1.4)	(0.3)	(56.3)	(116.7)

DSM Programs
Impact on Summer Peak
(MW)

Year	ETS	Electric Water Heater	Geothermal Heating & Cooling	Air Source Heat Pump	Tune-Up HVAC Maint	Button-Up	Touchstone Energy Heat Pump	Touchstone Energy Manufactured Home	DLC AC/Water Heaters	Total Impact Summer Peak
1995	0.0	0.0	(1.6)	(0.1)	(0.2)	(1.2)				(3.1)
1996	0.0	0.0	(2.0)	(0.1)	(0.6)	(2.1)				(4.8)
1997	0.0	0.0	(2.4)	(0.1)	(0.9)	(2.8)				(6.2)
1998	0.0	0.0	(2.9)	(0.1)	(1.0)	(3.3)				(7.3)
1999	0.0	0.0	(3.3)	(0.2)	(1.1)	(3.7)				(8.3)
2000	0.0	0.0	(3.6)	(0.3)	(1.1)	(4.1)				(9.1)
2001	0.0	0.1	(4.0)	(0.5)	(1.2)	(4.5)				(10.1)
2002	0.0	0.1	(4.3)	(0.7)	(1.3)	(4.9)				(11.1)
2003	0.0	0.1	(4.5)	(0.9)	(1.4)	(5.2)				(11.9)
2004	0.0	0.1	(4.7)	(1.1)	(1.6)	(5.6)				(12.9)
2005	0.0	0.1	(4.8)	(1.3)	(1.8)	(6.0)				(13.8)
		0.1								
2006	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.1)	0.0	(7.6)	(22.4)
2007	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.1)	0.0	(15.3)	(30.1)
2008	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.2)	0.0	(22.9)	(37.8)
2009	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.3)	0.0	(30.5)	(45.5)
2010	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.3)	(0.1)	(38.2)	(53.3)
2011	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.4)	(0.1)	(45.8)	(61.0)
2012	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.5)	(0.1)	(53.4)	(68.7)
2013	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.5)	(0.1)	(61.0)	(76.3)
2014	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(68.7)	(84.1)
2015	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2016	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2017	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2018	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2019	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2020	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)
2021	0.0	0.1	(5.0)	(1.5)	(1.9)	(6.4)	(0.6)	(0.1)	(76.3)	(91.7)

DSM Programs
Impact on Total Requirements
(MWh)

Year	ETS	Electric Water Heater	Geothermal Heating & Cooling	Air Source Heat Pump	Tune-Up HVAC Maint	Button-Up	Touchstone Energy Heat Pump	Touchstone Energy Manufactured Home	DLC AC/Water Heaters	Impact Total Requirements
1995	12,131	101	(4,480)	129	(729)	(4,084)				3,068
1996	18,981	166	(5,632)	163	(2,108)	(6,916)				4,654
1997	25,933	264	(7,010)	208	(3,052)	(9,208)				7,135
1998	29,595	353	(8,194)	275	(3,455)	(11,029)				7,545
1999	32,396	452	(9,346)	549	(3,623)	(12,289)				8,139
2000	35,879	534	(10,394)	858	(3,814)	(13,670)				9,393
2001	38,000	614	(11,473)	1,232	(3,964)	(14,922)				9,487
2002	39,503	703	(12,364)	1,684	(4,221)	(16,174)				9,131
2003	40,827	796	(12,915)	2,198	(4,720)	(17,474)				8,712
2004	41,675	861	(13,371)	2,846	(5,470)	(18,776)				7,765
2005	43,242	927	(13,789)	3,256	(5,958)	(19,871)				7,807
2006	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(238)	(56)	(76)	7,301
2007	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(476)	(112)	(153)	6,930
2008	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(713)	(169)	(229)	6,560
2009	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(951)	(225)	(305)	6,190
2010	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(1,189)	(281)	(381)	5,820
2011	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(1,427)	(337)	(458)	5,449
2012	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(1,665)	(393)	(534)	5,079
2013	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(1,903)	(450)	(610)	4,708
2014	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,140)	(506)	(686)	4,339
2015	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2016	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2017	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2018	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2019	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2020	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968
2021	44,906	854	(14,224)	3,783	(6,467)	(21,181)	(2,378)	(562)	(763)	3,968

DSM Programs
Participants

Year	ETS	Electric Water Heater	Geothermal Heating & Cooling	Air Source Heat Pump	Tune-Up HVAC Maint	Button-Up	Touchstone Energy Heat Pump	Touchstone Energy Manufactured Home	DLC AC/Water Heaters	Total Participants
1995	1,885	1,003	1,544	161	494	1,559				6,646
1996	2,950	1,622	1,941	204	1,428	2,640				10,785
1997	4,032	2,596	2,416	260	2,068	3,515				14,887
1998	4,602	3,479	2,824	344	2,341	4,210				17,800
1999	5,038	4,428	3,221	688	2,455	4,691				20,521
2000	5,579	5,216	3,582	1,077	2,584	5,218				23,256
2001	5,908	5,972	3,954	1,547	2,686	5,696				25,763
2002	6,142	6,855	4,261	2,117	2,860	6,174				28,409
2003	6,347	7,731	4,451	2,763	3,198	6,670				31,160
2004	6,479	8,417	4,608	3,579	3,706	7,167				33,956
2005	6,723	9,095	4,752	4,094	4,037	7,585				36,286
2006	6,973	9,785	4,902	4,754	4,387	8,085	100	10	5,000	43,996
2007	6,973	9,785	4,902	4,754	4,387	8,085	200	20	10,000	49,106
2008	6,973	9,785	4,902	4,754	4,387	8,085	300	30	15,000	54,216
2009	6,973	9,785	4,902	4,754	4,387	8,085	400	40	20,000	59,326
2010	6,973	9,785	4,902	4,754	4,387	8,085	500	50	25,000	64,436
2011	6,973	9,785	4,902	4,754	4,387	8,085	600	60	30,000	69,546
2012	6,973	9,785	4,902	4,754	4,387	8,085	700	70	35,000	74,656
2013	6,973	9,785	4,902	4,754	4,387	8,085	800	80	40,000	79,766
2014	6,973	9,785	4,902	4,754	4,387	8,085	900	90	45,000	84,876
2015	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2016	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2017	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2018	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2019	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2020	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986
2021	6,973	9,785	4,902	4,754	4,387	8,085	1,000	100	50,000	89,986

DSM Programs
Percentage Participants to Total Residential Customers

Year	Total Residential Customers	ETS	Electric Water Heater	Geothermal Heating & Cooling	Air Source Heat Pump	Tune-Up HVAC Maint	Button-Up	Touchstone Energy Heat Pump	Touchstone Energy Manufactured Home	DLC AC/Water Heaters
1995	354,308	0.53%	0.28%	0.44%	0.05%	0.14%	0.44%			
1996	364,497	0.81%	0.44%	0.53%	0.06%	0.39%	0.72%			
1997	376,022	1.07%	0.69%	0.64%	0.07%	0.55%	0.93%			
1998	387,968	1.19%	0.90%	0.73%	0.09%	0.60%	1.09%			
1999	399,830	1.26%	1.11%	0.81%	0.17%	0.61%	1.17%			
2000	411,670	1.36%	1.27%	0.87%	0.26%	0.63%	1.27%			
2001	421,099	1.40%	1.42%	0.94%	0.37%	0.64%	1.35%			
2002	431,607	1.42%	1.59%	0.99%	0.49%	0.66%	1.43%			
2003	441,331	1.44%	1.75%	1.01%	0.63%	0.72%	1.51%			
2004	451,340	1.44%	1.86%	1.02%	0.79%	0.82%	1.59%			
2005	458,224	1.47%	1.98%	1.04%	0.89%	0.88%	1.66%			
2006	472,074	1.48%	2.07%	1.04%	1.01%	0.93%	1.71%	0.02%	0.00%	1.06%
2007	477,298	1.46%	2.05%	1.03%	1.00%	0.92%	1.69%	0.04%	0.00%	2.10%
2008	487,370	1.43%	2.01%	1.01%	0.98%	0.90%	1.66%	0.06%	0.01%	3.08%
2009	497,554	1.40%	1.97%	0.99%	0.96%	0.88%	1.62%	0.08%	0.01%	4.02%
2010	507,781	1.37%	1.93%	0.97%	0.94%	0.86%	1.59%	0.10%	0.01%	4.92%
2011	517,987	1.35%	1.89%	0.95%	0.92%	0.85%	1.56%	0.12%	0.01%	5.79%
2012	528,299	1.32%	1.85%	0.93%	0.90%	0.83%	1.53%	0.13%	0.01%	6.63%
2013	538,602	1.29%	1.82%	0.91%	0.88%	0.81%	1.50%	0.15%	0.01%	7.43%
2014	548,902	1.27%	1.78%	0.89%	0.87%	0.80%	1.47%	0.16%	0.02%	8.20%
2015	559,234	1.25%	1.75%	0.88%	0.85%	0.78%	1.45%	0.18%	0.02%	8.94%
2016	569,554	1.22%	1.72%	0.86%	0.83%	0.77%	1.42%	0.18%	0.02%	8.78%
2017	579,872	1.20%	1.69%	0.85%	0.82%	0.76%	1.39%	0.17%	0.02%	8.62%
2018	590,201	1.18%	1.66%	0.83%	0.81%	0.74%	1.37%	0.17%	0.02%	8.47%
2019	600,529	1.16%	1.63%	0.82%	0.79%	0.73%	1.35%	0.17%	0.02%	8.33%
2020	610,879	1.14%	1.60%	0.80%	0.78%	0.72%	1.32%	0.16%	0.02%	8.18%
2021	621,226	1.12%	1.58%	0.79%	0.77%	0.71%	1.30%	0.16%	0.02%	8.05%

Exhibit DSM-6
Existing DSM Programs
Summary Sheets

ETS Propane Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$5,835,361	Power Bill Increases	($4,817,210)
Rebates From EK	$298,588	Administrative Costs	($212,993)
		Rebates Paid To Consumers	($597,176)
Total Benefits	$6,133,949	Total Costs	($5,627,379)

Benefit / Cost Ratio: 1.09

Participant Benefits		Participant Costs	
Gas Bill Decreases	$5,266,858	Electric Bill Increases	($3,331,995)
Rebates From Distribution System	$478,269	Up Front Investment	($1,513,722)
Total Benefits	$5,745,127	Total Costs	($4,845,717)

Benefit / Cost Ratio: 1.19

Total Resource Benefits		Total Resource Costs	
Gas Bill Decreases	$9,336,043	Up Front Customer Investment	($1,890,062)
		Distribution System Admin. Costs	($212,993)
		EK Administrative Costs	($181,174)
		Increased Cost of Production	($5,477,673)
		Increased Cost of Capacity	($89,682)
		T&D Cost Increases	($80,637)
Total Benefits	$9,336,043	Total Costs	($7,932,221)

Benefit / Cost Ratio: 1.18

EK Benefits		EK Costs	
Rate E Revenue Increases	$4,817,210	T&D Cost Increases	($80,637)
		Rebates Paid	($298,588)
		Administrative Costs	($116,480)
		Increased Cost of Production	($5,477,673)
		Increased Cost of Capacity	($89,682)
		EK Administrative Costs	($64,694)
Total Benefits	$4,817,210	Total Costs	($6,127,754)

Benefit / Cost Ratio: 0.79

Societal Benefits		Societal Costs	
Gas Bill Decreases	$10,850,175	Up Front Customer Investment	($2,001,578)
		Distribution System Admin. Costs	($225,560)
		EK Administrative Costs	($191,863)
		T&D Cost Increases	($93,823)
		Increased Cost of Production	($6,332,450)
		Increased Cost of Capacity	($104,563)
		External Environmental Costs	($1,440,524)
Total Benefits	$10,850,175	Total Costs	($10,390,361)

Benefit / Cost Ratio: 1.04

ETS Furnace Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,888,539	Power Bill Increases	($3,221,745)
Rebates From EK	$248,058	Administrative Costs	($196,609)
		Rebates Paid To Consumers	($496,116)
Total Benefits	$2,136,597	Total Costs	($3,914,470)

Benefit / Cost Ratio: 0.55

Participant Benefits		Participant Costs	
Electric Bill Decreases	$1,835,912	Up Front Investment	($1,397,282)
Rebates From Distribution System	$397,331		
Total Benefits	$2,233,243	Total Costs	($1,397,282)

Benefit / Cost Ratio: 1.60

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$1,449,404	Up Front Customer Investment	($1,744,673)
Avoided Energy Costs	$471,916	Distribution System Admin. Costs	($196,609)
Avoided Capacity Costs	$2,351,649	EK Administrative Costs	($176,198)
Avoided Transmission Expense	$664,665		
Total Benefits	$4,937,634	Total Costs	($2,117,480)

Benefit / Cost Ratio: 2.33

EK Benefits		EK Costs	
Avoided Distribution Expense	$1,449,404	Decrease in Revenue	($1,888,548)
Avoided Energy Costs	$471,916	Rebates Paid	($248,058)
Avoided Capacity Costs	$2,351,649	Administrative Costs	($176,198)
Avoided Transmission Expense	$664,665		
Rate E Revenue Increases	$5,239		
Total Benefits	$4,942,873	Total Costs	($2,312,804)

