ATTORNEYS

421 West Main Street Post Office Box 634 Frankfort, KY 40602-0634 [502] 223-3477 [502] 223-4124 Fax www.stites.com

April 6, 2011

Mark R. Overstreet (502) 209-1219 (502) 223-4387 FAX moverstreet@stites.com

#### HAND DELIVERED

Jeff R. Derouen
Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602-0615

RECEIVED

APR 06 2011

PUBLIC SERVICE COMMISSION

RE: Case No. 2011-00055

Dear Mr. Derouen:

Enclosed please find and accept for filing the original and six copies of Kentucky Power Company's responses to the Commission Staff's initial information request.

Please do not hesitate to contact me if you have any questions.

Mark R. Overstreet

**MRO** 

Alexandria, VA Atlanta, GA Frankfort, KY Franklin, TN Jeffersonville, IN Lexington, KY Louisville, KY Nashville, TN

# RECEIVED

APR 0 6 2011

# PUBLIC SERVICE COMMISSION

#### COMMONWEALTH OF KENTUCKY

#### BEFORE THE

#### PUBLIC SERVICE COMMISSION OF KENTUCKY

#### IN THE MATTER OF

JO	INT API	PLICATI	ON PURS	UANT TO	1994 HOUSI	E )	
BII	LL NO.	501 FOR	THE APPI	ROVAL OI	F KENTUCK	XY )	
PO	WER C	OMPAN	Y'S COLL	ABORATI	VE DEMAN	D-SIDE )	
MA	NAGE	MENT PI	ROGRAMS	S, AND FO	R AUTHOR	ITY )	
TO	IMPLE	CMENT A	TARIFF	TO RECO	VER COSTS	, )	CASE NO.
NE	T LOST	REVEN	UES AND	RECEIVE	INCENTIVI	ES )	2011-00055
AS	SOCIAT	TED WIT	'H THE IM	IPLEMEN'	FATION OF	THE )	
KE	NTUCK	Y POWI	ER COMPA	ANY COLI	LABORATIV	VE )	
DE	MAND-	SIDE MA	ANAGEME	ENT PROG	RAMS	)	

KENTUCKY POWER COMPANY RESPONSES TO COMMISSION STAFF INTIAL SET OF DATA REQUESTS

#### **AFFIDAVIT**

E.J. Clayton, upon being first duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

	E.J. Clayton	
Commonwealth of Kentucky	) ) Case No. 2011-00055	
County of Boyd	)	

Sworn to before me and subscribed in my presence by E.J. Clayton, this the day of April, 2011.

Debora Lugh Jones
Notary Public

My Commission Expires: 3-20-20(2

#### **AFFIDAVIT**

Lila P. Munsey, upon being first duly sworn, hereby makes oath that if the foregoing questions were propounded to her at a hearing before the Public Service Commission of Kentucky, she would give the answers recorded following each of said questions and that said answers are true.

	Lila P. Munsey
Commonwealth of Kentucky	)
·	) Case No. 2011-00055
County of Franklin	)
Sworn before me and subscrib day of March, 2011.	ped in my presence by Lila P. Munsey, this the

My Commission Expires: Juliary, 13, 1013

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Request Order Dated March 23, 2011 Item No. 1 Page 1 of 29

#### **Kentucky Power Company**

#### REQUEST

Refer to page 1 of Kentucky Power Company's February 15, 2011 Demand Side Management Status Report ("DSM Report") regarding the increase of the average monthly net energy savings by 10 percent to include transmission and distribution line losses ("T&D losses"). Provide the basis for the 10 percent T&D losses.

#### RESPONSE

Losses vary by customer and by hour based upon the equipment and loading characteristics of the system, from the generator to the customer service drop. The 10% energy losses and 11% demand losses applied to the meter values represent an approximation of the expected losses of the program participants and are consistent with the loss estimates historically used. A loss study of the KPCo system was conducted in 2007, and that study provided average secondary service customer loss estimates of 8.7% for energy and 10.8% for peak demand. Although the numbers used in the filing were slightly higher than these average loss estimates, participants in these programs, which are almost exclusively residential customers, incur slightly higher losses than the secondary service population as a whole, which includes both residential and commercial customers.

A copy of the loss study that was completed in 2007 for Kentucky Power is attached.

WITNESS: Lila P Munsey

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# KENTUCKY POWER COMPANY

2006 Analysis of System Losses

August 13, 2007

Prepared by:



Management Applications Consulting, Inc. 1103 Rocky Drive – Suite 201 Reading, PA 19609 Phone: (610) 670-9199 / Fax: (610) 670-9190



# MANAGEMENT APPLICATIONS CONSULTING, INC.

1103 Rocky Drive · Suite 201 · Reading, PA 19609-1157 · 610/670-9199 · fax 610/670-9190 · www.manapp.com

August 13, 2007

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 1 Page 3

Mr. Meredith Gafford East Transmission Planning American Electric Power 700 Morrison Road Gahanna, OH 43230

RE: 2006 LOSS ANALYSIS

Dear Mr. Gafford:

Transmitted herewith are the results of the 2006 Analysis of System Losses for the Kentucky Power Company's (KPCO) power system. Our analysis develops cumulative expansion factors (loss factors) for both demand (peak/kW) and energy (average/kWh) losses by discrete voltage levels applicable to metered sales data. Table 1 of the Executive Summary presents the results and appropriate loss factors to apply to metered load research or sales data for adjustment to system input.

On behalf of MAC, we appreciate the opportunity to assist you in performing the loss analysis contained herein. The level of detailed load research and sales data by voltage level, coupled with a summary of power flow data and power system model, forms the foundation for determining reasonable and representative power losses on the KPCO system. Our review of these data and calculated loss results support the proposed loss factors as presented herein for your use in various cost of service, rate studies, and demand analyses.

Should you require any additional information, please let us know at your earliest convenience.

Sincerely,

Paul M. Normand

Don't by le ormand

Principal

Enclosure PMN/rjp

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# Kentucky Power Company 2006 Analysis of System Losses

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Appendix B - Discussion of Hoebel Coefficient



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## Kentucky Power Company 2006 Analysis of System Losses

#### 1.0 EXECUTIVE SUMMARY

This report presents Kentucky Power Company's (KPCO) 2006 Analysis of System Losses for the power systems as performed by Management Applications Consulting, Inc. (MAC). The study developed separate demand (kW) and energy (kWh) loss factors for each voltage level of service in the power system for KPCO. The cumulative loss factor results by voltage level, as presented herein, can be used to adjust metered kW and kWh sales data for losses in performing cost of service studies, determining voltage discounts, and other analyses which may require a loss adjustment.

The procedures used in the overall loss study were similar to prior studies and emphasized the use of "in house" resources where possible. To this end, extensive use was made of the Company's peak hour power flow data and transformer plant investments in the model. In addition, measured and estimated load data provided a means of calculating reasonable estimates of losses by using a "top-down" and "bottom-up" procedure. In the "top-down" approach, losses from the high voltage system, through and including distribution substations, were calculated along with power flow data, conductor and transformer loss estimates, and energy delivery.

With the recent emergence of transmission as a stand-alone function throughout various regions of the country, a modification to the historical calculation of the transmission loss factors was required. Previous loss studies recognized the multipath approach to losses from high voltage to low voltage delivery. The current definition of transmission losses recognized in the industry is simply to sum all losses at transmission as an integrated system. This approach will typically increase the resulting transmission loss factors.

The load research data provided the starting point for performing a "bottom-up" approach for estimating the remaining distribution losses. Basically, this "bottom-up" approach develops line loadings by first determining loads and losses at each level beginning at a customer's meter and service entrance and then going through secondary lines, line transformers, primary lines and finally distribution substation. These distribution system loads and associated losses are then compared to the initial calculated input into Distribution Substation loadings for reasonableness prior to finalizing the loss factors. An overview of the loss study is shown on Figure 1 on the next page.

Table 1, below, provides the final results from Appendix A for the 2006 calendar year. Exhibit 8 of Appendix A presents a more detailed analysis of the final calculated summary results of losses by segments of the power system. These Table 1 cumulative loss expansion factors are applicable only to metered sales at the point of receipt for adjustment to the power system's input level.

# Kentucky Power Company 2006 Analysis of System Losses

TABLE 1
Loss Factors at Sales Level, Calendar Year 2006

Voltage Level of Service	Total KPCO	Distribution <u>Only</u>
Demand (kW)		
Transmission <sup>1</sup>	1.03935	-
Subtransmission	1.05210	1.01227
Primary Lines	1.07402	1.03336
Secondary	1.10790	1.06595
Energy (kWh)		
Transmission <sup>1</sup>	1.02781	-
Subtransmission	1.03780	1.00972
Primary Lines	1.05205	1.02358
Secondary	1.08674	1.05734
Losses – Net System Input <sup>2</sup>	5.91%	
Losses – Net System Output	6.29%	

The loss factors presented in the Distribution Only column of Table 1 are the Total KPCO loss factors divided by the transmission loss factor in order to remove these losses from each service level loss factor. For example, the secondary distribution demand loss factor of 1.06595 includes the recovery of all remaining non-transmission losses from the subtransmission, distribution substation, primary lines, line transformers, secondary conductors and services.

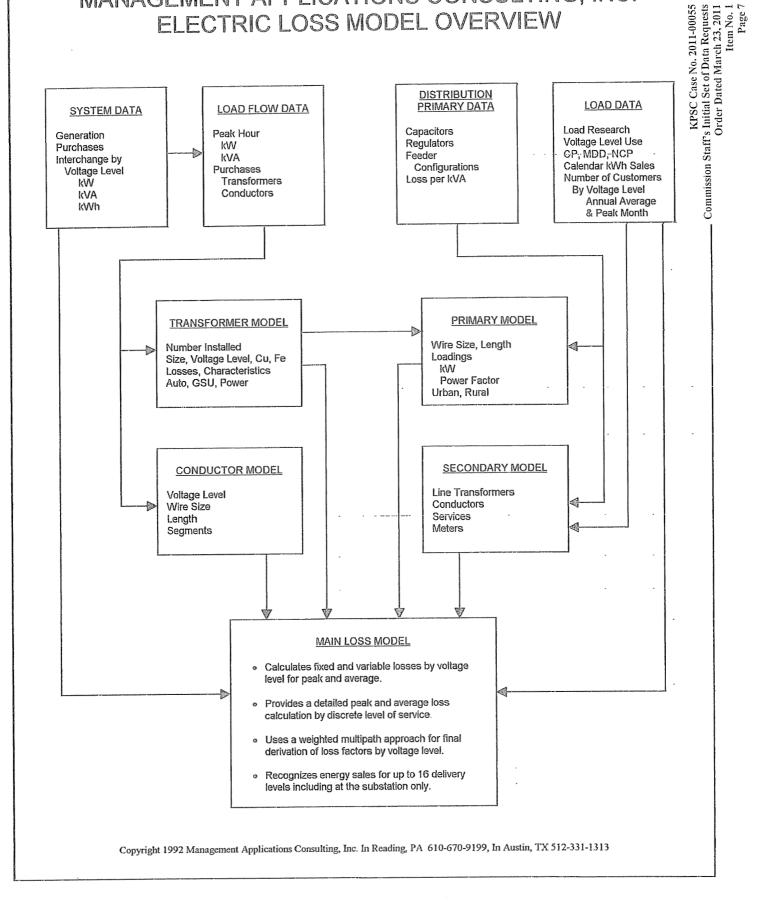
The net system input shown in Table 1 represents percent losses of 5.91% for the total KPCO load using calculated losses divided by the associated input energy to the system. The 6.29% represents the same losses using system output instead of input as a reference.

<sup>&</sup>lt;sup>2</sup> Net system input equals firm sales plus losses, Company use less non-requirement sales and related losses. See Appendix A, Exhibit 1, for their calculations.



<sup>&</sup>lt;sup>1</sup> Reflects results for 765 kV, 345 kV 161 kV, and 138 kV.

# MANAGEMENT APPLICATIONS CONSULTING, INC. ELECTRIC LOSS MODEL OVERVIEW



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## Kentucky Power Company 2006 Analysis of System Losses

#### 2.0 INTRODUCTION

This report of the 2006 Analysis of System Losses for the Kentucky Power Company provides a summary of results, conceptual background or methodology, description of the analyses, and input information related to the study.

#### 2.1 Conduct of Study

Typically, between five to ten percent of the total kWh requirements of an electric utility is lost or unaccounted for in the delivery of power to customers. Investments must be made in facilities which support the total load which includes losses or unaccounted for load. Revenue requirements associated with load losses are an important concern to utilities and regulators in that customers must equitably share in all of these cost responsibilities. Loss expansion factors are the mechanism by which customers' metered demand and energy data are mathematically adjusted to the generation or input level (point of reference) when performing cost and revenue calculations.

An acceptable accounting of losses can be determined for any given time period using available engineering, system, and customer data along with empirical relationships. This loss analysis for the delivery of demand and energy utilizes such an approach. A microcomputer loss model<sup>3</sup> is utilized as the vehicle to organize the available data, develop the relationships, calculate the losses, and provide an efficient and timely avenue for future updates and sensitivity analyses. Our procedures and calculations are similar with prior loss studies, and they rely on numerous databases that include customer statistics and power system investments.

Company personnel performed most of the data gathering and data processing efforts and checked for reasonableness. MAC provided assistance as necessary to construct databases, transfer files, perform calculations, and check the reasonableness of results. A review of the preliminary results provided for additions to the database and modifications to certain initial assumptions based on available data. Efforts in determining the data required to perform the loss analysis centered on information which was available from existing studies or reports within the Company. From an overall perspective, our efforts concentrated on five major areas:

- 1. System information concerning peak demand and annual energy requirements by voltage level of service using metered data and load research,
- 2. High voltage power system power flow data and associated loss calculations,
- 3. Distribution system primary and secondary loss calculations,
- 4. Derivation of fixed and variable losses by voltage level, and
- 5. Development of final cumulative expansion factors at each voltage for peak demand (kW) and annual energy (kWh) requirements at the point of delivery (meter).

<sup>&</sup>lt;sup>3</sup>Copyright by Management Applications Consulting, Inc.

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# Kentucky Power Company 2006 Analysis of System Losses

#### 2.2 Description of Model

The loss model is a customized applications model, constructed using the Excel software program. Documentation consists primarily of the model equations at each cell location. A significant advantage of such a model is that the actual formulas and their corresponding computed values at each cell of the model are immediately available to the analyst.

A brief description of the three (3) major categories of effort for the preparation of each loss model is as follows:

- Main sheet which contains calculations for all primary and secondary losses, summaries of all conductor and transformer calculations from other sheets discussed below, output reports and supporting results.
- Transformer sheet which contains data input and loss calculations for each distribution substation and high voltage transformer. Separate iron and copper losses are calculated for each transformer by identified type.
- Conductor sheet containing summary data by major voltage level as to circuit
  miles, loading assumptions, and kW and kWh loss calculations. Separate loss
  calculations for each line segment were made using the Company's power flow
  data by line segment and summarized by voltage level in this model.

Appendix A presents a detailed loss study result which derives the loss factors for the Company's system-wide power system. Appendix A, Exhibit 8, presents the final detailed summary results of the demand and energy losses for each major portion of the total KPCO power system.

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## Kentucky Power Company 2006 Analysis of System Losses

#### 3.0 METHODOLOGY

#### 3.1 Background

The objective of a Loss Study is to provide a reasonable set of energy (average) and demand (peak) loss expansion factors which account for system losses associated with the transmission and delivery of power to each voltage level over a designated period of time. The focus of this study is to identify the difference between total energy inputs and the associated sales with the difference being equitably allocated to all delivery levels. Several key elements are important in establishing the methodology for calculating and reporting the Company's losses. These elements are:

- Selection of voltage level of services,
- Recognition of losses associated with conductors, transformations, and other electrical equipment/components within voltage levels,
- Identification of customers and loads at various voltage levels of service,
- Review of generation or net power supply input at each level for the test period studied, and
- Analysis of kW and kWh sales by voltage levels within the test period.

The three major areas of data gathering and calculations in the loss analysis were as follows:

- 1. System Information (monthly and annual)
  - MWH generation and MWH sales.
  - Coincident peak estimates and net power supply input from all sources and voltage levels.
  - Customer load data estimates from available load research information, adjusted MWH sales, and number of customers in the customer groupings and voltage levels identified in the model.
  - System default values, such as power factor, loading factors, and load factors by voltage level.

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# Kentucky Power Company 2006 Analysis of System Losses

#### 2. High Voltage System

- Conductor information was summarized from a database by the Company which reflects the transmission system by voltage level. Extensive use was made of the Company's power flow data with the losses calculated and incorporated into the final loss calculations.
- Transformer information was developed in a database to model transformation at each voltage level. Substation power, step-up, and auto transformers were individually identified along with any operating data related to loads and losses.
- Power flow data of peak condition was the primary source of equipment loadings and derivation of load losses in the high voltage loss calculations.

#### 3. Distribution System

- Distribution Substations Data was developed for modeling each substation as to its size and loading. Loss calculations were performed from this data to determine load and no load losses separately for each transformer.
- Primary lines Line loading and loss characteristics for several representative primary circuits were obtained from the Company. These loss results developed kW loss per MW of load and a composite average was calculated to derive the primary loss estimate.
- Line transformers Losses in line transformers were based on each customer service group's size, as well as the number of customers per transformer. Accounting and load data provided the foundation with which to model the transformer loadings and to calculate load and no load losses.
- Secondary network Typical secondary networks were estimated for conductor sizes, lengths, loadings, and customer penetration for residential and small general service customers based on data provided by the Company.
- Services Typical services were estimated for each secondary service class of customers identified in the study with respect to type, length, and loading.



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# Kentucky Power Company 2006 Analysis of System Losses

The loss analysis was thus performed by constructing the model in segments and subsequently calculating the composite until the constraints of peak demand and energy were met:

- Information as to the physical characteristics and loading of each transformer and conductor segment was modeled.
- Conductors, transformers, and distribution were grouped by voltage level, and unadjusted losses were calculated.
- The loss factors calculated at each voltage level were determined by "compounding" the per-unit losses. Equivalent sales at the supply point were obtained by dividing sales at a specific level by the compounded loss factor to determine losses by voltage level.
- The resulting demand and energy loss expansion factors were then used to adjust all sales to the generation or input level in order to estimate the difference.
- Reconciliation of kW and kWh sales by voltage level using the reported system kW and kWh was accomplished by adjusting the initial loss factor estimates until the mismatch or difference was eliminated.

#### 3.2 Calculations and Analysis

This section provides a discussion of the input data, assumptions, and calculations performed in the loss analysis. Specific appendices have been included in order to provide documentation of the input data utilized in the model.

#### 3.2.1 Bulk, Transmission and Subtransmission Lines

The transmission and subtransmission line losses were calculated based on a modeling of unique voltage levels identified by the Company's power flow data and configuration for the entire integrated KPCO Power System. Specific information as to length of line, type of conductor, voltage level, peak load, maximum load, etc., were provided based on Company records and utilized as data input in the loss model.

Actual MW and MVA line loadings were based on KPCO's peak loading conditions. Calculations of line losses were performed for each line segment separately and combined by voltage levels for reporting purposes as shown in the Discussion of Results (Section 4.0) of this report. The loss calculations consisted of determining a circuit current value based on MVA line loadings and evaluating the I<sup>2</sup>R results for each line segment.



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# Kentucky Power Company 2006 Analysis of System Losses

After system coincident peak hour losses were identified for each voltage level, a separate calculation was then made to develop annual average energy losses based on a loss factor approach. Load factors were determined for each voltage level based on system and customer load information. An estimate of the Hoebel coefficient (see Appendix B) was then used to calculate energy losses for the entire period being analyzed. The results are presented in Section 4.0 of this report.

#### 3.2.2 Transformers

The transformer loss analysis required several steps in order to properly consider the characteristics associated with various transformer types; such as, step-up, auto transformers, distribution substations, and line transformers. In addition, further efforts were required to identify both iron and copper losses within each of these transformer types in order to obtain reasonable peak (kW) and average energy (kWh) losses. While iron losses were considered essentially constant for each hour, recognition had to be made for the varying degree of copper losses due to hourly equipment loadings.

Standardized test data tables were used to represent no load (fixed) and full load losses for different types and sizes of transformers. This test data was incorporated into the loss model to develop relationships representing copper and iron losses for the transformer loss calculation. These results were then totaled by various groups, as identified and discussed in Section 4.0.

The remaining miscellaneous losses considered in the loss study consisted of several areas which do not lend themselves to any reasonable level of modeling for estimating their respective losses and were therefore lumped together into a single loss factor of 0.10%. The typical range of values for these losses is from 0.10% to 0.25%, and we have assumed the lower value to be conservative at this time. The losses associated with this loss factor include bus bars, unmetered station use, and grounding transformers.

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# Kentucky Power Company 2006 Analysis of System Losses

#### 3.2.3 Distribution System

The load data at the substation and customer level, coupled with primary and secondary network information, was sufficient to model the distribution system in adequate detail to calculate losses.

#### **Primary Lines**

Primary line loadings take into consideration the available distribution load along with the actual customer loads including losses. Primary line loss estimates were prepared by the Company for use in this loss study. These estimates considered loads per substation, voltage levels, loadings, total circuit miles, wire size, and single- to three-phase investment estimates. All of these factors were considered in calculating the actual demand (kW) and energy (kWh) for the primary system.

#### **Line Transformers**

Losses in line transformers were determined based on typical transformer sizes for each secondary customer service group and an estimated or calculated number of customers per transformer. Accounting records and estimates of load data provided the necessary database with which to model the loadings. These calculations also made it possible to determine separate copper and iron losses for distribution line transformers, based on a table of representative losses for various transformer sizes.

#### Secondary Line Circuits

A calculation of secondary line circuit losses was performed for loads served through these secondary line investments. Estimates of typical conductor sizes, lengths, loadings and customer class penetrations were made to obtain total circuit miles and losses for the secondary network. Customer loads which do not have secondary line requirements were also identified so that a reasonable estimate of losses and circuit miles of these investments could be made.

#### Service Drops and Meters

Service drops were estimated for each secondary customer reflecting conductor size, length and loadings to obtain demand losses. A separate calculation was also performed using customer maximum demands to obtain kWh losses. Meter loss estimates were also made for each customer and incorporated into the calculations of kW and kWh losses included in the Summary Results.

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## Kentucky Power Company 2006 Analysis of System Losses

#### 4.0 DISCUSSION OF RESULTS

A brief description of each Exhibit provided in Appendix A follows:

#### Exhibit 1 - Summary of Company Data

This exhibit reflects system information used to determine percent losses and a detailed summary of kW and kWh losses by voltage level. The loss factors developed in Exhibit 7 are also summarized by voltage level.

#### Exhibit 2 - Summary of Conductor Information

A summary of MW and MWH load and no load losses for conductors by voltage levels is presented. The sum of all calculated losses by voltage level is based on input data information provided in Appendix A. Percent losses are based on equipment loadings.

#### Exhibit 3 - Summary of Transformer Information

This exhibit summarizes transformer losses by various types and voltage levels throughout the system. Load losses reflect the copper portion of transformer losses while iron losses reflect the no load or constant losses. MWH losses are estimated using a calculated loss factor for copper and the test year hours times no load losses.

#### Exhibit 4 - Summary of Losses Diagram (2 Pages)

This loss diagram represents the inputs and output of power at system peak conditions. Page 1 details information from all points of the power system and what is provided to the distribution system for primary loads. This portion of the summary can be viewed as a "top down" summary into the distribution system.

Page 2 represents a summary of the development of primary line loads and distribution substations based on a "bottom up" approach. Basically, loadings are developed from the customer meter through the Company's physical investments based on load research and other metered information by voltage level to arrive at MW and MVA requirements during peak load conditions by voltage levels.

#### Exhibit 5 - Summary of Sales and Calculated Losses

Summary of Calculated Losses represents a tabular summary of MW and MWH load and no load losses by discrete areas of delivery within each voltage level. Losses have been identified and are derived based on summaries obtained from Exhibits 2 and 3 and losses associated with meters, capacitors and regulators.

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# Kentucky Power Company 2006 Analysis of System Losses

#### Exhibit 6 - Development of Loss Factors, Unadjusted

This exhibit calculates demand and energy losses and loss factors by specific voltage levels based on sales level requirements. The actual results reflect loads by level and summary totals of losses at that level, or up to that level, based on the results as shown in Exhibit 5. Finally, the estimated values at generation are developed and compared to actual generation to obtain any difference or mismatch.

#### Exhibit 7 - Development of Loss Factors, Adjusted

The adjusted loss factors are the results of adjusting Exhibit 6 for any difference. All differences between estimated and actual are prorated to each level based on the ratio of each level's total load plus losses to the system total. These new loss factors reflect an adjustment in losses due only to the kW and kWh mismatch.

#### Exhibit 8 – Adjusted Losses and Loss Factors by Facility

These calculations present an expanded summary detail of Exhibit 7 for each segment of the power system with respect to the flow of power and associated losses from the receipt of energy at the meter to the generation for the KPCO power system.

