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PUBLIC SERVICE
COMMISSION

August 27, 2007

HAND DELIVERED

Ms. Elizabeth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

Re: PSC Case No. 2007-00266

Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission in the above-referenced case an original and seven copies of the Responses of East Kentucky Power Cooperative, Inc. to the Commission Staff's First Data Request, dated August 20, 2007.

Very truly yours,



Charles A. Lile
Senior Corporate Counsel

Enclosures

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

THE APPLICATION OF EAST KENTUCKY POWER)
COOPERATIVE FOR CONTINUATION OF THE) CASE NO. 2007-00266
TOUCHSTONE ENERGY MANUFACTURED HOME)
PROGRAM)

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 First Data Requests in the above-referenced case dated August 20, 2007, 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 27th day of August, 2007.

Deagay S. Duffin
Notary Public

My Commission expires: December 8, 2009

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER)
COOPERATIVE FOR CONTINUATION OF THE) CASE NO.
TOUCHSTONE ENERGY MANUFACTURED HOME) 2007-00266
PROGRAM)

RESPONSES TO COMMISSION STAFF'S FIRST DATA REQUEST
TO EAST KENTUCKY POWER COOPERATIVE, INC.
DATED AUGUST 20, 2007

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

**CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED
HOME PROGRAM**

COMMISSION STAFF'S SECOND DATA REQUEST DATED 5/09/07

East Kentucky Power Cooperative, Inc. (EKPC) hereby submits responses to the Commission Staff's *First Data Request* dated August 20, 2007. Each response with its associated supportive reference materials is individually tabbed.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

**CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED
HOME PROGRAM
FIRST DATA REQUEST RESPONSE**

COMMISSION STAFF'S FIRST DATA REQUEST DATED 8/20/07

REQUEST 1

RESPONSIBLE PARTY: William A. Bosta

COMPANY: East Kentucky Power Cooperative, Inc.

REQUEST 1. Has EKPC performed the “California Tests” (ratepayer participant test, utility cost test, ratepayer impact measure test, and total resource cost test) to determine the cost effectiveness of the Touchstone Energy Manufactured Home Programs (“Program”)?

- a. If yes, provide all applicable workpapers including the results of these tests.
- b. If no, perform these tests and provide the results including all workpapers and explaining all assumptions.

RESPONSE 1a-b. Yes. EKPC performed the “California Tests” and submitted the results in support of its original filing for approval of the Touchstone Energy Manufactured Home program, Case No. 2002-00313. The results of those tests and the associated assumptions and workpapers are included herein as PSC-1, Attachment 1 to this request. In addition, EKPC performed “California Tests” in its 2003 IRP and 2006 IRP for the Touchstone Energy Manufactured Home program and such information is provided in PSC-1,

Attachment 2. As indicated in these attachments, the Total Resource Cost Test (TRC) result was favorable in each instance.

**CALIFORNIA TEST INFORMATION
FROM ORIGINAL APPLICATION
IN CASE NO. 2002-00313**

SECTION III

KEY ASSUMPTIONS

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

(2) EKPC's generation capacity credit is based on the heating/cooling load shape for a manufactured home reduced by 30%, the estimated load reduction from this program. This is based on the U.S. DOE/EPA's assessment of energy conservation and load reduction for this type of manufactured home. Subsequently, EKPC has estimated the expected savings are 2.88 kW per participant in winter and 0.80 kW per participant in summer. Avoided capacity costs were determined using EKPC's forecasted base load capacity capital cost.

(3) EKPC's production cost savings are based on the estimated reduction in fuel and variable operating and maintenance expenses due to the decrease in kWh generated as a result of the program.

(4) Fixed administrative costs are estimated at \$5,000 per year for EKPC and \$5,000 per year for the Member Systems. Clerical costs are based on administrative support to interface with the Member Systems, manufactured home industry representatives, plus processing rebates on a monthly basis. Management costs are based on program development time, meeting with Member Systems, industry representatives and program participants, plus a periodic review and analysis of the program. Variable costs are estimated at \$30 per participant per year for EKPC and for the Member Systems. These are marketing costs to cover promotion of the program through brochures and advertising.

(5) Wholesale demand and energy rates are based on EKPC wholesale tariff Schedule E-2.

(6) Retail rates are based on the average residential rates of EKPC's sixteen Member Systems.

(7) As a result of the positive benefit / cost ratio resulting from the Total Resource Cost Test, EKPC has elected to use a \$250 rebate for each participant. This rebate is based upon EKPC's assessment of the minimum acceptable level required to achieve market penetration expectations. EKPC will rebate \$250 per participant to the Member System who in turn will flow this amount through to the participant. Therefore, the Member Systems will have no net rebate expense.

(8) The number of new customers is estimated to be 70 in year one, 130 in year two, 180 in year three, 240 in year four, and 300 in year five. These estimates are based on EKPC's estimate of customer growth and the likelihood of manufactured home purchases.

(9) Based on the DOE/EPA's assessment of energy conservation for the *Energy Star* manufactured home, EKPC has used a reduction of 30% in kWh consumption, or about 5,150 kWh per participant per year.