Benefit / Cost Ratio: 2.14

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$1,687,180	Up Front Customer Investment	($1,847,610)
Avoided Energy Costs	$553,279	Distribution System Admin. Costs	($208,209)
Avoided Capacity Costs	$2,743,021	EK Administrative Costs	($186,593)
Avoided Transmission Expense	$773,704	External Environmental Costs	($75,401)
Total Benefits	$5,757,184	Total Costs	($2,317,813)

Benefit / Cost Ratio: 2.48

Electric Water Heater New Construction Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$964,361	Revenue Declines	($1,301,521)
Rebates From EK	$367,493	Administrative Costs	($318,494)
		Rebates Paid To Consumers	($734,986)
Total Benefits	$1,331,854	Total Costs	($2,355,001)
		Benefit / Cost Ratio: 0.57	

Participant Benefits		Participant Costs	
Electric Bill Declines	$795,011	Up Front Investment	($451,290)
Rebates From Distribution System	$588,639		
Total Benefits	$1,383,650	Total Costs	($451,290)
		Benefit / Cost Ratio: 3.07	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$133,649	Up Front Customer Investment	($563,489)
Avoided Energy Costs	$899,070	Distribution System Admin. Costs	($318,494)
Avoided Capacity Costs	$559,353	EK Administrative Costs	($18,750)
Avoided Transmission Expense	$61,289		
Total Benefits	$1,653,361	Total Costs	($900,733)
		Benefit / Cost Ratio: 1.84	

EK Benefits		EK Costs	
Avoided Distribution Expense	$133,649	Decrease In Revenue	($964,361)
Avoided Energy Costs	$899,070	Rebates Paid	($367,493)
Avoided Capacity Costs	$559,353	Administrative Costs	($18,750)
Avoided Transmission Expense	$61,289		
Total Benefits	$1,653,361	Total Costs	($1,350,604)
		Benefit / Cost Ratio: 1.22	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$152,566	Up Front Customer Investment	($596,736)
Avoided Energy Costs	$1,019,221	Distribution System Admin. Costs	($337,285)
Avoided Capacity Costs	$639,608	EK Administrative Costs	($19,856)
Avoided Transmission Expense	$69,963		
External Environmental Benefits	$203,091		
Total Benefits	$2,084,449	Total Costs	($953,877)
		Benefit / Cost Ratio: 2.19	

Electric Water Heater Retrofit Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,162,880	Power Bill Increases	($861,634)
Rebates From EK	$28,710	Administrative Costs	($24,882)
		Rebates Paid To Consumers	($57,421)
Total Benefits	$1,191,590	Total Costs	($943,937)

Benefit / Cost Ratio: 1.26

Participant Benefits		Participant Costs	
Gas Bill Decreases	$524,528	Electric Bill Increases	($710,324)
Rebates From Distribution System	$45,987	Up Front Investment	($38,323)
Total Benefits	$570,515	Total Costs	($748,647)

Benefit / Cost Ratio: 0.76

Total Resource Benefits		Total Resource Costs	
Gas Bill Decreases	$844,866	Up Front Customer Investment	($47,851)
		Distribution System Admin. Costs	($24,882)
		EK Administrative Costs	($7,013)
		Increased Cost of Production	($803,298)
		Increased Cost of Capacity	($499,769)
		T&D Cost Increases	($174,173)
Total Benefits	$844,866	Total Costs	($1,556,986)

Benefit / Cost Ratio: 0.54

EK Benefits		EK Costs	
Rate E Revenue Increases	$861,635	T&D Cost Increases	($174,173)
		Rebates Paid	($28,710)
		Administrative Costs	($7,013)
		Increased Cost of Production	($803,298)
		Increased Cost of Capacity	($499,769)
Total Benefits	$861,635	Total Costs	($1,512,963)

Benefit / Cost Ratio: 0.57

Societal Benefits		Societal Costs	
Gas Bill Decreases	($957,504)	Up Front Customer Investment	($50,674)
		Distribution System Admin. Costs	($26,350)
		EK Administrative Costs	($7,427)
		T&D Cost Increases	($198,824)
		Increased Cost of Production	($910,650)
		Increased Cost of Capacity	($571,475)
		External Environmental Costs	($181,457)
Total Benefits	($957,504)	Total Costs	($1,946,857)

Benefit / Cost Ratio: 0.49

Geothermal Heat Pump New Construction Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$2,713,630	Power Bill Increases	($2,531,394)
Rebates From EK	$258,394	Administrative Costs	($291,698)
		Rebates Paid To Consumers	($516,787)
Total Benefits	$2,972,024	Total Costs	($3,339,879)
	Benefit / Cost Ratio: 0.89		

Participant Benefits		Participant Costs	
Gas Bill Decreases	$1,610,077	Up Front Investment	($1,874,447)
Electric Bill Decreases	$1,445,239		
Rebates From Distribution System	$413,887		
Total Benefits	$3,469,203	Total Costs	($1,874,447)
	Benefit / Cost Ratio: 1.85		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$1,438,184	Up Front Customer Investment	($2,340,471)
Avoided Energy Costs	$1,923,207	Distribution System Admin. Costs	($291,698)
Avoided Capacity Costs	$5,955,382	EK Administrative Costs	($118,869)
Avoided Transmission Expense	$659,520		
Gas Costs Decrease	$2,784,009		
Total Benefits	$12,760,302	Total Costs	($2,751,038)
	Benefit / Cost Ratio: 4.64		

EK Benefits		EK Costs	
Avoided Distribution Expense	$1,438,184	Decrease in Revenue	($2,713,630)
Avoided Energy Costs	$1,923,207	Rebates Paid	($258,394)
Avoided Capacity Costs	$5,955,382	Administrative Costs	($118,869)
Avoided Transmission Expense	$659,520		
Total Benefits	$9,976,293	Total Costs	($3,090,893)
	Benefit / Cost Ratio: 3.23		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$1,673,322	Up Front Customer Investment	($2,478,561)
Avoided Energy Costs	$2,227,311	Distribution System Admin. Costs	($308,908)
Avoided Capacity Costs	$6,942,933	EK Administrative Costs	($125,882)
Avoided Transmission Expense	$767,350		
External Environmental Benefits	$396,592		
Gas Costs Decrease	$3,219,453		
Total Benefits	$15,226,961	Total Costs	($2,913,351)
	Benefit / Cost Ratio: 5.23		

Air-Source Heat Pump New Construction Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,196,004	Power Bill Increases	($1,407,301)
Rebates From EK	$367,493	Administrative Costs	($445,892)
		Rebates Paid To Consumers	($734,986)
Total Benefits	$1,563,497	Total Costs	($2,588,179)
		Benefit / Cost Ratio: 0.60	

Participant Benefits		Participant Costs	
Gas Bill Decreases	$2,495,517	Electric Bill Increases	($682,830)
Rebates From Distribution System	$588,639	Up Front Investment	($2,746,981)
Total Benefits	$3,084,156	Total Costs	($3,429,811)
		Benefit / Cost Ratio: 0.90	

Total Resource Benefits		Total Resource Costs	
Gas Bill Decreases	$4,315,039	Up Front Customer Investment	($3,429,935)
		Distribution System Admin. Costs	($445,892)
		EK Administrative Costs	($18,750)
		Increased Cost of Production	($863,115)
		Increased Cost of Capacity	($3,307,800)
		T&D Cost Increases	($1,270,153)
Total Benefits	$4,315,039	Total Costs	($9,335,645)
		Benefit / Cost Ratio: 0.46	

EK Benefits		EK Costs	
Rate E Revenue Increases	$1,407,301	T&D Cost Increases	($1,270,153)
		Rebates Paid	($367,493)
		Administrative Costs	($18,750)
		Increased Cost of Production	($863,115)
		Increased Cost of Capacity	($3,307,800)
Total Benefits	$1,407,301	Total Costs	($5,827,311)
		Benefit / Cost Ratio: 0.24	

Societal Benefits		Societal Costs	
Gas Bill Decreases	$4,989,950	Up Front Customer Investment	($3,632,304)
		Distribution System Admin. Costs	($472,200)
		EK Administrative Costs	($19,856)
		T&D Cost Increases	($1,478,468)
		Increased Cost of Production	($1,000,314)
		Increased Cost of Capacity	($3,858,182)
		External Environmental Costs	($187,377)
Total Benefits	$4,989,950	Total Costs	($10,648,701)
		Benefit / Cost Ratio: 0.47	

Air-Source Heat Pump Retrofit Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,871,681	Power Bill Increases	($2,080,037)
Rebates From EK	$390,461	Administrative Costs	($473,760)
		Rebates Paid To Consumers	($780,923)
Total Benefits	$2,262,142	Total Costs	($3,334,720)

Benefit / Cost Ratio: 0.68

Participant Benefits		Participant Costs	
Gas Bill Decreases	$3,181,785	Electric Bill Increases	($1,068,591)
Rebates From Distribution System	$625,429	Up Front Investment	($2,918,668)
Total Benefits	$3,807,214	Total Costs	($3,987,259)

Benefit / Cost Ratio: 0.95

Total Resource Benefits		Total Resource Costs	
Gas Bill Decreases	$5,501,675	Up Front Customer Investment	($3,644,306)
		Distribution System Admin. Costs	($473,760)
		EK Administrative Costs	($7,013)
		Increased Cost of Production	($1,352,900)
		Increased Cost of Capacity	($4,513,439)
		T&D Cost Increases	($1,715,121)
Total Benefits	$5,501,675	Total Costs	($11,706,539)

Benefit / Cost Ratio: 0.47

EK Benefits		EK Costs	
Rate E Revenue Increases	$2,080,037	T&D Cost Increases	($1,715,121)
		Rebates Paid	($390,461)
		Administrative Costs	($7,013)
		Increased Cost of Production	($1,352,900)
		Increased Cost of Capacity	($4,513,439)
Total Benefits	$2,080,037	Total Costs	($7,978,934)

Benefit / Cost Ratio: 0.26

Societal Benefits		Societal Costs	
Gas Bill Decreases	$6,362,186	Up Front Customer Investment	($3,859,323)
		Distribution System Admin. Costs	($501,712)
		EK Administrative Costs	($7,427)
		T&D Cost Increases	($1,996,407)
		Increased Cost of Production	($1,567,377)
		Increased Cost of Capacity	($5,264,403)
		External Environmental Costs	($293,235)
Total Benefits	$6,362,186	Total Costs	($13,489,884)

Benefit / Cost Ratio: 0.47

Tune-Up Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$2,339,752	Revenue Declines	($2,485,419)
Rebates From EK	$348,353	Administrative Costs	($696,705)
		Rebates Paid To Consumers	($696,705)
Total Benefits	$2,688,105	Total Costs	($3,878,829)

Benefit / Cost Ratio: 0.69

Participant Benefits		Participant Costs	
Electric Bill Declines	$1,518,174	Up Front Investment	($643,824)
Rebates From Distribution System	$557,981		
Total Benefits	$2,076,155	Total Costs	($643,824)

Benefit / Cost Ratio: 3.22

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$807,745	Up Front Customer Investment	($803,891)
Avoided Energy Costs	$1,822,623	Distribution System Admin. Costs	($696,705)
Avoided Capacity Costs	$3,413,371	EK Administrative Costs	($26,100)
Avoided Transmission Expense	$370,414		
Total Benefits	$6,414,153	Total Costs	($1,526,696)

Benefit / Cost Ratio: 4.20

EK Benefits		EK Costs	
Avoided Distribution Expense	$807,745	Decrease In Revenue	($2,339,753)
Avoided Energy Costs	$1,822,623	Rebates Paid	($348,353)
Avoided Capacity Costs	$3,413,371	Administrative Costs	($26,100)
Avoided Transmission Expense	$370,414		
Total Benefits	$6,414,153	Total Costs	($2,714,206)

Benefit / Cost Ratio: 2.36

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$921,536	Up Front Customer Investment	($851,321)
Avoided Energy Costs	$2,066,482	Distribution System Admin. Costs	($737,812)
Avoided Capacity Costs	$3,900,443	EK Administrative Costs	($27,640)
Avoided Transmission Expense	$422,595		
External Environmental Benefits	$387,827		
Total Benefits	$7,698,883	Total Costs	($1,616,773)

Benefit / Cost Ratio: 4.76

Button-Up Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$6,683,812	Revenue Declines	($7,098,344)
Rebates From EK	$574,208	Administrative Costs	($535,927)
		Rebates Paid To Consumers	($1,148,416)
Total Benefits	$7,258,020	Total Costs	($8,782,687)

Benefit / Cost Ratio: 0.83

Participant Benefits		Participant Costs	
Electric Bill Declines	$4,165,545	Up Front Investment	($1,726,061)
Rebates From Distribution System	$919,748		
Total Benefits	$5,085,293	Total Costs	($1,726,061)