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# Kentucky Power Company 2006 Analysis of System Losses

# Appendix A

Results of 2006 KPCO Integrated Power System Loss Analysis



# KENTUCKY POWER 2006 LOSS ANALYSIS

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# KENTUCKY POWER SUMMARY OF COMPANY DATA

	EX	НΙ	ВІ	T	-
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ANNUAL PEAK	1,539 MW
ANNUAL SYSTEM INPUT	7,750,202 MWH
ANNUAL SALES OUTPUT	7,291,865 MWH
SYSTEM LOSSES @ INPUT SYSTEM LOSSES @ OUTPUT	458,337 or 5.91% 458,337 or 6.29%
SYSTEM LOAD FACTOR	57.5%

#### SUMMARY OF LOSSES - OUTPUT RESULTS

SERVICE	KV		MW Input	% TOTAL	MWH Input	% TOTAL
TRANS	765,345 161,138	50.9	3.31%	40.31%	181,171 2.34%	39.53%
SUBTRANS	69,46,34	13.7	0.89%	10:87%	58;146 0.75%	12.69% -
PRIMARY	34,12,1	30.0	1.95%	23.73%	87,695 1.13%	19.13%
SECONDARY	120/240,to,477	31.7	2.06%	25.09%	131,324 1.69%	28.65%
TOTAL		126.3		100.00%	458,337 5.91%	100.00%

#### SUMMARY OF LOSS FACTORS

SERVICE	KV		LATIVE SALES D (Peak)	EXPANSION FA	
		d	1/d	е	1/e
TOT TRANS	765,345 161,138	1.03935	0.96214	1.02781	0.97294
SUBTRAN	69,46,34	1.05210	0.95048	1.03780	0.96358
PRIMARY	34,12,1	1.07402	0.93108	1.05205	0.95053
SECONDARY	120/240,to,477	1.10790	0.90261	1.08674	0.92018

KENTUCKY POWER 2006 LOSS ANALYSIS

# SUMMARY OF CONDUCTOR INFORMATION

	LOAD	
S	O LOAD TOTAL	
WW LOSSES	LOAD NO LC	
LOADING	% RATING	
CIRCUIT	MILES	
I DESCRIPTION		

BULK	765 KV OR GREATER	R GREAT	ER				
TIE LINES BULK TRANS SUBTOT			0.0 183.5 183.5	%00.0 0.00%	0.000 0.566 0.566	0.000 0.014 0.014	0.000 0.580 0.580
TRANS	138 KV	5	765.00 KV	1			
TIE LINES			0	%00.0	0.000	0.000	0.000
TRANS1 TRANS2 SUBTOT	161 KV 138 KV		56.5 328.1 384.7	%00.0 %00.0	1.149 41.861 43.010	0.040 0.135 0.175	1.189 41.996 43.185
SUBTRANS	35 KV	2	138 KV	ı			
TIE LINES SUBTRANS1 SUBTRANS2 SUBTRANS3 SUBTRANS3	69 KV 46 KV 35 KV		997.5 169.2 3.2 1,169.8	0.00% 0.00% 0.00%	7.066 7.066 0.071 9.017	0.000 0.489 0.000 0.008 0.497	0.000 7.556 1.879 0.079 9.514
PRIMARY LINES			8,089		15.358	1.287	16.645
SECONDARY LINES			2,632		6.249	0.000	6.249
SERVICES	-		3,175		5.420	0.366	5.786
TOTAL			15,634		79.619	2.339	81.959

3,325 125,214 128,539

352 1,182 1,533

2,973 124,032 127,006

0 14,268 14,268

12,700 12,700

0 1,568 1,568

TOTAL

--- MWH LOSSES NO LOAD

EXHIBIT 2

24,060 5,753 283 30,097

2,431 0 2,504

21,629 5,753 210 27,592

41,838 13,182 15,781

11,273

30,565 13,182 12,575

3,207

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243,705

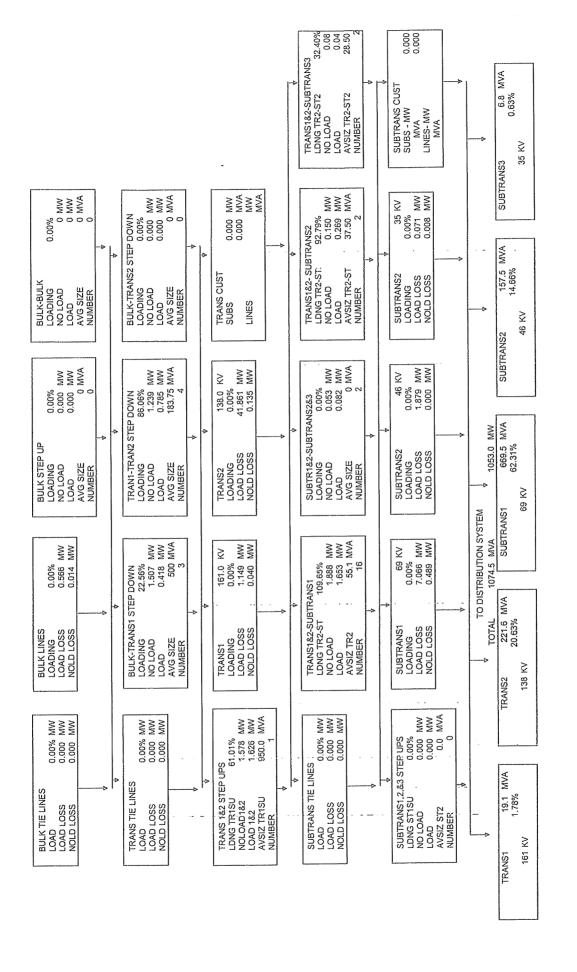
31,217

212,488

KENTUCKY POWER 2005 LOSS ANALYSIS

				SO	MMARY OF TE	SUMMARY OF TRANSFORMER INFORMATION	VFORMATION					E	EXHIBIT 3
DESCRIPTION	KV CAI VOLTAGE	KV CAPACITY LTAGE MVA		NUMBER TRANSFMR	AVERAGE SIZE	LOADING %	MVA LOAD	LOAD	MW LOSSES NO LOAD	TOTAL	LOAD W	MWH LOSSES - NO LOAD	TOTAL
BULK STEP-UP BULK - BULK BULK - TRANS1 BULK - TRANS2	7. 3. 3. 3. 3.	765 161 1,5	0.0 0.0 1,500.0	00%0	0.0 0.0 500.0 0.0	0.00% 0.00% 22.56% 0.00%	3388	0.000 0.418 0.000	0.000 0.000 1.507 0.000	0.000 0.000 1.925 0.000	0 0 1,082 0	0 0 11,941 0	0 0 13,022 0
TRANS1 STEP-UP TRANS1 - TRANS2 TRANS1-SUBTRANS2 TRANS1-SUBTRANS2 TRANS1-SUBTRANS2	# H 2 4 W		950.0 735.0 54.0 0.0	~4~00	950.0 183.8 54.0 0.0	61.01% 86.06% 104.12% 0.00% 0.00%	580 633 56 0	0.970 0.785 0.098 0.000 0.000	1.028 1.239 0.112 0.000	1.998 2.024 0.210 0.000	2,257 2,326 596 0	6,448 8,498 770 0	8,705 10,824 1,366 0
TRANS2 STEP-UP TRANS2-SUBTRANS1 TRANS2-SUBTRANS2 TRANS2-SUBTRANS3	#2.40	85 69 85 85 85 85 85 85 85 85 85 85 85 85 85	354.0 826.5 75.0 57.0	ω <u>π</u> α α	118.0 55.1 37.5 28.5	62.61% 109.65% 92.79% 32.40%	222 906 70 18	0.656 1.555 0.269 0.036	0.550 1.776 0.150 0.081	1.206 3.331 0.419 0.117	1,906 11,277 785 75	3,907 12,181 1,059 637	5,813 23,459 1,843 711
SUBTRAN1 STEP-UP SUBTRAN2 STEP-UP SUBTRAN3 STEP-UP		69 46 35	0.00	000	0.0	0.00% 0.00% 0.00%	000	0.000	0.000	0.000	000	000	000
SUBTRAN1-SUBTRAN2 SUBTRAN1-SUBTRAN3 SUBTRAN2-SUBTRAN3		46 35 35	24.0 0.0 0.0	000	12.0 0.0 0.0	91.84% 0.00% 0.00%	0 0 0 0 0	0.082 0.000 0.000	0.053 0.000 0.000	0.135 0.000 0.000	283 0 0	386	029
		THE PARTY OF THE P					DISTRIBUTION SUBSTATIONS	UBSTATIONS		- Control of the Cont			
TRANS1 - TRANS1 - TRANS1 -	161 161 161	33	22.0 0.0 0.0	40,0	0.00	86.73% 0.00% 0.00%	, 600	0.080	0.049 0.000 0.000	0.129	173	356 0 0	529 0 0
TRANS2 - TRANS2 - TRANS2 -	138 138 138	33	183.0 43.5 0.0	040	20.3 10.9 0.0	96.56% 103.30% 0.00%	177 45 0	0.850 0.247 0.000	0.395 0.104 0.000	1.245 0.351 0.000	1,837 533 0,	2,806 744 0	4,643 1,277 0
SUBTRAN1- SUBTRAN1- SUBTRAN1-	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	33	147.5 448.5 25.0	<u> </u>	6.3 8.8 6.3	120.83% 107.07% 44.27%	178 480 11	1.143 2.861 0.035	0.372 1.136 0.053	1.515 3.997 0.088	2,471 6,184 77	2,595 8,164 419	5,067 14,348 495
SUBTRAN2- SUBTRAN2- SUBTRAN2-	46 46 46	12 12	63.0 121.3 0.7	4 60	15.8 8.1 0.7	104.95% 75.22% 28.61%	99 0	0.378 0.680 0.000	0.146 0.267 0.002	0.524 0.946 0.002	817 1,469 1	1,034 1,995 13	1,851
SUBTRAN3- SUBTRAN3- SUBTRAN3-	35 35 35	12 12	0.00	0+0	0.0 5.0 0.0	0.00% 135.48% 0.00%	0 4 0	0.000 0.057 0.000	0.000 0.016 0.000	0.000 0.073 0.000	0 123 0	1110	235
PRIMARY - PRIMARY			21.3	4	5.3	63.76%	14	0.055	0.037	0.092	119	321	440
LINE TRANSFRMR		67	2,982.7	95,534	31.2	34.92%	1,041	5.012	9.988	15.000	11,054	87,498	98,553
:			0000					16.267	19.059	35.327	45,446	151,883	197,329
IOIAL		Control of the Contro	0,033	10,00							0007	. No. 2011	## <b>000</b>

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KENTUCKY POWER 2006 LOSS ANALYSIS

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# SUMMARY of SALES and CALCULATED LOSSES

LOSS # AND LEVEL	MW LOAD	NO LOAD +	LOAD = TOT	SSOT	EXP	CUM EXP FAC	MWH LOAD	NO LOAD +	LOAD = TOT LOSS		EXP FACTOR	CUM EXP FAC
1 BULK XFMMR	0.0	0.00	0.00	0.00	0.000000	0.000000	1 600 000	12 700	0 1.568	0 14.268	0 1.0089978	1.0089978
2 BOLK LINES 3 TRANS1 XEMR	331.7	1.51	0.37	1.92	1.005837	1.007506	1,510,960	11,941	1,082	13,022	1.0086933	1.0177694
4 TRANS1 INES	899.7	1.07	2.12	3.19	1.003555	1.006332	6,943,169	6,800	5,230	12,030	1.0017357	1.0056093
5 TRANSZTR1 SD	619.9	1.24	0.79	2.02	1.003276	1.009628	3,040,981	8,498	2,326	10,824	1.0035721	1.0092014
6 TRANS2BLK SD	0.0	0.00	0.00	0.00	0.00000.0	0.000000		0	0	0 10	0.000000	0.000000
7 TRANS2 LINES	1,257.1	0.68	42.52	43.20	1.035589	1.040506	6,174,465	5,089	125,938	131,027	1.0216809	1.0263109
TOTAL TRAN	1,345.0	4.51	46.40	50.92	1.039346	1.039346	6,696,350	45,027	136,145	181,171	1.02/80/6	1.02/80/6
8 STR1BLK SD				ò	0000	0.000	707	022	505	1 366	4 0049913	1 0329377
9 STR1T1 SD	55.1	0.11	0.10	0.21	1.003823	7.045318	270,120	7 07	24.000	23,450	1 0053182	1.032021
10 SRT1T2 SD	888.1	1.78	1.55	3.33	1.003/65	1.043259	4,434,40	12,101	11771	20,400	2010000	1.00001
11 SUBTRANS1 LINES	1,108.2	0.49	7.07	7.56	1.006865	1.046481	5,559,224	2,431	21,629	24,060	1.0045466	1.0322/33
7		C	00 0	000	000000	טטטטטט ט	-:	0	0	0	0.0000000	0.0000000
SIRZIISU	2.6		0.00	5.0	4.006488	4 045778	340 536	1 059	785	1.843	1.0054429	1.0334018
13 STR212 SD	68.2	0.0	77.0	7.5	1.000100	1.0437.0	107,000	986	283	670	1 0062500	1.0387270
4 STRZS1 SD	9.12	0.00	0.00	 4 4	1.000312	1,03000	560,000	3	5 753	5 753	1.0101992	1.038290
15 SUBTRANS2 LINES	118.8	0.00	00.1	00:-	0.0010.1	20000	2000,120	>	5	)		-
6 CTE2T4 CD	C	000	00 0	00 0	0.00000	0.000000	0	0	0	0	0.000000.0	0.0000000
10 0 1 70 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1	) (C	80.0	0.00	0.12	1.006480	1.046081	88,791	637	75	711	1.0080774	1.0361096
17 STESS OF		00.0	00.0	00.0	0,00000	0.000000	0	0	0	0	0.000000.0	0.0000000.0
19 STR3S2 SD	0.0	0.00	0.00	0.00	0.000000	0.00000	0	0	0	0	0.000000.0	0.0000000
20 SHRTBANS3 INES	187	0.01	0.07	0.08	1.004403	1.043922	88,791	73	210	283	1.0032023	1.0310990
21 SUBTRANS TOTAL	1.132.0	2.67	11.06	13.73	1.012275	1.052104	6,041,339	17,538	40,609	58,146	1.0097183	1.037796
		i										
DISTRIBUTION SUBST	»vumri						1	6	7	Ċ	4 00000	4 00000
TRANS1	18.7	0.05	0.08	0.13	1.006936	1.046555	77,155	326	1/3	870	.0000000	0,000,000
TRANS	217.2	0.50	1.10	1.60	1.007402	1.047039	896,161	3,550	2,370	5,920	1.0056500	1.0346425
SIBTRI	656.1	1.56	4.04	5.60	1.008609	1.055490	2,706,999	11,178	8,732	19,910	1.0074094	1.0389238
SUBTRO	154.4	0.41	1.06	1.47	1.009630	1.066223	636,918	3,042	2,287	5,329	1.0084378	1.0470513
SIBTES		0 0	0.06	0.07	1.011066	1.055474	27,390	111	123	235	1.0086388	1.0400064
WEIGHTED AVERAGE	1 053.0	2.54	6.33	8.87	1.008495	1.055162	4,344,624	18,236	13,686	31,922	1.0074019	1.0397996
PENAL DISTRIBUTED OF THE PROPERTY OF THE PROPE	C				0,000000		0				0.000000.0	
	1 042 7	1 29	15.41	16.70	1.016277	1.072336	4,315,778	22,547	30,684	53,230	1.0124879	1.0527754
INF TRANSF	953.8	66.6	5.01	15.00	1,015978	1.089469	3,808,609	87,498	11,054	98,553	1.0265636	1.0807410
SECONDARY	8 8 8 8	000	6.25	6.25	1,006700	1,096769	3,710,057	0	13,182	13,182	1.0035658	1.0845946
SERVICES	932.6	0.37	5.42	5.79	1.006243	1.103616	3,696,874	3,207	12,575	15,781	1.0042872	1.0892445
	-											-
				147 05	•					451.987		
IOIALSYSIEM		21.30		71.60								

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#### KENTUCKY POWER 2006 LOSS ANALYSIS

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**EXHIBIT 6** 

# DEVELOPMENT of LOSS FACTORS UNADJUSTED DEMAND

LOSS FACTOR LEVEL	CUSTOMER SALES MW	CALC LOSS TO LEVEL	SALES MW @ GEN	CUM PEAK EX FACTORS	PANSION
	а	b	C	d	1/d
BULK LINES	0.0	0.0	0.0	0.0000	0.00000
TRANS SUBS	0.0	0.0	0.0 0.0	0.0000	0.00000
TRANS LINES	46.8	1.8	48.6	1.03935	0.96214
TOTAL TRANS	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS	366.9	19.1	386.0	1.05210	0.95048
PRIM SUBS	0.0	0.0	0.0	0.00000	0.00000
PRIM LINES	72.2	5.2	77.4	1.07234	0.93254
SECONDARY	<u>926.8</u>	<u>96.0</u>	<u>1,022.8</u>	1.10362	0.90611
TOTALS	1,412.7	122.2	1,534.9		

# DEVELOPMENT of LOSS FACTORS UNADJUSTED ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH	CALC LOSS TO LEVEL	SALES MWH @ GEN	CUM ANNUAL FACTORS	EXPANSION
	a	Ь	C	d	1/d
	_	_	_		
BULK LINES	0	0	0	0.00000	0.00000
TRANS SUBS	0	0	0	0.00000	0.00000
TRANS LINES	390,468	10,858	401,326	1.02781	0.97294
TOTAL TRANS	0	0	0	0.00000	0.00000
SUBTRANS	2,766,366	104,558	2,870,924	1.03780	0.96358
PRIM SUBS	0	0	0	0.00000	0.00000
PRIM LINES	453,938	23,957	477,895	1.05278	0.94987
SECONDARY	<u>3,681,093</u>	328,517	4,009,610	1.08924	0.91807
TOTALS	7,291,865	467,890	7,759,755		

#### ESTIMATED VALUES AT GENERATION

LOSS FACTOR AT		
VOLTAGE LEVEL	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	48.64	401,326
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	386.02	2,870,924
PRIM SUBS	0.00	0
PRIM LINES	77.42	477,895
SECONDARY	1,022.83	4,009,610
SUBTOTAL	1,534.91	7,759,755
ACTUAL ENERGY	1,539.00	7,750,202
MISSMATCH	(4.09)	9,553
% MISSMATCH	-0.27%	0.12%

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# DEVELOPMENT of LOSS FACTORS ADJUSTED DEMAND

=/	1	111	31	ı	1	

LOSS FACTOR LEVEL	CUSTOMER SALES MW	SALES ADJUST	CALC LOSS TO LEVEL	SALES MW @ GEN	CUM PEAK EXP FACTORS	ANSION
	a a	b	C	dd	ее	f=1/e
BULK LINES	0.0	0.0	0.0	0.0	0.00000	0.0000
	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS LINES	46.8	0.0	1.8	48.6	1.03935	0.96214
TOTAL TRANS	0.0	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS	366.9	0.0	19.1	386.0	1.05210	0.95048
PRIM SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
PRIM LINES	72.2	0.0	5.3	77.5	1.07402	0.93108
SECONDARY	926.8	0.0	100.0	1,026.8	1.10790	0.90261
			126.3			
TOTALS	1,412.7	0.0	126.3	1,539.0		

# DEVELOPMENT of LOSS FACTORS ADJUSTED ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH	SALES	CALC LOSS TO LEVEL		CUM ANNUAL	EXPANSION
LEVEL	SALES WWT	ADJUST b	C	@ GEN d	PACTORS e	f=1/e
	1					
BULK LINES	0	(	0	0	0.00000	0.00000
TRANS SUBS	0	(	0	0	0.00000	0.00000
TRANS LINES	390,468	(	10,858	401,326	1.02781	0.97294
TOTAL TRANS	0	(	0	0	0.00000	0.00000
SUBTRANS	2,766,366	(	104,558	2,870,924	1.03780	0.96358
PRIM SUBS	0	(	0	0	0.00000	0.00000
PRIM LINES	453,938	(	23,626	477,564	1.05205	0.95053
SECONDARY	3,681,093	(	319,295	4,000,388	1.08674	0.92018
		_	458,337			
TOTALS	7,291,865	(	458,337	7,750,202		

#### **ESTIMATED VALUES AT GENERATION**

LOSS FACTOR AT		
VOLTAGE LEVEL	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	48.64	401,326
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	386.02	2,870,924
PRIM SUBS	0.00	0
PRIM LINES	77.54	477,564
SECONDARY	1,026.80	4,000,388
	1,539.00	7,750,202
ACTUAL ENERGY	1,539.00	7,750,202
MISSMATCH	0.00	0
% MISSMATCH	0.00%	0.00%

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Adjusted	105565	and	Inss	Factors	hv	Facility
Mujusteu	LU3353	GIIG	-000	I accurs	wv	1 acmity

Unadjusted Lo	sses by Segment		A 21 4 7 1 3	11 6 1
Service Drop Losses	MW 5.79	Unadjusted 6.33	MWH 15,781	Unadjusted 16,962
Secondary Losses	6.25	6.84	13,182	14,168
Line Transformer Losses	15.00	16.42	98,553	105,922
Primary Line Losses	16.70	18.28	53,230	57,211
Distribution Substation Losses	8.87	9.71	31,922	34,309
Subtransmission Losses	13.73	13.73	58,146	58,146
<u>Transmission System Losses</u> Total	<u>50.92</u>	50.92 122.21	181,171	181,171
	117.25		451,987	467,890
Mismatch Alloc	ation by Segment MW	ŧ	MWH	
Service Drop Losses	-0.45		709	
Secondary Losses	-0.49		592	
Line Transformer Losses Primary Line Losses	-1.17 -1.30		4,427 2,391	
Distribution Substation Losses	-0.69		1,434	
Subtransmission Losses	0.00		0	
Transmission System Losses	0.00		$\underline{0}$	
Total	-4.09		9,553	
Adjusted Los	ses by Segment MW	% of Total	MWH	%.of.Total
Service Drop Losses	6.78	% 01 10tal 5.4%	16,253	3.5%
Secondary Losses	7.32	5.8%	13,576	3.0%
Line Transformer Losses	17.58	13.9%	101,495	22.1%
Primary Line Losses	19 57	15.5%	54,820	12.0%
Distribution Substation Losses	10.40	8.2%	32,875	7.2%
Subtransmission Losses	13.73	10.9%	58,146	12.7%
<u>Transmission System Losses</u> Total	50.92 126.30	40.3% 100.0%	181,171 458,337	39.5% 100.0%
Loss Factors by Segment	MVV	î	иWн	
Retail Sales from Service Drops	926.80		3,681,093	
Adjusted Service Drop Losses	6.78		<u>16,253</u>	
Input to Service Drops	933.58		3,697,346	
Service Drop Loss Factor	1.00732		1.00442	
Output from Secondary	933.58		3,697,346	
Adjusted Secondary Losses Input to Secondary	<u>7.32</u> 940.91		<u>13,576</u> 3,710,922	
Secondary Conductor Loss Factor	1.00784		1.00367	
Output from Line Transformers	940.91		3,710,922	
Adjusted Line Transformer Losses	<u>17.58</u>		101,495	
Input to Line Transformers	958.49		3,812,417	
Line Transformer Loss Factor	1.01869		1.02735	
Secondary Composite	1.03419 69.20		1.03568 432,151	
Retail Sales from Primary Reg. Whis Sales from Primary	3.00		21,787	
Input to Line Transformers	958.49		3,812,417	
Output from Primary Lines	1030.69		4,266,355	
Adjusted Primary Line Losses	<u> 19.57</u>		54,820	
Input to Primary Lines	1050.26		4,321,175	
Primary Line Loss Factor	1.01899		1.01285	
Output PI from Distribution Substations	1050.26		4,321,175	
Req. Whis Sales from Substations Retail Sales from Substations	0.00 0.00		0	
TotalOutput from Distribution Substations	1050.26		4,321,175	
Adjusted Distribution Substation Losses	10.40		32,875	
Input to Distribution Substations	1060.66		4,354,050	
Distribution Substation Loss Factor	1.00990		1.00761	
Retail Sales at from SubTransmission	351.90		2,695,544	
Req. Whis Sales from SubTransmission	15.00		70,822	
Input to Distribution Substations	751.37		3,216,827	
Output from SubTransmission Adjusted SubTransmission System Losses	1118.27 13.73		5,983,193 58,146	
Input to SubTransmission	1132.00		6,041,339	
SubTransmission Loss Factor	1.01227		1.00972	
Retail Sales at from Transmission	32.80		320,160	
Reg. Whis Sales from Transmission	14.00		70,308	
Input Subtransmission	1247.28 1294.08		6,041,339 6,515,179	
Output from Transmission Adjusted Transmission System Losses	50.92		181,171	
Input to Transmission	1345.00		6,696,350	
Transmission Loss Factor	1.03935		1.02781	

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# Kentucky Power Company 2006 Analysis of System Losses

# Appendix B

Discussion of Hoebel Coefficient



#### COMMENTS ON THE HOEBEL COEFFICIENT

The Hoebel coefficient represents an established industry standard relationship between peak losses and average losses and is used in a loss study to estimate energy losses from peak demand losses. H. F. Hoebel described this relationship in his article, "Cost of Electric Distribution Losses," <u>Electric Light and Power</u>, March 15, 1959. A copy of this article is attached.

Within any loss evaluation study, peak demand losses can readily be calculated given equipment resistance and approximate loading. Energy losses, however, are much more difficult to determine given their time-varying nature. This difficulty can be reduced by the use of an equation which relates peak load losses (demand) to average losses (energy). Once the relationship between peak and average losses is known, average losses can be estimated from the known peak load losses.

Within the electric utility industry, the relationship between peak and average losses is known as the loss factor. For definitional purposes, loss factor is the ratio of the average power loss to the peak load power loss, during a specified period of time. This relationship is expressed mathematically as follows:

where: 
$$F_{LS} = Loss Factor$$

$$A_{LS} = Average Losses$$

$$P_{LS} = Peak Losses$$

The loss factor provides an estimate of the degree to which the load loss is maintained throughout the period in which the loss is being considered. In other words, loss factor is the ratio of the actual kWh losses incurred to the kWh losses which would have occurred if full load had continued throughout the period under study.

Examining the loss factor expression in light of a similar expression for load factor indicates a high degree of similarity. The mathematical expression for load factor is as follows:

This load factor result provides an estimate of the degree to which the load loss is maintained throughout the period in which the load is being considered. Because of the similarities in definition, the loss factor is sometimes called the "load factor of losses." While the definitions are similar, a strict equating of the two factors cannot be made. There does exist, however, a relationship between these two factors which is dependent upon the shape of the load duration curve. Since resistive losses vary as the square of the load, it can be shown mathematically that the loss factor can vary between the extreme limits of load factor and load factor squared. The relationship between load factor and loss factor has become an industry standard and is as follows:



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where: 
$$F_{LS} = Loss Factor$$

$$F_{LD} = Load Factor$$

$$F_{LD} = Hoebel Coeff$$

As noted in the attached article, the suggested value for H (the Hoebel coefficient) is 0.7. The exact value of H will vary as a function of the shape of the utility's load duration curve. In recent years, values of H have been computed directly for a number of utilities based on EEI load data. It appears on this basis, the suggested value of 0.7 should be considered a lower bound and that values approaching unity may be considered a reasonable upper bound. Based on experience, values of H have ranged from approximately 0.85 to 0.95. The standard default value of 0.9 is generally used.

Inserting the Hoebel coefficient estimate gives the following loss factor relationship using Equation (3):

(4) 
$$F_{LS} \approx 0.90*F_{LD}^2 + 0.10*F_{LD}$$

Once the Hoebel constant has been estimated and the load factor and peak losses associated with a piece of equipment have been estimated, one can calculate the average, or energy losses as follows:

Loss studies use this equation to calculate energy losses at each major voltage level in the analysis.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 2 Page 1 of 1

### Kentucky Power Company

### REQUEST

Refer to page 1 of the DSM Report regarding the estimated anticipated peak demand reduction, which includes an 11 percent T&D loss savings. Provide the basis for the 11 percent T&D loss savings.

#### RESPONSE

Please see Item No. 1 response and attachment.