(10) The participant's average incremental investment for the Touchstone Energy Manufactured Home is estimated to be around \$1,000. This investment is based on information provided by the manufactured home industry.

(11) For purposes of determining the present value of future benefits and costs of the program, the following discount rates were used: EKPC = 6.5%; Member Systems = 10%; and Participants = 18%. The discount rates reflect the varying risks and opportunity cost of funds for with each party.

(12) The estimated number of free riders is 25% of the total participants. A free rider is defined as a customer who would have made the incremental investment in the manufactured home even without the incentive of a \$250 rebate.

(13) The program assesses the addition of new participants over five years. The present value of benefits and costs are evaluated over a 20-year period. No additional participants are evaluated after year six. This approach is standard in DSM program analysis.

**Touchstone Energy Manufactured Home Program:
 Standard California Tests
 2002 Summary of Benefits and Costs**

Ratepayer Impact Test

Line		Total Benefits	Total Costs	Net Benefits	B / C Ratio
1	Distribution System	\$1,438,904	\$1,813,627	\$ (374,723)	0.79
2	EKPC	\$2,019,804	\$1,966,567	\$ 53,237	1.03
3	Combined Ratepayer	\$3,278,167	\$3,584,533	\$ (306,366)	0.91

Participant Test

	Total Benefits	Total Costs	Net Benefits	B / C Ratio
4 Participant	\$1,353,139	\$ 610,251	\$ 742,888	2.22

Total Resource Cost Test

	Total Benefits	Total Costs	Net Benefits	B / C Ratio
5 Total Resource Cost Test	\$2,019,804	\$ 752,259	\$ 1,267,545	2.68

Distribution System Ratepayer Impact Test

LINE	EXPLANATION
1	<u>Benefits</u>
1	Avoided supply costs (e.g. production, transmission, and/or distribution) based on energy and load reductions.
2	D. S. Electric Acquisition Decrease
	\$ 1,258,363
3	Decrease in Distribution Systems' wholesale power expense paid to EKPC. Based on EKPC's Wholesale Tariff Schedule E-2.
3	Rebates Received from EKPC
	\$ 180,540
4	Total Benefits
	\$ 1,438,904
4	Line 2 plus Line 3
5	<u>Costs</u>
5	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	D. S. Base Electric Revenue Decrease
	\$ 1,483,277
6	D.S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
7	Adjusted Revenue Decrease
	\$ 81,321
7	PV of Fuel Adjustment Clause over 20 years.
8	Part Based Administrative Cost Increase
	\$ 21,665
8	PV of \$30 variable cost per participant per year for 20 years.
9	Non-part based administrative cost increase
	\$ 46,825
9	PV of fixed administrative cost of \$5,000 per year for 20 years.
10	Rebates Paid to Participant
	\$ 180,540
10	PV of the \$250 rebate paid to each new participant by D.S. over 5 years.
11	Total Costs
	\$ 1,813,627
11	Line 6 plus Line 7 plus Line 8 plus Line 9 plus Line 10.
12	<u>Net Benefits</u>
	\$ (374,723)
12	Line 4 minus Line 11
13	Benefit / Cost Ratio
	0.79
13	Line 4 divided by Line 11

East Kentucky Power Cooperative Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Electric Production Cost Decrease	\$ 1,001,575	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
3	Generation Capital Credit	<u>\$ 1,018,129</u>	PV of EKPC's avoided capacity costs due to reduction in generation over 20 years.
4	Total Benefits	\$ 2,019,704	Line 2 plus Line 3
5	<u>Costs</u>		Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	Rebates Paid to Distribution Systems	\$ 195,661	PV of \$250 rebates paid by EKPC to Distribution Systems for each new participant over 5 years.
7	Base Revenue Decrease	\$ 1,562,089	PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
8	Adjusted Revenue Decrease	\$ 126,664	PV of EKPC's Fuel Adjustment Clause over 20 years.
9	Fixed Administrative Cost Inc	\$ 58,674	PV of the EKPC's program fixed administrative costs over 20 years.
10	Part. Admin Cost Increase	<u>\$ 23,479</u>	PV of EKPC's program variable costs over 20 years.
11	Total Costs	\$ 1,966,567	Line 6 plus Line 7 plus Line 8 plus Line 9 plus Line 10.
12	<u>Net Benefits</u>	\$ 53,137	Line 4 minus Line 11.
13	Benefit / Cost Ratio	1.03	Line 4 divided by Line 11.