Benefit / Cost Ratio: 2.95

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$2,329,716	Up Front Customer Investment	($2,155,193)
Avoided Energy Costs	$5,213,459	Distribution System Admin. Costs	($535,927)
Avoided Capacity Costs	$9,891,072	EK Administrative Costs	($30,915)
Avoided Transmission Expense	$1,068,355		
Total Benefits	$18,502,602	Total Costs	($2,722,035)

Benefit / Cost Ratio: 6.80

EK Benefits		EK Costs	
Avoided Distribution Expense	$2,329,716	Decrease In Revenue	($6,683,813)
Avoided Energy Costs	$5,213,459	Rebates Paid	($574,208)
Avoided Capacity Costs	$9,891,072	Administrative Costs	($30,915)
Avoided Transmission Expense	$1,068,355		
Total Benefits	$18,502,602	Total Costs	($7,288,936)

Benefit / Cost Ratio: 2.54

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$2,689,024	Up Front Customer Investment	($2,282,352)
Avoided Energy Costs	$5,980,968	Distribution System Admin. Costs	($567,548)
Avoided Capacity Costs	$11,437,349	EK Administrative Costs	($32,739)
Avoided Transmission Expense	$1,233,125		
External Environmental Benefits	$1,110,381		
Total Benefits	$22,450,847	Total Costs	($2,882,639)

Benefit / Cost Ratio: 7.79

Exhibit DSM-7

New DSM Programs
Summary Sheets

Compact Fluorescent Lighting Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$8,338,286	Revenue Declines	($11,781,855)
Total Benefits	$8,338,286	Total Costs	($11,781,855)
	Benefit / Cost Ratio: 0.71		

Participant Benefits		Participant Costs	
Electric Bill Declines	$8,894,132		
Total Benefits	$8,894,132	Total Costs	$0
	Benefit / Cost Ratio: #DIV/0!		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$1,007,358	EK Administrative Costs	($641,505)
Avoided Energy Costs	$8,027,199		
Avoided Capacity Costs	$4,278,170		
Avoided Transmission Expense	$461,955		
Total Benefits	$13,774,682	Total Costs	($641,505)
	Benefit / Cost Ratio: 21.47		

EK Benefits		EK Costs	
Avoided Distribution Expense	$1,007,358	Decrease In Revenue	($8,311,260)
Avoided Energy Costs	$8,027,199	Administrative Costs	($641,505)
Avoided Capacity Costs	$4,278,170		
Avoided Transmission Expense	$461,955		
Total Benefits	$13,774,682	Total Costs	($8,952,765)
	Benefit / Cost Ratio: 1.54		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$1,114,546	EK Administrative Costs	($679,355)
Avoided Energy Costs	$8,822,673		
Avoided Capacity Costs	$4,738,438		
Avoided Transmission Expense	$511,109		
External Environmental Benefits	$1,821,465		
Total Benefits	$17,008,231	Total Costs	($679,355)
	Benefit / Cost Ratio: 25.04		

Touchstone Energy Geothermal Heat Pump New Construction Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,425,323	Power Bill Increases	($1,421,034)
Rebates From EK	$107,185	Administrative Costs	($55,736)
		Rebates Paid To Consumers	($214,371)
Total Benefits	$1,532,508	Total Costs	($1,691,141)

Benefit / Cost Ratio: 0.91

Participant Benefits		Participant Costs	
Electric Bill Decreases	$811,305	Up Front Investment	($723,535)
Rebates From Distribution System	$171,686		
Total Benefits	$982,991	Total Costs	($723,535)

Benefit / Cost Ratio: 1.36

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$655,391	Up Front Customer Investment	($903,420)
Avoided Energy Costs	$1,053,656	Distribution System Admin. Costs	($55,736)
Avoided Capacity Costs	$2,692,743	EK Administrative Costs	($46,480)
Avoided Transmission Expense	$300,548		
Total Benefits	$4,702,338	Total Costs	($1,005,636)

Benefit / Cost Ratio: 4.68

EK Benefits		EK Costs	
Avoided Distribution Expense	$655,391	Decrease in Revenue	($1,425,323)
Avoided Energy Costs	$1,053,656	Rebates Paid	($107,185)
Avoided Capacity Costs	$2,692,743	Administrative Costs	($46,480)
Avoided Transmission Expense	$300,548		
Total Benefits	$4,702,338	Total Costs	($1,578,988)

Benefit / Cost Ratio: 2.98

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$762,700	Up Front Customer Investment	($956,723)
Avoided Energy Costs	$1,219,830	Distribution System Admin. Costs	($59,025)
Avoided Capacity Costs	$3,139,962	EK Administrative Costs	($49,223)
Avoided Transmission Expense	$349,758		
External Environmental Benefits	$222,633		
Total Benefits	$5,694,883	Total Costs	($1,064,971)

Benefit / Cost Ratio: 5.35

Touchstone Energy Home with Air-Source Heat Pump Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$1,226,948	Power Bill Increases	($1,383,201)
Rebates From EK	$191,403	Administrative Costs	($139,341)
		Rebates Paid To Consumers	($382,805)
Total Benefits	$1,418,351	Total Costs	($1,905,347)
		Benefit / Cost Ratio: 0.74	

Participant Benefits		Participant Costs	
Electric Bill Decreases	$789,705	Up Front Investment	($1,302,977)
Rebates From Distribution System	$306,583		
Total Benefits	$1,096,288	Total Costs	($1,302,977)
		Benefit / Cost Ratio: 0.84	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$385,534	Up Front Customer Investment	($1,626,922)
Avoided Energy Costs	$1,002,702	Distribution System Admin. Costs	($139,341)
Avoided Capacity Costs	$1,642,618	EK Administrative Costs	($179,420)
Avoided Transmission Expense	$176,797		
Total Benefits	$3,207,651	Total Costs	($1,945,683)
		Benefit / Cost Ratio: 1.65	

EK Benefits		EK Costs	
Avoided Distribution Expense	$385,534	Decrease in Revenue	($1,226,948)
Avoided Energy Costs	$1,002,702	Rebates Paid	($191,403)
Avoided Capacity Costs	$1,642,618	Administrative Costs	($179,420)
Avoided Transmission Expense	$176,797		
Total Benefits	$3,207,651	Total Costs	($1,597,771)
		Benefit / Cost Ratio: 2.01	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$448,759	Up Front Customer Investment	($1,722,912)
Avoided Energy Costs	$1,160,027	Distribution System Admin. Costs	($147,562)
Avoided Capacity Costs	$1,915,915	EK Administrative Costs	($190,006)
Avoided Transmission Expense	$205,791		
External Environmental Benefits	$216,705		
Total Benefits	$3,947,197	Total Costs	($2,060,480)
		Benefit / Cost Ratio: 1.92	

Touchstone Energy Manufactured Home Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$272,281	Revenue Decrease	($326,916)
Rebates From EK	$11,484	Administrative Costs	($13,934)
		Rebates Paid To Consumers	($22,968)
Total Benefits	$283,765	Total Costs	($363,818)

Benefit / Cost Ratio: 0.78

Participant Benefits		Participant Costs	
Electric Bill Decreases	$186,645	Up Front Investment	($61,317)
Rebates From Distribution System	$18,395		
Total Benefits	$205,040	Total Costs	($61,317)

Benefit / Cost Ratio: 3.34

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$75,406	Up Front Customer Investment	($76,561)
Avoided Energy Costs	$233,362	Distribution System Admin. Costs	($13,934)
Avoided Capacity Costs	$317,495	EK Administrative Costs	($24,369)
Avoided Transmission Expense	$34,580		
Total Benefits	$660,843	Total Costs	($114,864)

Benefit / Cost Ratio: 5.75

EK Benefits		EK Costs	
Avoided Distribution Expense	$75,406	Decrease In Revenue	($272,281)
Avoided Energy Costs	$233,362	Rebates Paid	($11,484)
Avoided Capacity Costs	$317,495	Administrative Costs	($24,369)
Avoided Transmission Expense	$34,580		
Total Benefits	$660,843	Total Costs	($308,134)

Benefit / Cost Ratio: 2.14

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$87,772	Up Front Customer Investment	($81,078)
Avoided Energy Costs	$270,002	Distribution System Admin. Costs	($14,756)
Avoided Capacity Costs	$370,313	EK Administrative Costs	($25,807)
Avoided Transmission Expense	$40,250		
External Environmental Benefits	$51,218		
Total Benefits	$819,555	Total Costs	($121,641)

Benefit / Cost Ratio: 6.74

DLC Program for AC and DHW Combined

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$32,552,887	Revenue Decrease	($443,552)
Rebates From EK	$5,920,745	Administrative Costs	($8,066,519)
		Rebates Paid To Consumers	($11,841,491)
Total Benefits	$38,473,632	Total Costs	($20,351,562)
	Benefit / Cost Ratio: 1.89		

Participant Benefits		Participant Costs	
Electric Bill Decreases	$253,235		
Rebates From Distribution System	$6,863,227		
Total Benefits	$7,116,462	Total Costs	$0
	Benefit / Cost Ratio: #DIV/0!		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$25,121,327		
Avoided Energy Costs	$631,761	Distribution System Admin. Costs	($8,066,519)
Avoided Capacity Costs	$45,964,603	EK Administrative Costs	($8,066,519)
Avoided Transmission Expense	$11,520,098		
Total Benefits	$83,237,789	Total Costs	($16,133,038)
	Benefit / Cost Ratio: 5.16		

EK Benefits		EK Costs	
Avoided Distribution Expense	$25,121,327	Decrease in Revenue	($32,552,888)
Avoided Energy Costs	$631,761	Rebates Paid	($5,920,745)
Avoided Capacity Costs	$45,964,603	Administrative Costs	($8,066,519)
Avoided Transmission Expense	$11,520,098		
Total Benefits	$83,237,789	Total Costs	($46,540,152)
	Benefit / Cost Ratio: 1.79		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$29,239,587	Distribution System Admin. Costs	($8,665,213)
Avoided Energy Costs	$729,600	EK Administrative Costs	($8,665,213)
Avoided Capacity Costs	$53,613,203		
Avoided Transmission Expense	$13,408,642		
External Environmental Benefits	$69,491		
Total Benefits	$97,060,523	Total Costs	($17,330,426)
	Benefit / Cost Ratio: 5.60		

ENERGY STAR Clothes Washer Rebate Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$673,770	Revenue Declines	($917,590)
Rebates From EK	$95,701	Administrative Costs	($38,281)
		Rebates Paid To Consumers	($191,403)
Total Benefits	$769,471	Total Costs	($1,147,274)
		Benefit / Cost Ratio: 0.67	

Participant Benefits		Participant Costs	
Electric Bill Declines	$560,493	Up Front Investment	($735,799)
Rebates From Distribution System	$153,291		
Non-Energy Benefits	$409,152		
Total Benefits	$1,122,936	Total Costs	($735,799)
		Benefit / Cost Ratio: 1.53	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$90,227	Up Front Customer Investment	($918,732)
Avoided Energy Costs	$642,098	Distribution System Admin. Costs	($38,281)
Avoided Capacity Costs	$381,953	EK Administrative Costs	($15,312)
Avoided Transmission Expense	$41,376		
Non-Energy Benefits	$662,404		
Total Benefits	$1,818,058	Total Costs	($972,325)
		Benefit / Cost Ratio: 1.87	

EK Benefits		EK Costs	
Avoided Distribution Expense	$90,227	Decrease In Revenue	($673,770)
Avoided Energy Costs	$642,098	Rebates Paid	($95,701)
Avoided Capacity Costs	$381,953	Administrative Costs	($15,312)
Avoided Transmission Expense	$41,376		
Total Benefits	$1,155,654	Total Costs	($784,783)
		Benefit / Cost Ratio: 1.47	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$102,943	Up Front Customer Investment	($972,939)
Avoided Energy Costs	$727,756	Distribution System Admin. Costs	($40,539)
Avoided Capacity Costs	$436,499	EK Administrative Costs	($16,216)
Avoided Transmission Expense	$47,207		
External Environmental Benefits	$143,182		
Total Benefits	$1,457,587	Total Costs	($1,029,694)
		Benefit / Cost Ratio: 1.42	

ENERGY STAR Room AC Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$354,250	Revenue Declines	($354,339)
Rebates From EK	$57,421	Administrative Costs	($45,937)
		Rebates Paid To Consumers	($114,842)
Total Benefits	$411,671	Total Costs	($515,118)
		Benefit / Cost Ratio: 0.80	

Participant Benefits		Participant Costs	
Electric Bill Declines	$207,938	Up Front Investment	($275,924)
Rebates From Distribution System	$91,975		
Total Benefits	$299,913	Total Costs	($275,924)
		Benefit / Cost Ratio: 1.09	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$124,058	Up Front Customer Investment	($344,525)
Avoided Energy Costs	$275,417	Distribution System Admin. Costs	($45,937)
Avoided Capacity Costs	$247,134	EK Administrative Costs	($15,312)
Avoided Transmission Expense	$56,890		
Total Benefits	$703,499	Total Costs	($405,774)
		Benefit / Cost Ratio: 1.73	