WITNESS: Lila P Munsey

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 3 Page 1 of 2

# **Kentucky Power Company**

# REQUEST

Refer to pages 8-11 of the DSM Report, which provide information concerning the Targeted Energy Fitness program. For the reporting period January 2010 through December 2010, the Targeted Energy Fitness program had 346 all-electric home participants and 54 non all-electric home participants. For 2010, the total costs for the program were \$347,248. The projected participants for this program for 2011 are 350 all-electric homes and 55 non all-electric homes, with a budgetary level of \$400,000.

- a. Explain why the program cost is projected to increase by over 15 percent when the participation level is expected to remain nearly the same.
- b. Explain the statement on page 2 of the cover letter regarding the change in balance between Kentucky Power DSM funding versus Federal Stimulus Funding related to the Targeted Energy Efficiency Program. Additionally, provide the changes in the amount of Federal Stimulus Funding.

# RESPONSE

- a. The 2011 budget estimate includes a \$16,320.51 invoice received in 2011 from one Community Action Agency representing work performed in 2010 (expense was not booked in 2010). The budget estimate also includes \$30,000 for a program evaluation report scheduled to be filed on or before August 15, 2011. The 2011 budget funding for the Community Action Agencies is \$370,000 and the total 2011 budget of \$400,000 includes the \$30,000 for the evaluation report cost.
- b. The Kentucky Power DSM TEE program provides supplemental funding to the Community Action Agencies operating in the utility service area, for weatherization and auditing energy efficiency measures. This DSM funding is supplemental to the funding used by the agencies for their weatherization programs. The ARRA (American Recovery and Reinvestment Act) Federal Stimulus funding provided additional resources for 2010 not previously available to the Community Action Agencies energy efficiency and weatherization programs.

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A statement from Community Action Kentucky addressing changes in stimulus funding is as follows:

The Weatherization Program in Kentucky changed dramatically from the 2008-09 year to the 2009-2010 when states were provided with American Reinvestment and Recovery Act (ARRA) funding. This funding is slated to expire March of 2012 and the state will likely return to a much lower funding level from the U.S. Department of Energy.

In the 2008-09 year, the five agencies within the AEP service area received total funding in the amount of \$3,187,743.

In the 2009-10 year, those five agencies received funding in the amount of \$6,389,279.

In 2010-2011, the agencies have been funded with \$5,023,941 to date.

The significant increase from 08-09 to 09-10 required a substantial "ramp-up" on the part of agencies. With prior years funding, they were operating with modest crew, equipment and resources. With the ARRA funding, agencies were required to add staff, equipment for crews and major training to meet the production expectations for the new funds. Consequently, agencies were limited in how much they could partner with the AEP DSM program as the new demands required their focus.

With the end of ARRA funding coming in March 2012, agencies will once again look to our DSM partnership with AEP to assist the Weatherization program with helping the people. An advantage for the post ARRA period will be a better trained, better equipped crew to serve the disadvantaged with weatherization services.

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KSPC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 4 Page 1 of 1

# Kentucky Power Company

# REQUEST

Refer to pages 23-25 of the DSM Report, which provide information concerning the Modified Energy Fitness program. For the reporting period January 2010 through December 2010, the Modified Energy Fitness program had 1,200 new participants. For 2010, the total costs for the program were \$418,693. The projected participants for this program for 2011 are 1,200, with a budgetary level of \$455,000. Explain why the program cost is projected to increase by almost 9 percent when the participation level is expected to remain the same.

# RESPONSE

The estimated 2011 program budget includes a 3.5% (\$15,225) increase for vendor contract pricing and a \$20,000 estimated cost for a planned program evaluation report to be filed on or before August 15, 2011.

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 5 Page 1 of 1

# Kentucky Power Company

# REQUEST

In Kentucky Power's most recent DSM filing, Case No 2010-00333, Tab No. 2, Exhibit C, page 16C-1 of 18, under Residential Efficient Products - Ceiling Fan w/Energy Star Light Fixture, there were 50 projected new participants for this particular program with an estimated total cost of \$326 for the fourth quarter of 2010. Explain why the Ceiling Fan w/Energy Star Light Fixture program is not listed on Schedule C, pages 16B-1, 17A-1 and 17B-1 of 19, of the current application under the Residential Efficient Products heading.

## RESPONSE

As conceived at the time of the program filing, KPCo separated energy efficiency lighting measures into four categories within the Residential Efficient Products program; CFLs, Ceiling Fan w/Energy Star® Light Fixture, LED Holiday Lights and LED Night Lights. The selected program implementation contractor grouped the individual energy efficiency measures into three primary categories; CFLs, Specialty, and LED lighting. The Specialty Bulbs category can include Ceiling Fan w/Energy Star® Light fixtures as well as any other products not referenced in the CFL or LED category. The LED Lights category will include measures such as LED Holiday Lights and can also include LED Night Lights.

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 6 Page 1 of 1

# Kentucky Power Company

# REQUEST

In Case No. 2010-00333, Exhibit C, page 16C-1 of 18, under the heading "Program Descriptions," estimates were listed under Residential Efficient Products-LED Holiday Lights. In the current application, on Schedule C, pages 16B-I, 17A-1, and 17B-1 of 19, estimates were listed under Residential Efficient Products-Specialty Bulbs.

- a. Is Residential Efficient Products-LED Holiday Lights and Residential Efficient Products-Specialty Products the same program? Explain.
- b. If the answer to 6.a. is yes, why was there a change in the name of the program? Explain.

# RESPONSE

- a. Yes, please refer to the Company's response to item no. 5.
- b. Please refer to the Company's response to item no. 5.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 7 Page 1 of 17

# Kentucky Power Company

# REQUEST

Provide in an electronic format with formulas intact, the calculations to determine the Lost Revenue Factors for the following programs:

# Residential Efficient Products

- Compact Fluorescent Lamp
- Specialty Bulbs
- LED Night Light

# Residential HVAC Diagnostic & Tune Up

- Air Conditioner
- Heat Pump

# Residential Load Management

- Air Conditioner
- Water Heating

# Commercial A/C & Heat Pump Program

- Air Conditioner Replacement
- Heat Pump Replacement

# Commercial HVAC Diagnostic & Tune-up

- Air Conditioner
- Heat Pump

# Commercial Load Management

- Air Conditioner
- Water Heating

# Commercial Incentive

# RESPONSE

A copy of the lost revenue factors work file is attached. Please see the CD for excel file with formulas intact.

WITNESS: Lila P Munsey

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Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

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Storage Water Heating KWh fixed block

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LM - 250 KWh A - 300 KWh B - 400 KWh C - 500 KWh

Targeted Energy Efficiency - All Electric

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# TARGETED ENERGY EFFICIENCY - ALL ELECTRIC

	\$739.99	\$146.05	\$38.95	\$9.74	4,538.12	\$5,335.69	9,884.76	\$56.97	\$625.95	\$797.12	\$16.25	\$10.66	12,200.25	\$9.73 \$116.76	\$0.05746
	.3333	.3333	.3333					3333	3333	9.3333	9.3333	3333	\$83		
	169	169	169	169	169	169	169	169	168	169	165	169			
	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.04806	\$0.05281	\$0.04570	\$0.04798	\$0.06296			
	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169.3333	169,3333		2,032	
	2,160	2,187	2,373	1,159	1,706	1,982	1,726	1,475	2,250	2,635	1,216	592			
	2,410	2,487	2,773	1,659	1,706	1,982	1,726	1,475	2,250	2,635	1,216	265			
	92	15	4.	~	21,007	548	63,665	2	70	103	2	_	85,499		
	2,197,588	447,647	133,109	19,910	429,957,290	13,034,876	1,318,744,228	123,874	1,889,694	3,257,238	29,189	7,100	1,769,841,743		
Heat								AORH-WON/OFF 2/	RSW-ON/OFF 2/	RS LM-ON/OFF 2/	AORH-ON/OFF 2/	RS-TOD-ON/OFF 2/		nthly Per Customer nual Per Customer	Realization
	Heat	Heat         RSW-LMWH 1/         2,197,588         76         2,410         2,160         169.3333         \$0.05750         169.3333	Heat       RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333         RSW-A 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333	Heat       RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333         RSW-A 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333         RSW-B 1/       133,109       4       2,773       2,373       169.3333       \$0.05750       169.3333	Heat       RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333       \$7         RSW-LMWH 1/       447,647       15       2,410       2,187       169.3333       \$0.05750       169.3333       \$7         RSW-A 1/       447,647       4       2,773       2,373       169.3333       \$0.05750       169.3333       \$80.05750       169.3333         RSW-C 1/       11,159       169.3333       \$0.05750       169.3333	Heat       PSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333       \$7         RSW-LMWH 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333       \$7         RSW-A 1/       447,647       44       2,773       2,373       169.3333       \$0.05750       169.3333       \$204,6         RSW-C 1/       19,910       1       1,659       1,159       169.3333       \$0.05750       169.3333       \$204,6         RS       429,957,290       21,007       1,706       169.3333       \$0.05750       169.3333       \$204,6	Heat       PRSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333       \$7         RSW-LMWH 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333       \$7         RSW-A 1/       133,109       4       2,773       2,373       169.3333       \$0.05750       169.3333       \$204,6         RSW-C 1/       19,910       1       1,659       1,159       169.3333       \$0.05750       169.3333       \$204,6         RS       429,957,290       21,007       1,706       169.3333       \$0.05750       169.3333       \$5.3         RS EMP       13,034,876       548       1,982       169.3333       \$0.05750       169.3333       \$5.3	Heat         RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333       \$7         RSW-A 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333       \$7         RSW-B 1/       133,109       4       2,773       2,373       169.3333       \$0.05750       169.3333       \$204,6         RSW-C 1/       19,910       1       1,659       1,706       169.3333       \$0.05750       169.3333       \$204,6         RS       429,957,290       21,007       1,706       169.3333       \$0.05750       169.3333       \$5,04,6         RS EMP       13,034,876       548       1,982       169.3333       \$0.05750       169.3333       \$619,8         RSW-RS       1,726       169.3333       \$0.05750       169.3333       \$619,8	Heat         RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333         RSW-LMWH 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333         RSW-C 1/       133,109       4       2,773       2,373       169.3333       \$0.05750       169.3333         RSW-C 1/       429,957,290       21,007       1,706       1,706       169.3333       \$0.05750       169.3333       \$20.         RS EMP       13,034,876       548       1,982       169.3333       \$0.05750       169.3333       \$616         AORH-W ON/OFF       2/       123,874       7       1,475       169.3333       \$0.04806       169.3333	Heat       RSW-LMWH 1/       2,197,588       76       2,410       2,160       169.3333       \$0.05750       169.3333         RSW-LMWH 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333         RSW-A 1/       447,647       15       2,487       2,187       169.3333       \$0.05750       169.3333         RSW-B 1/       19,910       1       1,659       1,706       169.3333       \$0.05750       169.3333         RSW-C 1/       429,957,290       21,007       1,706       169.3333       \$0.05750       169.3333       \$20.         RS EMP       13,034,876       548       1,982       169.3333       \$0.05750       169.3333       \$616         RSW-RS       1,318,744,228       63,665       1,726       169.3333       \$0.05750       169.3333       \$616         RSW-ON/OFF 2/       1,889,694       70       2,250       169.3333       \$0.05750       169.3333       \$616	Heat         Pleat         76         2,410         2,160         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.333         \$0.05750         169.3333         \$0.05750         <	Heat         Pleat         76         2,410         2,160         169.3333         \$0.05750	Heat         Properation         Properation	Heaf         2,197,588         76         2,410         2,160         169.3333         \$0.05750         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806         169.3333         \$0.04806 </td <td>Heat         Peat         C 2410         169.3333         \$0.05750         169.3333         \$0.05291         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.05296         169.3333         \$0.05</td>	Heat         Peat         C 2410         169.3333         \$0.05750         169.3333         \$0.05291         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.04570         169.3333         \$0.05296         169.3333         \$0.05

Targeted Energy Efficiency - Non All Electric

Demand Side Management Program - Lost Revenue Twelve Months Ended 12/31/2010 Kentucky Power Company

TARGETED ENERGY EFFICIENCY - NON ALL ELECTRIC

Tariff	Billed & Accrued MWH	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH <u>KWH</u>	Average Monthly Reduction	Applicable Energy <u>Rafe 2/</u>	KWH Consumption	Monthly Lost <u>Revenue</u>
Non-Heat								
011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS 022 RSW-RS	752,010 33,126 575,408,983 240,075,090	41 2 42,026 15,400	1,528 1,380 1,141 1,299	1,278 880 1,141 1,299	94.6667 94.6667 94.6667 94.6667	\$0.05750 \$0.05750 \$0.05750 \$0.05750	94.6667 94.6667 94.6667	\$223.18 \$10.89 \$228,761.61 \$83,827.36
Total	816,269,209	57,469						\$312,823.04
Monthly Per Customer Annual Per Custòmer					1,136			\$5.44 \$65.28
Realization								\$0.05746

I. Storage Water Heating KWh fixed blockLM - 250 KWhA - 300 KWhB - 400 KWhC - 500 KWh 7

Tariff Rates excluding base fuel of \$0.02840/KWh. 7

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High Efficiency Heat Pump - Mobile Home

# Demand Side Management Program - Lost Revenue Kentucky Power Company Twelve Months Ended 12/31/2010

HIGH EFFICIENCY HEAT PUMP - MOBILE HOME

Monthly Lost Revenue		\$636.93	\$125.71	\$33.52	\$8.38	\$176,051.79	\$4,592.58	\$533,552.49	\$49.03	\$538.77	\$686.10	\$13.99	\$9.18	\$716,298.47	\$8.38 \$100.56	\$0.05750
KWH		145.7500	145.7500	145.7500	145.7500	145.7500 \$1			145.7500	145.7500	145.7500	145.7500	145.7500	<i>`</i> ₩		
Applicable Energy Rate 3/		\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.04806	\$0.05281	\$0.04570	\$0.04798	\$0.06296			
Average Monthly Reduction		145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500	145.7500		1,749	
KWh Excl. Storage WH KWH		2,160	2,187	2,373	1,159	1,706	1,982	1,726	1,475	2,250	2,635	1.216	592			
Average Wonthly <u>KWH</u>		2,410	2,487	2,773	1,659	1,706	1,982	1,726	1,475	2.250	2,635	1.216	592			
Average No. of Customers		92	15	4	~	21.007	548	63,665	7	70	103	0	1 —	85,499		
Billed & Accrued WWH		2,197,588	447,647	133,109	19.910	429 957 290	13,034,876	1.318.744.228	123,874	1 889 694	3 257 238	201,100	7,100	1,769,841,743		
Tariff	Hear	011 RSW-LMWH 1/			014 RSW-C 1/		O17 RS EMP	022 RSW-RS	028 AORH-W ON/OFF 2/	RSW-ON/OFF 2/	OSO LOVE CITATION OF THE DAY		036 RS-TOD-ON/OFF 2/		Monthly Per Customer Annual Per Customer	Realization

Storage Water Heating KWh fixed block 7

LM - 250 KWh A - 300 KWh B - 400 KWh C - 500 KWh

<sup>3 6</sup> 

Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

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Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

3 5

# Mobile Home New Construction - Heat Pump

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

MOBILE HOME NEW CONSTRUCTION - HEAT PUMP

		ì						
Tariff	Billed & Accrued <u>KWH</u>	Average No. of Customers	Average Monthly KWH	KWh Excl. Storage WH KWH	Average Monthly Reduction	Applicable Energy Rate 3/	KWH	Monthly Lost <u>Revenue</u>
<u>Hea</u> t								
011 RSW-LMWH 1/	2,197,588	92	2,410	2,160	143.4167	\$0.05750	143.4167	\$626.73
	447,647	15	2,487	2,187	143.4167	\$0.05750	143.4167	\$123.70
	133,109	4	2,773	2,373	143.4167	\$0.05750	143.4167	\$32.99
	19,910	_	1,659	1,159	143.4167	\$0.05750	143.4167	\$8.25
015 RS	429,957,290	21,007	1,706	1,706	143.4167	\$0.05750	143.4167	\$173,233.39
	13,034,876		1,982	1,982	143,4167	\$0.05750	143.4167	\$4,519.06
	1,318,744,228	63,665	1,726	1,726	143,4167	\$0.05750	143.4167	\$525,010.89
	123,874		1,475	1,475	143,4167	\$0.04806	143.4167	\$48.25
RSW-ON/OFF 2/	1,889,694	70	2,250	2,250	143.4167	\$0.05281	143,4167	\$530.15
	3,257,238	103	2,635	2,635	143.4167	\$0.04570	143.4167	\$675.12
AORH-ON/OFF	29,189	2	1,216	1,216	143.4167	\$0.04798	143.4167	\$13.76
036 RS-TOD-ON/OFF 2/	7,100		592	592	143.4167	\$0.06296	143.4167	\$9.03
	1,769,841,743	85,499						\$704,831.32
Monthly Per Clistomer								\$8.24
Annual Per Customer					1,721			\$98.88
Realization								\$0.05745
1/ Storage Water Heating KWh fixed block	xed block							
A - 300 KWh								1
B - 400 KWh C - 500 KWh								
2/ Data is waighted average of peak/off neak	year Holyton							

# Mobile Home New Construction - Air Conditioner

Demand Side Management Program - Lost Revenue Twelve Months Ended 12/31/2010 Kentucky Power Company

MOBILE HOME NEW CONSTRUCTION - AIR CONDITIONER

Monthly Lost Revenue		\$0.00 \$0.00 \$0.00 \$0.00	\$0.00	\$0.00	\$0.0000
KWH Consumption		0.0000			
Applicable Energy <u>Rate 2/</u>		\$ <b>0.05750</b> \$0.05750 \$0.05750 \$0.05750			
Average Monthly Reduction		0.0000		0	
KWh Excl. Storage WH KWH		1,278 880 1,141 1,299			
Average Monthly <u>KWH</u>		1,528 1,380 1,141 1,299			
Average No. of Customers		41 2 42,026 15,400	57,469		
Billed & Accrued KWH		752,010 33,126 575,408,983 240,075,090	816,269,209		
Tariff	Non-Heat	011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS 022 RSW-RS	Total	Monthly Per Customer Annual Per Customer	Realization

Storage Water Heating KWh fixed block
LM - 250 KWh
A - 300 KWh
B - 400 KWh
C - 500 KWh
Tariff Rates excluding base fuel of \$0.02840/KWh. 7

2

# High Efficiency Heat Pump - Resistance Heat

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

HIGH EFFICIENCY HEAT PUMP - RESISTANCE HEAT

Tariff	Billed & Accrued KWH	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH <u>KWH</u>	Average Monthly Reduction	Applicable Energy <u>Rate 3/</u>	KWH Consumption	Monthly Lost <u>Revenue</u>
<u>Heat</u>								
011 RSW-LMWH 1/	2.197.588	76	2,410	2,160	313.1667	\$0.05750	313.1667	\$1,368.54
012 RSW-A 1/	447,647	15	2,487	2,187	313.1667	\$0.05750	313.1667	\$270.11
013 RSW-B 1/	133,109	4.	2,773	2,373	313.1667	\$0.05750	313.1667	\$72.03
014 RSW-C 1/	19,910	₹*	1,659	1,159	313.1667	\$0.05750	313,1667	\$18.01
015 RS	429,957,290	21,007	1,706	1,706	313.1667	\$0.05750	313.1667	\$378,274.84
017 RS FMP	13,034,876	548	1,982	1,982	313.1667	\$0.05750	313.1667	\$9,867.88
022 RSW-RS	1.318.744.228	63,665	1,726	1,726	313.1667	\$0.05750	313.1667	\$1,146,421.08
028 AORH-W ON/OFF 2/	123.874	7	1,475	1,475	313.1667	\$0.04806	313.1667	\$105.36
030 RSW-ON/OFF 2/	1,889,694	70	2,250	2,250	313.1667	\$0.05281	313.1667	\$1,157.64
032 RS LM-ON/OFF 2/	3,257,238	103	2,635	2,635	313.1667	\$0.04570	313.1667	\$1,474.20
034 AORH-ON/OFF 2/	29,189	2	1,216	1,216	313.1667	\$0.04798	313.1667	\$30.05
036 RS-TOD-ON/OFF 2/	7,100	_	592	592	313.1667	\$0.06296	313.1667	\$19.72
	1,769,841,743	85,499						\$1,539,079.46
Monthly Per Customer Annual Per Customer					3,758			\$18.00 \$216.00
Realization								\$0.05748

<sup>1/</sup> Storage Water Heating KWh fixed block
LM - 250 KWh
A - 300 KWh
B - 400 KWh
C - 500 KWh

Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh. 3 7

# Modified Energy Fitness

Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

MODIFIED ENERGY FITNESS						:		
Tariff	Billed & Accrued WWH	Average No. of <u>Customers</u>	Average Monthly KWH	KWh Excl. Storage WH <u>KWH</u>	Average Monthly <u>Reduction</u>	Applicable Energy <u>Rate 3/</u>	KWH Consumption	Montniy Lost <u>Revenue</u>
Non-Heat								
011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS	752,010 33,126 575,408,983	42,026	1,528	1,278 880 1,141	72.5000 72.5000 72.5000 72.5000	\$0.05750 \$0.05750 \$0.05750	72.5000 72.5000 72.5000	\$175,195.89 \$64.198.75
22 KSW-KS <u>Heat</u>	240,073,080	000	667.	7		) ) ) )		
011 RSW-LMWH 1/	2,197,588	9/	2,410	2,160	72.5000	\$0.05750	72.5000	\$316.83
	447,647	15	2,487	2,187	72.5000	\$0.05750	72.5000	\$62.53
	133,109	4	2,773	2,373	72.5000	\$0.05750	72.5000	\$16.68
	19,910	~	1,659	1,159	72.5000	\$0.05750	72.5000	\$4.17
	429.957,290	21,007	1,706	1,706	72.5000	\$0.05750	72.5000	\$87,572.93
	13.034.876	548	1,982	1,982	72,5000	\$0.05750	72.5000	\$2,284.48
	1,318,744,228	63,665	1,726	1,726	72.5000	\$0.05750	72.5000	\$265,403.47
	123,874	7	1,475	1,475	72.5000	\$0.04806	72.5000	\$24.39
RSW-ON/OFF 2/	1,889,694	70	2,250	2,250	72.5000	\$0.05281	72.5000	\$268.00
	3,257,238	103	2,635	2,635	72.5000	\$0.04570	72.5000	\$341.29
AORH-ON/OFF	29,189	2	1,216	1,216	72.5000	\$0.04798	72.5000	\$6.96
	7,100	1	592	592	72.5000	\$0.06296	72.5000	\$4.56
	2,586,110,952	142,968						\$595,880.19
Monthly Per Customer Annual Per Customer					870			\$4.17 \$50.04
\$ 10 20 4								\$0.05752
Kealization								
<ul> <li>1/ Storage Water Heating KWh fixed block</li> <li>LM - 250 KWh</li> <li>A - 300 KWh</li> <li>B - 400 KWh</li> <li>C - 500 KWh</li> <li>C - 500 KWh</li> <li>2/ Rate is weighted average of peak/off peak.</li> <li>3/ Tariff Rates excluding base fuel of \$0.02840/KWh.</li> </ul>	ixed block eak/off peak. lel of \$0.02840/KWh.							