Combined Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Distribution System Electric Acq Dec	\$ 1,258,363	2 Decrease in Distribution Systems' wholesale power expense paid to EKPC.
3	EKPC Electric Prod Cost Decrease	\$ 1,001,675	3 PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
4	EKPC Generation Capital Credit	\$ 1,018,129	4 PV of EKPC's avoided capacity costs due to reduction in generation.
5	Total Benefits	\$ 3,278,167	5 Line 2 plus Line 3 plus Line 4
6	<u>Costs</u>		6 Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
7	D. S. Base Revenue Decrease	\$ 1,483,277	7 D.S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
8	D. S. Adjusted Revenue Decrease	\$ 81,321	8 PV of Fuel Adjustment Clause over 20 years.
9	D. S. Non-part based admin cost inc	\$ 46,825	9 PV of the Distribution Systems' program fixed administrative costs over 20 years.
10	D. S. Part Based admin cost inc	\$ 21,665	10 PV of the Distribution Systems' program variable costs over 20 years.
11	Rebates paid by Distribution System	\$ 180,540	11 PV of the \$250 rebate paid to each new participant by D.S. over 5 years.
12	EKPC Base Revenue Decrease	\$ 1,562,089	12 PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
13	EKPC Adj Rev Decrease	\$ 126,664	13 PV of Fuel Adjustment Clause over 20 years.
14	EKPC Fixed Admin Cost Increase	\$ 58,674	14 PV of the EKPC's program fixed administrative costs over 20 years.
15	EKPC Part. Based Admin Cost Increase	\$ 23,479	15 PV of EKPC's program variable costs over 20 years.
16	Total Costs	\$ 3,584,533	16 Line 7 + Line 8 + Line 9 + Line 10 + Line 11 + Line 12 + Line 13 + Line 14 + Line 15.
17	<u>Net Benefits</u>	\$ (306,366)	17 Line 5 minus Line 16
18	Benefit / Cost Ratio	0.91	18 Line 5 divided by Line 16

Participant Test

<u>LINE</u>	<u>EXPLANATION</u>	<u>LINE</u>	<u>EXPLANATION</u>
1	<u>Benefits</u>	1	Incentive from Distribution System, plus a reduction in electric bill.
2	Customer Electric Bill Decrease	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on typical residential retail rate of 16 D. Systems.
3	Customer Rebates Received	3	PV of the \$250 rebated per new participant rebate received from the Distribution Systems over 5 years.
4	Total Benefits	4	Line 2 plus Line 3.
5	<u>Costs</u>	5	Participants' direct cost of participation.
6	Customer Invest Inc - Gross of Free Riders	6	PV of Participants' incremental \$1,000 investment in the mfg home, gross of Free Riders, over 5 years.
7	Total Costs	7	Line 6.
8	<u>Net Benefits</u>	8	Line 4 minus Line 7.
9	Benefits / Cost Ratio	9	Line 4 divided by Line 7.

\$ 1,200,576
 \$ 152,563
 \$ 1,353,139
 \$ 610,251
 \$ 610,251
 \$ 742,888
 2.22

Total Resource Cost Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g.production, transmission, and/or distribution) based on energy and load reductions.
2	EKPC Electric Prod Cost Decrease	2	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
3	EKPC Generation Capital Credit	3	PV of EKPC's avoided capacity costs due to reduction in generation.
4	Total Benefits	4	Line 2 plus Line 3
5	<u>Costs</u>	5	Total program costs to participants, the Distribution Systems, and EKPC (excluding incentives).
6	Customer Invest Inc. - Net of Free Riders	6	PV of Customers' incremental investment in the mfg home of \$1,000 net of Free Riders.
7	D. S. Non-part based admin cost inc	7	PV of the Distribution Systems' program fixed administrative costs over 20 years.
8	D. S. Part based admin cost inc	8	PV of the Distribution Systems' program variable costs over 20 years.
9	EKPC Fixed Admin Cost Increase	9	PV of the EKPC's program fixed administrative costs over 20 years.
10	EKPC Part. Based Admin Cost Increase	10	PV of EKPC's program variable costs over 20 years.
11	Total Costs	11	Line 6 + Line 7 + Line 8 + Line 9 + Line 10
12	<u>Net Benefits</u>	12	Line 4 minus Line 11
13	Benefit / Cost Ratio	13	Line 4 divided by Line 11

**CALIFORNIA TEST INFORMATION
FROM THE 2003 IRP**

**Touchstone Energy Manufactured Home Program:
 Standard California Tests
 2003 Summary of Benefits and Costs**

Ratepayer Impact Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
1 Distribution System	\$ 1,884,414	\$ 2,337,389	\$ (452,975)	0.81
2 EKPC	\$ 2,333,176	\$ 1,930,023	\$ 403,153	1.21

Participant Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
3 Participant	\$ 1,833,395	\$ 676,338	\$ 1,157,057	2.71

Total Resource Cost Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
4 Total Resource Cost Test	\$ 2,333,176	\$ 679,170	\$ 1,654,006	3.44