EK Benefits		EK Costs	
Avoided Distribution Expense	$124,058	Decrease In Revenue	($354,250)
Avoided Energy Costs	$275,417	Rebates Paid	($57,421)
Avoided Capacity Costs	$247,134	Administrative Costs	($15,312)
Avoided Transmission Expense	$56,890		
Total Benefits	$703,499	Total Costs	($426,983)
		Benefit / Cost Ratio: 1.65	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$143,025	Up Front Customer Investment	($364,852)
Avoided Energy Costs	$315,576	Distribution System Admin. Costs	($48,647)
Avoided Capacity Costs	$285,439	EK Administrative Costs	($16,216)
Avoided Transmission Expense	$65,588		
External Environmental Benefits	$55,429		
Total Benefits	$865,057	Total Costs	($429,715)
		Benefit / Cost Ratio: 2.01	

ENERGY STAR Refrigerator Rebate Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$329,157	Revenue Declines	($478,357)
Rebates From EK	$68,905	Administrative Costs	($68,905)
		Rebates Paid To Consumers	($137,810)
Total Benefits	$398,062	Total Costs	($685,072)
		Benefit / Cost Ratio: 0.58	

Participant Benefits		Participant Costs	
Electric Bill Declines	$311,907	Up Front Investment	($193,147)
Rebates From Distribution System	$110,370		
Total Benefits	$422,277	Total Costs	($193,147)
		Benefit / Cost Ratio: 2.19	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$37,693	Up Front Customer Investment	($217,051)
Avoided Energy Costs	$310,421	Distribution System Admin. Costs	($68,905)
Avoided Capacity Costs	$169,765	EK Administrative Costs	($15,312)
Avoided Transmission Expense	$17,285		
Total Benefits	$535,164	Total Costs	($301,268)
		Benefit / Cost Ratio: 1.78	

EK Benefits		EK Costs	
Avoided Distribution Expense	$37,693	Decrease In Revenue	($329,157)
Avoided Energy Costs	$310,421	Rebates Paid	($68,905)
Avoided Capacity Costs	$169,765	Administrative Costs	($15,312)
Avoided Transmission Expense	$17,285		
Total Benefits	$535,164	Total Costs	($413,374)
		Benefit / Cost Ratio: 1.29	

Societal Benefits		*Societal Costs*	
Avoided Distribution Expense	$43,516	Up Front Customer Investment	($229,857)
Avoided Energy Costs	$356,024	Distribution System Admin. Costs	($72,970)
Avoided Capacity Costs	$196,358	EK Administrative Costs	($16,216)
Avoided Transmission Expense	$19,955		
External Environmental Benefits	$74,829		
Total Benefits	$690,682	Total Costs	($319,043)
		Benefit / Cost Ratio: 2.16	

Programmable Thermostat with Electric Furnace Retrofit Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$1,487,653	Revenue Declines	($2,406,005)
Rebates From EK	$62,206	Administrative Costs	($49,765)
		Rebates Paid To Consumers	($124,412)
Total Benefits	$1,549,859	Total Costs	($2,580,182)

Benefit / Cost Ratio: 0.60

Participant Benefits		Participant Costs	
Electric Bill Declines	$1,496,820	Up Front Investment	($298,918)
Rebates From Distribution System	$99,639		
Total Benefits	$1,596,459	Total Costs	($298,918)

Benefit / Cost Ratio: 5.34

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$103,046	Up Front Customer Investment	($373,235)
Avoided Energy Costs	$1,406,636	Distribution System Admin. Costs	($49,765)
Avoided Capacity Costs	$497,978	EK Administrative Costs	($7,656)
Avoided Transmission Expense	$47,255		
Total Benefits	$2,054,915	Total Costs	($430,656)

Benefit / Cost Ratio: 4.77

EK Benefits		EK Costs	
Avoided Distribution Expense	$103,046	Decrease In Revenue	($1,487,653)
Avoided Energy Costs	$1,406,636	Rebates Paid	($62,206)
Avoided Capacity Costs	$497,978	Administrative Costs	($7,656)
Avoided Transmission Expense	$47,255		
Total Benefits	$2,054,915	Total Costs	($1,557,515)

Benefit / Cost Ratio: 1.32

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$116,936	Up Front Customer Investment	($395,256)
Avoided Energy Costs	$1,588,159	Distribution System Admin. Costs	($52,701)
Avoided Capacity Costs	$565,950	EK Administrative Costs	($8,108)
Avoided Transmission Expense	$53,624		
External Environmental Benefits	$375,043		
Total Benefits	$2,699,712	Total Costs	($456,065)

Benefit / Cost Ratio: 5.92

Dual Fuel Air Source Heat Pump with Propane Retrofit Program

Distribution System Benefits		Distribution System Costs	
Revenue Increase	$2,537,112	Power Bill Increases	($1,709,105)
Rebates From EK	$114,842	Administrative Costs	($139,341)
		Rebates Paid To Consumers	($229,683)
Total Benefits	$2,651,954	Total Costs	($2,078,129)

Benefit / Cost Ratio: 1.28

Participant Benefits		Participant Costs	
Gas Bill Decreases	$5,917,089	Electric Bill Increases	($1,448,503)
Rebates From Distribution System	$183,950	Up Front Investment	($2,146,079)
Total Benefits	$6,101,039	Total Costs	($3,594,582)

Benefit / Cost Ratio: 1.70

Total Resource Benefits		Total Resource Costs	
Gas Bill Decreases	$10,488,645	Up Front Customer Investment	($2,679,636)
		Distribution System Admin. Costs	($139,341)
		EK Administrative Costs	($7,013)
		Increased Cost of Production	($1,704,751)
Total Benefits	$10,488,645	Total Costs	($4,530,741)

Benefit / Cost Ratio: 2.31

EK Benefits		EK Costs	
Rate E Revenue Increases	$1,709,104	Rebates Paid	($114,842)
		EK Administrative Costs	($7,013)
		Increased Cost of Production	($1,704,751)
Total Benefits	$1,709,104	Total Costs	($1,826,606)

Benefit / Cost Ratio: 0.94

Societal Benefits		Societal Costs	
Gas Bill Decreases	$12,189,708	Up Front Customer Investment	($2,837,738)
		Distribution System Admin. Costs	($147,562)
		EK Administrative Costs	($7,427)
		Increased Cost of Production	($1,971,707)
		External Environmental Costs	($397,488)
Total Benefits	$12,189,708	Total Costs	($5,361,922)

Benefit / Cost Ratio: 2.27

Commercial Lighting Program

Distribution System Benefits		Distribution System Costs	
Power Bill Declines	$8,251,095	Revenue Declines	($12,745,360)
Rebates From EK	$2,902,046	Rebates Paid To Consumers	($1,160,819)
Total Benefits	$11,153,141	Total Costs	($13,906,179)
		Benefit / Cost Ratio: 0.80	

Participant Benefits		Participant Costs	
Electric Bill Declines	$8,522,922	Up Front Investment	($4,194,052)
Rebates From Distribution System	$929,682		
Total Benefits	$9,452,604	Total Costs	($4,194,052)
		Benefit / Cost Ratio: 2.25	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$1,088,605	Up Front Customer Investment	($4,974,937)
Avoided Energy Costs	$8,269,425	EK Administrative Costs	($807,719)
Avoided Capacity Costs	$4,878,544		
Avoided Transmission Expense	$499,212		
Total Benefits	$14,735,786	Total Costs	($5,782,656)
		Benefit / Cost Ratio: 2.55	

EK Benefits		EK Costs	
Avoided Distribution Expense	$1,088,605	Decrease In Revenue	($8,247,569)
Avoided Energy Costs	$8,269,425	Rebates Paid	($2,902,046)
Avoided Capacity Costs	$4,878,544	Administrative Costs	($807,719)
Avoided Transmission Expense	$499,212		
Total Benefits	$14,735,786	Total Costs	($11,957,334)
		Benefit / Cost Ratio: 1.23	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$1,224,011	Up Front Customer Investment	($5,268,463)
Avoided Energy Costs	$9,258,983	EK Administrative Costs	($855,375)
Avoided Capacity Costs	$5,491,814		
Avoided Transmission Expense	$561,306		
External Environmental Benefits	$1,832,930		
Total Benefits	$18,369,044	Total Costs	($6,123,838)
		Benefit / Cost Ratio: 3.00	

C & I Demand Response Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$8,821,913	Revenue Decrease	($4,818,663)
Rebates From EK	$4,939,467	Administrative Costs	($1,612,953)
		Rebates Paid To Consumers	($4,939,467)
Total Benefits	$13,761,380	Total Costs	($11,371,083)
	Benefit / Cost Ratio: 1.21		

Participant Benefits		Participant Costs	
Electric Bill Decreases	$3,076,157	Up Front Investment	($1,965,353)
Rebates From Distribution System	$3,272,693		
Total Benefits	$6,348,850	Total Costs	($1,965,353)
	Benefit / Cost Ratio: 3.23		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$7,941,752	Up Front Customer Investment	($2,923,276)
Avoided Energy Costs	$4,484,717	Distribution System Admin. Costs	($1,612,953)
Avoided Capacity Costs	$14,126,678	EK Administrative Costs	($443,368)
Avoided Transmission Expense	$3,641,906		
Total Benefits	$30,195,053	Total Costs	($4,979,597)
	Benefit / Cost Ratio: 6.06		

EK Benefits		EK Costs	
Avoided Distribution Expense	$7,941,752	Decrease in Revenue	($8,821,913)
Avoided Energy Costs	$4,484,717	Rebates Paid	($4,939,467)
Avoided Capacity Costs	$14,126,678	Administrative Costs	($443,368)
Avoided Transmission Expense	$3,641,906		
Total Benefits	$30,195,053	Total Costs	($14,204,748)
	Benefit / Cost Ratio: 2.13		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$9,029,969	Up Front Customer Investment	($238,265)
Avoided Energy Costs	$5,036,462	Distribution System Admin. Costs	($1,814,941)
Avoided Capacity Costs	$16,101,148	EK Administrative Costs	($477,133)
Avoided Transmission Expense	$4,140,938		
External Environmental Benefits	$692,258		
Total Benefits	$35,000,775	Total Costs	($2,530,339)
	Benefit / Cost Ratio: 13.83		

Commercial Efficient HVAC Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$928,614	Revenue Decrease	($1,335,164)
Rebates From EK	$462,237	Administrative Costs	($11,484)
		Rebates Paid To Consumers	($373,235)
Total Benefits	$1,390,851	Total Costs	($1,719,883)
	Benefit / Cost Ratio: 0.81		

Participant Benefits		Participant Costs	
Electric Bill Decreases	$783,436	Up Front Investment	($597,836)
Rebates From Distribution System	$298,918		
Total Benefits	$1,082,354	Total Costs	($597,836)
	Benefit / Cost Ratio: 1.81		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$167,895	Up Front Customer Investment	($746,470)
Avoided Energy Costs	$839,986	Distribution System Admin. Costs	($11,484)
Avoided Capacity Costs	$782,867	EK Administrative Costs	($30,624)
Avoided Transmission Expense	$76,993		
Total Benefits	$1,867,741	Total Costs	($788,578)
	Benefit / Cost Ratio: 2.37		

EK Benefits		EK Costs	
Avoided Distribution Expense	$167,895	Decrease in Revenue	($928,614)
Avoided Energy Costs	$839,986	Rebates Paid	($462,237)
Avoided Capacity Costs	$782,867	Administrative Costs	($30,624)
Avoided Transmission Expense	$76,993		
Total Benefits	$1,867,741	Total Costs	($1,421,475)
	Benefit / Cost Ratio: 1.31		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$193,682	Up Front Customer Investment	($790,513)
Avoided Energy Costs	$963,130	Distribution System Admin. Costs	($12,162)
Avoided Capacity Costs	$904,729	EK Administrative Costs	($32,431)
Avoided Transmission Expense	$88,818		
External Environmental Benefits	$193,030		
Total Benefits	$2,343,389	Total Costs	($835,106)
	Benefit / Cost Ratio: 2.81		

Commercial Building Performance Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$1,582,177	Revenue Decrease	($2,310,780)
Rebates From EK	$779,391	Administrative Costs	($398,117)
		Rebates Paid To Consumers	($823,797)
Total Benefits	$2,361,568	Total Costs	($3,532,694)
		Benefit / Cost Ratio: 0.67	

Participant Benefits		Participant Costs	
Electric Bill Decreases	$1,569,653	Up Front Investment	($1,318,306)
Rebates From Distribution System	$659,766		
Total Benefits	$2,229,419	Total Costs	($1,318,306)
		Benefit / Cost Ratio: 1.69	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$272,895	Up Front Customer Investment	($1,646,062)
Avoided Energy Costs	$1,479,336	Distribution System Admin. Costs	($398,117)
Avoided Capacity Costs	$1,191,502	EK Administrative Costs	($30,624)
Avoided Transmission Expense	$125,145		
Total Benefits	$3,068,878	Total Costs	($2,074,803)
		Benefit / Cost Ratio: 1.48	