# High Efficiency Heat Pump - Replacement

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

HIGH EFFICIENCY HEAT PUMP - REPLACEMENT

Monthly Lost Revenue		\$218.86	\$43.20	\$11.52	\$2.88	\$60,495.74	\$1,578.12	\$183,341.81	\$16.85	\$185.14	\$235.76	\$4.81	\$3.15	\$246,137.84	\$2.88	\$34.56	\$0.05750	
KWH		50.0833	50.0833	50.0833	50.0833								50.0833	67				
Applicable Energy <u>Rate 3/</u> (		\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.04806	\$0.05281	\$0.04570	\$0.04798	\$0.06296					
Average Monthly Reduction		50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833	50.0833			601		
KWh Excl. Storage WH KWH		2,160	2,187	2,373	1,159	1,706	1,982	1,726	1,475	2,250	2,635	1.216	592					
Average Monthly KWH		2,410	2,487	2,773	1,659	1,706	1,982	1,726	1,475	2,250	2,635	1.216	592					
Average No. of Customers		76	15	4	~	21.007	548	63.665	7	70	103	0	۱ ۳-	85,499				
Billed & Accrued WWH		2.197.588	447.647	133.109	19.910	429,957,290	13 034 876	1 318 744 228	123 874	1 889 694	3.057.038	201,102,0	7,100	1,769,841,743				
Tariff	Heat	011 BSWLI MIN/H 1/	010 RSW-A 1/	012 KOW-C 1/	014 BSW-C 1/	0.7 m m m m m m m m m m m m m m m m m m m	015 100 047 PS EMP	COS BSW/-BS	OSS ACREMINONIOEE 2/	OSO PSWCMOLT I		OSZ NS EIVEONOR Z	034 ACCITION 2/			Monthly Per Customer	Realization	

<sup>1/</sup> Storage Water Heating KWh fixed block
LM - 250 KWh
A - 300 KWh
B - 400 KWh
C - 500 KWh

Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh. 32

Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh. 4 CFL Bulbs X 36.75 KWH per Bulb = 147 KWH

284

1/ Storage Water Heating KWh fixed block
LM - 250 KWh
A - 300 KWh
B - 400 KWh
C - 500 KWh

# Energy Education For Students Program

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# ENERGY EDUCATION FOR STUDENTS PROGRAM

Monthly Lost <u>Revenue</u>		\$28.88	\$29,602.06 \$10,847.38		\$53.53	\$10.57	\$2.82	\$0.70	\$14,796.81	\$386.00	\$44,844.03	\$4.12	\$45.28	\$57.67	\$1.18	\$0.77	\$100,683.21	\$0.70	94.04 O	\$0.05714
KWH Consumption R		12.2500 12.2500			12.2500	12.2500	12.2500			12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	69			
Applicable Energy <u>Rafe 3/</u>		\$0.05750 \$0.05750	\$0.05750 \$0.05750		\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.04806	\$0.05281	\$0.04570	\$0.04798	\$0.06296		:	4/	
Average Monthly <u>Reduction</u>		12.2500	12.2500 12.2500		12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500	12.2500		!	147 2	
KWh Excl. Storage WH <u>KWH</u>		1,278	1,141		2,160	2,187	2,373	1,159	1,706	1,982	1,726	1,475	2,250	2,635	1,216	592				
Average Monthly <u>KWH</u>		1,528	1,141		2,410	2,487	2,773	1,659	1,706	1,982	1,726	1,475	2,250	2,635	1,216	592				
Average No. of <u>Customers</u>		44	42,026 15,400		76	5	4	_	21,007	548	63,665	7	70	103	2		142,968			
Billed & Accrued <u>KWH</u>		752,010	575,408,983 240,075,090		2.197.588	447,647	133,109	19,910	429,957,290	13,034,876	1,318,744,228	123,874	1,889,694	3,257,238	29,189	7,100	2,586,110,952			
<u>Tariff</u>	Non-Heat	011 RSW-LMWH 1/ 014 RSM-C 1/	015 RS 022 RSW-RS	Heat	011 BSW-I MWH 1/	012 RSW-A 1/	013 RSW-B 1/	014 RSW-C 1/	015 RS	017 RS EMP	022 RSW-RS	028 AORH-W ON/OFF 2/	RSW-ON/OFF 2/	032 RS LM-ON/OFF 2/	034 AORH-ON/OFF 2/			Monthly Per Customer	Annual Per Customer	Realization

Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh. 4 CFL Bulbs X 45.25 KWH per Bulb = 181 KWH

984

# Community Outreach Compact Flurescent Lighting (CFL) Program

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# COMMUNITY OUTREACH COMPACT FLUORESCENT LIGHTING (CFL) PROGRAM

Tariff	Billed & Accrued <u>KWH</u>	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH	Average Monthly Reduction	Applicable Energy <u>Rate 3/</u>	KWH <u>Consumption</u>	Monthly Lost <u>Revenue</u>
<u>Non-Heat</u>								
011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS 022 RSW-RS	752,010 33,126 575,408,983 240,075,090	41 2 42,026 15,400	1,528 1,380 1,141 1,299	1,278 880 1,141 1,299	15.0833 15.0833 15.0833 15.0833	\$0.05750 \$0.05750 \$0.05750 \$0.05750	15.0833 15.0833 15.0833 15.0833	\$35.56 \$1.73 \$36,448.72 \$13,356.26
<u>Hear</u>								
	0 4 7 7 0 0	76	2 410		15.0833	\$0.05750	, 15.0833	\$65.91
	7,197,000	ر 5 تر	0.4.7		15.0833	\$0.05750	15.0833	\$13.01
012 KSVV-A 1/	133,109	5 4	2,773	2,373	15.0833	\$0.05750	15.0833	\$3.47
	19 910	~	1,659		15.0833	\$0.05750	15.0833	\$0.87
	429,957,290	21,007	1,706		15.0833	\$0.05750	15.0833	\$18,219.16
	13,034,876		1,982		15.0833	\$0.05750	15.0833	\$4/5.2/
	1,318,744,228	63,665	1,726		15.0833	\$0.05750	15.0833	\$55,216.00
	123,874		1,475		15.0833	\$0.04806	15.0833	\$5.07 666 76
030 RSW-ON/OFF 2/	1,889,694	70	2,250		15.0833	\$0.05281	15.0033	400.70 414.70
	3,257,238	103	2,635		15.0833	\$0.04570	15.0833	971.00 74.47
AORH-ON/OFF	29,189	2	1,216	Ţ.	15.0833	\$0.04798	15.0833	41.40 0 0 0 0
RS-TOD-ON/OF	7,100	4	592		15.0833	\$0.06296	15.0833	\$0.95
	2,586,110,952	142,968						\$123,970.19
								\$0.87
Monthly Per Customer Annual Per Customer					181	4/		\$10.44
Realization								\$0.05768
1/ Storage Water Heating KWh fixed block	ixed block							
A - 300 KWh								
B - 400 KWh C - 500 KWh								
10 Doto in chapter between the property of chapter of comments of	eak/off neak							

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# RESIDENTIAL EFFICIENT PRODUCTS PROGRAM - CFL (PROPOSED)

Monthly Lost <u>Revenue</u>		\$6.48 \$0.32 \$6,645.36 \$2,435.13		\$12.02	\$2.37 \$0.63	\$0.16	\$3,321.73	\$86.65	\$10,067.03	\$0.93	\$10.17	\$12.95	\$0.26	\$0.17	\$22,602.36	\$0.16	}	\$0.05818
KWH		2.7500 2.7500 2.7500 2.7500		2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500				
Applicable Energy Rate 3/		\$ <b>0.05750</b> \$0.05750 \$0.05750 \$0.05750		\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.05750	\$0.04806	\$0.05281	\$0.04570	\$0.04798	\$0.06296				
Average Monthly <u>Reduction</u>		2.7500 2.7500 2.7500 2.7500		2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500	2.7500		33		
KWh Excl. Storage WH <u>KWH</u>		1,278 880 1,141 1,299		2,160	2,187	1.159	1,706	1,982	1,726	1,475	2,250	2,635	1,216	592				
Average Monthly <u>KWH</u>		1,528 1,380 1,141 1,299		2,410	2,487	1,659	1,706	1,982	1,726	1,475	2,250	2,635	1,216	592				
Average No. of Customers		41 2 42,026 15,400		92	5 ,	1 ~	21.007	548	63,665	7	70	103	2	_	142,968			
Billed & Accrued KWH		752,010 33,126 575,408,983 240,075,090		2,197,588	447,647	100,100	429.957.290	13.034.876	1,318,744,228	123,874	1,889,694	3,257,238	29,189	7,100	2,586,110,952			
<u>Tariff</u>	Non-Heat	011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS 022 RSW-RS	Heat	011 RSW-LMWH 1/	012 RSW-A 1/						RSW-ON/OFF 2/	-	034 AORH-ON/OFF 2/			Monthly Per Customer	Annual Per Customer	Realization

<sup>1/</sup> Storage Water Heating KWh fixed block
LM - 250 KWh
A - 300 KWh
B - 400 KWh
C - 500 KWh
C - 500 KWh
Z/ Rate is weighted average of peak/off peak.
3/ Tariff Rates excluding base fuel of \$0.02840/KWh.

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# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# RESIDENTIAL EFFICIENT PRODUCTS PROGRAM -Specialty Bulbs

Tariff	Billed & Accrued KWH	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH KWH	Average Monthly Reduction	Applicable Energy <u>Rate 3/</u>	KWH Consumption	Monthly Lost <u>Revenue</u>
Non-Heat								
011 BSIVE MWH 1/	752,010	4	1,528	1,278	2.4167	\$0.05750	2.4167	\$5.70
	33,126	2	1,380	880	2.4167	\$0.05750	2.4167	\$0.28 \$5.839.94
015 RS 022 RSW-RS	5/5,408,983 240,075,090	42,026 15,400	1,141	1,299	2.4167	\$0.05750	2.4167	\$2,139.99
77 174144 17410 (1 770)	0 107 588	76	2 410		2.4167	\$0.05750	2.4167	\$10.56
	747 647	, <del>(</del>	2.487		2.4167	\$0.05750		\$2.08
012 K0VI-A 1/	133 109	<u>5</u> 4	2.773	2,373	2.4167	\$0.05750		\$0.56
	19 910	,	1,659		2.4167	\$0.05750		\$0.14
	429 957 290	21 007	1,706		2.4167	\$0.05750		\$2,919.14
	13 034 876		1,982		2,4167	\$0.05750		\$76.15
	1 218 744 228	63	1.726		2.4167	\$0.05750		\$8,846.90
	123,74,1010,1	200,000	1,475		2.4167	\$0.04806		\$0.81
	1 889 694	70	2.250		2.4167	\$0.05281		\$8.93
	1,000,000,1	5 5	2 635		2,4167	\$0.04570	2.4167	\$11.38
KV LIM-ON/OFF	0,207,702,0		2,7 4		2 4167	\$0.04798	2.4167	\$0.23
AORH-ON/OFF 2/	29,189	ν.	017,1		1017	90.50.00 00.00.00	2 4167	\$0.15
036 RS-TOD-ON/OFF 2/	7,100		7,69		7.410/	\$0.00Z30	1011	
	2,586,110,952	142,968						\$19,862.94
								\$0.14
Monthly Per Customer Annual Per Customer					29			\$1.68
								\$0.05793
Realization								) ) ) )
2014 2008 4/401 selection 11 selection 20 5								

- I) Storage Water Heating KWh fixed block
  LM 250 KWh
  A 300 KWh
  B 400 KWh
  C 500 KWh 7

- Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh. 9 E

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# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

RESIDENTIAL EFFICIENT PRODUCTS PROGRAM -LED LIGHTS (PROPOSED)

Tariff	Billed & Accrued <u>KWH</u>	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH <u>KWH</u>	Average Monthly Reduction	Applicable Energy Rate 3/	KWH <u>Consumption</u>	Monthly Lost <u>Revenue</u>
Non-Heat								
011 RSW-LMWH 1/ 014 RSW-C 1/ 015 RS 022 RSW-RS	752,010 33,126 575,408,983 240,075,090	41 2 42,026 15,400	1,528 1,380 1,141 1,299	1,278 880 1,141 1,299	3.4167 3.4167 3.4167 3.4167	\$0.05750 \$0.05750 \$0.05750 \$0.05750	3.4167 3.4167 3.4167	\$8.05 \$0.39 \$8,256.44 \$3,025.49
<u>Heat</u>								
011 RSW-LMWH 1/	2,197,588	76	2,410	2,160	3,4167	\$0.05750	3.4167	\$14.93
012 RSW-A 1/	447,647	15	2,487	2,187	3.4167	\$0.05/50	3.4167	80.79
013 RSW-B 1/ 014 RSW-C 1/	133,109	t -	1,659		3.4167	\$0.05750	3,4167	\$0.20
	429.957,290	21.007	1,706		3.4167	\$0.05750	3.4167	\$4,127.04
	13.034.876	548	1,982	1,982	3.4167	\$0.05750	3.4167	\$107.66
	1.318.744.228	63,665	1,726		3.4167	\$0.05750	3.4167	\$12,507.64
	123,874	_	1,475		3.4167	\$0.04806	3.4167	\$1.15
	1,889,694	20	2,250		3.4167	\$0.05281	3.4167	\$12.63
	3,257,238	103	2,635	2,635	3.4167	\$0.04570	3.416/	#16.UQ
034 AORH-ON/OFF 2/	29,189	7 5	1,216 592		3.4167	\$0.04798 \$0.06296	3.4167	\$0.22
							ı	£28 081 00
	2,586,110,952	142,968						920,004
Monthly Per Customer Annual Per Customer					14			\$0.20 \$2.40
Realization								\$0.05854
<ul> <li>1/ Storage Water Heating KWh fixed block</li> <li>LM - 250 KWh</li> <li>A - 300 KWh</li> <li>B - 400 KWh</li> <li>C - 500 KWh</li> <li>Z/ Rate is weighted average of peak/off peak.</li> <li>3/ Tariff Rates excluding base fuel of \$0.02840/KWh.</li> </ul>	xed block sak/off peak. el of \$0.02840/KWh.							

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Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

3 7

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# HVAC DIAGNOSTIC & TUNE-UP PROGRAM - AIR CONDITIONER (PROPOSED)

Tariff	Billed & Accrued MVVH	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH <u>KWH</u>	Average Monthly Reduction	Applicable Energy Rate 3/	KWH Consumption	Monthly Lost <u>Revenue</u>
Heat								
DOMESTICAL MANAGES	2 197 588	26	2.410	2,160	25.9167	\$0.05750	25.9167	\$113.26
	447.647	15	2,487	2,187	25.9167	\$0.05750	25.9167	\$22.35
	133 109	4	2.773	2,373	25.9167	\$0.05750	25.9167	\$5.96
	19,910	. ←	1.659	1,159	25.9167	\$0.05750	25.9167	\$1.49
2 C C C C C C C C C C C C C C C C C C C	429 957,290	21.007	1,706	1,706	25.9167	\$0.05750		\$31,304.85
	13.034.876		1,982	1,982	25.9167	\$0.05750		\$816.64
017 179 EIVII	1 318 744 228	63.665	1,726	1,726	25.9167	\$0.05750		\$94,874.24
028 AOBH-M/ON/OFF 2/	123 874		1,475	1,475	25.9167	\$0.04806		\$8.72
BOWLON/OFF 2/	1 889 694	70	2,250	2,250	25.9167	\$0.05281	25.9167	\$95.80
030 NOVI-01-01-02-030 NOVI-01-03-03-03-03-03-03-03-03-03-03-03-03-03-	3.257.238	103	2,635	2,635	25.9167	\$0.04570	25.9167	\$122.00
03Z NG EINTOINOIT ZI	201, 201,0		1,216	1,216	25.9167	\$0.04798	25.9167	\$2.49
036 RS-TOD-ON/OFF 2/	7,100	~	592	592	25.9167	\$0.06296	25.9167	\$1.63
	1,769,841,743	85,499						\$127,369.43
								\$1.49
Monthly Fel Customer Annual Per Customer					311			\$17.88
19								\$0.05749
Kealization								
YOUR DOVE CIVING PRINCIPLE AND EVERY CONTRACTOR OF THE PRINCIPLE AND E	70014							
1/ Stolage Water Heating Novi ince LM - 250 KWh	200							
A - 300 KWh							•	
B - 400 KWn C - 500 KWh								
3	7000 #0/7							

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> Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

3 2

Storage Water Heating KWh fixed block

7

LM - 250 KWh A - 300 KWh B - 400 KWh C - 500 KWh

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# RESIDENTIAL EFFICIENT PRODUCTS PROGRAM -LED HOLIDAY LIGHTS (PROPOSED)

752,010 33,126 575,408,983 240,075,090
2,197,588
447,647
133,109
429,957,28
13,034,876
1,318,744,228
123,874
1,889,694
3,257,238
29,189
7,100
2,586,110,952

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Rate is weighted average of peak/off peak. Tariff Rates excluding base fuel of \$0.02840/KWh.

3/2

# Kentucky Power Company Twelve Months Ended 12/31/2010 Demand Side Management Program - Lost Revenue

# HVAC DIAGNOSTIC & TUNE-UP PROGRAM - HEAT PUMP (PROPOSED)

Tariff	Billed & Accrued KWH	Average No. of Customers	Average Monthly <u>KWH</u>	KWh Excl. Storage WH KWH	Average Monthly Reduction	Applicable Energy Rate 3/	KWH Consumption	Monthly Lost <u>Revenue</u>
Heat								
011 RSW-LMWH 1/	2,197,588	9/	2,410	2,160	61.7500	\$0,05750	61.7500	\$269.85
	447,647	15	2,487	2,187	61.7500	\$0.05750	61.7500	\$53.26
013 RSW-B 1/	133,109	4	2,773	2,3/3	61.7500	\$0.05750	61.7500	\$14,20 \$3,55
01x xx x	429.957.290	21.007	1,706	1,706	61.7500	\$0.05750	61.7500	\$74,587.98
	13,034,876		1,982	1,982	61.7500	\$0.05750	61.7500	\$1,945.74
	1,318,744,228	63	1,726	1,726	61.7500	\$0.05750	61.7500	\$226,050.54
	123,874		1,475	1,475	61.7500	\$0.04806	61.7500	\$20.77
RSW-ON/OFF 2/	1,889,694	70	2,250	2,250	61.7500	\$0.05281	61.7500	\$228.26
	3,257,238	103	2,635	2,635	61,7500	\$0.04570	61.7500	\$290.68
	29,189	2	1,216	1,216	61.7500	\$0.04798	61.7500	\$5.93
036 RS-TOD-ON/OFF 2/	7,100	~-	592	592	61.7500	\$0.06296	61.7500	\$3.89
	1,769,841,743	85,499						\$303,474.65
Monthly Per Customer Annual Per Customer					741			\$3.55 \$42.60
Realization								\$0.05749
1/ Storage Water Heating KWh fixed block	ed block							
A - 300 KWh B - 400 KWh								
(	7000 #0/2000							

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8 Page 1 of 2

# **Kentucky Power Company**

# REQUEST

Provide in an electronic format with formulas intact, the calculations and assumptions to determine the kWh impacts and efficiency incentives for the following programs:

# Residential Efficient Products

- Compact Fluorescent Lamp
- Specialty Bulbs
- LED Night Light

# Residential HVAC Diagnostic & Tune Up

- Air Conditioner
- Heat Pump

# Residential Load Management

- Air Conditioner
- Water Heating

# Commercial A/C & Heat Pump Program

- Air Conditioner Replacement
- Heat Pump Replacement

# Commercial HVAC Diagnostic & Tune-up

- Air Conditioner
- Heat Pump

# Commercial Load Management

- Air Conditioner
- Water Heating

# Commercial Incentive

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# RESPONSE

Please see the following attachments:

Attachment 1: Updated Schedule C<br/> File - "DSM 180 Month - Year 2010 - 1st Qtr + 2nd, 3rd & 4th Qtrs\_Revised.pdf

Attachment 2: Assumption Sheet Residential Efficient Products.pdf

Attachment 3: Assumption Sheet HVAC Tune-Up.pdf

Attachment 4: Assumption Sheet Small Commercial HP AC.pdf

Residential and Commercial Load Management are pilot programs; therefore no incentives are requested at this time. The goal of the pilot programs are to quantify savings. Energy savings were assumed to be zero for the initial filing, as this is a demand reduction program.

Please see the CD for excel file with formulas intact.

	KENTLICKY BOWER COMBANY	Exhibit C				1 "gc 1	
	KENTUCKY POWER COMPANY DERIVATION OF 3 SECTOR SURCHARGES FOR 3 YR EXPERIMENT	EXHIDIE C				PAGE 1 of	19
	RESIDENTIAL SECTOR	TOTAL YEARS 1 thru 14	YEAR 15 (2010)	YEAR 15 (2010)	YEAR 16 (2011)	YEAR 16 (2011)	TOTAL
		(1)	1st HALF (2)	2nd HALF (3)	1st QTR (4)	2nd, 3rd & 4th QTRs (5)	(6)
2	CURRENT PERIOD AMOUNT TO BE RECOVERED CUMULATIVE ( OVER)/UNDER COLLECTION 18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	\$12,267,626 0 (41,824)	\$1,021,058 519,414 0	\$1,125,058 631,736 0	\$632,073 427,163 0	\$3,033,587 (260,977)	\$18,079,402 - (41,824)
	TOTAL TO BE RECOVERED TOTAL AMOUNT RECOVERED	12,225,802 11,706,042	1,540,472 908,736	1,756,794 1,329,631	1,059,236	2,772,610	18,037,578 13,944,409
6	EXPECTED FUTURE RECOVERIES	0	0	0	1,320,213	1,256,009	2,576,222
	TRANSFER PORTION OF BALANCE FROM INDUSTRIAL TRANSFER PORTION OF BALANCE FROM COMMERCIAL	(9,833) 9,487	0	0	0	0	(9,833)
		VIII-2VIII-2VIII-					
9	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$519,414 =======	\$631,736	\$427,163	(\$260,977)	\$1,516,601	\$1,516,601
10	AMOUNT TO BE RECOVERED					\$2,772,610	
11	ADJ. ESTIMATED SECTOR KWH - YEAR 16				818,990,900	1,622,751,200	
12	SURCHARGE RANGE (\$ PER KWH) FLOOR (CARRYOVER)	COL. 5, L 2 / COL.	5, L 11			(0.000161)	
13	MIDPOINT - proposed rate			***************************************	0.001612	0.000774	
14	CEILING (TOTAL COST)	COL. 5, L 4 / COL.	ο, L 11			0.001709	
	COMMERCIAL SECTOR	TOTAL YEARS 1 thru 14	YEAR 15 (2010)	YEAR 15 (2010)	YEAR 16 (2011)	YEAR 16 (2011)	TOTAL
			1st HALF	2nd HALF	1st QTR	2nd, 3rd & 4th QTRs	
		(1)	(2)	(3)	(3)	(4)	(5)
15	CURRENT PERIOD AMOUNT TO BE RECOVERED	\$2,899,298	\$0	\$155	\$165,825	\$1,057,115	\$4,122,393
16	CUMULATIVE (OVER)/UNDER COLLECTION	0	0	0	(20,360)	122,681	0
17	18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	1,520	0	0	0	0	1,520
	TOTAL TO BE RECOVERED	2,900,818	0	155	145,465	1,179,796	4,123,913
	TOTAL AMOUNT RECOVERED EXPECTED FUTURE RECOVERIES	2,888,053	0	20,515 0	22,784	651,936	2,908,568 674,720
21	TRANSFER PORTION OF BALANCE FROM INDUSTRIAL TRANSFER BALANCE TO RESIDENTIAL	(3,278) (9,487)	0	0 0	0	0	(3,278) (9,487)
22	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$0	\$0	(\$20,360)	\$122,681	\$527,860	\$527,860
23	AMOUNT TO BE RECOVERED					\$1,179,796	
					207 404 000		
24	ADJ. ESTIMATED SECTOR KWH - YEAR 16				367,481,800	1,056,622,000	
05	SURCHARGE RANGE (\$ PER KWH)					0.000116	
25 26	FLOOR (CARRYOVER) MIDPOINT - proposed rate				0.000062		
27	CEILING (TOTAL COST)					0.001117	
	INDUSTRIAL SECTOR	TOTAL YEARS 1 thru 14	YEAR 15 (2010)	YEAR 15 (2010)	YEAR 16 (2011)	YEAR 16 (2011)	TOTAL
		(1)	1st HALF (2)	2nd HALF (3)	1st QTR (3)	2nd, 3rd & 4th QTRs (4)	(5)
20	CURRENT PERIOD AMOUNT TO BE RECOVERED	\$79,026	\$0	\$0	\$0	\$0	\$79,026
29	CUMULATIVE (OVER)/UNDER COLLECTION  18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	0	0	0 0	0	0	0 0
31	TOTAL TO BE RECOVERED	79,026	0	0	0	0	79,026
32	TOTAL AMOUNT RECOVERED	92,137	0	0	0	0	92,137
	EXPECTED FUTURE RECOVERIES TRANSFER BALANCE TO RESIDENTIAL & COMMERCIAL	0 13,111	0	0	0	0	13,111
	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$0	\$0	\$0	\$0	\$0	\$0
36	AMOUNT TO BE RECOVERED					\$0	
37	ADJ, ESTIMATED SECTOR KWH - YEAR 16				835,059,400	2,454,683,000	
	SURCHARGE RANGE (\$ PER KWH)						
38	FLOOR (CARRYOVER)					0.000000	
39 40	MIDPOINT CEILING (TOTAL COST) - proposed rate		A		0.000000	0.000000	
ت	Carrier (10) in Coort, proposed into					3.000300	
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Control   Cont												Fyhibit	
Fig. 2014   Fig.	INTUCKY POWER COMPANY THATTER SECTOR SUBCHARGES FOR 3 YR P	ROGRAM									- Control of the Cont		6
National Participant   National Participant													
Participant	-AR 1	NEW	CUMULATIVE	TOTAL ESTIMATED	TOTAL ACT.	NET LOST		NET LOST	TOTAL NET *	EFFICIENCY	MAXIMIZING	TOTAL	TOTAL EST. COSTS TO BE
MAJ18658   MAJ18658   PERPARTICIPANT   COOTS   CONTINUENT   COOTS   CONTINUENT   COOTS   CONTINUENT   COOTS   CONTINUENT   COOTS   CONTINUENT   COOTS   CONTINUENT   COOTS		PARTICIPANT	PARTICIPANT	PROGRAM COSTS		XEV/YK	- 1	VEVENOL		(EX. C,	CHO CO	EN EN EN EN	PECOVERED
1	ROGRAM DESCRIPTIONS	NUMBER	NUMBER		T	(KWH/PARTIC)	KWH/YR	(S/KWH)	REVENUES (8)	PG.18B)	(5% of COS1S) (10)	(11)	(12)
1	- COMMANDE STATE OF THE STATE O	(1)	(2)	(6)	(1)X(3)	(5)	(2)X(5)		(E)X(7)		(4)X( 5%)	(0)+(10)	(4)+(8)+(11)
1	ESIDENTIAL PROGRAMS				400000	003 C	398 120		\$12.397	\$43,177		\$43,177	\$177,925
1	nergy Fitness	552			100,2210	5,570	562,570		\$17,513	SO	\$11,450	\$11,450	\$257,957
Part   Color   Color	argeted Energy Efficiency - All Electric	223			\$27,542	680	23,800		\$744	8719		8719	SZB,UUS
Mode Home   Sept   Se	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE				\$15 DR1	65	4,526		\$140	\$425		3425	\$15,646
Particularies   Particularie	ompact Fluorescent Bulb	268			0000				000	100,010		\$10.634	\$65,537
Control   Cont	igh - Efficiency Heat Pump - Resistance Heat	536			\$39,611	2,275	491,400		\$5,215	\$8,796		\$8,796	\$46,321
Note Home   256   156	- Non Resistance Heat	527			016,266	2						613 834	\$201.365
Proceedings   Procession   Pr	igh - Efficiency Heat Pump - Mobile Home	356			\$176,914	2,160	341,280		\$10,617	513,634			
Proceedings   Processing   Pr		77			\$20,488	0	0				\$1,024	\$1,024	\$21,512
PROCRAMIS         1,000 L/4         0.000 L/4         1,000 L/4         0.000 L/4 <t< td=""><td>obile Home New Construction</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>664 048</td><td>577 585</td><td></td><td>\$90,059</td><td>\$815,268</td></t<>	obile Home New Construction								664 048	577 585		\$90,059	\$815,268
The color of the	TOTAL RESIDENTIAL PROGRAMS	2,610		6	\$663,291		1,989,1,4		016,100				
Figure   F				11									
PROCRAMS   State   S	mass continued to the state of												0.00
Figure   F	OMMERCIAL PROGRAMS	o l				0	)			80		55,725	59.846
Figure   1	man Audit - Class 1								50	30 S506		\$506	36,300
Ing         Total Section         Total Section <td>mart Financing - Existing Building</td> <td></td> <td></td> <td></td> <td>25,7</td> <td></td> <td></td> <td></td> <td>So</td> <td>SO</td> <td></td> <td>80</td> <td>08</td>	mart Financing - Existing Building				25,7				So	SO		80	08
PROGRAMS         STATE AND SERVICE	mart Financing - New Building			0	Oe							107.33	C436 30F
Signature   Sign	TOTAL COMMEDIAL DROGBAMS	6		0	\$129,695		)		80	\$50p		10,00	
State   Stat	101At commercial and a second and		Ш	11									
14   15   16   17   18   18   18   18   18   18   18													
1-	IDUSTRIAL PROGRAMS -												
Signature   Sign	(w/Est. Opt-Outs Removed)		u	1 \$149.40				0		80		\$112	
RAVIE System         0         0.004         SOL4         SOL         <	Smart Audit - Class 1		0	1 \$8,980.00						Sols			
Figure   Column   C	Smart Audit - Class 2	-							OS OS	S S			
1.00   1.00	smart Financing - Compressed Air System			0	SOS		- Marian		00				
	and the state of t				004 400				80	SOS			
S617,106	TOTAL INDUSTRIAL PROGRAMS		_	7	271,120	1		н					
	VIAACMOO SHOH	2.23	_	П	\$817,106		1,989,17	4	\$61,918	S78			
• Lost revenue and efficiency incentives are based on initial values per the settlement agreement.	IOIAL COMPANT					įį.	200000000000000000000000000000000000000						
Lost revenue and efficiency incentives are based on initial values per the settlement agreement.	TOTAL DESIGNATION OF THE PROPERTY OF THE PROPE												
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											Chickit	
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 1997											PAGE 3A of 1	19
YEAR 2 ( 1st HALF )	-	CUMULATIVE	TOTAL ESTIMATED	TOTAL ACT.	NET LOST REV/6 MOS	TOTAL ENERGY SAVINGS	NET LOST REVENUE	TOTAL NET	EFFICIENCY	MAXIMIZING INCENTIVE	TOTAL	TOTAL EST. COSTS TO BE
PROGRAM DESCRIPTIONS	PARTICIPANT NUMBER (1)		PER PARTICIPANT (3)		(KWH/PARTIC)	KWH/6 MOS (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X( 5%)	INCENTIVE (11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS	273	651	\$260.68	\$71,167	1,345	875,595		\$27,266	521,354	n/a S4 832	\$21,354	\$119,787
Energy Fitness Targeted Energy Efficiency - All Electric	118	279	\$818.97	\$96,638 \$2,294	2,785	777,015	\$0.03	\$935	\$252	n/a	\$252	\$3,481
1 1		996		08	31	8,339	9 80.03	\$258	80	nla	80	\$258
Compact Fluorescent Bulb	123	590	\$2.58	\$317	1,138	671,420	\$0.03	\$20,895	\$2,427	n/a	\$2,427	\$23,639 \$9,752
High - Efficiency Heal Pump - Resistance Hear	124	581	\$2.56	\$318	407	236,46		toc. 10	350 73		\$4.236	\$34,984
High - Efficiency Heat Pump - Mobile Home	109	403	\$157.87	\$17,208	1,080	435,240	20.03	015,040	7.10		6284	SB 003
Maketa Dome New Construction	12	78	\$635.17	\$7,622	0		0 n/a	n/a		ľ		
חוופ ווסווס ווסווס ווסווסוו	107	2 030	- ANALON -	\$195,564		3,033,996	19	\$94,446	\$30,339	\$5,213	\$35,552	\$325,562
TOTAL RESIDENTIAL PROGRAMS			A				11					
- Committee - Comm						***************************************					000	20 133
COMMERCIAL PROGRAMS Smart Audit - Class 1	243	207	\$264.00	\$64,152	00	100000000000000000000000000000000000000	0 n/a		OS SO	ió ió	51,488	\$31,243 \$6.379
- Class 2	-1	7	1/a			11,00	50.04	\$469		5281	850	\$4,742
Smart Financing - Existing Building	- 0	0	\$4,692.00	\$4,692		- Address - Addr	0 \$0.04					
iait hiaileng - wer a mark				S404 228		11,000	0.	\$469	\$50	\$4,977	\$5,027	5109,724
TOTAL COMMERCIAL PROGRAMS	255	112					11		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
NDUSTRIAL PROGRAMS -						and the state of t					0000	
(w/Est. Opt-Outs Removed)		- Annual Control	5270 56		0		0 n/a			03	2120	\$1,042
nari Audil - Class 1	6	7	\$1 133 00	51,133							\$392	
Smart Audit - Class 2		90	n/a	_	14,100		0 \$0.04	08	000	80	SO	SO
mart Financing - General	0											
Tarr Thaireniy - Composed in Cycle				007 173			10	SO				\$12,064
TOTAL INDUSTRIAL PROGRAMS	10			001-1400			===			100.000		
//// C77 0 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 050	3.178		\$311,281		3,044,996	96	\$94,915	330,389			
TOTAL COMPANY							ti ii					
Manager of the salilament sorter	on souler leiting on by	or the settlement ac	reement.									
Lost revenue and efficiency incentives are parameters.	d canal and											
THE PARTY NAMED IN THE PARTY NAM												
The state of the s			-	_							_	_