Distribution System Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g. production, transmission, and/or distribution) based on energy and load reductions.
2	D. S. Electric Acquisition Decrease \$ 1,688,753	2	Decrease in Distribution Systems' wholesale power expense paid to EKPC. Based on EKPC's Wholesale Tariff Schedule E-2.
3	Rebates Received from EKPC \$ 195,661	3	PV of \$250 per participant rebate paid by EKPC to DS evaluated over 5 years.
4	Total Benefits \$ 1,884,414	4	Line 2 plus Line 3
5	<u>Costs</u>	5	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	D. S. Base Electric Revenue Decrease \$ 1,976,296	6	D.S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
7	Adjusted Revenue Decrease \$ 119,824	7	PV of Fuel Adjustment Clause evaluated over 20 years.
8	Distribution System Variable Cost \$ 23,479	8	PV of \$30 variable cost per participant per year for 5 years.
9	Distribution System Fixed Cost \$ 22,129	9	PV of fixed admin. cost of \$5,000 per year for 5 years.
10	D. S. Rebates Paid \$ 195,661	10	PV of \$250 per participant rebate paid by DS to participants over 5 years.
11	Total Costs \$ 2,337,389	11	Line 6 + Line 7 + Line 8 + Line 9 + Line 10.
12	<u>Net Benefits</u> \$ (452,975)	12	Line 4 minus Line 11
13	Benefit / Cost Ratio 0.81	13	Line 4 divided by Line 11

East Kentucky Power Cooperative Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Distribution Capacity Credit	2	Avoided distribution capacity.
	\$ 125,925		
3	Electric Production Cost Decrease	3	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
	\$ 1,001,675		
4	Generation Capacity Credit	4	PV of EKPC's avoided capacity costs due to reduction in generation over evaluated over 20 years.
	\$ 1,174,408		
5	Transmission Capacity Credit	5	Avoided transmission capacity.
	\$ 31,169		
6	Total Benefits	6	Line 2 + Line 3 + Line 4 + Line 5
	\$ 2,333,176		
7	<u>Costs</u>	7	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
8	Rebates Paid	8	PV of \$250 rebate paid to DS per participant evaluated over 5 years.
	\$ 195,661		
9	Base Revenue Decrease	9	PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
	\$ 1,562,089		
10	Adjusted Revenue Decrease	10	PV of EKPC's Fuel Adjustment Clause evaluated over 20 years.
	\$ 126,664		
11	Fixed Administrative Cost	11	PV of the EKPC's incremental administrative costs of \$5,000 per year evaluated over 5 years
	\$ 22,129		
12	Variable Costs	12	PV of \$30 per participant per year for 5 years.
	\$ 23,479		
13	Total Costs	13	Line 8 + Line 9 + Line 10 + Line 11 + Line 12.
	\$ 1,930,023		
14	<u>Net Benefits</u>	14	Line 6 minus Line 13.
	\$ 403,153		
15	Benefit / Cost Ratio	15	Line 6 divided by Line 13.
	1.21		

Combined Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Distribution System Electric Acq Dec	\$ 1,688,753	2 Decrease in Distribution Systems' wholesale power expense paid to EKPC.
3	Distribution Capacity Credit	\$ 125,925	3 Avoided distribution capacity.
4	EKPC Electric Prod Cost Decrease	\$ 1,001,675	4 PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
5	EKPC Generation Capacity Credit	\$ 1,174,408	5 PV of EKPC's avoided capacity costs due to reduction in generation.
6	Transmission Capacity Credit	\$ 31,169	6 Avoided transmission capacity.
7	Total Benefits	\$ 4,021,929	7 Line 2 + Line 3 + Line 4 + Line 5 + Line 6
8	<u>Costs</u>		8 Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
9	D. S. Base Revenue Decrease	\$ 1,976,296	9 D.S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
10	D. S. Adjusted Revenue Decrease	\$ 119,824	10 PV of Fuel Adjustment Clause over 5 years.
11	D. S. Part Based admin cost inc	\$ 23,479	11 PV of \$30 variable per participant per year for 5 years.
12	D. S. Fixed admin cost inc	\$ 22,129	12 PV of fixed admin cost of \$5,000 per year for 5 years.
13	D. S. Rebates Paid	\$ 195,661	13 PV of \$250 per participant rebate paid by DS to participant over 5 years.
14	EKPC Base Revenue Decrease	\$ 1,562,089	14 PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
15	EKPC Adj Rev Decrease	\$ 126,664	15 PV of Fuel Adjustment Clause over 5 years.
16	EKPC Fixed Admin Cost	\$ 22,129	16 PV of fixed admin cost of \$5,000 per year for 5 years.
17	EKPC Variable Costs	\$ 23,479	17 PV of \$30 variable per participant per year for 5 years.
18	Total Costs	\$ 4,071,751	18 Line 9 + through Line 17
19	<u>Net Benefits</u>	\$ (49,822)	19 Line 7 minus Line 18
20	Benefit / Cost Ratio	0.99	20 Line 7 divided by Line 18

Participant Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Incentive from Distribution System, plus a reduction in electric bill.
2	Customer Electric Bill Decrease	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on typical residential retail rate of 16 D. Systems.
	\$ 1,664,310		
3	Rebates Received	3	PV of \$250 per participant rebate received from DS eval over 5 years.
	\$ 169,085		
4	Total Benefits	4	Line 2 + Line 3
	\$ 1,833,395		
5	<u>Costs</u>	5	Participants' direct cost of participation.
6	Customer Investment	6	PV of Participants' incremental \$1,000 investment in the TE Manf. Home evaluated over 5 years.
	\$ 676,338	7	Line 6
7	Total Costs		
	\$ 676,338		
8	<u>Net Benefits</u>	8	Line 4 minus Line 7.
	\$ 1,157,057		
9	Benefits / Cost Ratio	9	Line 4 divided by Line 7.
			2.71