EK Benefits		EK Costs	
Avoided Distribution Expense	$272,895	Decrease in Revenue	($1,577,278)
Avoided Energy Costs	$1,479,336	Rebates Paid	($779,391)
Avoided Capacity Costs	$1,191,502	Administrative Costs	($30,624)
Avoided Transmission Expense	$125,145		
Total Benefits	$3,068,878	Total Costs	($2,387,293)
		Benefit / Cost Ratio: 1.29	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$301,830	Up Front Customer Investment	($1,743,182)
Avoided Energy Costs	$1,625,717	Distribution System Admin. Costs	($421,607)
Avoided Capacity Costs	$1,319,112	EK Administrative Costs	($32,431)
Avoided Transmission Expense	$138,413		
External Environmental Benefits	$330,151		
Total Benefits	$3,715,223	Total Costs	($2,197,220)
		Benefit / Cost Ratio: 1.69	

Commercial New Construction Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$3,662,740	Revenue Decrease	($5,485,036)
Rebates From EK	$2,082,460	Administrative Costs	($122,498)
		Rebates Paid To Consumers	($1,714,967)
Total Benefits	$5,745,200	Total Costs	($7,322,501)
	Benefit / Cost Ratio: 0.78		

Participant Benefits		Participant Costs	
Electric Bill Decreases	$3,131,496	Up Front Investment	($2,746,981)
Rebates From Distribution System	$1,373,491		
Total Benefits	$4,504,987	Total Costs	($2,746,981)
	Benefit / Cost Ratio: 1.64		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$555,131	Up Front Customer Investment	($3,429,935)
Avoided Energy Costs	$3,515,603	Distribution System Admin. Costs	($122,498)
Avoided Capacity Costs	$2,565,954	EK Administrative Costs	($91,873)
Avoided Transmission Expense	$254,571		
Total Benefits	$6,891,259	Total Costs	($3,644,306)
	Benefit / Cost Ratio: 1.89		

EK Benefits		EK Costs	
Avoided Distribution Expense	$555,131	Decrease in Revenue	($3,662,740)
Avoided Energy Costs	$3,515,603	Rebates Paid	($2,082,460)
Avoided Capacity Costs	$2,565,954	Administrative Costs	($91,873)
Avoided Transmission Expense	$254,571		
Total Benefits	$6,891,259	Total Costs	($5,837,073)
	Benefit / Cost Ratio: 1.18		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$644,470	Up Front Customer Investment	($3,632,304)
Avoided Energy Costs	$4,063,754	Distribution System Admin. Costs	($129,725)
Avoided Capacity Costs	$2,984,623	EK Administrative Costs	($97,294)
Avoided Transmission Expense	$295,540		
External Environmental Benefits	$794,381		
Total Benefits	$8,782,768	Total Costs	($3,859,323)
	Benefit / Cost Ratio: 2.28		

Commercial Efficient Refrigeration Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$1,326,542	Revenue Decrease	($2,092,190)
Rebates From EK	$760,481	Administrative Costs	($2,680)
		Rebates Paid To Consumers	($234,468)
Total Benefits	$2,087,023	Total Costs	($2,329,338)
		Benefit / Cost Ratio: 0.90	

Participant Benefits		Participant Costs	
Electric Bill Decreases	$1,329,111	Up Front Investment	($375,564)
Rebates From Distribution System	$187,782		
Total Benefits	$1,516,893	Total Costs	($375,564)
		Benefit / Cost Ratio: 4.04	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$154,078	Up Front Customer Investment	($468,936)
Avoided Energy Costs	$1,252,357	Distribution System Admin. Costs	($2,680)
Avoided Capacity Costs	$686,395	EK Administrative Costs	($30,624)
Avoided Transmission Expense	$70,657		
Total Benefits	$2,163,487	Total Costs	($502,240)
		Benefit / Cost Ratio: 4.31	

EK Benefits		EK Costs	
Avoided Distribution Expense	$154,078	Decrease in Revenue	($1,325,963)
Avoided Energy Costs	$1,252,357	Rebates Paid	($760,481)
Avoided Capacity Costs	$686,395	Administrative Costs	($30,624)
Avoided Transmission Expense	$70,657		
Total Benefits	$2,163,487	Total Costs	($2,117,068)
		Benefit / Cost Ratio: 1.02	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$173,738	Up Front Customer Investment	($496,604)
Avoided Energy Costs	$1,403,050	Distribution System Admin. Costs	($2,838)
Avoided Capacity Costs	$775,030	EK Administrative Costs	($32,431)
Avoided Transmission Expense	$79,673		
External Environmental Benefits	$300,881		
Total Benefits	$2,732,372	Total Costs	($531,873)
		Benefit / Cost Ratio: 5.14	

Industrial Premium Motors Rebate Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$2,432,522	Revenue Decrease	($3,961,721)
Rebates From EK	$1,148,416	Administrative Costs	($3,828)
		Rebates Paid To Consumers	($382,805)
Total Benefits	$3,580,938	Total Costs	($4,348,354)
		Benefit / Cost Ratio: 0.82	

Participant Benefits		Participant Costs	
Electric Bill Decreases	$2,324,626	Up Front Investment	($686,132)
Rebates From Distribution System	$306,583		
Total Benefits	$2,631,209	Total Costs	($686,132)
		Benefit / Cost Ratio: 3.83	

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$280,655	Up Front Customer Investment	($856,718)
Avoided Energy Costs	$2,478,645	Distribution System Admin. Costs	($3,828)
Avoided Capacity Costs	$1,275,544	EK Administrative Costs	($15,312)
Avoided Transmission Expense	$128,702		
Total Benefits	$4,163,546	Total Costs	($875,858)
		Benefit / Cost Ratio: 4.75	

EK Benefits		EK Costs	
Avoided Distribution Expense	$280,655	Decrease in Revenue	($2,432,522)
Avoided Energy Costs	$2,478,645	Rebates Paid	($1,148,416)
Avoided Capacity Costs	$1,275,544	Administrative Costs	($15,312)
Avoided Transmission Expense	$128,702		
Total Benefits	$4,163,546	Total Costs	($3,596,250)
		Benefit / Cost Ratio: 1.16	

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$321,215	Up Front Customer Investment	($907,265)
Avoided Energy Costs	$2,841,219	Distribution System Admin. Costs	($4,054)
Avoided Capacity Costs	$1,461,780	EK Administrative Costs	($16,216)
Avoided Transmission Expense	$147,302		
External Environmental Benefits	$572,762		
Total Benefits	$5,344,278	Total Costs	($927,535)
		Benefit / Cost Ratio: 5.76	

Industrial Variable Speed Drives Program

Distribution System Benefits		Distribution System Costs	
Power Bill Decrease	$13,512,265	Revenue Decrease	($22,006,723)
Rebates From EK	$6,699,091	Administrative Costs	($2,680)
		Rebates Paid To Consumers	($2,636,762)
Total Benefits	$20,211,356	Total Costs	($24,646,165)
	Benefit / Cost Ratio: 0.82		

Participant Benefits		Participant Costs	
Electric Bill Decreases	$12,912,922	Up Front Investment	($3,589,961)
Rebates From Distribution System	$2,111,742		
Total Benefits	$15,024,664	Total Costs	($3,589,961)
	Benefit / Cost Ratio: 4.19		

Total Resource Benefits		Total Resource Costs	
Avoided Distribution Expense	$1,534,359	Up Front Customer Investment	($4,482,496)
Avoided Energy Costs	$13,768,475	Distribution System Admin. Costs	($2,680)
Avoided Capacity Costs	$6,966,825	EK Administrative Costs	($76,561)
Avoided Transmission Expense	$703,622		
Total Benefits	$22,973,281	Total Costs	($4,561,737)
	Benefit / Cost Ratio: 5.04		

EK Benefits		EK Costs	
Avoided Distribution Expense	$1,534,359	Decrease in Revenue	($13,512,265)
Avoided Energy Costs	$13,768,475	Rebates Paid	($6,699,091)
Avoided Capacity Costs	$6,966,825	Administrative Costs	($76,561)
Avoided Transmission Expense	$703,622		
Total Benefits	$22,973,281	Total Costs	($20,287,917)
	Benefit / Cost Ratio: 1.13		

Societal Benefits		Societal Costs	
Avoided Distribution Expense	$1,755,447	Up Front Customer Investment	($4,746,967)
Avoided Energy Costs	$15,782,512	Distribution System Admin. Costs	($2,838)
Avoided Capacity Costs	$7,980,832	EK Administrative Costs	($81,078)
Avoided Transmission Expense	$805,008		
External Environmental Benefits	$3,181,599		
Total Benefits	$29,505,398	Total Costs	($4,830,883)
	Benefit / Cost Ratio: 6.11		

Exhibit DSM-4

Existing DSM Programs

Assumption Sheets

2006 IRP

ETS Propane Program

Assumption	*Source*
Load Impacts Before Participant *0 kWh, 0.00 kW (coincident with winter system peak), 533 gallons*	Typical Propane furnace in 1625 square foot home. Derived from electric furnace loads in the 1996-98 metering study, using 85% combustion efficiency and 91,600 BTU per gallon
After Participant *11,159 kWh, 0.11 kW (coincident with winter system peak), 73 gallons*	ETS unit in 1625 square foot home adjusted for larger ETS unit size (10 kW) in propane group. Propane furnace with ETS derived from electric furnace loads in metering study, adjusted to 10 kW/1625 square feet.
Lifetime of savings	20 Years
Generation Capacity Cost - Peak	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,899	Includes installation, ETS unit cost, and new TOU meter.
Administrative Cost EK $15,214 fixed annual (2006-2015), $65 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $214 per new participant	Cost information provided by 2 Coops (InterCo. and South KY) 2003.
Rate Schedule - Retail BEFORE: South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 AFTER: South Kentucky ETS rate	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Propane rate is $ 1.84 per gallon	Midrange of retail prices, July 2006 (Armstrong).
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 130 per year, 10 years (2006-2015)	2005 participation was 127 where primary heating system fuel was fossil.
Rebates Co-op to Participant $600 *EK to Co-op $300*	$60 per kW times 10 kW. EKPC Marketing Summary of Coop Rebates dated April 2006: Rebates range from $25 - $100 per kW. Avg EKPC rebate to coops in 2005 was $283 per participant. Partners Plus Reimbursement

2006 IRP

ETS Furnace Program

Assumption	*Source*
Load Impacts Before Participant *12,675 kWh, 9.62 kW (coincident with winter system peak), 0 therms*	Typical electric furnace (metered study) adjusted for avg square footage of participants (1708 square feet)
After Participant *13,307 kWh, 2.83 kW (coincident with winter system peak), 0 therms*	ETS unit, 1708 square foot home. Electric furnace with ETS in the home, 1708 square foot home. Both loads come from the EKPC end use metering study (1996-1998).
Lifetime of savings	20 Years
Generation Capacity Cost - Peak	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,899	Billy Abner 3/02. Typical system size 9 kW. Includes $500 installation cost, $1,184 for the unit, $40 for the meter base, and $175 for the TOU meter.
Administrative Cost EK $15,214 fixed annual (2006-2015), $65 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $214 per new participant	Cost information provided by 2 Coops (InterCo. and South KY) 2003.
Rate Schedule - Retail	
BEFORE = South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
AFTER = South Kentucky ETS rate	same as above.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 120 per year, 10 years (2006-2015)	2005 participation was 117 where primary heating system source was electricity
Rebates	
Co-op to Participant $540	$60 per kW of installed capacity times 9 kW. EKPC Marketing Summary of Coop Rebates dated April 2006: Rebates range from $25 - $100 per kW. Avg EKPC rebate to coops in 2005 was $283 per participant.
EK to Co-op $270	Partners Plus Reimbursement

2006 IRP

Electric Water Heater New Construction Program

Assumption	*Source*
Load Impacts Before Participant *4,821 kWh, 1.12 kW (coincident with winter system peak), 0 therms*	Standard electric hot water heater (TVA metering study).
After Participant *4,433 kWh, 1.03 kW (coincident with winter system peak), 0 therms*	High efficiency electric hot water heater (8% savings per Abner 3/02).
Lifetime of savings	12 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 115	Difference between cost of a typical electric water heater and a high efficient water heater. Per Miller, Blue Grass Energy 3/02.
Administrative Cost EK $2,449 fixed annual (2006-2015), $0 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $ 65 per new participant	Cost information provided by 7 Coops (Shelby, Clark, interCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 640 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 638.
Rebates Co-op to Participant $150 EK to Co-op $75	EKPC Marketing Summary of Coop Rebates dated April 2006. Range is $100 - $200. In 2005 avg EKPC rebate to coop was $75 per participant.2 Partners Plus Reimbursement