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						***************************************				1000000	Exhibit C	
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YR PROGRAM	OGRAM											19
	NEW	CHMILATIVE	TOTAL ESTIMATED	TOTAL ACT.	NET LOST		NET LOST	TOTAL NET *	EFFICIENCY	MAXIMIZING	TOTAL	TOTAL EST.
YEAR 2 ( 3rd Q1R )	ANT	PARTICIPANT	PROGRAM COSTS	-	REV/QTR	NGS	KEVENUE	רכמו	(EX. C.	(5.0 of COSTS)	INCENTIVE	RECOVERED
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER (2)	PER PARTICIPANT (3)	COSTS (4)	(KWH/PARTIC) (5)	KWH/QTR (6)	(S/KWH)	(B)	(9)	(10) (10) (4)X( 5%)	(11)	(12) (4)+(B)+(11)
				(1)X(3)		(5)(5)					076 33	863.038
TIAL PROGRAMS	257		\$184.9					\$10,156	\$5,340	\$2,780	\$5,340	\$74,354
Energy Fitness Targeted Energy Efficiency - All Electric	521	369	S	\$55,594	1,392	513,648	\$0.03	\$10,900	\$25	n/a	\$25	\$3,499
- Non-All Electric	C					4,304	\$0.03	\$133	80	SO	SO	\$133
Compact Fluorescent Bulb	O							\$12.213	5787	n/a	S787	\$19,000
High - Efficiency Heat Pump - Resistance Heat	109	717	\$55.05	\$6,000 \$5,559	221	153,595	\$0.03	\$4,786	\$2,445	n/a	\$2,445	\$12,790
- NOT Resistance read	64			\$53,101	625	318,125	\$0.03	\$9,894	\$2,503	n/a	\$2,503	\$65,498
High - Efficiency Heat Pump - Mobile Home						0			SO	\$305	\$305	56,397
Mobile Home New Construction	0	82	n/a	260,06					000	390 63	214 185	\$244,709
TOTAL BESIDENTIAL PROGRAMS	593	3,706		\$176,788		1,726,568		S53,736	311,100	200,00		
	***************************************		ALANA MARKATANA								- Argument and the second and the se	
CIAL PROGRAMS			2783				0		OS SO	\$2,024	\$2,024	\$42,511
Smart Audit - Class 1	36	383	52 705	\$13,525					80		S1 627	
Class 2			\$3,067.00			22,200	\$0.04	5940	/20,1'&	Tunis Anna Principal Control of the	os	\$327
Smart Financing - Existing Building	0				7,650			1700				0,1100
		406		\$60.146		29,850		\$1,267	\$1,627	\$2,700		
TOTAL COMMERCIAL PROGRAMS					8				THE REPORT OF THE PARTY OF THE			
NDUSTRIAL PROGRAMS -									-			860 65
(w/Est, Opt-Outs Removed)		200	8666	\$1,998		0	0	- Line -	SOS	ODL'S		
Smart Audit - Class 1		7					0	S	8 8		SO	\$4,785
Jolf - Class Z		0	)/u 0	/a \$4,785			50.04	SOS	SO			
Smart Financino - Compressed Air System			0	ž	002,14						0050	26 883
			1   c	\$6,783	1 ~		0	80		\$100	"	"
TOTAL INDUSTRIAL PROGRAMS	5		==				19 1	2003	727 272			05
VINAGARDANIV	707	_	0	\$243,717		1,756,418	8 !	coo,coe		l"		7
URL COMPANI												
	evilace active	Selles	A Andrews									
Lost revenue and efficiency incentives are pased on prosperive varies.	isea ou plospeciio	d values.										
					_							

\$22,859 \$9,908 \$1,149 \$11,802 \$0 \$17,215 \$59,645 \$31,624 \$327 \$108,811 \$365,096 \$26,686 \$22,859 \$32,942 \$134,750 \$139,523 \$8,981 TOTAL EST. COSTS TO BE RECOVERED (4)+(8)+(11) \$472 \$55 \$0 \$0 \$0 \$0 \$27 \$10,980 \$820 \$2,840 \$7,320 \$0 \$20,194 \$1,625 \$8,977 \$5,730 \$129 (11) (9)+(10) Exhibit C PAGE 3C of TOTAL \* \$472 \$55 n/a \$0 \$527 \$527 \$9,880 \$820 \$2,840 n/a 53,660 55,730 n/a n/a (\$37) \$5,693 n/a n/a 80 (5% of COSTS) (10) (4)X( 5%) MAXIMIZING \$7,320 \$0 \$7,320 \$0 \$14,501 \$2,969 \$1,625 \$8,977 \$0 \$129 So EFFICIENCY INCENTIVE (EX. C, PG.18B) \$0 \$0 \$0 \$0 \$68,246 \$3.761 564,158 \$14,019 \$5,385 \$13,658 \$19,198 \$775 \$10,982 5141 TOTAL NET REVENUES (8) (6)X(7) \$0.04 \$0.04 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 NET LOST REVENUE (S/KWH) 2,157,937 96,450 88,800 450,181 172,822 2,061,487 438,867 617,099 24,820 4,573 353,125 TOTAL ENERGY SAVINGS (6) (2)X(5) 14,625 11,100 625 221 (KWH/PARTIC) (5) 1,393 17 NET LOST REV/QTR \$22,332 \$9,436 \$1,094 \$11,802 \$0 \$16,395 \$56,805 \$20,543 \$0 593,743 \$280,744 \$11,866 (\$749) \$20,335 20 \$112,115 \$114,595 \$8,077 TOTAL ACT. (4) (1)X(3) \$524.22 n/a n/a \$230.92 \$2,705.00 \$2,282.56 \$259.53 \$924.15 \$103.55 \$106.90 \$406.70 n/a n/a TOTAL ESTIMATED PROGRAM COSTS PER PARTICIPANT
(3) 4,952 4,397 1,287 473 33 8 565 823 782 CUMULATIVE NUMBER (2) 101 on prospective 897 20 111 124 NEW NUMBER (1) PROGRAM Lost revenue and efficiency incentives are based INDUSTRIAL PROGRAMS - (w/Est. Opt-Outs Removed)
Smart Audit - Class 1
Smart Audit - Class 2
Smart Audit - Class 2
Smart Financing - General
Smart Financing - Compressed Air System KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YR High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat Energy Fitness Targeted Energy Efficiency - All Electric High - Efficiency Heat Pump - Mobile Home TOTAL COMMERCIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS TOTAL RESIDENTIAL PROGRAMS - Class 2 mart Financing - Existing Building mart Financing - New Building Mobile Home New Construction COMMERCIAL PROGRAMS
Smart Audit - Class 1 PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS TOTAL COMPANY 1997 Compact Fluorescent Bulb YEAR 2 (4th QTR)

# KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8

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\$3,101 \$1,890 \$1,405 \$0 \$6,396 \$622,382 \$160,070 \$31,842 \$14,256 5455,916 \$61,422 \$149,162 \$194,062 \$4,906 (12) (4)+(8)+(11) TOTAL EST. COSTS TO BE \$1,980 \$2,240 \$6,506 \$29 \$305 \$10,755 \$148 \$90 \$67 \$0 \$21,309 \$2,145 8 S152 S757 ပ္တ \$11,304 \$6,911 \$40 INCENTIVE (11) (9)+(10) Exhibit C PAGE 4A of TOTAL \* \$148 \$90 \$67 \$0 \$0 \$305 \$305 \$1,980 \$2,240 n/a \$0 \$4,220 \$0 S6,911 n/a \$6,911 n/a n/a n/a S (5% of COSTS) (10) (4)X( 5%) MAXIMIZING \$0 ====== \$20,933 \$0 \$0,506 \$29 \$6,535 514,398 \$11,304 \$0 \$40 S152 S757 \$2,145 S 20 EFFICIENCY INCENTIVE (EX. C, PG.18B) \$0 88 \$154,725 \$15,043 \$15,697 \$30,218 \$11,679 \$23,947 \$37,524 \$48,935 \$2,156 \$266 TOTAL NET \* REVENUES (8) (6)X(7) n/a n/a \$0.04 n/a 50.04 \$0.04 \$0.03 \$0.03 \$0.03 n/a \$0.03 \$0.03 \$0.03 NET LOST REVENUE (S/KWH) 5,342,058 4,971,558 355,200 370,500 970,378 374,816 770,000 1,205,776 1,572,960 69,020 8,608 TOTAL ENERGY SAVINGS KWH/6 MOS (6) (2)X(5) 29,250 15,300 1,250 (KWH/PARTIC) (5) 682 2,784 340 32 442 NET LOST REV/6 MOS 56,091 \$419,591 \$39,602 \$44,800 \$44,652 \$4,564 \$133,618 \$2,953 \$1,800 \$1,338 \$5,338 \$35,330 \$279,882 SS \$138,216 \$2,710 \$1,472 S TOTAL ACT. (4) (1)X(3) \$246.08 \$1,800.00 \$0.00 \$0.00 \$194.13 \$1,600.00 \$5,581.50 \$4,564.00 \$184,44 \$1,132.92 \$112.92 \$70.10 \$535.30 \$0.00 TOTAL ESTIMATED PROGRAM COSTS PER PARTICIPANT
(3) 54 674 597 5,238 616 82 848 ,768 565 203 269 CUMULATIVE NUMBER (2) 803 1,057 241 99 544 122 24 · Lost revenue and efficiency incentives are based on prospective NEW PARTICIPANT NUMBER (1) PROGRAM ======= KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR INDUSTRIAL PROGRAMS - (WEst, Opt-Outs Removed)
Smart Audit - Class 1
Smart Audit - Class 2
Smart Financing - General
Smart Financing - Cenpressed Air System High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat Energy, Fitness Targeled Energy Efficiency - All Electric - Non-All Electric High - Efficiency Heat Pump - Mobile Home TOTAL COMMERCIAL PROGRAMS TOTAL RESIDENTIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS COMMERCIAL PROGRAMS
Smarl Audit - Class 1
- Class 2
Smarl Financia - Existing Building
Smarl Financia - Resisting Building Mobile Home New Construction PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS TOTAL COMPANY Compact Fluorescent Bulb YEAR 3( 1st HALF )

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1998												
KENTUCKY POWER COMPANY	MAGGGGG										PAGE 4B of	19
ESTIMATED SECTOR SURCHARGES FOR 3 TEAN PROCESSION	ארוטטואדא								-			
- AND					-		NET LOST	TOTAL NET	EFFICIENCY	MAXIMIZING		TOTAL EST.
YEAR 3( 2nd HALF )	NEW	CUMULATIVE TOTAL ES	TOTAL ESTIMATED PROGRAM COSTS	PROGRAM	REVI6 MOS	ENERGY SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
			FIAGO		(KW/H/PARTIC)	KWH/6 MOS	(S/KWH)	REVENUES	PG.18B)	(5% of COSTS)	INCENTIVE	RECOVERED
PROGRAM DESCRIPTIONS	NUMBER	NUMBER	(3)	( <del>t</del> )	(5)	(9)	(2)	(8)	(6)	(10) (4)X(5%)	(9)+(10)	(4)+(8)+(11)
- ALLEAN TO THE PARTY OF THE PA	(1)	(2)		(1)X(3)		(2)X(5)		(e)X(/)		(a) (a) (b) (b)		0
RESIDENTIAL PROGRAMS				C42 A D82				\$48,327	608'68	80	\$9,309	\$192,616
Energy Fitness	448							260,367	S	57,778	077,10	58.462
Targeted Energy Efficiency - All Electric	131	038	\$139.62	\$5,864	340	80,920		\$2,528	870	Oe .		
- Non-All Electric	74					000	60.09	8268	SO	80	80	\$266
Alice Accessory Date		0 269	20.00	08	32	8,00,8	co.ne	2070				000
Compaci Lingiescent acio			1. 6	215 005		1 028 360		\$32,023	8780	0\$	54,063	548,728
High - Efficiency Heat Pump - Resistance Heat	108	940	5147.45		442	395,148	\$0.03	\$12,313	\$1,863	SO	200,10	2
- Non Resistance Heat	64		23.70					200	202 20	US.	\$5,623	\$124,333
Home	173	3 764	\$514.50	600'688	1,250	955,000	\$0.03	107,828	670,00			
High - Efficiency near runp - Woone Long					C		n/a		80	2907	2907	819,039
Mobile Home New Construction	3	33 11	\$549.45	310,132					***************************************	•	000 303	5635 956
410000		000		\$424.101		5,961,398		\$185,525	\$17,645	000'00	000,000	
TOTAL RESIDENTIAL PROGRAMS	886											
										COLTO		
COMMERCIAL PROGRAMS		705	\$534.85		0	0			OS S	\$4,760	\$1,700	\$26,460
Smarl Audit - Class 1	1	1/8		\$25,200					000	007,10		
- Class 2		32			22,200		\$0.04	530,065	000,020	8 8	\$144	
Smart Financing - Existing Building	1		\$1,529.20	57,646		91,800		23,920	7			
Smart Financing - New Building			200000000000000000000000000000000000000		-	000 000		\$34 011	\$23,729	\$6,020	\$29,749	63
TOTAL COMMERCIAL PROGRAMS	221	21 906		\$182,536		902,200		2000				
					11							
			- The second sec									
INDI ISTRIAL PROGRAMS -												29,69
(w/Est, Opt-Outs Removed)				733 69			D n/a		20			
Smart Audit - Class 1		3										
Smart Audit - Class 2			50.00	\$2.4	3 29,250		0 \$0.04	SO	is .	08	os	os
Smart Financing - General								20	OS			
Smart Financing - Compressed Air System								00	8383	\$128	\$511	
ONA COOCER		4 63	3	\$4,987	2		0	06	iit			
TOTAL INDUSTRIAL PROGRAMIS					11	8 00 000	ii la	5219 536				\$887,750
VIVADANO LATOT	1,2	1,224 7,059	6	\$611,62	4	000,007,0	1 0	=======================================		11	11 11 11 11 11 11 11 11 11 11 11 11 11	
TOTAL COURT OF		=======================================	=		11							
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<ul> <li>Lost revenue and efficiency incentives are based on prospective values.</li> </ul>	pased on prospect	ive values.			- Control of the Cont							
AND THE RESIDENCE OF THE PERSON OF THE PERSO												
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KENTUCKY POWER COMPANY ESTINATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM YEAR 4 (1st HALF)  NEW PARTICIP												
1st HALF)	ROGRAM										Exhibit C PAGE 5A of 19	
	NEW CUMU	CUMULATIVE TOTAL	TOTAL ESTIMATED	TOTAL ACT.	NET LOST	TOTAL NET LOST ENERGY SAVINGS REVENUE		TOTAL NET *	EFFICIENCY INCENTIVE	MAXIMIZING INCENTIVE	TOTAL *	TOTAL EST. COSTS TO BE
PROGRAM DESCRIPTIONS	PARTICIPANT PARTICIPA NUMBER NUMBER (1) (2)	ICIPANI PROGR				KWH/HALF (6)	(S/KWH)	REVENUES (8)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X( 5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
DESIDENTIAL DEOCRAMS				(1)X(3)	102	1 and 658		\$59.273	\$10,370	0\$	\$10,370	\$165,293
	306	2,694	\$1,907.41	\$95,650	630	486,990	\$0.03	\$15,150	098	\$7,153 \$0	\$7,153 \$60	\$3,784
- Non-All Electric	12	249	\$0.00	0\$	31	8,339	80.03	\$258	08	08	08	\$258
Compact Fluorescent Bulb Hinh - Efficiency Heat Pump - Resistance Heat	0 66	1,002	\$273.74	\$27,100	1,200	1,202,400	\$0.03	\$37,443	\$4,375 \$0	\$0	\$4,375 \$5	\$68,918 \$11,853
- Non Resistance Heat	2	853	S50.00	S55 145	1.475	1,218,350		537,891	\$8,505	OS	\$8,505	\$101,541
High - Efficiency Heat Pump - Mobile Home	101	9770	2040.30	\$57.546	1.756	79,020	\$0.03	\$2,458	\$4,353	os	\$4,353	\$64,357
Mobile Home New Construction ***	98	450	3207.50					100000	CO7 ER3	S7 158	\$34,821	\$581,363
TOTAL RESIDENTIAL PROGRAMS	693	6,711		\$379,941		5,352,977		100,001 &				##
									- Annaham - Anna	200	21 904	839.98
COMMERCIAL PROGRAMS	186	964	\$204.71	\$38,076	0		0 n/a		OS OS			\$45,444
Smart Audit - Class 1	16	87	\$2,705.00	\$43,280		677.38			\$1,395			\$60,740
Smarl Financing - Existing Building	9	51	55,109.67	\$2,350	14,101		9 \$0.04	\$5,428	\$787	80	5/8/	oc'es
nart Financing - New Building	0					ROA 201	1 -	534.115	\$2,182			\$154,729
TOTAL COMMERCIAL PROGRAMS	211	1,111		8114,304			111		16			
INDUSTRIAL PROGRAMS -												
(w/Est, Opt-Outs Removed)	-	90	\$0.00	os					n o	S S S	So	SO
Smart Audit - Class 1	0	4	30.00	80			en or	S				
Smart Financing - General	0	-	\$0.00	80	ă c		50.04					So
mart Financing - Compressed Air System	0	0	20.00	Co l						000	08	os
SWAGOOda Marronam Corp.	0	65		SO			0	20				
IOIAL INDUSTRIAL PROGRAMO				200 4049		6215216	9	\$200,716	\$29,845		841,071	\$736,092
TOTAL COMPANY	904	7,920			11			======				
Lost revenue and efficiency incentives are based on prospective values.  Lost revenue and efficiency incentives are based on prospective values.  1.	ed on prospective value	es. ants as of 06/30/9	6.								-	
Cumulative participants include a reduction for in-     Participants since 09/01/98.												

\$437,025 \$275,665 \$56,395 \$98,457 \$2,683 \$118 \$66,015 \$117,420 587,677 (4)+(8)+(11) TOTAL EST. COSTS TO BE \$0 \$27,010 \$3,347 \$2,840 \$5,814 \$2,099 \$14,100 8888 \$6,187 \$0 \$5,464 \$11,284 \$4,035 \$4,035 20 (11) (9)+(10) TOTAL \* \$3,347 \$2,840 \$0 \$0 \$0 \$0 \$0 \$4,035 S S \$4,035 S0 S SS (5% of COSTS) (10) (4)X( 5%) MAXIMIZING INCENTIVE \$30,888 \$0 \$5,814 \$2,099 \$7,913 8888 \$6,187 \$11,284 \$5,464 \$22,975 S \$40 \$0 EFFICIENCY INCENTIVE (EX. C, PG.18B) \$00 \$37,125 \$7,840 88 \$44,965 \$10,698 \$154,490 \$55,423 \$13,720 \$2,103 \$30,268 \$8,260 \$33,900 \$118 TOTAL NET \* REVENUES (8) (6)X(7) n/a n/a \$0.04 n/a 80.04 \$0.04 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 NET LOST REVENUE (S/KWH) 6,024,067 876,612 183,313 1,059,925 343,980 4,964,142 3,813 972,000 1,090,025 TOTAL ENERGY SAVINGS 441,000 67,320 KWH/HALF (6) (2)X(5) 13,282 ,755 (KWH/PARTIC) (5) 530 447 1,475 NET LOST REVIHALE \$0 \$216,600 8888 \$25,525 \$66,948 \$56,805 \$68,151 \$24,696 \$972 \$80,702 \$540 \$29,560 \$0 \$72,236 \$71,515 TOTAL ACT. S (4) (1)X(3) \$0.00 \$0.00 \$0.00 \$356.11 \$2,705.00 \$2,726.04 \$3,087.00 \$211.14 \$0.00 \$1,222.76 \$67.50 5581.42 TOTAL ESTIMATED PROGRAM COSTS \$0.00 \$539.07 PER PARTICIPANT
(3) Lost revenue and efficiency incentives are based on prospective values.

Cumulative participants include a reduction for the cumulative participants as of 12/31/96.