Total Resource Cost Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g.production, transmission, and/or distribution) based on energy and load reductions.
2	\$ 125,925	2	Avoided distribution capacity.
3	\$ 1,001,675	3	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
4	\$ 1,174,408	4	PV of EKPC's avoided capacity costs due to reduction in generation.
5	<u>\$ 31,169</u>	5	Avoided transmission capacity.
6	\$ 2,333,176	6	Line 2 + Line 3 + Line 4 + Line 5
7	<u>Costs</u>	7	Total program costs to participants, the Distribution Systems, and EKPC (excluding incentives).
8	\$ 587,953	8	PV of Customers' incremental investment in Touchstone Energy Manf. Home of \$1,000 per new Participant, evaluated over 5 years.
9	\$ 23,479	9	PV of \$30 variable cost per participant per year for 5 years.
10	\$ 22,129	10	PV of fixed admin cost of \$5,000 per year for 5 years.
11	\$ 22,129	11	PV of the EKPC's incremental administrative costs of \$5,000 per year, evaluated over 5 years.
12	<u>\$ 23,479</u>	12	PV of \$30 per participant per year for 5 years.
13	\$ 679,170	13	Line 8 + Line 9 + Line 10 + Line 11 + Line 12
14	\$ 1,654,006	14	Line 6 minus Line 13
15	3.44	15	Line 6 divided by Line 13

Net Benefits

**CALIFORNIA TEST INFORMATION
FROM THE 2006 IRP**

**Touchstone Energy Manufactured Home Program:
 Standard California Tests
 2006 Summary of Benefits and Costs**

Ratepayer Impact Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
1 Distribution System	\$ 283,765	\$ 363,818	\$ (80,053)	0.78
2 EKPC	\$ 660,843	\$ 308,135	\$ 352,708	2.14

Participant Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
3 Participant	\$ 205,039	\$ 61,317	\$ 143,722	3.34

Total Resource Cost Test

<u>Line</u>	<u>Total</u>	<u>Total</u>	<u>Net</u>	<u>B / C</u>
	<u>Benefits</u>	<u>Costs</u>	<u>Benefits</u>	<u>Ratio</u>
4 Total Resource Cost Test	\$ 660,843	\$ 114,865	\$ 545,978	5.75

Distribution System Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g. production, transmission, and/or distribution) based on energy and load reductions.
2	D. S. Electric Acquisition Decrease \$ 272,281	2	Decrease in Distribution Systems' wholesale power expense paid to EKPC. Based on EKPC's Wholesale Tariff Schedule E-2.
3	Rebates Received from EKPC \$ 11,484	3	PV of \$150 per participant rebate paid by EKPC to DS evaluated over 5 years.
4	Total Benefits \$ 283,765	4	Line 2 plus Line 3
5	<u>Costs</u>	5	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
6	D. S. Base Electric Revenue Decrease \$ 323,363	6	D. S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
7	Adjusted Revenue Decrease \$ 3,553	7	PV of Fuel Adjustment Clause evaluated over 20 years.
8	Distribution System Variable Cost \$ 13,934	8	PV of variable admin. cost of \$182 per participant over 5 years.
9	D. S. Rebates Paid \$ 22,968	9	PV of \$300 per participant rebate paid by DS to participants over 5 years.
10	Total Costs \$ 363,818	10	Line 6 + Line 7 + Line 8 + Line 9.
11	<u>Net Benefits</u> \$ (80,053)	11	Line 4 minus Line 10
12	Benefit / Cost Ratio 0.78	12	Line 4 divided by Line 10

East Kentucky Power Cooperative Ratepayer Impact Test

LINE	EXPLANATION
1	<u>Benefits</u>
1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Avoided distribution capacity.
3	PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
4	PV of EKPC's avoided capacity costs due to reduction in generation over evaluated over 20 years.
5	Avoided transmission capacity.
6	Line 2 + Line 3 + Line 4 + Line 5
7	<u>Costs</u>
7	Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
8	PV of \$150 rebate paid to DS per participant evaluated over 5 years.
9	PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
10	PV of EKPC's Fuel Adjustment Clause evaluated over 20 years.
11	PV of the EKPC's incremental administrative costs of \$3,183 per year evaluated over 5 years
12	Line 8 + Line 9 + Line 10 + Line 11.
13	<u>Net Benefits</u>
14	Line 6 minus Line 12.
14	Benefit / Cost Ratio