2006 IRP | Electric Water Heater Retrofit Program

Assumption	*Source*
Load Impacts Before Participant *0 kWh, 0.00 kW (coincident with winter system peak), 228 therms*	Natural Gas water heater. Source: LBL Energy Data Sourcebook , Table 4.2
After Participant *4,433 kWh, 1.03 kW (coincident with winter system peak), 0 therms*	High efficiency electric water heater.
Lifetime of savings	12 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 125	Difference between cost of a high efficiency electric water heater and a gas water heater. Source: Miller, Blue Grass Energy (3/02).
Administrative Cost EK $916 fixed annual (2006-2015), $0 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $65 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 Columbia Gas rate GSR $11.88/MMBTU	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Columbia Gas rate tariff effective May 31, 2006.,
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 50 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 44.
Rebates	
Co-op to Participant $150 EK to Co-op $75	EKPC Marketing Summary of Coop Rebates dated April 2006. Range is $100 - $200. 2005 avg EKPC rebate to coop was $75 per participant. Partners Plus Reimbursement

2006 IRP

Geothermal Heat Pump program

Assumption	*Source*
Load Impacts Before Participant *13,458 kWh, 9.38 kW (coincident with winter system peak), 206 therms*	HVAC end use technology choices in new construction market in absence of program. Natural gas furnace (25%) , central air conditioning (25%), and standard efficiency new air source heat pump - SEER 13, HSPF 7.7 (75%). Shares were consensus of coop staff (5/02). Scaled for typical square footage for participants - 2,500 square feet. Standard electric hot water heater
After Participant *10,796 kWh, 4.66 kW (coincident with winter system peak), 0 therms*	Geothermal heat pump in 2500 square foot homeconstructed to all seasons comfort home standards. Includes water heater consumption modified by desuperheater of the geothermal heat pump.
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 2,038	Cost premium associated with the installed cost of the geothermal system over and above what the installed costs of the default system(s) would be. Default system cost used is weighted cost of various technologies otherwise installed.
Administrative Cost EK $10,426 fixed per year (2006 - 2015); $34 variable	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $254 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 Columbia Gas rate GSR $11.88/MMBTU **Rate Schedule - Wholesale** East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Columbia Gas rate tariff effective May 31, 2006., Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 150 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 151.
Rebates Co-op to Participant $450 EK to Co-op $225	EKPC Marketing Summary of Coop Rebates dated April 2006; confirmed by 2005 Tracking data Partners Plus Reimbursement

2006 IRP

Air Source Heat Pump New Construction Program

Assumption	*Source*
Load Impacts Before Participant *6,275 kWh, 6.09 kW (coincident with winter system peak), 150 therms*	HVAC end use technology choices in new construction market in absence of program. Natural gas furnace (25%) , central air conditioning (25%), and standard efficiency new air source heat pump - SEER 13, HSPF 7.7 (75%). Shares were consensus of coop staff (5/02).
After Participant *6,865 kWh, 8.12 kW (coincident with winter system peak), 0 therms*	High efficiency heat pump: SEER 15, HSPF 8.5
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,400	Difference between installed cost of SEER 15 heat pump -new construction ($7,300) and the weighted installed cost of the default set of HVAC technologies ($5,900).
Administrative Cost EK $2,449	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 Columbia Gas rate GSR $11.88/MMBTU	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Columbia Gas rate tariff effective May 31, 2006.,
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 320 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 322.
Rebates Co-op to Participant $300 EK to Co-op $150	EKPC Marketing Summary of Coop Rebates dated December 2004 Partners Plus Reimbursement

2006 IRP

Air Source Heat Pump Retrofit Program

Assumption	*Source*
Load Impacts Before Participant *5,996 kWh, 5.69 kW (coincident with winter system peak), 180 therms*	HVAC end use technology choices in this retrofit market in absence of program. Natural gas furnace (30%) , central air conditioning (30%), and standard efficiency new air source heat pump - SEER 13, HSPF 7.7 (70%). Shares were derived from 2005 tracking data.
After Participant *6,865 kWh, 8.12 kW (coincident with winter system peak), 0 therms*	High efficiency heat pump: SEER 15, HSPF 8.5
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,400	Difference between installed cost of SEER 15 heat pump and weighted average installed cost of set of HVAC technology choices in absence of the program.
Administrative Cost EK $916 fixed annual (2006-2015)	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 Columbia Gas rate GSR $11.88/MMBTU	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Columbia Gas rate tariff effective May 31, 2006.,
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 340 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 344.
Rebates Co-op to Participant $300 EK to Co-op $150	EKPC Marketing Summary of Coop Rebates dated December 2004 Partners Plus Reimbursement

2006 IRP

Tune-Up HVAC Maintenance Program

Assumption	*Source*
Load Impacts Before Participant *11,286 kWh, 8.96 kW (coincident with winter system peak)*	HVAC loads for a typical heat pump in typical residence
After Participant *9,932 kWh, 7.89 kW (coincident with winter system peak)*	HVAC loads for a typical heat pump home reduced by 12% savings. 12 % savings derived from ACEEE report and site specific blower door results.
Lifetime of savings	12 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 300.00	Average payment to contractors for performing the measures in the program. Source: EKPC Marketing Department - based on Jackson program
Administrative Cost EK $3,409	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $260 per customer	Cost information provided by 4 Coops (InterCo., Nolin, South KY, and Blue Grass) 2003.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 350 per year, 10 years (2006 2015)	Average participation over 4 years (2002 - 2005) is 338 per year
Rebates Co-op to Participant $260 EK to Co-op $130	Average payment to contractors is $300; participating member pays $40. Partners Plus Reimbursement (50% of coop rebate)

2006 IRP

Button-Up Weatherization Program

Assumption	*Source*
Load Impacts Before Participant *11286 kWh, 8.96 kW (coincident with winter system peak)*	Typical heat pump in typical residence
After Participant *8882 kWh, 7.05 kW (coincident with winter system peak)*	21.3% savings applied to typical heat pump. Savings derived from site specific engineering estimates and impact.
Lifetime of savings	15 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 563	Farmers RECC 4/02.
Administrative Cost EK $4,038	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $140 per new participant	Cost information provided by 4 Coops (InterCo., Nolin, South KY, and Blue Grass) 2003.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 500 per year, 10 years (2006-2015)	Average participation over 8 years (1998 - 2005) is 509 per year
Rebates Co-op to Participant $300 EK to Co-op $150	EKPC Marketing Summary of Coop Rebates dated December 2004 Partners Plus Reimbursement

Exhibit DSM-5
New DSM Programs
Assumption Sheets

2006 IRP

Compact Fluorescent Lighting Program

Assumption	*Source*
Load Impacts Before Participant *130 kWh, 0.02 kW (coincident with winter system peak), 0 therms*	2 standard incandescent bulbs. 2 @ 65 kWh each. 60 watts times 3 hours a day times 365 days per year
After Participant *30 kWh, 0.005 kW (coincident with winter system peak), 0 therms*	2 compact fluorescent light bulbs at 15 kWh each (14 watts).
Lifetime of savings	7 Years. 9,000 hour rated life, 20% attrition (removals)
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 0	Two pack of bulbs are given out to each member at the annual meetings.
Administrative Cost EK $850 fixed annual (2006-2015), $ 2.20 per new participant	All cost estimates provided by EKPC Marketing/Communications, Jeff H, May 2006. At 2006 annual meeting, EK subsidized the KAEC cost by $1.10 per bulb.
Co-op $0 per new participant	Co-ops would otherwise be providing standard bulbs, so incremental admin costs are zero. Coops cover the remaining $0.70 per bulb, which represents the cost of a standard light bulb. Thus, incremental product costs for the coop are also zero (covered by EKPC).
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 37,700 per year, 10 years (2006-2015). Units are two-pack bulbs. 10% free riders.	Based on # of bulbs purchased for 2006 annual meetings. Free rider estimate is from California PUC Energy Efficiency Policy Manual. Free rider is defined as a program participant who would have installed the measure anyway even without the program.
Rebates Co-op to Participant $0 EK to Co-op $)	Rebates are not a feature of this program Rebates are not a feature of this program

2006 IRP — Touchstone Energy Geothermal Home

Assumption	*Source*
Load Impacts Before Participant *15,378 kWh, 12.17 kW (coincident with winter system peak), 0 therms*	Baseline efficiency heat pump: SEER 13, HSPF 7.7. Scaled for a 2,500 square foot home. All Seasons Comfort Home standards. Standard electric hot water heater.
After Participant *9,772 kWh, 4.05 kW (coincident with winter system peak), 0 therms*	Geothermal heat pump for 2,500 square foot home built to Touchstone Energy Home standards, Electric water heater with desuperheater from geothermal.
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 2,950	Participant cost includes (1) Cost premium associated with the installed cost of the geothermal system over and above the installed cost of the default system; and (2) incremental costs of going from ASCH to Touchstone Energy standards.
Administrative Cost EK $2,111 fixed annual (2006 - 2015); $99 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 40 per year, 10 years (2006-2015)	Actual participation in 2005.
Rebates Co-op to Participant $700 EK to Co-op $350	EKPC Marketing Summary of Coop Rebates dated April 2006; confirmed by 2005 tracking data Partners Plus Reimbursement

2006 IRP

Touchstone Energy Home with Air Source Heat Pump

Assumption	*Source*
Load Impacts Before Participant *12,490 kWh, 9.11 kW (coincident with winter system peak), 0 therms*	Baseline efficiency heat pump: SEER 13, HSPF 7.7, 1700 square foot home, built to All Seasons Comfort Home standards. Standard electric hot water heater.
After Participant *10,308 kWh, 7.82 kW (coincident with winter system peak), 0 therms*	High efficiency air source heat pump: SEER 15, HSPF 8.5 , 1700 square foot home, built to Touchstone Energy Home standards. Efficient electric hot water heater.
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 2,125	Includes (1) incremental cost of SEER 15 heat pump compared to SEER 13 one; (2) costs associated with bringing ASCH to Touchstone Energy standards; and (3) incremental cost of an efficient water heater. Cost estimates from DOE analysis, marketing dept sources, and Blue Grass tracking data (water heater).
Administrative Cost EK $13,535 fixed annual (2006-2015), $ 99 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005.
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 100 per year, 10 years (2006-2015)	Actual participation for 2005 was 92. Program is in third year,still ramping up its participation.
Rebates Co-op to Participant $500 EK to Co-op $250	EKPC Marketing Summary of Coop Rebates dated April 2006 Partners Plus Reimbursement

2006 IRP — Touchstone Energy Manufactured Home

Assumption	*Source*
Load Impacts Before Participant *17,194 kWh, 9.73 kW (coincident with winter system peak), 3.11 kW (summer)*	Heating & cooling electricity loads for a standard efficiency manufactured home
After Participant *12,036 kWh, 6.81 kW (coincident with winter system peak), 2.18 kW (summer)*	30% savings achieved by Manufactured Home conforming to Touchstone Energy standards (Marketing 2002)
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,000	Marketing Dept 2002 (Moller memo 3/02)
Administrative Cost EK $ 3183 fixed annual (2006-2015), $0 per new participant	*All cost estimates provided by EKPC Marketing/Communications, June 2005.*
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, InterCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 10 per year, 10 years (2006-2015)	Average participation for 2004,2005 is 7.
Rebates Co-op to Participant $300 EK to Co-op $150	EKPC Marketing Summary of Coop Rebates dated April 2006 Partners Plus Reimbursement

2006 IRP

DLC Program for AC and DHW combined

Assumption	*Source*
Load Impacts Before Participant *6,702 kWh, 1.03 kW (coincident with winter system peak),2.70 kW (summer)*	Typical residential central air conditioner & efficient electric water heater
After Participant *6,688 kWh, 0.00 kW (coincident with winter system peak), 1.30 kw (summer)*	CAC load control is 50% cycling on peak days June through Sept. Water heater load control is 3 hour curtailment on peak days every month of the year.
Lifetime of savings	20 Years.
Generation Capacity Cost - Peaking	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 0	Participant does not bear any direct costs in this program.
Administrative Cost	Note: all admin costs are escalated at 3% per year. Values here are for 2006.
EK: $80,000 one time for each new coop, $5,150 fixed annual per coop through 2025, $150 per new participant (one time) and $1 per participant (each year)	Based on DLC demonstration program as filed with PSC in January 2006. Assume 8 coops participate, added in 1 per year from 2006 through 2013). Modelled as 50% cost sharing with coops (EKPC pays 50% and the coops pay 50% of these fixed costs). Uses existing AMR system at each coop.
Coop: $80,000 one time for each new coop, $5,150 fixed annual per coop through 2025, $150 per new participant (one time) and $1 per participant (each year)	50% cost sharing with EKPC.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 5,000 new per year, 10 years (2006-2015)	Assumes 20% penetration rate for 50% of the eligible population (8 participating coops). Total of 50,000 ultimate participates by 2015.
Rebates Co-op to Participant $30 per year EK to Co-op $15 per year	As filed; this is for two appliances (CAC and water heater). Partners Plus Reimbursement