Participants since 09/01/98. 62 7,273 5,900 1,129 103 66 66 739 196 CUMULATIVE PARTICIPANT 2,519 700 220 123 810 NUMBER \*\* 242 21 25 140 134 123 NEW PARTICIPANT 18 NUMBER (1) PROGRAM KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR INDUSTRIAL PROGRAMS 
(wEst. Opt-Outs Removed)
Smart Audit - Class 1
Smart Audit - Class 2
Smart Financing - General
Smart Financing - Compressed Air System High - Efficiency Heat Pump - Resistance Heat High - Efficiency Heat Pump - Mobile Home TOTAL COMMERCIAL PROGRAMS TOTAL RESIDENTIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS Energy Fitness Targeted Energy Efficiency - All Electric - Non-All Ele COMMERCIAL PROGRAMS
Smart Audit - Class 1
- Class 2
Smart Financing - Existing Building
Smart Financing - New Building Mobile Home New Construction 666 PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS TOTAL COMPANY Compact Fluorescent Bulb YEAR 4 ( 2nd HALF )

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\$519,151 \$60,055 \$22,722 \$73,012 \$38,306 \$194,095 \$325,056 \$34,801 \$4,847 \$57,620 874,519 \$47,546 \$101,108 \$4,615 (12) (4)+(8)+(11) TOTAL EST. COSTS TO BE \$0 \$23,007 \$8,712 8888 \$2,860 \$1,082 \$3,721 \$1,049 \$14,295 \$3,789 \$4,486 \$1,679 \$0 \$0 \$4,200 \$141 8 INCENTIVE Exhibit C PAGE 6A of TOTAL. (11) \$8,142 \$2,860 \$1,082 \$0 \$0 \$0 \$3,942 8888 \$4,200 \$4,200 \$0 20 808 80 (5% of COSTS) (10) (4)X( 5%) MAXIMIZING INCENTIVE 54,770 \$0 \$0 \$3,721 \$1,049 S0 S141 \$3,789 \$4,486 \$1,679 \$0 S EFFICIENCY INCENTIVE (EX. C, PG.18B) (9) \$0 \$60,436 88 \$48,374 \$140,576 \$31,331 \$16,483 \$25,522 \$4,847 \$47,546 \$12,916 \$1,931 S TOTAL NET • REVENUES (8) (6)X(7) n/a n/a \$0.00 \$0.00 n/a n/a \$0.04 \$0.04 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 \$0.03 NET LOST REVENUE \$0.00 (S/KWH) 5,941,672 1,142,252 1,424,272 530,010 1,007,425 4,517,400 819,600 155,556 1,527,827 415,170 61,812 TOTAL ENERGY SAVINGS KWH/HALF (6) (2)X(5) 13,282 1,475 ,755 447 (KWH/PARTIC) (5) 707 630 306 NET LOST REVIHALF \$0 \$124,947 8888 \$57,195 \$21,640 \$20,917 \$25,195 \$170,185 TOTAL ACT. \$7,600 \$22,500 \$53,550 \$83,992 \$2,543 So COSTS (4) (1)X(3) \$0.00 \$0.00 \$0.00 \$397.19 \$2,705.00 \$1,307.31 \$6,298.75 \$0.00 80.00 \$200.00 \$500.00 \$530.20 TOTAL ESTIMATED PROGRAM COSTS PER PARTICIPANT
(3) Lost revenue and efficiency incentives are based on prospective values.
 Cumulative participants include a reduction for the cumulative participants as of 06/30/97
 Participants since 09/01/98 1,344 6,382 1,126 112 20 20 2,161 659 202 348 683 302 CUMULATIVE NUMBER \*\* 450 144 8 9 101 45 0 98 NEW PARTICIPANT NUMBER PROGRAM KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR I INLUD I MAY FYOLING REMOVED)

(wifest, Opt-Outs Removed)

Smarl Audit - Class 1

Smarl Audit - Class 2

Smarl Financing - Center 2

Smarl Financing - Compressed Air System High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat inergy Fitness argeted Energy Efficiency - All Electric - Non-All Electric TOTAL COMMERCIAL PROGRAMS High - Efficiency Heat Pump - Mobile Home TOTAL RESIDENTIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS Smart Financing - New Building
Smart Financing - New Building Mobile Home New Construction \*\*\* COMMERCIAL PROGRAMS Smart Audit - Class 1 Year 2000 NDUSTRIAL PROGRAMS PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS TOTAL COMPANY YEAR 5 (1st half)

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\$534,098 \$211,981 \$24,079 \$80,221 \$322,117 \$51,178 \$33,505 \$127,373 \$3,718 TOTAL EST. COSTS TO BE (12) (4)+(8)+(11) \$25,344 \$10,817 0 22 23 23 \$1,314 \$3,922 \$5,581 \$0 84,175 \$14,527 \$5,521 \$105 \$1,105 \$3,621 S Exhibit C PAGE 6B of INCENTIVE (11) TOTAL . 8888 \$0 \$1,314 \$3,922 \$0 \$0 \$0 \$5,236 \$5,521 20 SO SO \$0 \$5,521 \$0 (5% of COSTS) (10) (4)X( 5%) MAXIMIZING 0 08 08 0 \$14,587 \$5,581 \$5,581 \$0 \$4,175 \$1,105 \$3,621 \$0 \$0 \$105 So EFFICIENCY INCENTIVE (EX. C, PG.18B) \$0 \$0 \$0 \$0 \$182,054 \$54,562 \$67,228 \$114,826 \$21,996 \$17,974 \$26,257 \$33,505 \$11,426 \$1,625 TOTAL NET \* REVENUES (8) (6)X(7) n/a n/a \$0.00 \$0.00 n/a n/a \$0.04 \$0.04 \$0.03 \$0.03 50.03 \$0.03 \$0.03 \$0.03 NET LOST REVENUE \$0.00 (S/KWH) 5,274,755 1,288,354 1,584,496 3,690,259 577,200 65,562 844,272 707,265 1,076,650 367,290 52,020 TOTAL ENERGY SAVINGS KWH/HALF (6) (2)X(5) 13,282 200 476 1,755 (KWH/PARTIC) (5) 306 306 NET LOST REVIHALF \$192,764 \$26,273 \$78,445 \$21,949 \$7,269 \$133,936 \$5,000 \$54,050 \$0 \$110,426 \$1,988 \$21,300 S TOTAL ACT. PROGRAM (4) (1)X(3) \$0.00 \$0.00 \$0.00 \$165.24 \$2,705.00 \$914.54 \$0.00 \$495.35 \$0.00 \$1,115.41 \$94.67 \$0.00 \$200.00 \$575.00 TOTAL ESTIMATED PROGRAM COSTS PER PARTICIPANT
(3) TOTAL COMPANY

TOTAL COMPANY

Lost revenue and efficiency incentives are based on prospective values.

Cumulative participants and office a reduction for the cumulative participants as of 12/31/97

Participants since 09/01/98. 1,242 1,026 98 97 21 3,881 572 403 CUMULATIVE 525 583 170 1481 NUMBER \*\* 29 29 0 94 43 NEW 21 99 NUMBER (1) KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM INDUSTRIAL PROGRAMS - (w/Est. Opt-Outs Removed)
Smart Audil: Class 1
Smart Audil: Class 1
Smart Audil: Class 2
Smart Financing - General
Smart Financing - Compressed Air System High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat Energy Filness Targeted Energy Efficiency - All Electric High - Efficiency Heat Pump - Mobile Home TOTAL COMMERCIAL PROGRAMS TOTAL RESIDENTIAL PROGRAMS COMMERCIAL PROGRAMS
Smart Audit - Class 1
- Class 2
Smart Financing - Existing Building
Smart Financing - New Building Mobile Home New Construction Year 2000 RESIDENTIAL PROGRAMS PROGRAM DESCRIPTIONS Compact Fluorescent Bulb YEAR 5 (2nd half) : :

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\$0 ====== \$512,783 \$45,280 \$44,394 \$101,122 \$49,305 \$272,682 \$240,101 \$74,896 \$22,007 \$1,128 \$22,970 \$93,615 \$2,982 \$55,084 RECOVERED (12) (4)+(8)+(11) TOTAL EST. COSTS TO BE \$0 \$23,072 \$2,156 \$2,114 \$3,488 \$2,099 \$2,099 8888 \$13,215 \$1,016 53,687 \$3,959 \$90 \$4,463 Exhibit C PAGE 7A of 7 SO INCENTIVE (11) (9)+(10) TOTAL . \$8,229 \$2,156 \$2,114 \$0 \$0 \$0 \$0 \$0 8888 53,959 \$3,959 \$0,000 SO 20 00 S 8 (5% of COSTS) (10) (4)X( 5%) MAXIMIZING INCENTIVE \$0 \$0 \$3,488 \$2,099 \$5,587 \$9,256 \$1,016 \$0 \$4,463 53,687 8 8 8 S EFFICIENCY INCENTIVE (EX. C, PG.18B) \$0 \$0 \$0 \$0 \$182,569 \$104,493 \$0 \$62,999 \$15,077 \$26,635 \$22,970 \$10,486 \$1,310 \$16,367 \$25,597 S TOTAL NET \* REVENUES (8) (6)X(7) n/a n/a \$0.00000 \$0.00000 n/a n/a \$0.04235 \$0.04277 \$0.03112 \$0.03111 \$0.03124 \$0.03114 \$0.03110 \$0.03110 NET LOST REVENUE 80,00000 (S/KWH) (7) 5,198,486 1,487,584 823,050 856,440 1,840,109 738,108 337,050 41,922 525,600 36,207 3,358,377 TOTAL ENERGY SAVINGS KWH/HALF (6) (2)X(5) 13,282 707 630 306 1200 1475 1755 (KWH/PARTIC) (5) NET LOST REVIOTR \$00 \$154,974 \$43,124 \$42,280 \$34,635 \$32,129 \$152,168 88888 \$4,624 \$44,574 \$0 \$79,170 \$1,582 \$25,024 TOTAL ACT. S (4) (1)X(3) \$0.00 \$0.00 \$0.00 \$321.82 \$1,510.00 \$2,309.00 \$4,016.13 \$201.04 \$0.00 \$1,276.94 \$87.89 \$0.00 \$472.15 \$537.04 CUMULATIVE TOTAL ESTIMATED PARTICIPANT PROGRAM COSTS PER PARTICIPANT
(3) Lost revenue and efficiency incentives are based on prospective values.

Cumulative participants include a reduction for the cumulative participants as of 06/30/98.

Participants since 01/01/98. 4,540 1,017 105 112 25 1,259 3,281 1,044 535 137 81 558 48B NUMBER \*\* 424 185 239 134 53 83 NEW PARTICIPANT 0 2 8 NUMBER (1) 2500000 PROGRAM KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR INDUSTRIAL PROGRAMS - (w/Est. Opt-Outs Removed)
Smart Audit - Class 1
Smart Audit - Class 2
Smart Financing - Centeral
Smart Financing - Centeral
Smart Financing - Compressed Air System High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat - All Electric - Non-All Electric High - Efficiency Heat Pump - Mobile Home TOTAL COMMERCIAL PROGRAMS TOTAL RESIDENTIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS mart Financing - Existing Building mart Financing - New Building Mobile Home New Construction Year 2001 COMMERCIAL PROGRAMS Smart Audit - Class 1 Energy Fitness Targeted Energy Efficiency PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS TOTAL COMPANY Compact Fluorescent Bulb YEAR 6 (1st Half) : :

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Year 2001				_	and the same of th				_			
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KENTUCKY POWER COMPANY	OGRAM											
SIMA ED SECTOR SOUGHERS					111000000000000000000000000000000000000					OMERNA		TOTAL EST.
		T ATIMITY	OTAL ESTIMATED	TOTAL ACT.	NET LOST	TOTAL	NET LOST	TOTAL NET	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
YEAR 6 (2nd Half)	PARTICIPANT	PARTICIPANT	PROGRAM COSTS	PROGRAM	+	ENERGY SAVINGS	אניירות		(EX. C,	(STROC) 6 (SE)	INCENTIVE	RECOVERED
			PER PARTICIPANT	COSTS	(KWH/PARTIC)	KWH/HALF	(S/KWH)	REVENUES (8)	(9)	(10)	(11)	(12)
PROGRAM DESCRIPTIONS	(1)	$\vdash$	(3)	(4)	(2)	(2)X(5)		(E)X(7)		(4)X(5%)	(01)+(6)	
			The state of the s	(alv/r)	100	377 710		\$11,754	SO		50	\$11,754
RESIDENTIAL PROGRAMS	0	535	80.00		630	306,180	\$0.03111	\$9,525	503	34,403	\$231	\$5,144
Energy Filness Targeted Filency Efficiency - All Electric	88	486	51,018.85	\$3,747	306	37,332		\$1,166	1070			00
۱'۱	46	771				0	0000000	SO	80	80	80	200
- 1 D. 34	0	0	80.00	SO	0		1		64 236	OS.	\$1,326	\$21,922
Compact Fluorescent Build			5173 33		1,200	494,400	\$0.03114	\$15,396	020,100	80	80	\$486
High - Efficiency Heat Pump - Resistance Heat	30	35	80.00	80		15,610				6	\$3 95R	\$49,487
- Non Resistance Heat				000 853	1 476	692,244	\$0.03110	\$21,529	\$3,958	000	200,000	
Lich - Efficiency Heat Pump - Mobile Home	47	469	5010.04				0,,00	\$31,002	\$4,087	SO	\$4,087	\$86,189
	60	568	\$555,43	\$51,100	1,755	996,840					240 149	
Mobile Home New Construction	70					2 920 316		. \$90,858		54,483		111111111111111111111111111111111111111
# DECIDENTIAL DROGRAMS	303	H		\$173,707								
IOIAL RESIDENTIAL INCOME												
												\$62,453
SWARDORD IN DESCRIPTION			2454 04		0		0 0/a	S	DS OS	\$2,454	\$2,454	
Smart Aldit - Class 1	131		\$454.0				000		\$3,4			
- Class 2	1	100	\$1,664.27	\$24,964	13,282	1,447,738	8 \$0.04235	\$20,507				
Smart Financing - Existing Building		34	\$1,799.28				1				613 638	\$261,373
Smart Financing - New Building						1 927.206	10	\$81,819		55,428		
DBOGBAMS	169			are,care			15	111111111111111111111111111111111111111				
IOIAL COMMENCAL TROCKERS	13 13 11 11 11 11 11 11 11 11 11 11 11 1											
INDUSTRIAL PROGRAMS -							6/0		S			OS OS
(w/Est. Opt-Outs Removed)			0.08				1					
Smart Audit - Class 1		0	0 80.00		SO		00000000000	00		20 20 20		30 80
Smart Audit - Class 2						0						
Smart Financing - Compressed Air System		0	2000					OS		0\$		000
					\$0		2 1			14	E 27 703	
TOTAL INDUSTRIAL PROGRAMS			11		=======================================	4 847 5	20	\$172,677				
	472	L		\$339,623	3							
TOTAL COMPANY		30,000	11									
Lost revenue and efficiency incentives are based on prospective values.      Lost revenue and efficiency incentives are based on prospective values.	d on prospective	raines.	1/98									
** Cumulative participants include a reduction for												
Participants since 0770 frag.												
The state of the s												

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NEW   CUMULATIVE   ESTIMATED   ACTUAL   NETLU				-				
TOTAL NEW CUMULATIVE ESTIMATED ACTUAL NET LI NEW CUMULATIVE ESTIMATED ACTUAL NET LI NUMBER NUMBER PER PER REVIH NUMBER NUMBER (4) (5) (1) (5) Electric 63 442 \$1,752.40 \$110,401 Electric 64 42 \$1,752.40 \$110,401 Electric 63 442 \$1,774 \$110,401 Electric 63 442 \$1,774 \$110,401 Electric 63 412 \$1,774 \$110,401 Electric 63 412 \$1,774 \$110,401 Electric 63 61 61 61 61 61 61 61 61 61 61 61 61 61							1,	
NEW   CUMULATIVE   ESTIMATED   ACTUAL   NET LU							PAGE 8A of 19	0
NEW   CUMULATIVE   ESTIMATED   ACTUAL   NET LICHALISM   PROGRAM   REVIMENDED   COSTS   KKWHPP   COSTS   C								
PROGRAM   PARTICIPANT   COSTS   CNOWNER   CNOWNE	NET LOST T	+-+	NET LOST	TOTAL NET *	EFFICIENCY	MAXIMIZING		TOTAL
- All Electric 63 442 \$1,722.40 \$110,401   - All Electric 63 442 \$1,722.40 \$110,401   - Non-All Electric 63 442 \$1,722.40 \$110,401   - Resistance Heat 0 0 0 \$0.00 \$1,152   - Resistance Heat 0 0 0 \$0.00 \$1,152   - Resistance Heat 0 0 0 \$0.00 \$1,152   - Resistance Heat 1 1 314 \$1,152.00 \$1,152   - Resistance Heat 0 0 \$0.00 \$1,162   - Resistance Heat 0 0 \$1,162   -	REV/HALF S/	SAVINGS RE	REVENUE	LOST	INCENTIVE (EX. C,	INCENTIVE	TOTAL *	COSTS TO BE
Control of the cont	RTIC)	(5) (6) (2)X(5)	(S/KWH) RE	REVENUES (8) (6)X(7)	PG.18B) (9)	(5% of COSTS) (10) (4)X( 5%)	(11) (9)+(10)	(12) (4)+(8)+(11)
Autorial Electric   Color   116   S0.00   S0	$\sqcup$	$\vdash$			Ç	G	C#	\$2 552
Page	1,028	82,012 8 454,376 8	\$0.03112	\$2,552	OS S	\$5,520	\$5,520	\$130,057
1   314   \$1,152.00   \$1,152     1   314   \$1,152.00   \$1,152     1   314   \$1,152.00   \$1,152     1   314   \$619.77   \$26,650     1   314   \$619.77   \$26,650     1   314   \$619.77   \$26,650     1   314   \$619.77   \$26,650     1   314   \$619.77   \$26,650     1   25   568   \$641.77   \$36,581     1   25   523.29   \$23,71.00   \$29,688     1   1   25   522.71   \$17,689     1   1   22,52.71   \$17,689     1   1   24,52.71   \$17,689     1   1   24,52.71   \$17,689     1   1   24,52.71   \$17,689     1   1   1   1   1     1   1   1   1	315		\$0.03124	\$1,328	\$137	04	2010	200
1   314   \$1,152.00   \$1,152     0	0	0	\$0.00000	80	08	80	0\$	80
414   \$619.77   \$26,650	1,200	376,800	\$0.03114	\$11,734	\$44	08	\$44	\$12,930
43	4447			000	AAC 12	OS	\$1.244	\$42,623
AMNS 196 57 568 5641.77 536,581	1,144	473,616	30.03110	914,729	11710			900 700
CAMIS         196         1,989         \$176,879           SAMS         ====================================	1,809	1,027,512	\$0.03110	\$31,956	\$231	0\$	1626	300,700
RAMS         Table of the control	and the second s	2,456,841		\$76,435	\$1,656	\$5,520		\$260,490
125   923   5432.92   554.115   126   923   5432.92   554.115   104   53.711.00   529.688   104   52.552.71   517.669   107.								
RAMS = 125 923 \$432.92 \$54.115   125 923 \$432.92 \$54.115   104 \$3.711.00 \$29.668   104 \$3.711.00 \$29.668   107 \$2.552.71 \$17,669   107 \$2.552.71 \$17,6								
126   923   5432.92   55437.15   150   101   1			e/c	OS	\$0	\$2,706		\$56,821
RAMS         7         104         SE,527.1         \$17,689           RAMS         145         42         \$1,394.60         \$6,973           RAMS         145         1,170         \$1008,645           Removed)         0         0         \$50.00         \$0           System         0         0         \$0.00         \$0           System         0         0         \$0.00         \$0           System         0         0         \$0.00         \$0           System         0         0         \$0         \$0	0		n/a	30	80			\$31,172
RAMS         5         42         \$1,394.60         \$6,973           RAMS         145         1,170         \$108,645           Removed)         0         0         \$0.00         \$0           Removed)         0         0         \$0.00         \$0           System         0         0         \$0.00         \$0           System         0         0         \$0.00         \$0           System         0         0         \$0         \$0	13,282	1,341,482	\$0.04235	\$56,812	\$1,628	09	\$1,628	\$33,615
OGRAMS         145         1,170         \$108.6           Instance         ========         =======           Ints Removed)         0         0         \$0.00           Ints Removed)         0         0         \$0.00           Air System         0         0         \$0.00	14,101		\$0.04277	\$22,330	10,10			
00.08 0 0 0 00.08 0 0 0 0 0 0 0 0 0 0 0		1,933,724		\$82,142	\$2,940		\$7,130	\$197,917
00008 0 0 0 00008 0 0 0 0 0 0 0 0 0 0 0		The state of the s	444		Assumption of the control of the con			
00.00S 0 0 0 0000 0 0 0 0 0 0 0 0 0 0 0								
0000S 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C	0	n/a		80			0\$
00.008 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0	n/a		0\$			OA G
00.08	0	0	\$0.00000	80	OS G	9	08	OS OS
	0	0	20.0000	9				
		0		\$0			80	0.5
=======================================		11 11 11 11 11 11 11 11 11 11 11 11 11		6450 577	24 596	\$9.710		
		4,390,565		1/0'0016	1000,100	"	L	
						and the same of th		
Lost revenue and efficiency incentives are based on prospective values.								
** Cumulative participants include a reduction for the cumulative participants as of 06/30/1999.								

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		ACTUAL COSTS TO BE	(4)+(8)+(11) S0	\$97,553	08	\$6,262 \$0	538,167	\$68,759	\$213,449		\$78,143	S83.120	\$69,534	\$230,797		80					STO TYPE				_ Atta Page
Exhibit C	PAGE 8B of 19	TOTAL*	(9)+(10)	\$3,949 \$56	os	08	\$1,244	\$248	\$5,497		\$3,721	S0 S5 814	\$4,197	\$13,732				OS S		SO		\$19,229			
	/d			\$3,949 \$0	80	OS SO	0\$	SO	\$3,949		53.721	OS S	OS SO					OS SO		os					
		EFFICIENCY INCENTIVE (EX. C,		\$00 \$00 \$20	08	08	\$1,244	\$248				80		-		OS	Sos	08							
		TOTAL NET *	(8) (8) (6)X(7)	\$14,615 \$1,535	80	\$6,614	\$10,958	829,199	\$62,921				\$54,562	11	281,100		m (	20			O CONTRACTOR OF THE PARTY OF TH	\$144,021			
		NET LOST REVENUE	(S/KWH) (7)	\$0.03112 \$0.03111 \$0.03124	\$0.00000	\$0.03116	1 1	\$0.03110				n/a n/a	l l	1 1		11		000000000000	l		0 1		11		
		TOTAL N ENERGY SAVINGS	(5) (2) (5)	469,796	0	212,400	352,352	038 B71	2,022,559	10 mm		0 0	1,288,354		1,908,842						- 11	3 931 401	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		NET LOST REV/QTR	(KWH/PARTIC) (5)	1,028	0	1,200	1 144	000	600'1	***************************************		0 0	13,282	14,102											
		TOTAL ACTUAL PROGRAM	(4) (1)X(3)	\$78,989	08	(\$352)	0.00	C08,026	539,312			\$74,422			\$135,965			30			SO		\$280,996		
		TOTAL ESTIMATED PROGRAM COSTS	PER PARTICIPANT (3)	\$0.00	\$85.92	\$0.00	80.00		\$644.46			\$0.00	\$909.76	\$2,424.94			80.00	80.00	80.00	20.00					12/31/1999.
		CUMULATIVE E		0 457	158	771	0	308	519	1,61/		7	060		1,017			0			0	15		1 1	1 1 1
		NEW PARTICIPANT		0 0	13	0	0	43	61	193		0	0	16	41								234		ised on prospective r the cumulative par
Year 2002	KENTUCKY POWER COMPANY ESTINATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM	(2nd Half)	PROGRAM DESCRIPTIONS	RESIDENTIAL PROGRAMS Energy Fithess All Flecting	- Non-All Electric	Compact Fluorescent Bulb	High - Efficiency heat Pulity - Neststance Heat	High - Efficiency Heat Pump - Mobile Home	Mobile Home New Construction ***	TOTAL RESIDENTIAL PROGRAMS		COMMERCIAL PROGRAMS	Smart Audit - Class 1	Smart Financing - Existing Building	TOTAL COMMERCIAL PROGRAMS	NDUSTRIAL PROGRAMS -	(w/Est. Opt-Outs Removed)	Audit - Class 1	Audit - Class z	Smart Financing - Compressed Air System	Crrs of the second	TOTAL INDUSTRIAL PROGRAMS	TOTAL COMPANY		<ul> <li>Lost revenue and efficiency incentives are based on prospective values.</li> <li>Cumulative participants include a reduction for the cumulative participants as of programmer since 07(0/1/1999.</li> </ul>

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HARGES FOR 3			_									
											PAGE 9A of	19
RIPTIONS	WHW	CUMULATIVE	TOTAL	TOTAL	NET LOST		NET LOST	TOTAL NET	EFFICIENCY	MAXIMIZING		TOTAL
	ANT		PROGRAM	PROGRAM	REVIHALF	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
	NUMBER (1)	NUMBER **	PER PARTICIPANT (3)	(4)	(KWH/ PARTICIPANT) (5)	KWH/HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Eneroy Fitness	0	0	80.00	SO	707	0	\$0.03112	08	SO	0\$	os	0\$
Targeted Energy Efficiency	100	467	\$849.84	\$84,984	1,028	480,076	\$0.03111	\$14,935	830	\$4,249	\$4,249	\$104,168
- Non-All Electric	7	151	\$79.29	8555	0		\$0,00000	os	80	08	08	08
Compact Fluorescent Bulb High - Efficiency Heat Pump		70	00.08	08	1,200	112,800	\$0.03114	53,513	OS S	0%	08	\$3,513 \$0
- Resistance Heat	0	0	80.00	SO	447	0	\$0.03116	OS				
High - Efficiency Heat Pump - Mobile Home	34	268	\$379.41	\$12,900	1,144	306,592	\$0.03110	\$9,535	\$983	os	\$983	\$23,418
Mobile Home New Construction *** - Heat Pump	46	460	\$482.61	\$22,200	1,808	831,680	\$0.03110	\$25,865 S0	\$187	SOS	\$187	\$48,252 \$0
- Air Conditioner	2	200			1,194	4 27,462	\$0.03116	\$856	\$2,127	SO	\$2,127	\$17,398
Modified Energy Fitness	101	3				1 4		\$56,185	\$3,327			
TOTAL RESIDENTIAL PROGRAMS	288	1,463		103,034				#1 #1 #1 #1 #1 #1 #1 #1 #1 #1 #1 #1 #1 #		11 11 11 11 11 11 11 11 11 11 11 11 11		
COMMERCIAL PROGRAMS	0					0 0		88	SOS	30	SS	
- Class 2	0 0	73	80.00	OS OS		1,461,02	0 80,04235	\$61,8				\$29,552
Smart Financing - Existing Building Smart Financing - New Building	0				14,101	_			-			
TOTAL COMMERCIAL PROGRAMS	0	852	10:"	80		2,151,969		\$91,426	08		55 55 57	
INDUSTRIAL PROGRAMS -									S.			
Smart Audit - Class 1			00.00	000		00	0 0/a			08 00	08 08	SO
Smart Audit - Class 2		0	80.00				000000.08 0	08	-			
Smart Financing - General Smart Financing - Compressed Air System												-
PM400000 MIGHOR STATE		1 0	0	SO	0		0	SOS	11	_		
TOTAL INDUSTRIAL PROGRAMS			11 1	E435 054		3.957.993		\$147,611	83		9 87,576	5 \$290,241
TOTAL COMPANY	288	2,315	2 ==	100,0010								
end effective are based on prospective values.	ed on prospectiv	ve values.										
Cumulative participants include a reduction for the	the cumulative	participants as o.	r 06/30/2000.									