Combined Ratepayer Impact Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (production, transmission, and distribution) based on energy and load reductions.
2	Distribution System Electric Acq Dec	\$ 272,281	2 Decrease in Distribution Systems' wholesale power expense paid to EKPC.
3	Distribution Capacity Credit	\$ 75,406	3 Avoided distribution capacity.
4	EKPC Electric Prod Cost Decrease	\$ 233,362	4 PV of EKPC's electric production cost decrease over 20 years. Includes fuel and variable operating and maintenance expense.
5	EKPC Generation Capacity Credit	\$ 317,495	5 PV of EKPC's avoided capacity costs due to reduction in generation.
6	Transmission Capacity Credit	\$ 34,580	6 Avoided transmission capacity.
7	Total Benefits	\$ 933,124	7 Line 2 + Line 3 + Line 4 + Line 5 + Line 6
8	<u>Costs</u>		8 Utility program costs (including incentives) plus net lost revenues caused by reduced sales.
9	D. S. Base Revenue Decrease	\$ 323,363	9 D.S. reduction in electric revenues from decrease in kWh sales. Based on average residential retail rates of EKPC Distribution Systems.
10	D. S. Adjusted Revenue Decrease	\$ 3,553	10 PV of Fuel Adjustment Clause over 5 years.
11	D. S. Part Based admin cost inc	\$ 13,934	11 PV of \$182 variable per participant per year for 5 years.
12	D. S. Rebates Paid	\$ 22,968	12 PV of \$300 per participant rebate paid by DS to participant over 5 years.
13	EKPC Base Revenue Decrease	\$ 268,722	13 PV of EKPC's reduction in base revenues; based on EKPC's Wholesale Tariff Schedule E-2.
14	EKPC Adj Rev Decrease	\$ 3,559	14 PV of Fuel Adjustment Clause over 5 years.
15	EKPC Fixed Admin Cost	\$ 24,369	15 PV of fixed admin cost of \$3,183 per year for 5 years.
16	Total Costs	\$ 660,468	16 Line 9 + through Line 15
17	<u>Net Benefits</u>	\$ 272,656	17 Line 7 minus Line 16
18	Benefit / Cost Ratio	1.41	18 Line 7 divided by Line 16

Participant Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Incentive from Distribution System, plus a reduction in electric bill.
2	Customer Electric Bill Decrease	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on typical residential retail rate of 16 D. Systems.
		\$ 186,645	
3	Rebates Received	3	PV of \$300 per participant rebate received from DS eval over 5 years.
		\$ 18,395	
4	Total Benefits	4	Line 2 + Line 3
		\$ 205,040	
5	<u>Costs</u>	5	Participants' direct cost of participation.
6	Customer Investment	6	PV of Participants' incremental \$1,000 investment in the TE Manf. Home evaluated over 5 years.
		\$ 61,317	
7	Total Costs	7	Line 6
		\$ 61,317	
8	<u>Net Benefits</u>	8	Line 4 minus Line 7.
		\$ 143,723	
9	Benefits / Cost Ratio	9	Line 4 divided by Line 7.
		3.34	

Total Resource Cost Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g.production, transmission, and/or distribution) based on energy and load reductions.
2	\$ 75,406	2	Avoided distribution capacity.
3	\$ 233,362	3	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
4	\$ 317,495	4	PV of EKPC's avoided capacity costs due to reduction in generation.
5	<u>\$ 34,580</u>	5	Avoided transmission capacity.
6	\$ 660,843	6	Line 2 + Line 3 + Line 4 + Line 5
7		7	<u>Costs</u> Total program costs to participants, the Distribution Systems, and EKPC (excluding incentives).
8	\$ 76,561	8	PV of Customers' incremental investment in Touchstone Energy Manf. Home of \$1,000 per new Participant, evaluated over 5 years.
9	\$ 13,934	9	PV of \$182 variable cost per participant per year for 5 years.
10	<u>\$ 24,369</u>	10	PV of the EKPC's incremental administrative costs of \$3,183 per year, evaluated over 5 years.
11	\$ 114,864	11	Line 8 + Line 9 + Line 10.
12	\$ 545,979	12	<u>Net Benefits</u> Line 6 minus Line 11
13	5.75	13	Line 6 divided by Line 11

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

**CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED
HOME PROGRAM
FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 8/20/07
REQUEST 2**

RESPONSIBLE PARTY: Jeffrey E. Hohman

COMPANY: East Kentucky Power Cooperative, Inc.

REQUEST 2. Refer to EKPC's Application Attachment 1, page 4 of 5. Has EKPC prepared marketing materials highlighting the benefits of an energy efficient manufactured home or the benefits of using an Energy Star heat pump over a conventional electric forced air furnace?

- a. If yes, provide copies of materials developed.
- b. If no, what is the target date for having the marketing materials ready?

RESPONSE 2a. Yes. Please see the Attachment to PSC Request 2.



Manufactured Home Program

Boost Your Energy Efficiency




As a Touchstone Energy cooperative, we're committed to providing you and your family with low-cost, reliable electric power, backed by exceptional service from folks based right here in the community. Just as important, though, is our commitment to helping our members get the most value and comfort from every kilowatt-hour they use.

For more information on other ways we can improve the comfort and energy efficiency of your home, just give us a call. We're your neighbors, and we're ready to put the power of human connections to work for you.

For more information...
(270) 765-6153
www.nolinrecc.com




A Touchstone Energy Cooperative 

Value is good.

Added value is even better.

With a modest investment, you can boost the value of your manufactured home, shrink your energy bill, and expand your comfort.