2006 IRP

ENERGY STAR Clothes Washer Rebate Program

Assumption	*Source*
Load Impacts Before Participant *5,450 kWh, 1.29 kW (coincident with winter system peak), 0.47 kW (summer)*	Typical electric water heater with typical electric dryer. Electricity savings from ENERGY STAR Clothes washers come from lower water heating and clothes drying energy.
After Participant *5,100 kWh, 1.20 kW (coincident with winter system peak), 0.44 kW (summer)*	ENERGY STAR clothes washers save on average 250 kWh on water heating and 100 kWh on clothes drying each year.
Lifetime of savings 12 years	Source: Northeast Energy Efficiency Partnership (NEEP) planning document (Sept 2004).
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $240 one time; $ -20 per year O&M cost	Difference between retail price of an ENERGY STAR clothes washer and a new standard efficiency washer. Source: NEEP (2004). The **negative** $20 per year O&M cost represents savings in water and sewer costs by using less water..
Administrative Cost EK $2000 fixed annual (2006-2015), $0 per new participant	Marketing with Trade Allies. Rebate program with mail in form.
Co-op $10 per new participant	*Form processing time.*
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 500 per year, 10 years (2006-2015)	Share increase of 7% in target market assuming multiplier effect of 3:1 (although free drivers not modelled).
Rebates Co-op to Participant $50 EK to Co-op $25	Based on survey of current utility programs in US Partners Plus Reimbursement

2006 IRP — ENERGY STAR Room AC Program

Assumption	*Source*
Load Impacts Before Participant *1,100 kWh, 0.00 kW (coincident with winter system peak), 1.80 kW (summer)*	Standard efficiency new Room Air Conditioner
After Participant *1,000 kWh, 0.00 kW (coincident with winter system peak), 1.64 kW (summer)*	ENERGY STAR Room Air Conditioner
Lifetime of savings	15 Years
Generation Capacity Cost - Peak	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 75	Difference between cost of ENERGY STAR Room AC and standard new Room AC. Source: ENERGY STAR, DEEM
Administrative Cost EK $2000 fixed annual (2006-2015), $0 per new participant	Marketing with Trade Allies. Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 600 per year, 10 years (2006-2015)	Targetting 10% of the new Room AC purchase market each year.
Rebates Co-op to Participant $25 EK to Co-op $12.50	Survey of current REC programs in US Partners Plus Reimbursement

2006 IRP

ENERGY STAR Refrigerator Rebate Program

Assumption	*Source*
Load Impacts Before Participant *600 kWh, 0.057 kW (coincident with winter system peak), 0.087 kW (summer)*	New refrigerator meeting current Federal standards for efficiency
After Participant *500 kWh, 0.047 kW (coincident with winter system peak), 0.072 kW (summer)*	New ENERGY STAR Refrigerator. Source: USDOE Technical Analysis of Amended Standards for Residential Refrigerator-Freezers, October 2005.
Lifetime of savings	15 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 35	Incremental cost for the more efficient ENERGY STAR model. Source: USDOE Technical Analysis of Amended Standards for Residential Refrigerator-Freezers, October 2005.
Administrative Cost EK $2000 fixed annual (2006-2015), $0 per new participant	Marketing with Trade Allies. Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 900 per year, 10 years (2006-2015), 10% free riders (90 per year)	4% penetration of annual purchase market for new refrigerators. Free rider estimate is from California PUC Energy Efficiency Policy Manual. Free rider is defined as a program participant who would have installed the measure anyway even without the program.
Rebates Co-op to Participant $20 EK to Co-op $10	Based on survey of current utility programs in US Partners Plus Reimbursement

2006 IRP

Programmable Thermostat with Electric Furnace Retrofit Program

Assumption	*Source*
Load Impacts Before Participant *14,936 kWh, 9.62 kW (coincident with winter system peak), 2.05 kW (summer)*	Typical electric furnace with standard efficiency central air conditioner in existing 1700 square foot home
After Participant *14,187 kWh, 9.62 kW (coincident with winter system peak), 1.95 kW (summer)*	5 % savings on annual kWh from operation of programmable thermostat.
Lifetime of savings	11 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 75	Installed cost of a programmable thermostat.
Administrative Cost EK $1000 fixed annual (2006-2015), $0 per new participant	Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail	
South Kentucky A rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 650 per year, 10 years (2006-2015)	Achieves 10% increase in penetration of programmable thermostats among existing homes with electric furnace and central AC by 2015.
Rebates Co-op to Participant $25 EK to Co-op $12.50	Based on survey of current utility programs in US Partners Plus Reimbursement

2006 IRP

Dual Fuel Air Source Heat Pump with Propane Retrofit Program

Assumption	*Source*
Load Impacts Before Participant *0 kWh, 0.00 kW (coincident with winter system peak), 775 gallons*	Propane furnace in typical existing 1700 square foot home. Sources: EIA Regional data &Lexington Kentucky weather data.
After Participant *4,003 kWh, 0.00 kW (coincident with winter system peak), 104 gallons*	Heating component of air source heat pump load with the propane furnace, 1700 square feet, thermostat switch set to 25 degrees F. At or above 25 degrees, the heat pump heats the home. Below 25 degrees, the propane furnace heats the home.
Lifetime of savings	20 Years
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 3,500	Includes add-on heat pump components, new thermostat, and installation costs. Provided by Roy Honican October 2005.
Administrative Cost EK $916 fixed annual (2006-2015), $0 per new participant	All cost estimates provided by EKPC Marketing/Communications, June 2005. Based on heat pump retrofit program
Co-op $182 per new participant	Cost information provided by 7 Coops (Shelby, Clark, interCo., Salt River, South KY, and Blue Grass) 2002.
Rate Schedule - Retail South Kentucky A rate, w/ FAC $0.00879, ES $0.00471 Propane rate is $ 1.84 per gallon	*Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated* FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Midrange of retail prices, July 2006 (Armstrong).
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 100 per year, 10 years (2006-2015)	Based on planning estimates used by coops considering the program.
Rebates Co-op to Participant $300 EK to Co-op $150	EKPC Marketing Summary of Coop Rebates dated April 2006. Based on heat pump retrofit program. *Partners Plus Reimbursement*

2006 IRP

Commercial Lighting Progam

Assumption	*Source*
Load Impacts Before Participant *21,000 kWh, 2.24 kW (coincident with winter system peak), 4.19 kW (summer)*	Lighting load for typical 3,500 square foot commercial building. EUI of 6 kWh per square foot (sources: EPRI Market Profiles, Duke Power end use metering study).
After Participant *16,275 kWh, 1.73 kW (coincident with winter system peak), 3.25 kW (summer)*	Lighting load for 3,500 square foot building with 22.5% savings applied. Based on achievable potential reported by several sources: EPA, utility impact evaluations.
Lifetime of savings	10 Years (source: DEEM database)
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,200 per customer	Midrange of reported values from several programs in NY, CA, MA, Northeast, and national. Used $0.255 per annual saved kWh (NEEP 2004).
Administrative Cost EK $ 20,000 fixed annual (2006-2015), $150 per new participant	Survey of utility programs - includes setup, marketing, contractor relations, monitoring & eval, customer field work
Co-op $ 0 per new participant	EKPC manages rebates, QC and marketing
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 570 per year, 10 years (2006-2015), 5% free riders	This rate brings cumulative participation to 20% of commercial customers over the 10 years. Free rider based on studies done by CA PUC and National Grid. Free rider is a participant who would have installed the measure anyway in the absence of the program.
Rebates Co-op to Participant $266 EK to Co-op $665	C&I Energy Services offers $213 per kW of reduced lighting load. Used 90% coincidence factor 100% of the rebate to participant plus transfer payment of $320 per kW (revenue loss).

2006 IRP C&I Demand Response Program

Assumption	*Source*
Load Impacts Before Participant *10,500 kWh, 35.0 kW (coincident with winter system peak), 35.0 kW (summer)*	This is the curtailable load, consiting of a 35 kW load during the 300 highest priced hours using marginal energy costs. 35 kW represents 15% of the average peak demand for the EKPC customer base with peak demands above 50 kW. Source: load research and billing data.
After Participant *0 kWh, 0.0 kW (coincident with winter system peak), 0.0 kW (summer)*	Zero load, since the curtailable load is curtailed.
Lifetime of savings	20 Years
Generation Capacity Cost - Peaker	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 500 one time per new participant; $500 per participant per year	One time cost is the metering cost; annual cost is for program administration and communications: receiving curtailment notices, responding, accounting. Onsite generation is not assumed, and so costs for operating on-site generation (fuel or O&M) are not included.
Administrative Cost EK $150,000 fixed one time; $25,000 fixed annual (2006-2025), $0 per new participant	One time cost is to design program, purchase & install curtailment infrastructure (software, hardware, training). Annual cost is for administering the program each year.
Co-op $300 annual per participant per year	Marketing, customer assistance, coordination
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - add 150 in 2006, add 200 in 2007, add 150 in 2008	After ramp up, 10% of the eligibie customers, or 500 customers, participate.
Rebates Co-op to Participant $500 one-time; $875 per year EK to Co-op $500 one-time; $875 per year	One time rebate for meter cost; annual is payment of $25 per kW-year 100% reimbursement

2006 IRP

Commercial Efficient HVAC Program

Assumption	*Source*
Load Impacts Before Participant *11,875 kWh, 1.87 kW (coincident with winter system peak), 3.52 kW (summer)*	Typical 2,500 square foot commercial building, 50% unitary AC, 50% heat pump, standard efficiency HVAC = SEER 13, HSPF 7.7
After Participant *10,482 kWh, 1.73 kW (coincident with winter system peak), 3.05 kW (summer)*	Typical 2,500 square foot commercial building, 50% unitary AC, 50% heat pump, high efficiency HVAC = SEER 15, HSPF 8.3.
Lifetime of savings 15 years	15 Years (Northeast Energy Efficiency Partnership, Minn. Municipal Utilities, CA PUC)
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 650	NEEP
Administrative Cost EK $4000 fixed annual (2006-2015), $0 per new participant	Marketing,Trade Allies, Tracking, Processing, Eval, Cust Svc. Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail	
South Kentucky B rate, w/ FAC $0.00879, ES $0.00471 Columbia Gas rate GSR $11.88/MMBTU	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006. Columbia Gas rate tariff effective May 31, 2006.,
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 150 per year, 10 years (2006-2015)	Targeting 10% market share of HVAC replacement market.
Rebates Co-op to Participant $325	Industry practice is 50% of incremental cost
EK to Co-op $402.50	50% reimbursement of customer rebate, plus $60 per SEER increase, $60 per 0.3 HSPF increase to compensate for lost revenues (EKPC C&I Energy Services program)

2006 IRP

Commercial Building Performance Program
{Tune Up for small buildings; Retro-Commissioning for large buildings - combined }

Assumption	*Source*
Load Impacts Before Participant *13,875 kWh, 2.77 kW (coincident with winter system peak), 3.07 kW (summer)*	Typical 2,500 square foot commercial building, 50% unitary AC, 50% heat pump: heating, cooling and ventilation loads
After Participant *10,800 kWh, 2.16 kW (coincident with winter system peak), 2.39 kW (summer)*	Same building after building performance measures are done: savings are 1.23 kWH per square foot.
Lifetime of savings 7 years	ACEEE, NEEP
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,075	$0.43 per square foot; based on Dorthwest Energy Efficiency Alliance study.
Administrative Cost EK $4000 fixed annual (2006-2015), $0 per new participant	Marketing,Trade Allies, Tracking, Onsite, Eval, Cust Svc.
Co-op $260 per new participant	Based on Residential Tune-Up program
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 200 per year, 10 years (2006-2015)	Achieves 10% penetration of applicable market in 10 years
Rebates Co-op to Participant $538 EK to Co-op $509	50% of measure costs Tune-Up 5 ton rebate to coop for lost revenues ($240) plus 50% of participant rebate

2006 IRP

Commercial New Construction Program

Assumption	*Source*
Load Impacts Before Participant *100,000 kWh, 13.57 kW (coincident with winter system peak), 27.00 kW (summer)*	New construction 5,000 square foot facility, 20% heat pump heat
After Participant *90,000 kWh, 12.21 kW (coincident with winter system peak), 24.30 kW (summer)*	New construction 5,000 square foot facility with 10% savings in lighting, cooling, and heating
Lifetime of savings 20 years	Northeast Energy Efficiency Partnership, Sept 2004 (NEEP).
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 5,600	Based on $0.56 per annual kWh reported costs (NEEP)
Administrative Cost EK $4000 fixed annual (2006-2015), $ 100 per new participant	Fixed annual: marketing, trade ally, tracking & processing, customer support. The per participant cost is based on the Touchstone Energy Geothermal program.
Co-op $200 per new participant	Based on Touchstone Energy Geothermal program (residential new construction).
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 80 per year, 10 years (2006-2015)	Annual commercial new construction floorspace from employment forecast. Targeting 20% penetration each year.
Rebates Co-op to Participant $2,800	Industry practice is 50% of incremental cost
EK to Co-op $3,400	50% reimbursement of customer rebate, plus reimbursement to compensate for lost revenues (EKPC C&I Energy Services program)