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The control of the	Year 2003												
	To the second se											Exhibit C	
Figure 1   Figure 2   Figure 3	ENTUCKY POWER COMPANY SSTIMATED SECTOR SURCHARGES FOR 3											PAGE 9B of	19
Particular   Par	EAR PROGRAM	VOLUM N	CHMILLATIVE	TOTAL	TOTAL	NET LOST	-	LOST		EFFICIENCY	MAXIMIZING		TOTAL
Marie   Mari	FAR 8 (2nd HALF)	PARTICIPANT		PROGRAM	PROGRAM	REVIHALF	ENERGY	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
Column   C	PROGRAM DESCRIPTIONS	NUMBER (1)	# _	PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)		(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X(5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
Column   C	RESIDENTIAL PROGRAMS Energy Fitness	0	0	\$0.00	SO	706	0	\$0.03112	OS SO	SO	SO	SO	08
Column   C	Targeted Energy Efficiency - All Electric	69				1,028			\$15,127	\$0 \$295	\$3,364	53,364 \$295	\$85,762 \$7,195
Particular   Par	- Non-All Electric	69	91		7.00				OS SO	80	OS	\$0	SO
Column   C	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	00				1,200			\$2,354 \$0	08	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		\$2,354 \$0
Column   C	High - Efficiency Heat Pump - Mobile Home	29				1,144		\$0.03110	\$9,108	\$839		\$839	\$23,097
ALPROGRAMS		49							\$23,586 \$0	\$260			\$65,420
ALI PROGRAMS	- All Collationed	77			_	1,194	_		\$12,054	\$9,287			\$211,603
AMS   1702   1	Modified Energy Fitness				$\bot$		2 050 726		\$63.878	\$10,681	1		
Column   C	TOTAL RESIDENTIAL PROGRAMS	1 11 1		. 11	000,7100				111111111111111111111111111111111111111				
RAMS													
RAMIS   Color   Colo	COMMERCIAL PROGRAMS		7										
RAMS   Color	- Class 2						_	1	\$43,3				
Columb   C	Smart Financing - Existing Building												
Color   Colo	Smart Financing - New Building						1 685 508		\$71,660				
Color   Colo	TOTAL COMMERCIAL PROGRAMS												
Column   C	IND ISTRIAL PROGRAMS -												
1	(w/Est. Opt-Outs Removed)									S			
1	Smart Audit - Class 1		000					1	11440000				
1	Smart Audit - Class 2		0										
SO	Smart Financing - Compressed Air System		0									**	
\$317,658 3,738,234 \$135,538 \$10,681 \$3,364 \$14,045 ====================================	TOTAL INDIISTRIAL PROGRAMS		0	0	os			0	- 1!				
201/700 V/VOID SECTION				==	030 1700		3 738 934		\$135,538				
Lost revenue and efficiency incentives are based on prospective values.     Lost revenue and efficiency incentives are based on prospective values.     Cumulative participants include a reduction for the cumulative participants as of 12/31/2000.	TOTAL COMPANY	29	11	7 =	200' / 1 Co			31					
Lost revenue and efficiency incentives are based on prospective values.     Lost revenue and efficiency incentive participants as of 12/31/2000.     Cumulative participants include a reduction for the cumulative participants as of 12/31/2000.												111111111111111111111111111111111111111	
	Lost revenue and efficiency incentives are     Crimilative participants include a reduction	on for the cumulative	participants as o	f 12/31/2000.									

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Year 2004												
KENTUCKY POWER COMPANY											Exhibit C	
ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM											PAGE 10A of	19
YEAR 9 (1st HALF)	NEW	CUMULATIVE	TOTAL ESTIMATED PROGRAM	TOTAL	NET LOST	TOTAL	NET LOST	TOTAL NET	EFFICIENCY	MAXIMIZING		TOTAL
The state of the s	PARTICIPANT	PARTICIPANT	COSTS	PROGRAM	REV/QTR	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER **	PER PARTICIPANT (3)	COSTS (4)	(KWH/PARTIC) (5)	KWH/ HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X(5%)	INCENTIVE (11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Filness	0	0	\$0.00	OS SO	707	0	\$0.03112	08	0\$	08	SO	OS .
Targeted Energy Efficiency - All Electric	72	463	\$751.54	SS	1,028	475,964	\$0.03111	\$14,807	08	\$2,706	\$2,706	S71,624 S2 585
- Non-All Electric	10			SZ	314			91,130	Ctro	2		0
Compact Fluorescent Bulb	0	0	\$0.00	0\$	0	0	\$0.00000	SO	80	OS.	OS .	Oe I
High - Efficiency Heat Pump - Resistance Heat	0	0 42	80.00	08	1,200	50,400	\$0.03114	\$1,569	08	08	08	\$1,569
- Non Resistance Heat	3	0			447	0			3	3		
High - Efficiency Heat Pump - Mobile Home	41	247	\$428.05	\$17,550	1,144	282,568	\$0.03110	\$8,788	\$1,186	80	\$1,186	\$27,524
Mobile Home New Construction *** - Heat Pump	99 6	394	\$503.68	\$34,250 \$150	1,808	712,352	\$0.03110	\$22,154 \$5	\$276 \$0	80	\$276 \$0	\$56,680 \$155
Madified Engany Ethnese	334	735						\$27,346	\$7,034	80	\$7,034	\$173,911
Mountain Literay I missoo				Ц		,,		876 425		\$2.706	\$11,245	\$334,048
TOTAL RESIDENTIAL PROGRAMS	979	2,061	11	2240,370		107,00F,2			11 11 11 11 11 11 11 11 11 11 11 11 11			- Lower - Lowe
					-							
COMMERCIAL PROGRAMS							2/0		OS		SOS	0\$
Smart Audit - Class 1											SO	SO
Smart Financing - Existing Building		0 54	00.00	08	13,282	717,228	\$0.04235	\$30,375	80	SOS	S S	\$30,375
Smart Financing - New Building							_	_	-			
TOTAL COMMERCIAL PROGRAMS				80		1,323,571		856,308	08	SO	08	856,308
			11		1							
INDICEDIAL DECEMBER												
(w/Est, Opt-Outs Removed)									6		CS	US
Smart Audit - Class 1		00	20.00	000		0 0	n/a		OS OS	OS SO	SOS	80
Smart Audit - Class 2 Smart Financing - General		00					\$0.000	SO			OS SO	88
Smart Financing - Compressed Air System											S	ne
TOTAL INDIBSTRIAL PROGRAMS		100	10	SO		0		\$0			SO	OS
						200 077 0		6420 722	08 830			
TOTAL COMPANY	526	6 2,526	ro !!	5246,378	11	3,776,606		20,72010	ii	=======================================		
Annual Control of the												
Lost revenue and efficiency incentives are t     Cumulative participants include a reduction.	based on prospective of for the cumulative of	s as of	06/30/2001.									
*** Participants since 01/01/2001.										***************************************		

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											Exhibit C	
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 MACA DE DEOCRAM											3 of	19
YEAR 9 (2nd HALF)	NEW	CUMULATIVE	TOTAL ESTIMATED PROGRAM COSTS	TOTAL ACTUAL PROGRAM	NET LOST REV/QTR	TOTAL N ENERGY SAVINGS	NET LOST REVENUE	TOTAL NET	EFFICIENCY	MAXIMIZING	TOTAL.	TOTAL ACTUAL COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER ** (2)	PER PARTICIPANT (3)	(4)	(KWH/PARTIC)	KWH/ HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	(9)+(10)	(12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Fitness	0	0	80.00	SO	706	0	\$0.03112	OS SO	80	SO	08	SO
Targeted Energy Efficiency - All Electric - Non-All Electric	89	462	\$1,118.43	\$99,540 \$4,363	1,028	474,936 64,780	\$0.03111	\$14,775	8088	\$4,977 \$0	S4,977 S308	\$119,292 \$6,695
Compact Fluorescent Bulb	0	0	\$0.00	08	0	0	30.0000	os	80	OS	SO	SO
High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0 0	15	\$0.00	08	1,200	18,000	\$0.03114	\$561 \$0	08	08	08	S561 S0
High - Efficiency Heat Pump - Mobile Home	46	239	\$469.57	\$21,600	1,144	273,416	\$0.03110	\$8,503	\$1,330	OS SO	81,330	\$31,433
Mobile Home New Construction *** - Heat Pump - Air Conditions	07 00	379	\$597.14 #DIV/01	\$41,800	1,810	685,990	\$0.03110 \$0.03124	\$21,334	\$284 \$0	08	\$284	\$63,418 \$10
Modified Energy Fitness	391	1,070	\$347.20	\$135,756	1,194	1,277,580	\$0.03116	839,809	\$8,234		\$8,234	\$183,799
TOTAL RESIDENTIAL PROGRAMS	999	2,372	. 15	\$303,059	1	2,795,018		\$87,016	\$10,156	\$4,977	\$15,133	8405,208
									1000			
COMMERCIAL PROGRAMS					0	0	n/a		0\$			S
Smart Audit - Class 1 - Class 2		19	\$0.00	OS OS	13 282	544,562	n/a \$0.04235		SOS	8 8	SOS	\$23,0
Smart Financing - Existing Building Smart Financing - New Building					14,102							
TOTAL COMMERCIAL PROGRAMS		0 272		OS SO	1007	967,622		\$41,156	SO	08		\$41,156
									ATTENDED TO THE PARTY OF THE PA			
INDUSTRIAL PROGRAMS -									00			
Smart Audit - Class 1			00.00	8 8	0 0	0			os	80	08	OS OS
Smart Audit - Class 2		50	20.00				20.00000	80	08			
Smart Financing - Compressed Air System					0							
TOTAL INDUSTRIAL PROGRAMS		0	10	80		0		SOS		80	ļ.,	
			11	5303 050		3.762.640		\$128,172	\$10,156		7 \$15,133	\$446,364
TOTAL COMPANY	000	7,0	+ 11									
Lost revenue and efficiency incentives are based on prospective values.	based on prospecti	re values.										
** Cumulative participants include a reduction	eviterium of the	narticinants as of	40/34/0004								The same of the sa	

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8 Attachment 1 Page 20 of 40

NEW CUMULATIVE ESTIMATED AGENCY	TOTAL NET LOST PROGRAM REV/OTR COSTS PARTICIPANT) (4) (1)X(3) (1)X(3) S0 707 S97.611 696 S97.611 696 S9.561 267 S0 0	TOTAL N ENERGY SAVINGS KWHI HALF (6) (2)X(5)	01				באל ה	
NEW   CUMULATIVE   ESTIMATED   AT	NET LOST  REVIOTR (KWH/ PARTICIPANT (5) 70 1 26	TOTAL N ENERGY SAVINGS KWHI HALF (5) (2)X(5)	12				11A of	19
PARTICIPANT PARTICIPANT   COSTS   PR	(KWH/ PARTICIPANT (5) (5) (70) (1) (89) (1) (26) (1) (26) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	KWH/ HALF (6) (2)X(5)	LOST	TOTAL NET	EFFICIENCY	MAXIMIZING	TOTAL.	TOTAL ACTUAL COSTS TO BE
NUMBER   NUMBER   PARTICIPANT   C2	PARTICIPANT (5) (5) (5) (70) (70) (70) (71) (89) (71) (89) (71) (70) (70) (70) (70) (70) (70) (70) (70	(5) (5) (2)X(5)			(EX. C,	(5% of	U.V.	PECOVERED
Section   Sect	889		(S/KWH) F	(8) (6)X(7)	PG.18B) (9)	(10) (4)X( 5%)	(11) (11) (9)+(10)	(4)+(8)+(11)
P	89 50	-	\$0.03112	0\$	80	08	0\$	08
D		427,392	\$0.03111	\$13,296	\$1,125	\$4,881	\$4,881	\$115,788 \$6,504
D		0	\$0.00000	OS S	SO	80	SO	80
34 231 \$560.21  571 371 \$614.85  0 2 2 \$5.000  0 29 \$5.000  0 64 \$5.000  0 29 \$5.000  0 29 \$5.000  0 29 \$5.000  0 18 \$5.000  0 18 \$5.000  0 10 29 \$5.000  0 10 29 \$5.000  0 10 29 \$5.000  0 10 29 \$5.000  0 10 29 \$5.000  0 10 20 \$5.000  0 20 \$5.000  0	\$0 1,200 \$0 447	00	\$0.03114 \$0.03116	80	80	08	08	08
GRAMS	\$19,047	5 264,495	\$0.03110	\$8,226	\$2,693	08	\$2,693	\$29,966
AMS  AMS  AMS  AMS  AMS  AMS  AMS  AMS	\$41,195 1,808 \$0 157	8 670,768 7 314	\$0.03110 \$0.03124	\$20,861	\$8,372	08 80	\$8,372	
IAL PROGRAMS	\$148,723 613	3 906,627	\$0.03116	\$28,250	\$15,612	SOS	\$15,612	\$192,585
AMS 617 2.778   SAMS 617   SAMS 6		2 327 802		\$72,461	\$27,802			
RAMS ====================================	101.02 101.02 101.02 101.02 101.02 101.02 101.02 101.02 101.02 101.02 101.02 101.02 103 103 103 103 103 103 103 103 103 103							
RAMS = ==================================			6/0	OS				SO
IRAMS ====================================	80	0						
RAMS = ==================================	50 13,282	385,178	\$0.04235	\$16,312		SO SO SO	808	\$10,856
	50 14,101							\$27.168
C	80	638,996		\$27,168				11
C								
	08	0 0		SS		SO	20 80	SO
0	OS OS		\$0.00000					
0	\$0							
a organization	05	0		SO				20 20
TOTAL INDUSTRIAL PROGRAMS 0 0	000					CA 884	S32.6	
	\$310,137	2,966,798		829,838	200,126			
Lost revenue and efficiency incentives are based on prospective values.								

1000			-									
rear zous											Evhihit C	
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM											PAGE 11B of	19
YEAR 10 (2nd HALF)	NEW	CUMULATIVE	TOTAL	TOTAL	NET LOST		NET LOST	TOTAL NET	EFFICIENCY	MAXIMIZING		TOTAL
	PARTICIPANT	IPANT	PROGRAM COSTS		REV/QTRS	ENERGY	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL	COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER **	PER PARTICIPANT (3)	COSTS (4) (1)X(3)	(KWH/ PARTICIPANT) (5)	KWH/ HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X(5%)	INCENTIVE (11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Filness	0	0	80.00	1 1 1	706	0	\$0.03112	SO	08	OS	80	\$0
Targeted Energy Efficiency - All Electric - Non-All Electric	85	492	\$1,207.52	\$102,639	896	440,832	\$0.03111	\$13,714	\$0 \$513	\$5,132 \$0	\$5,132 \$513	\$121,485
Compact Fluorescent Bulb	0	0	80.00	80	0	0	80.00000	OS SO	SO	S	80	80
High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	00	0	\$0.00	08	1,200	0	\$0.03114 \$0.03116	80	08	08	08	S 0S 80
High - Eificiency Heat Pump - Mobile Home	40	225	\$476.78	\$19,071	1,144	257,400	\$0.03110	\$8,005	\$3,168	08	53,168	\$30,244
Mobile Home New Construction *** - Heat Pump - Air Conditioner	83	385	\$544.23 \$0.00	\$45,171	1,810	696,850 316	\$0.03110 \$0.03124	\$21,672 \$10	\$10,372 \$0	0S 0S	\$10,372 \$0	\$77,215 \$10
Modified Energy Fitness	351	1,826	\$373.12	\$130,965	612	1,117,512	\$0.03116	\$34,822	\$14,770	80	\$14,770	\$180,557
TOTAL RESIDENTIAL PROGRAMS	285	3,163		\$299,558		2,574,888		\$80,159	\$28,823	\$5,132	533,955	\$413,672
COMMERCIAL PROGRAMS					0	0		08	SOS		80	SO
Singit Audit - Class 1	0				0	0		SO	OS	OS SO	08 0	
Smart Financing - Existing Building Smart Financing - New Building	0	11 20	\$0.00 \$0.00	80	13,282	155,122	\$0.04277	\$6,635	80			\$6,635
TOTAL COMMERCIAL BROGRAMS		33		08		420,762		\$17,885	os so		SO	\$17,885
INDUSTRIAL PROGRAMS -					***************************************							
(w/Est. Opt-Outs Removed)	C				0	0			08			
Smart Audit - Class 2					0	0			08		08 0	OS CS
Smart Financing - General	0		80.00	S S	0		\$0.00000	08	OS SO	OS SO		
Smart Finaliging - Compressed An Oystem												OS .
TOTAL INDUSTRIAL PROGRAMS	J		0	80		0		08	OS			
TOTAL COMPANY	585	3,194		\$299,558	TOTAL TOTAL PROPERTY OF THE PARTY OF THE PAR	2,995,650		\$98,044	\$28,823			\$431,557
		ii		#05555################################	- Carlot Control Contr							
* Lost revenue and efficiency incentives are t	based on prospectiv	e values.										
** Cumulative participants include a reduction for the cumulative participant *** Participants since 07/01/2002.	for the cumulative p	articipants as of	s as of 12/31/2002.		AAAAA BARAAA							
Tall (Report to the second to												

Part	Year 2006									1			
PARTICIPANT	KENTUCKY POWER COMPANY FESTIMATED SECTOR SLIRCHARGES FOR 3											Exhibit C PAGE	
Particular   Par	YEAR PROGRAM											12A of	<u> </u>
Column	YEAR 11 (1st HALF)	NEW	CUMULATIVE	TOTAL ESTIMATED	TOTAL ACTUAL	NET LOST		LOST	1	EFFICIENCY	MAXIMIZING		TOTAL
Marcia   M		PARTICIPANT	PARTIC	PROGRAM	PROGRAM	REV/QTRS	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
Column   C	PROGRAM DESCRIPTIONS	NUMBER (1)		PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)	KWH/ HALF (6)		REVENUES (8)	(EX. C, PG.18B)	(5% of COSTS) (10)	INCENTIVE (11)	RECOVERED (12)
Particular   Par	RESIDENTIAL PROGRAMS Energy Fitness	0	0	80.00	(1)X(3)	707	1 1 1		(c)X(r)	SO			0S
Column   C	Targeted Energy Efficiency	75		5974.31	S73 073	898	444.416		\$13,826	08	53,654	\$3,654	\$90,553
Column   C	- All Electric - Non-All Electric	34		\$84.56	\$2,875	267	66,483		\$2,077	\$671	OS SO	\$671	\$5,623
Friedrich   Frie	Compact Fluorescent Bulb	0		\$0.00	os so	0	0		OS	80	\$0	80	08
Column   C	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0				1,200	0		08	08	08	80	08
1	High - Efficiency Heat Pump - Mobile Home	48			\$21,411	1,145	263,350		\$8,190	\$3,802	08	\$3,802	533,403
ALTAPICACIONANIS   Continuo   C	Mobile Home New Construction •••  - Heat Pump - Air Conditioner	06				1,810		1   1	\$23,924 \$10	\$11,246 \$0		\$11,246 \$0	\$85,679
ALE PROCRAMS   Color	Modified Energy Fitness	440				613			\$41,736	\$18,515			\$181,395
Column   C	TOTA! RESIDENTIAL BROGRAMS				\$269,012		2,883,218		\$89,763	\$34,234			\$396,663
1	O DE RECORDER MANAGEMENT												
1	1000					The state of the s							
1	COMMERCIAL PROGRAMS					0			SO	SO			
1	- Class 2					0		00000	80	SOS			
	Smart Financing - Existing Building		-			0			os	80			
							0			So		80	SO
Color   Colo	IOTAL COMMERCIAL PROGRAMS	131			=======================================								
Color   Colo													
1	INDUSTRIAL PROGRAMS - (w/Fst Ont-Outs Removed)												
1	Smart Audit - Class 1					0				80			
1	Smart Audit - Class 2		- ALCONOMINE			0				SO			
Solution	Smart Financing - Compressed Air System					0				S			
Section   Sect	TOTAL INDIBERIAL PROGRAMS				S				SO	80			
3.587   3.09/1/2   2.0		11		31	0,0000		2 883 218	11	589 763	\$34.234			
s as of 06/30/2003.	TOTAL COMPANY	789		11	3209,012		2,000,4	In					
s as of	The state of the s									W.			
	* Lost revenue and efficiency incentives are	based on prospective	ve values,	06/30/2003.						- Control of the Cont			
	*** Participants since 01/01/2003.												

E RECOVERED  COSTS TO BE  (12) (4)+(9)+(11) (5) (6) (12) (4)+(9)+(11) (6) (11) (6) (11) (6) (11) (7) (11) (11) (11) (11) (12) (13) (13) (13) (14) (14) (14) (14) (14) (14) (14) (14												Exhibit C	
Column   C	OMPANY SURCHARGES FOR 3											PAGE 12B of	19
Manuface		NEW	CUMULATIVE	TOTAL ESTIMATED PROGRAM		NET LOST REV/QTRS	TOTAL ENERGY SAVINGS	LOST	SI	EFFICIENCY	MAXIMIZING	TOTAL.	TOTAL ACTUAL COSTS TO BE
Column   C	TIONS	NUMBER (1)	: !!	PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)		(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X(5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
Column	SRAMS	0	0			706			\$0	80	80	08	08
Particular   Par	ciency	87	481			896 266			\$13,408	8068	\$4,9	\$4,991	\$118,228 \$6,883
Participation   Participatio	Buib	0	0			0					OS SO	OS	80
Column   C	it Pump at e Heat	0 0	0 0			1,200							08
PROGRAMS    Sept   Se	at Pump	45	245			1,144			\$8,717				\$32,981
MASCRAMS   Color   C	tion	98	460										\$88,761 \$10
ALTA   Color	T Section 1988	999	2						\$45,596				
Part	ENTIAL PROGRAMS	11 1111		- 8	\$415,139		3,074,108	ii ii	\$95,707				
House are based on prospective values.   House are a large and part of the color	OGRAMS												
RAMS   Color	1												
Column   C	xisting Building												
Color   Colo	ERCIAL PROGRAMS			101	08				S	## H			# ####################################
Color   Colo													
Column   C	SRAMS - Opt-Outs Removed)			A CONTRACTOR OF THE CONTRACTOR									
1	3.1		00				000						
1	General		0				00						
0   0   0   0   0   0   0   0   0   0	Compressed Air System												
3,833 S415,139 3,074,108 S95,707 S39,783 S415,171 S415,171 S415,172 S415,173 S415,17	STRIAL PROGRAMS			0	26			0 11	111111111111111111111111111111111111111		"		
		1 83		33	\$415,136		3,074,10	80	\$95,70		11	-	
and afficianty incentives are based on prospective values.	PANY		11					11					
A THE EMILITIES WITH THE PARTY OF THE PARTY	and efficiency incentives are	e based on prospec	ive values.										

	19	TOTAL ACTUAL COSTS TO BE	RECOVERED (12) (4)+(B)+(11)	SO	\$148,881 \$4,470	0\$	08	\$34,074	\$81,721 \$0	\$260,673		\$58,968	\$15,700	\$604,487	08	80	80			08	08	OS .	08	\$604,487		
	Exhibit C PAGE 13A of	TOTAL.	INCENTIVE (11) (9)+(10)	08	\$6,543 \$572	0\$	08	83,960	\$10,497	\$21,671				\$43,243	80	80 80	08			80	OS OS	08	SO	\$43,243		
		MAXIMIZING	(5% of COSTS) (10) (4)X(5%)	OS SO	\$6,543 \$0	0\$	08	OS .	08	80			LIA ANDREAS AND	\$6,543	80	80	08			80	OS SO	SO	08	\$6,543		
		EFFICIENCY	(EX. C, PG.18B) (9)	80	\$0 \$572	80	08	\$3,960	\$10,497	\$21,671				\$36,700	 08	08	08			80	S S	000	08	\$36,700		
		TOTAL NET*	REVENUES (8) (6)X(7)	0\$	\$11,487	80	OS OS	\$7,614	\$23,924	\$42,788				\$87,203		80		***************************************			\$0		80	\$87,203		
		NET LOST REVENUE	(S/KWH) (7)	\$0.03112	\$0.04346 \$0.04362	\$0.00000	\$0.03114	\$0.04346	\$0,04348 \$0,04343	\$0.04349					n/a n/a	\$0,00000				n/a	\$0.00000	\$0.00000	- Contract C			
		TOTAL ENERGY SAVINGS	KWHI HALF (6) (2)X(5)	0	264,320 31,855	0	0	175,185	550,240	983,865				2,005,465	0	0 0				0	0 0	0	0	2,005,465		
		NET LOST REV/QTRS	(KWH/ PARTICIPANT) (5)	707	896	0	1,200	1,145	1,810	613					0	0 0				0	0 0	0				
		TOTAL ACTUAL PROGRAM		08	\$130,851 \$2,508	OS.	os So	\$22,500	\$47,300	\$196,214		\$58,968	\$15,700	\$474,041	\$0	os os	3			80	80	SO		\$474,041		
		TOTAL ESTIMATED PROGRAM COSTS P		\$0.00	\$1,022.27 \$86.48	\$0.00	\$0.00	\$450.00	\$563.10 \$0.00	\$381.00						80.00					\$0.00					005.
		CUMULATIVE	UMBER **	0	295	0	0	153	304	1,605				2,472						0	0		0			s as of 06/30/2005.
		NEW	NUMBER (1)	0	128	0	0	50	84	515				806										808	H	prospective values. mulative participan
Year 2007	KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM	YEAR 12 (1st HALF)	PROGRAM DESCRIPTIONS	RESIDENTIAL PROGRAMS Energy Filness	Targeted Energy Efficiency - All Electric - Non-All Electric	Compact Fluorescent Bulb	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	High - Efficiency Heat Pump - Mobile Home	Mobile Home New Construction *** - Heat Pump - Air Conditioner	Modified Energy Fitness	Case No 2006 - 00373, Dated December 14, 2006:	- HEAP - Kentucky Power Company's Information Technology Implementation Costs	- HEAP - KACA's Information Technology Implementation Costs	TOTAL RESIDENTIAL PROGRAMS	COMMERCIAL PROGRAMS Smart Audit - Class 1	- Class 2 Smart Financing - Existing Building	Smart Financing - New Building	TOTAL COMMERCIAL PROGRAMS	INDUSTRIAL PROGRAMS -	(w/Est. Opt-Outs Removed)	Smart Audit - Class 2	Smart Financing - Compressed Air System	TOTAL INDUSTRIAL PROGRAMS	TOTAL COMPANY		Lost revenue and efficiency incentives are based on prospective values.     Cumulative participants include a reduction for the cumulative participants as of Participants since 07/01/2005.