A Touchstone Energy Cooperative 

Manufactured Home Program

Manufactured Homes Built To Energy Star® Performance Levels Help You Save Money

There is a new way for electric cooperative customers to save money: The Touchstone Energy Home. Owning a manufactured home built to these standards can cut the costs for heating and cooling by as much as 30 percent. At the same time, you'll be more comfortable year-round, especially in the summers and winters, because of the home's superior design. You reap savings and comfort because the Touchstone Energy Home has:

- ◆ A sealed duct system
- ◆ Energy efficient double-pane windows
- ◆ Added insulation in the roof and walls
- ◆ An improved gasket that seals the halves of the home together

The critical difference in manufactured homes built to Touchstone Energy Home standards is the duct system. Many older manufactured homes leak conditioned air because of flaws in the duct system, driving up the monthly heating and cooling costs.

The Touchstone Energy Home eliminates the waste. It's an all-electric, manufactured home built to federal Energy Star® specifications. During winters, it is kept warm by a heat pump that makes

it more energy efficient than many manufactured homes. The initial cost of a Touchstone Energy Home adds \$7 to \$10 more each month to a typical manufactured home mortgage. But the homeowner pays \$15 to \$20 less in heating and cooling costs each month. Your total monthly expenses will be lower from the very beginning. Over 20 or 30 years, your savings can total thousands of dollars.

Here are other bonuses you get:

- ◆ Your cooperative will help you realize the savings. Buyers of qualified manufactured homes sited on co-op lines are eligible for a \$250 rebate from your local Touchstone Energy Cooperative.
- ◆ The Touchstone Energy Home may qualify for special financing packages. Ask your manufactured home dealer for details.
- ◆ If you decide to move, your Touchstone Energy Home may have a higher resale value. The Energy Star® energy efficiency certification is appealing to people wanting to buy a new home.

To qualify for a \$250 rebate, call Nolin RECC.

interested?

ask us for more information!

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

**CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED
HOME PROGRAM
FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 8/20/07
REQUEST 3**

RESPONSIBLE PARTY: William A. Bosta

COMPANY: East Kentucky Power Cooperative, Inc.

REQUEST 3. Refer to EKPC's Application Exhibit 1, page 2 of 5. EKPC states that for the years 2004-2005 the Program had 11 participants.

- a. Calculate the associated dollar value of estimated savings to date for the Program.
- b. Calculate the dollar value of expected future savings associated with the Program for 2007-2025.
- c. Using the expected future savings, calculate the net present value of the Program, showing all calculations and assumptions.

RESPONSE 3. In order to respond to this request, EKPC prepared a new DSManager run using the historic (2004-2006) actual values for 1) number of participants, 2) rebates, 3) administrative costs, 4) estimated MWH savings taken from the company's 2003 IRP, and 5) estimated avoided energy and capacity cost taken from the Company's 2003 IRP. That IRP was in effect during the 2004-2006 timeframe.

RESPONSE 3a. The present value of the estimated savings to date is \$5,415. Please see the information contained in PSC-3, Attachment 1, Page 1 for that computation and Page 2 for the number of participants.

RESPONSE 3b. The estimated future savings under the Total Resource Cost Test for 2007 through 2021 (the last year for which avoided capacity and avoided production cost were available in the 2003 IRP) on a present value basis equals \$30,338. PSC-3, Attachment 1, provides the computation.

RESPONSE 3c. The present value of all savings, both for the 2004 through 2006 time period and for the estimated future savings of 207 through 2021, equals \$35,753. This present value savings amount is based on the production cost savings and avoided generation, transmission and distribution capacity costs for the 2004 through 2006 period and the savings for those same components for the 2007-2021 projected time period. The net present value, including both benefits and costs, under the Total Resource Cost test, equals \$21,161. PSC-3, Attachment 2, includes the results and explanations for the Total Resource Cost Test, the Power Supplier Utility Test and the Participant Test.

Historic Cost information for Touchstone Energy Manufactured Home Program

	2004	2005	2006
	1	9	1
Participants (Used to calculate values in response 3)			
Rebates paid by EKPC	\$ 150	\$ 1,350	\$ 150
Rebates paid by Coop	\$ 150	\$ 1,350	\$ 150
Administrative/Labor Costs	\$ 1,500	\$ 3,800	\$ 1,300
Total Annual Costs incurred by EKPC	\$ 1,650	\$ 5,150	\$ 1,450
Admin per customer	\$ 1,500.00	\$ 422.22	\$ 1,300.00
Total Rebate per customer	\$ 300.00	\$ 300.00	\$ 300.00
Fixed EK Admin	\$ 1,500	\$ 3,800	\$ 1,300
EK Rebate per customer	\$ 150.00	\$ 150.00	\$ 150.00
Coop Rebate per customer	\$ 150.00	\$ 150.00	\$ 150.00
Total EK Costs	\$ 1,650	\$ 5,150	\$ 1,450

Note: Cost information taken from Annual Reports submitted to the Commission in the Touchstone Energy Manufactured Home Program.