2006 IRP	Commercial Efficient Refrigeration
Assumption	***Source***
Load Impacts Before Participant *40,000 kWh, 4.02 kW (coincident with winter system peak), 5.98 kW (summer)*	Typical 2,500 square foot commercial building, with standard efficiency refrigeration equivalent to energy intensity of grocery store refrigeration (kWH per square foot)
After Participant *28,000 kWh, 2.81 kW (coincident with winter system peak), 4.18 kW (summer)*	2,500 square foot commercial building with Energy Star level efficiency refrigeration
Lifetime of savings 10 years	ACEEE 2002 report
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 1,750	Based on cost per annual kWh in AD Little 1996 report adjusted to 2006 $
Administrative Cost EK $4000 fixed annual (2006-2015), $0 per new participant	Marketing, Trade Ally, Tracking & Processing, Customer support
Co-op $10 per new participant	Rebate processing
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 35 per year, 10 years (2006-2015)	Achieves 20% penetration in 10 years
Rebates Co-op to Participant $875	*Industry practice is 50% of incremental cost*
EK to Co-op $ 2,838	50% reimbursement of customer rebate, plus reimbursement to compensate for lost revenues (EKPC C&I Energy Services program)

2006 IRP

Industrial Premium Motors Rebate Program

Assumption	*Source*
Load Impacts Before Participant *500,000 kWh, 54.3 kW (coincident with winter system peak), 98.7 kW (summer)*	Motor load for a typical 200 HP facility with inventory matching market size shares, and standard efficiency (EPAct)
After Participant *487,600 kWh, 53.0 kW (coincident with winter system peak), 96.3 kW (summer)*	Motor load for 200 HP facility with premium efficiency motors. Savings weighted across market shares by size.
Lifetime of savings 15 years	Source: Northeast Energy Efficiency Partnership (NEEP), Strategic Review, Sept 2004
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 2,238.	Incremental cost for the premium efficiency motors compared to standard efficiency motors, weighted by market distribution. Source: NEEP
Administrative Cost EK $2000 fixed annual (2006-2015), $0 per new participant	Marketing,Trade Allies, Tracking, Processing, Eval, Cust Svc. Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 50 per year, 10 years (2006-2015)	Achieves 25% share in the non-OEM motor purchase market
Rebates Co-op to Participant $1,000	*$5 rebate per HP - based on review of other utility program*
EK to Co-op $3,000	50% reimbursement of customer rebate, plus compensation for lost revenues (EKPC C&I Energy Services program schedule)

2006 IRP

Industrial Variable Speed Drives Program

Assumption	*Source*
Load Impacts Before Participant *240,000 kWh, 26.1 kW (coincident with winter system peak), 47.4 kW (summer)*	Motor load for a typical 100 HP set of motors where variable speed drives apply, with inventory matching market size shares, and high efficiency.
After Participant *141,600 kWh, 15.4 kW (coincident with winter system peak), 28.0 kW (summer)*	Motor load for a typical 100 HP set of motors with variable speed drives (VSDs). 41% savings compared to motor load without VSDs. Source: Northeast Energy Efficiency Partnership (NEEP), Strategic Review, Sept 2004.
Lifetime of savings 15 years	Source: Northeast Energy Efficiency Partnership (NEEP), Strategic Review, Sept 2004
Generation Capacity Cost - Blend	Hours split and cost values from BIP analysis approved 8/25/2006. There are two categories: Peak and Blend. Peak is assigned to programs that provide savings in 2,887 hours of the year or fewer.
Participant Costs $ 16,728	Cost of the variable speed drive measure, $0.17 per annual kWh saved. Source: NEEP, 2004.
Administrative Cost EK $10000 fixed annual (2006-2015), $0 per new participant	Marketing,Trade Allies,Tracking, Processing, Eval, Cust Svc. Includes efforts to promote wider application of VSDs. Rebate program with mail in form.
Co-op $10 per new participant	Form processing time.
Rate Schedule - Retail South Kentucky B rate, w/ FAC $0.00879, ES $0.00471	Retail Rates Workbook, Pricing Group, 7/04, updated for fuel cost roll-in (May 2005), updated FAC, ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Rate Schedule - Wholesale East Kentucky E-2 rate, w/ FAC $0.00833, ES $0.00446	Retail Rates Workbook, updated for fuel cost roll-in (May 2005), updated FAC , ES for 2006. Escalation factors derived from financial forecast as of June 2006.
Participation - 35 per year, 10 years (2006-2015)	Achieves 25% share of the applicable non-OEM annual motor purchase market.
Rebates Co-op to Participant $ 9,840 EK to Co-op $25,000	$0.10 per annual saved kWh - based on review of other utility programs 50% reimbursement of customer rebate, plus compensation for lost revenues (EKPC C&I Energy Services program schedule)

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 20
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 20. In considering a potential DSM program or renewal energy project, is the avoided cost of capacity included in the cost-benefit analysis relied upon? If yes, please explain the methodology and mechanics for computing this avoided cost. If not, please explain the basis for a program evaluation without such an avoided cost estimate.

Response 20. Yes. The avoided cost used in the DSM evaluation was based on a long-run marginal cost approach using an analysis of EKPC's expected generating units. The expected generation resources are matched to the Company's anticipated load duration curve. The weighted average avoided capital cost is based on the optimum mixture of resources used to meet the expected load duration curve.

REDACTED

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 21
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 21. Provide the current estimates of EKPC avoided energy and demand costs, as relied upon in cost-benefit analyses. Provide an estimate of such costs as of 2010; 2015; 2020 (or similar periods if more readily available), consistent with IRP studies. Include summary level analysis sufficient to identify quantification of key variables included in estimates.

Response 21. The avoided energy and demand costs used in the 2006 IRP are as follows:

[redacted]

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 22
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 22. Consistent with the previous response regarding estimates of avoided energy and demand costs, provide any sensitivity analyses associated with estimates of:

- Carbon tax and/or cap-and-trade impacts
- IGCC carbon recapture
- Other carbon cost effects

Response 22. EKPC's current estimates of avoided costs do not factor in the effect of any carbon programs. Future estimates of avoided cost will attempt to recognize the effect of whatever carbon program is in existence at that time.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 23
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 23. Based on comments made in the December 18 interview, EKPC is beginning to take carbon costs into account in its planning models and cost-benefit analyses. Please provide a summary of available analyses, indicating the premium associated with carbon versus non-carbon constraint scenarios.

Response 23. Please see the response to Item 22 and Item 24. EKPC has not directly included the potential effects of carbon programs into its analysis.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 24
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 24. During the December 18 interview, EKPC indicated that it was modeling a carbon cap-and-trade impact effective 2012, and that its current estimate of such an impact is an approximate 20% premium over non-carbon conventional coal dispatch costs. Please confirm or correct the accuracy of this reference.

Response 24. EKPC is performing some production cost modeling, and is using a carbon cap and trade concept for one or two of its modeling scenarios. EKPC is conducting this modeling probabilistically, and the value of the carbon allowance varies greatly. EKPC's earlier statement regarding 20% was correct when it was mentioned on December 18, but EKPC has since moved to a probabilistic estimate, due to the high degree of uncertainty existent.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 25
RESPONSIBLE PERSON: **James C. Lamb, Jr./William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 25a. Please provide a summary statement regarding how expectations of GHG restrictions and potential taxes on carbon emissions have impacted analyses associated with the current IRP process.

Response 25a. The current IRP was prepared in mid-2006. At that time, the likelihood of a specific level of GHG restriction and/or limit on carbon emissions was so uncertain that it was not prudent to include any potential effects associated with those programs. As a result, the 2006 IRP did not explicitly model such effects.

Request 25b. In the December 18 interview, EKPC indicated that it did not hold "collaboratives" with parties interested in potential DSM/EE programs. Is this correct? Do any of the member coops hold such meetings? Did EKPC ever implement a "collaborative" or equivalent process? Does EKPC see any potential benefit in holding "collaboratives" as a means of developing support for increased DSM/EE programs and penetration levels?

Response 25b. Please note that EKPC is a wholesale utility and serves no retail customers. This fact makes the collaborative process with retail customers somewhat difficult. While EKPC has not held collaboratives with interested parties on DSM projects, it has made every effort to meet with the Office of the Attorney General and the Kentucky Department of Energy to discuss the DSM programs it has filed with the Commission. This was done in conjunction with the requirement set forth in the DSM statute Section 278.285, that mandates that the Company meet with interested parties prior to filing. EKPC has also met with the Sierra Club on a periodic basis to discuss industry matters and participates in the Kentucky Energy Efficiency Working Group in monthly meetings.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 26
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 26. Recognizing that utilities are generally opposed to the imposition of a renewables portfolio standard (RPS), if such a standard were considered in Kentucky, what percent do you believe would be realistic as a 2020 target? What factors, if any, would make it easier or more difficult for EKPC to meet a statewide standard, based on specific service area considerations? If renewables projects are developed outside of the EKPC service area, what are the major considerations, benefits, impediments to meeting an RPS on this basis?

Response 26. EKPC cannot answer this question, due to its uncertainty and complexity, and due to the fact that renewable portfolio programs vary quite a bit from state to state and proposal to proposal. However, EKPC is not opposed to renewable power supply and has already developed a number of renewable projects.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 27
RESPONSIBLE PERSON: **James C. Lamb, Jr.**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 27. In the December 18 interview, EKPC indicated that it was currently considering a solicitation for renewables. Provide a brief description of the proposed RFP, including the amount of capacity sought, technologies considered, and the expected release date of the RFP.

Response 27. At this time, EKPC has not developed the scope or framework of the proposed RFP.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 28
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 28. Based on comments made in its December 18 interview, Duke identified the need for a "Smart-Metering" program to expand EE and DSM program benefits. What are EKPC's views and current plans regarding implementation of a "Smart-Metering" Program? Please provide any overview and analysis EKPC has available regarding costs and benefits of implementing such a program.

Response 28. The views and plans of EKPC and its Member Systems regarding implementation of a "Smart Metering" program were outlined in direct testimony and data request responses in Case No. 2006-00045. The Commission ruled in that case that EKPC, and the other major utilities in the state, must file a Real Time Pricing (RTP) Pilot Program for industrial customers. That filing was made by EKPC in April 2007 and a decision is pending.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 29
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 29. Does the Company (or its member coops) currently have tariffs that provide for interruption or control of customer loads? If yes, please provide the following information (excluding any customers on Time of Day rates).

Request. Identify customer class, and specific tariff.

Response. EKPC Wholesale Tariff Section D – Interruptible Service is available at any load center where an ultimate "Customer" will contract for an interruptible demand of not less than 250 kW and not more than 20,000 kW.

Request. Number of customers on each tariff.

Response. There are five (5) customers on this tariff.

Request. 2006 and 2007 (as available) statistics on load interruptions – hours, amount of load interrupted, etc.

Response. 2007 – 53 events, 347 hours interrupted, 391,207 total MWH reduction, 1,127 MW total annual load reduction.

2006 – 18 events, 128 hours interrupted, 224,947 total MWH reduction, 1,757 MW total annual load reduction.

Request. Estimate of maximum peak load that can interrupted based on current customers.

Response. It is estimated that 170 MW of maximum peak demand can be interrupted based on current customers.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 30
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 30. Does the company (or its member coops) have any customers on Time of Day (Use) rates? If yes, please provide the following information.

Identify customer class, and specific tariff.
Number of customers on each tariff.
Estimate of peak load reduction based on current customer base.
Estimate of annual load reduction based on current customer base.

Response 30. EKPC Wholesale Tariff Section B is available to customers of member cooperatives willing to contract for demands of 500 kW or greater and a monthly minimum energy usage equal to or greater than 400 hours per kW of contract demand.

EKPC Wholesale Tariff Section C is available to customers of member cooperatives willing to contract for demands of 500 kW or greater and a monthly minimum energy usage equal to or greater than 400 hours per kW of contract demand.

EKPC Wholesale Tariff Section E is applicable to all load centers not subject to the provisions of Section B or Section C. A cooperative association may select either Option 1 or Option 2 of this section of the tariff to apply to all load centers.
The cooperative must remain on a selected option for at least one year and may change options, no more than every twelve months, after giving a minimum of two months notice.

EKPC Wholesale Tariff Section G, Special Electric Contract Rate, is applicable to Inland Container Corporation.

As of December 31, 2007, there were 60 customers billed at the Section B tariff, 13 customers billed at the Section C tariff, 25 substations billed at the Section E – Option 1 tariff, and 272 substations billed at the Section E – Option 2 tariff.

EKPC has not analyzed the reductions in peak load as a result of these TOD rates.

EKPC has not analyzed the annual load reduction based on the current customer base.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE NO. 2007-00477

SECOND DATA REQUEST RESPONSE

COMMISSION STAFF'S SECOND DATA REQUEST DATED 1/04/08
REQUEST 31
RESPONSIBLE PERSON: **William A. Bosta**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 31. Does EKPC (or its member coops) currently have an on/off peak option in current rates, aside from industrial customers currently on TOU rates? If so, please provide the tariff(s) that provide for the on/off peak option. Please address any opinion EKPC management may have regarding what conditions are likely to be required to stimulate customer interest in such a tariff option.

Response 31. EKPC does have a non-industrial tariff ("E" Rate Schedule) that has an on-peak and off-peak rate. This tariff is attached. In addition, EKPC's Member Systems have an on-peak/off-peak rate for customers with Electric Thermal Storage (ETS) equipment. A sample tariff from one Member System is attached.