Touchstone Energy Manufactured Home Program Standard California Tests - NPV
Total Resource Cost Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g. production, transmission, and/or distribution) based on energy and load reductions.
2	\$ 1,943	2	Avoided distribution capacity.
3	\$ 15,220	3	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
4	\$ 18,106	4	PV of EKPC's avoided capacity costs due to reduction in generation requirements.
5	\$ 481	5	Avoided transmission capacity.
6	\$ 35,750	6	Line 2 + Line 3 + Line 4 + Line 5
7		7	Total program costs to participants, the Distribution Systems, and EKPC (excluding incentives).
8	\$ 9,110	8	PV of Customers' incremental investment in Touchstone Energy Home of \$2,125 per new Participant, evaluated over 3 years.
9	\$ 5,479	9	PV of EKPC's incremental fixed administrative costs for 3 program years: 2004-2006.
10	\$ 14,589	10	Line 8 + Line 9
11	\$ 21,161	11	Line 6 minus Line 10
12	2.45	12	Line 6 divided by Line 10

Power Supplier Utility Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Avoided supply costs (e.g.production, transmission, and/or distribution) based on energy and load reductions.
2	Distribution Capacity Credit	2	Avoided distribution capacity.
		\$ 1,943	
3	EKPC Electric Prod Cost Decrease	3	PV of EKPC's electric production cost decrease evaluated over 20 years. Includes fuel and variable operating and maintenance expense.
		\$ 15,220	
4	EKPC Generation Capacity Credit	4	PV of EKPC's avoided capacity costs due to reduction in generation requirements.
		\$ 18,106	
5	Transmission Capacity Credit	5	Avoided transmission capacity.
		\$ 481	
6	Total Benefits	6	Line 2 + Line 3 + Line 4 + Line 5
		\$ 35,750	
7	<u>Costs</u>	7	Total program costs to EKPC including incentives.
8	Rebates EKPC to D. S.	8	Actual rebates paid by EKPC for 3 program years: 2004-2006.
		\$ 1,366	
9	EKPC Fixed Admin Cost	9	PV of EKPC's incremental fixed administrative costs for 3 program years: 2004-2006.
		\$ 5,479	
10	Total Costs	10	Line 8 + Line 9
		\$ 6,845	
11	<u>Net Benefits</u>	11	Line 6 minus Line 10
		\$ 28,905	
12	Benefit / Cost Ratio	12	Line 6 divided by Line 10
		5.22	

Participant Test

<u>LINE</u>	<u>Benefits</u>	<u>LINE</u>	<u>EXPLANATION</u>
1		1	Incentives from Distribution System, plus reduction in electric bills.
2	Customer Electric Bill Decrease \$ 19,082	2	PV of reduction in Participants' retail electric bill due to decrease in energy consumption. Based on typical residential retail rate for the D. Systems.
3	Rebates from D. S. \$ 2,290	3	PV of rebates received from D. S.
4	Total Benefits \$ 21,372	4	Line 2 + Line 3.
5	<u>Costs</u>	5	Participants' direct cost of participation.
6	Customer Investment \$ 7,634	6	PV of Participants' incremental \$1,000 investment per customer in the TE Manf. Home, evaluated over 3 years.
7	Total Costs \$ 7,634	7	Line 6.
8	<u>Net Benefits</u> \$ 13,738	8	Line 4 minus Line 7.
9	Benefit / Cost Ratio 2.80	9	Line 4 divided by Line 7.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

**CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED
HOME PROGRAM
FIRST DATA REQUEST RESPONSE**

**COMMISSION STAFF'S FIRST DATA REQUEST DATED 8/20/07
REQUEST 4**

RESPONSIBLE PARTY: William A. Bosta

COMPANY: East Kentucky Power Cooperative, Inc.

Request 4. Were costs and benefits associated with the Program included in test-year calculations filed in Case No. 2006-00472?

- a. If yes, explain the extent to which they have been included.
- b. If no, explain why they were not included.

RESPONSE 4. Yes. EKPC did not eliminate any costs or benefits associated with the Touchstone Energy Manufactured Home Program in Case No. 2006-00472.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2007-00266

CONTINUATION OF TOUCHSTONE ENERGY MANUFACTURED

HOME PROGRAM

FIRST DATA REQUEST RESPONSE

COMMISSION STAFF'S FIRST DATA REQUEST DATED 8/20/07

REQUEST 5

RESPONSIBLE PARTY: Jeffrey E. Hohman

COMPANY: East Kentucky Power Cooperative, Inc.

REQUEST 5. Refer to EKPC's Application Exhibit 1, page 4 of 5, in which Mr. Hohman requests the continuation of this Program. Would a customer who has not participated in this Program previously be eligible to receive a rebate of up to \$150 upon replacing an old heating appliance with an energy efficient heat pump? Explain.

RESPONSE 5. Yes. In recognition of the low number of participants historically, EKPC believes that it is imperative to make the program as flexible and open as possible. As a result, it is proposed that customers with an older, inefficient heating system be awarded a rebate of up to \$150 for replacing their existing furnace with a heat pump that meets minimum Energy Star Standards.