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Control Cont	Year 2007												
Particular   Par	KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM											Exhibit C PAGE 13B of	19
MANAGER   NAMESCH   NAME	YEAR 12 (2nd Half)	NEW	CUMULATIVE	TOTAL ESTIMATED PROGRAM	TOTAL	NET LOST	TOTAL	NET	TOTAL NET *	EFFICIENCY	MAXIMIZING		TOTAL ACTUAL
1   1   1   1   1   1   1   1   1   1		PARTICIPANT	PARTICIPANT	COSTS	PROGRAM	REVIQTRS	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
1	PROGRAM DESCRIPTIONS	NUMBER (1)	:	PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)	KWH/ HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	INCENTIVE (11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
Proceedings	RESIDENTIAL PROGRAMS Energy Fitness	0	0		08	706		\$0.03112		08	08	08	80
Column   C	Targeted Energy Efficiency - All Electinc - Non-All Electinc	100	42		\$87,982	896	377,216	\$0.04346 \$0.04362	\$16,394	\$08	\$4,399	\$4,399 \$987	\$108,775 \$7,284
Figure 1   Figure 2   Figure 3   Figure 3	Compact Fluorescent Bulb	0	0		0\$	0	0	30.00000	os	80	OS SO	08	08
1	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0	0		80 80	1,200	0	\$0.03114	08	08	08	08	08
1,12,0   1	High - Efficiency Heat Pump - Mobile Home	45	209		\$20,250	1,144	239,096	\$0.04346	\$10,391	\$3,564	80	\$3,564	\$34,205
AMS         1         488         2.113         SSSS 78         STTT 1.580         612         1.283,165         SOLO4346         SSOL0496		129	426		\$71,200	1,808	770,208	\$0.04348	\$33,489	\$16,120 \$0	08	\$16,120 S0	\$120,809
AAMS         E009         3,3200         SSSS, 501         Carrename         Carrename </td <td>Modified Energy Fitness</td> <td>485</td> <td></td> <td></td> <td>\$171,590</td> <td>612</td> <td>1,293,156</td> <td>50.04349</td> <td>\$56,239</td> <td>\$20,409</td> <td>0\$</td> <td>\$20,409</td> <td>\$248,238</td>	Modified Energy Fitness	485			\$171,590	612	1,293,156	50.04349	\$56,239	\$20,409	0\$	\$20,409	\$248,238
Control   Cont	TOTAL RESIDENTIAL PROGRAMS	809			\$355,501		2,721,352		\$118,331	\$41,080	\$4,399	\$45,479	\$519,311
Continues are based on prospective values.													
Columbres are based on prospective values.   Columbre values.   Co	COMMERCIAL PROGRAMS							n/a	SO	0\$			80
Name	Smart Audit - Class 1 - Class 2							n/a	SO	08			OS SO
FAMIS	Smart Financing - Existing Building Smart Financing - New Building	0 0				0	0	30.0000	08	08			OS
S. Removed)	TOTAL COMMERCIAL PROGRAMS				SO		11 1		1 1	SO			08
Sed Air System   Color   Col				41			111111111111111111111111111111111111111						
SREMOVED	INDUCTORAL DECORAME												
SSS AIR System         0         50.00         50         0	(w/Est. Opt-Outs Removed)												G
Ssed Air System         0         50.000         50         60.0000         50         60.0000         50         <	Smart Audit - Class 1					0			SOS	OS OS			OS SO
PROGRAMS         Composition of the cumulative participants as of contraction of the cumulative participants as of contraction of the cumulative participants as of contraction of the cumulative participants are contracted by the cumulative participants as of contraction of the cumulative participants are contracted by the cumulative participants as of contraction of the cumulative participants are contracted by the cumulative participants as of contraction of the cumulative participants are contracted by the cumulative participants are	Smart Financing - General					0		30,000	80	80			OS
0         S0         S0 </td <td>Smart Financing - Compressed Air System</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>20</td> <td>SOS</td> <td></td> <td></td> <td>Pe</td>	Smart Financing - Compressed Air System					0			20	SOS			Pe
20 \$355,501 2,721,352 \$118,331 \$41,080 \$45,479 \$	TOTAL INDUSTRIAL PROGRAMS				0\$				80			80	1 16
	TOTAL COMBANY	800			5355 501		2.721.352		\$118,331	\$41,080			
Lost revenue and efficiency incentives are based on prospective values.  * Lost revenue and efficiency incentives are based on prospective values.  ** Cumulative participants include a reduction for the cumulative participants as of 06/30/2005.	COMILIZATION		133	10									
** Cumulative participants include a reduction for the cumulative participants as of 06/30/2005.	* Lost revenue and efficiency incentives are	based on prospectiv	re values.	And the second s									
	** Cumulative participants include a reduction	n for the cumulative	participants as of	06/30/2005.									

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8 Attachment 1 Page 26 of 40

NAME	PARTICIPANT   PARTICIPANT   CAST   PARTICIPANT   PARTICI												_	
NEW   CUMULATIVE ESTINATED   TOTAL   NETLOST   TOTAL   NETLOST   NEW   CUMULATIVE ESTINATED   ACTUAL   NETLOSTAL   NEW   CUMULATIVE ESTINATED   ACTUAL   NETLOSTAL   NEW   CUMULATIVE ESTINATED   ACTUAL   NEW   CUMULATIVE ESTINATED   ACTUAL   NEW   CUMULATIVE ESTINATED   ACTUAL   NEW   CUMULATIVE ESTINATED   ACTUAL   NEW   CUMULATIVE ESTINATED   COSTS   PARTICIPANT   COSTS   PARTICIPANT   COSTS   PARTICIPANT   COSTS   PARTICIPANT   COSTS   COMUS   COMUS   COSTS   COMUS   COSTS   CO	Maintenant   Mai			- Marie Control								444	Exhibit C PAGE	C
Findship	Marketon   Marketon	PTIONS			; <del>(</del> +	TOTAL			<del> </del>	11			5 4	TOTAL
NUMBER   N	Mundeling   Mund				ESTIMATED PROGRAM	ACTUAL	NET LOST		LOST	1 6	EFFICIENCY	MAXIMIZING	• IATOT	ACTUAL COSTS TO BE
NUMBER   N	MANARER   MANA	DESCRIPTIONS			COSTS		KEVIGIRS	SAVINGS	KEVENUE	- CO	EX C	(5% of	100	
11   11   11   11   11   11   11   1	100   100		NUMBER (1)	.	PER PARTICIPANT (3)		PARTICIPANT) (5)	(6) (2)X(5)	(S/KWH)	(8) (6)X(7)	PG.18B)	(10)	INCENTIVE (11) (9)+(10)	(4)+(8)+(11)
11   11   11   11   11   11   11   1	100   100	AL PROGRAMS ss	0	0	\$0.00	08	0	1	\$0.00000		OS SO			0\$
100   100	1	ergy Efficiency	C. Y	C	C4 2K8 15	C464 620	1 016	529 336	S0.04346	\$23.005	\$9,189	SO	59,189	\$193,814
Incompanie   Colore	1.1   1.1	Stric   Electric	56	196	\$83.11	\$4,654	568	111,328	\$0.04345	\$4,837	\$3,454	SO	\$3,454	\$12,945
100   100	1.10   0   0   0   0   0   0   0   0   0	orescent Bulb	0	0	\$0.00	08	0	0	\$0.00000	OS	SO	80	os	80
1.00   1.00	1	nncy Heat Pump ance Heat esistance Heat	0	0	\$0.00	08	00	0	\$0.00000	08	08	08	08	0S 0S
1.00   1.00	Coordinate and international large and international	ency Heat Pump Home	61	252	\$457.38	\$27,900	875	220,500	\$0.04346	59,583	\$8,539	OS SO	\$8,539	\$46,022
Section	Column   C		95	520	\$552.63	\$52,500	861	447,720	\$0.04348	\$19,467	\$10,597	08	\$10,597	\$82,564
100   100	10   10   10   10   10   10   10   10	nditioner	0	0	\$0.00	os	0	0	20.00000	OS :	Oc.	000	750 503	709 0203
March   Marc	Column   C	ergy Fitness	560	2,612	\$361.32	\$202,339	435	1,136,220	\$0.04349	549,414	\$27,871		1/8//25	
	Column   C	RESIDENTIAL PROGRAMS	891	4,101		\$449,013	111111111111111111111111111111111111111	2,445,104		\$106,306	\$59,650		\$59,650	S614,969
Column	1													
Column   C	Composition with section of the composition with section	IAL PROGRAMS			OU US		0	0	n/a	os	SO		80	os
Column   C	Composed on proceeded in part of the process of t	- Class 1	0		80.00		0	0	n/a		08		80	08
Column	Composed on proceeded in particular layer and processed and processed from the processe	ncing - Existing Building	0		\$0.00		0 0	0	\$0.00000		S		SOS	808
Column   C	Composition with least control of the composition with the composition	ICIIG - New Duituing									US	US	08	08
	Composed on organization statement   Composed	COMMERCIAL PROGRAMS	0	0				1 !!		000				
	Composed on proceeder line with the composed of processes   Composed on proc													
1	1	AL PROGRAMS -					***************************************							
Colored   Colo	1	w/Est. Opt-Outs removed)	0				0	0		SO	SO			08 8
	1	- Class 2	0				0	0		08	S			
	Composed on organization and incompanies   Composed on organizatio	ncing - General	٥				0	0		So	OS SO			
08 00 00 0 0 0 0 0		חכותם - כסווףו בפפבת אוו פאפיבונו	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Ш			Ce			US
300 3043	S449.013   2,445,104   \$106,306   \$59,650   \$0	INDUSTRIAL PROGRAMS	0	0		80		l ii		ns sn	70			
891 4.101 5449,013 2,445,104 5106,305		TOTAL COMPANY	891	4.101		\$449,013		2,445,104		\$106,306	059,650			
THE TABLE TO THE T	Solline representation will see	AL COURT AND			- Constant					11 11 11 11 11 11 11				
		evenue and efficiency incentives are base	ed on prospective											
•• Cumulative participants include a reduction for the cumulative participants as of 06/30/2005.	a reduction for the cumulative participants as of	** Cumulative participants include a reduction for t	the cumulative pa		06/30/2005.									

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The control of the	
Column   C	111
Septiment   Sept	PER PARTICIPANT (3)
Sept 26   Sep 27	
SOUCH   SOUC	\$991.21 \$87.50
Section   Sect	
Section   Sect	
Sign	
State 10   State 10	
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SOLOO   SO   O   O   O   O   O   O   O   O	
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SOLOO SOO OO O O O SOLOOOOO SO OO O	80.00
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SO	
Sy38,910   2,619,205   5113,875   552,412   522,412	
\$3386,910   2,619,205   \$113,875   \$52,412   \$30,412	

Control Cont	Year 2009												
	KENTUCKY POWER COMPANY												
New   New	E I											Exhibit C PAGE 15A of	19
Number   N		NEW		AVERAGE ACTUAL PROGRAM	TOTAL	NET LOST	TOTAL	NET	TOTAL NET •	EFFICIENCY	MAXIMIZING		TOTAL ACTUAL
1,11,   1,1,   1,11,   1,1,   1	and the state of t	PARTICIPANT	PARTICIPANT	COSTS	PROGRAM	REVIQTRS	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
1   1   1   1   1   1   1   1   1   1	PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER (2)	PER PARTICIPANT (3)	1 1	(KWH/ PARTICIPANT) (5)	KWH/ HALF (6)	(\$/KWH)	REVENUES (8)	(EX. C, PG.18B) (9)	(5% of COSTS) (10)	INCENTIVE (11)	RECOVERED (12)
10   10   10   10   10   10   10   10	RESIDENTIAL PROGRAMS Energy Filness	0	0	(4) / (1)	S		1 1	000000		5	_ 1 1		
110   110	Targeted Energy Efficiency								25	8	00	ne	De l
Column   C	- All Electric - Non-All Electric	119	1-1-1	\$1,060.16	\$126,159 \$2,052	1,016	584,200	\$0.04346 \$0.04352	\$25,389	\$9,189	80	\$9,189	\$160,737
Column   C	Compact Fluorescent Bulb	0	0	\$0,00	SO	0	o	\$0.00000	80	08	08	08	80
1	High - Efficiency Heal Pump - Resistance Heat	0	0	\$0.00	OS .	0	o	SO ODOO	05	US	03	S	00
1	- Non Resistance Heat	0	0	\$0.00	80	0	o	\$0.0000	80	808	08	08	08
Column   C	High - Efficiency Heat Pump - Mobile Home	61		\$449.18	\$27,400	875	261,625	\$0.04350	\$11,381	\$8,539	80	\$8,539	\$47,320
Column   C	Mobile Home New Construction - Heat Pump - Air Conditioner	88	+++	\$552.84	\$48,650	861	475,272	\$0.04351	\$20,679	\$9,816	OS SO	\$9,816	\$79,145
10   10   10   10   10   10   10   10			-	90.00	OS.	D	0	20.00000	SO	So	80	80	80
187   187	Modified Energy Fitness	425		\$383.51	\$162,993	435		\$0.04345	\$52,450	\$21,152	80	\$21,152	\$236,595
Columbian   Colu	High Efficiency Heat Pump - Resistance Heat Replacement - Heat Brims Designed	28			\$8,550	1,879	13,153	\$0.04349	\$572	\$13,387		\$13,387	\$22,509
Column   C	rical rully replacement	ō			227,000	301	4,816	\$0.04353	\$210	SO		\$1,350	\$28,560
1,730   1,64   1,4   1	Energy Education for Student Program (NEED)	0	<del>  </del>	20.00	\$8,139	92	0	\$0.04370	SO	80	80	os	\$8,139
1730   4,653   5416,347   5416,347   5416,347   5416,471   558,056   5416,471   558,056   541411   558,056   541411   558,056   541411   5414,471   5414,471   5416	Community Outreach Program (CFL)	926	149	\$5.84	\$5,404	92	13,708	\$0.04370	\$599	\$4,621	80	\$4,621	\$10,624
Column   C	TOTAL RESIDENTIAL PROGRAMS	1,730	4,583		\$416,347		2,679,179		\$116,471	\$68,061	\$1,350	\$69,411	\$602,229
Column   C	Topological Control of the Control o								111111111111111111111111111111111111111				
Color   Colo	COMMERCIAL PROGRAMS												
Color   Colo	Smart Audit - Class 1	0 0	0	\$0.00	SS	0	0	n/a	08	SO	SO	30	80
Color   Colo	Smart Financing - Existing Building Smart Financing - New Building	0	0	30.00	888		50	\$0.00000	SOS	OS OS	OS SO	SOS	08
	TOTAL COMMEDIATE DELLE DESCRIPTION			nn'ne	ne	D	0	20.00000	8	os	SO	SO	OS SO
Columbiate participants as of Official Columbia (Participant)   Colum	I O I AL COMMIERCIAL PROGRAMIS		0		20		0		08		1 1 11	0\$	80
Color   Colo											7,44747		
Columbiate participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for the cumulative participants as of Offoltzook High Efficiency Heat Purp. Energy Education for Students and Community Outreach Program (CFL)).	INDUSTRIAL PROGRAMS - (w/Est. Opt-Ouls Removed)												
1	Smart Audit - Class 1	00	0	\$0.00	So	0	0	n/a	SO	SO	30	\$0	80
Color   Colo	Smart Financing - General	0	0	\$0.00	OS SO	0	0	\$0.00000	os So	88	SO	SO	SOS
TOTAL NDUSTRIAL PROGRAMS	Smart Financing - Compressed Air System	0	0	20.00	OS	0	0	\$0.00000	SO	0\$	os	SO	80
TOTAL COMPANY	TOTAL INDUSTRIAL PROGRAMS				SO	The state of the s	0		SO	OS.	SO	SO	80
Lost revenue and efficiency incentives are based on prospective values.  Cumulative participants include a reduction for the cumulative participants as of 07(01/2006.  Cumulative participants include a reduction for the cumulative participants as of 07(01/2006.	TOTAL COMPANY	1,730	11 1		\$416,347		2,679,179		\$116,471	\$68,061	\$1,350	\$69,411	\$602,229
Lost revenue and efficiency incentives are based on prospective values.  Cumulative participants include a reduction for the cumulative participants as of  Cumulative participants include a reduction for the cumulative participants as of		***************************************			***************************************				W. W			***************************************	
Cumulative participants include a reduction for the cumulative participants as of		ed on prospective											
		the cumulative par	as of	72009 (High Effici	ency Heat Pun	no. Energy Education	n for Students	and Committee	v Outreach Pro	riam (CEL))			

Year 2009										77,000		
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM											Exhibit C PAGE 15B of	19
YEAR 14 (2nd HALF)	NEW	CUMULATIVE	AVERAGE ACTUAL	TOTAL ACTUAL	NET LOST	TOTAL	NET	TOTAL NET *	EFFICIENCY	MAXIMIZING		TOTAL
	PARTICIPANT	PARTICIPANT	COSTS	PROGRAM	REVIQTRS	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER (2)	PER PARTICIPANT (3) (4) / (1)	COSTS (4)	(KWH/ PARTICIPANT) (5)	KWHI HALF (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X(5%)	INCENTIVE (11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Filness	0	0	\$0.00	80	0	0	\$0.00000	80	0\$	OS SO	80	80
Targeted Energy Efficiency - All Electric - Non-All Electric	140	620	\$993.48	\$139,087 \$6,182	1,016	629,920	\$0.04346 \$0.04352	\$27,376 \$4,944	\$10,811 \$3,762	08	\$10,811 \$3,762	\$177,274 \$14,888
Compact Fluorescent Bulb	0	0	\$0.00	os	0	0	\$0,0000	80	80	08	\$0	80
High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0 0	00	\$0.00	08	0	0	\$0.00000	80	08	08	80	0S 0S
High - Efficiency Heat Pump - Mobile Home	66	342	\$449.49	3 \$44,500	874	298,908	\$0.04350	\$13,002	\$13,859	0\$	\$13,859	\$71,361
Mobile Home New Construction - Heat Pump - Air Conditioner	103	556	\$544,17	7 S56,050 0 S0	860	478,160	\$0.04351	\$20,805	\$11,490	08	\$11,490	\$88,345 \$0
Modified Energy Filness	375	2,631	\$372.99	\$139,871	435	1,144,485	50.04345	\$49,728	\$18,664	08	\$18,664	\$208,263
High Efficiency Heat Pump - Resistance Heat Replacement - Heat Pump Replacement	63	60	\$514.29	9 \$32,400 2 \$70,500	1,879	112,740	\$0.04349 \$0.04353	\$4,903 \$1,880	\$30,120 \$0	\$3,525	\$30,120 \$3,525	\$67,423 \$75,905
Energy Education for Student Program (NEED)	1,130	558	\$8.00	0 \$9,045	92	51,336	\$0,04370	\$2,243	\$5,627			\$16,915
Community Outreach Program (CFL)	2,818		\$10.19	$\bot$	92	Ц.	\$0.04370	\$10,055				
TOTAL RESIDENTIAL PROGRAMS	4,945	7,612		\$526,350	And a second sec	3,102,441		\$134,936	\$108,395	83,525	\$111,920	S773,206 =========
COMMERCIAL PROGRAMS							c)c		08			30
Smart Audit - Class 1 - Class 2		000	80.00	08 8			n/a sn 00000	8 8 8	80 80	S	OS SO	OS SO
Smart Financing - Existing Building Smart Financing - New Building			80.0				\$0.0000		08			08
TOTAL COMMERCIAL PROGRAMS	0	0 0		80		0		SO	08	80	08	08
INDISTRIAL PROGRAMS -												
Smort Audit - Clase 1			80.0									
Smart Audit - Class 2		000	80.00	000	0 0	0	n/a \$0.00000	8 8	OS OS	OS CO	80	OS SO
Smart Financing - General Smart Financing - Compressed Air System			30.0									
TOTAL INDUSTRIAL PROGRAMS		0		0\$		0		30				
TOTAL COMPANY	4,945	н		1 65		3,102,441			\$108,3	\$3,525	\$111,920	\$773,206
<ul> <li>Lost revenue and efficiency incentives are based on prospective values.</li> <li>Crimulative participants include a reduction for the cumulative participants.</li> </ul>	ased on prospective or the cumulative	s as of	11/01/2007.							11.04		
*** Cumulative participants include a reduction fi	for the cumulative	s as of	11/01/2009 (High	Efficiency Heat F	01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL)).	sation for Studen	its and Comm	unity Outreach	rogram (CFL)).			

MANAGENER   COMULATIVE   COSTS   CONTACT   COSTS	Year 2010												
Note	ENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 FEAR PROGRAM					The state of the s						Exhibit C PAGE 16A of	19
NAMES   NAME	EAR 15 (1st HALF)	NEW	CUMULATIVE	AVERAGE ACTUAL PROGRAM	TOTAL	NET LOST	TOTAL	NET	TOTAL NET	EFFICIENCY	MAXIMIZING	* IXEC	ACTUAL ACTUAL
Column   C	PROGRAM DESCRIPTIONS	PARTICIPANT NUMBER (1)	PARTICIPANT NUMBER (2)	COSTS PER PARTICIPANT (3)		REVIGTRS (KWH/ PARTICIPANT) (5)	SAVINGS KWH/ QTR (6)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	INCENTIVE (11) (9)+(10)	RECOVERED (4)+(8)+(11)
Column   C	RESIDENTIAL PROGRAMS Energy Finess	0	0	30.00	os so	0	1 1 1	\$0.0000		08			80
Continue	Targeted Energy Efficiency - All Electro - Non-All Electro	174		\$1,161.51 \$114.10	\$202,103	1,016	731,520	\$0.04346 \$0.04352	\$31,792 \$5,858	\$13,436 \$1,912		\$13,436 \$1,912	\$247,331
1	Compact Fluorescent Bulb	0		\$0.00	08	0	0	\$0,00000	SO	SO	0\$	80	80
1	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	00		\$0.00 \$0.00	80	0	0	\$0.00000	08	08		80	0S 80
1	High - Efficiency Heat Pump - Mobile Home	76	1-1-1-	\$422.16	\$40,950	875	364,000	\$0.04350	\$15,834	\$13,579		\$13,579	\$70,363
1	Mobile Home New Construction - Heat Pump - Air Conditioner	115	621		\$60,700 \$0	861	534,681	\$0.04351	\$23,264	\$4,462		\$4,462	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Modified Energy Fitness	501	2,762		\$196,836	435	1,201,470	\$0.04345	\$52,204	\$24,935		\$24,935	\$273,975
1	High Efficiency Heat Pump - Resistance Heat Replacement - Heat Pump Replacement	97	135			1	253,665	\$0.04349 \$0.04353	\$11,032	\$46,376 \$0			
1	Energy Education for Student Program (NEED)	488	1,299		\$24,881	73	94,827	\$0.04327	\$4,103	\$2,430		\$2,430	
1	Community Outreach Program (CFL)	2,644	4,482		\$42,564	91	407,862	S0.04376	\$17,848	\$13,194			
Column   C	TOTAL RESIDENTIAL PROGRAMS	4,419	1 11		\$728,571	71114/2	3,827,389		\$166,495		8		
Column   C	COMMERCIAL PROGRAMS			CCC						08			
	Smart Audit - Class 1 - Class 2			80.00				\$0.000		OS SO			
Column   C	Smart Financing - Existing Building Smart Financing - New Building			80.00				Ш.	80	08			
Color   Colo	TOTAL COMMERCIAL PROGRAMS		11 11		1   1   1		#		1 1111	S	111111111111111111111111111111111111111	31	
1	INDUSTRIAL PROGRAMS -							100000					
1	(w/Est. Opt-Outs Removed) Smart Aurlit - Class 1			\$0.00									
Column   C	Smart Audit - Class 2 Smart Financing - General			80.00 80.00				- 1 1					
TOTAL COMPANY	Smart Financing - Compressed Air System			80.00							-		
TOTAL COMPANY	TOTAL INDUSTRIAL PROGRAMS				SO		0		30				
Lost revenue and efficiency incentives are based on prospective values.  Cumulative participants include a reduction for the cumulative participants as of	TOTAL COMPANY	4,41			\$728,571		3,827,389		\$166,495				
Lost revenue and enicerity incentives are used on prospective values.  Compliative participants are breduction for the cumulative participants as of	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	viluotada ao booc	Souler										
THE PROPERTY OF THE PARTY OF TH	Complative participants include a reduction	for the cumulative p	nts as of	01/2007.	ficiency Heat	umo Enerov Educ	ation for Studer	Its and Commi	Inity Outreach P	rogram (CFL)).			

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KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM										,		
										AND THE PROPERTY OF THE PROPER	Exhibit C PAGE 168-1 of	19
YEAR 15 (2nd HALF)	NEW PARTICIPANT	CUMULATIVE	AVERAGE ACTUAL PROGRAM COSTS	TOTAL ACTUAL PROGRAM	NET LOST REV/QTRS	TOTAL N ENERGY SAVINGS	NET LOST REVENUE	TOTAL NET	EFFICIENCY	MAXIMIZING	TOTAL *	TOTAL ACTUAL COSTS TO BE
PROGRAM DESCRIPTIONS		NUMBER (2)	PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)	KWH/ QTRs (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B) (9)	(5% of COSTS) (10) (4)X( 5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Fitness	0	0	80.00	OS SO	0	0	80.00000	0\$	80	OS .	0\$	08
Targeted Energy Efficiency - All Electric - Non-All Electric	172	787 **	\$809.62 \$102.35	\$139,254 \$2,354	1,016	799,592 137,456	\$0.05746 \$0.05746	\$45,945 \$7,898	\$13,282	08 80	\$13,282	\$198,481
Compact Fluorescent Bulb	0	0	80.00	80	0	0	\$0.0000	SO	OS	08	08	08
High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0 0	00	\$0.00 \$0.00	08	0	0 0	\$0.00000 \$0.00000	OS SO	OS OS	08	08	08
High - Efficiency Heat Pump - Mobile Home	136	496	\$469.49	\$63,850	875	434,000	\$0.05750	\$24,955	\$19,039	OS SO	\$19,039	\$107,844
Mobile Home New Construction - Heat Pump - Air Conditioner	119	617	\$558.82 \$0.00	\$66,500 \$0	861	531,237	\$0.05745 \$0.00000	\$30,520	\$13,274 S0	08	\$13,274	\$110,294
Modified Energy Fitness	669	2,939	\$317.39	\$221,857	435	1,278,465	\$0.05752	573,537	\$34,789	0\$	\$34,789	\$330,183
High Efficiency Heat Pump - Resistance Heat Replacement - Heat Pump Replacement	155	264 ***	\$326.00	\$50,530 \$132,670	1,879	496,056 186,921	\$0.05748 \$0.05750	\$28,513 \$10,748	\$74,106 S0	\$0 \$6,634	\$74,106 \$6,634	\$153,149
Energy Education for Student Program (NEED) Community Outreach Program (CFL)	1,059	1,220 ***	\$ \$5.55	\$5,880	74	319,956	\$0.05714 \$0.05768	\$5,159	\$5,274	08 08	\$5,274	\$16,313
Residential Efficient Products - Compact Flourescent Lamp (CFL) - Specialty Bulbs - LED Lights	0 0 0	000	00.08 00.08 00.00	08	0 0	000	\$0.05818 \$0.05793 \$0.05854	08 08	08 08	0S 0S	08	08
HVAC Diagnostic & Tune-Up - Air Conditioner - Heat Pump	0 0 28	0 8	\$0.00	\$0 \$2,850	0 371	1,113	\$0.05749 \$0.05749	\$0	\$0 \$319	08	S0 8319	\$0 \$3,233
Residential Load Management - Air Conditioner - Water Healing	0		\$0.00	SS	0 0		\$0.00000		08			
TOTAL RESIDENTIAL PROGRAMS	4,795	10,705		\$700,315		4,275,076		\$245,794		56,634	\$178,949	850,621,16

\$1,125,213 8888 3155 \$0 \$155 88888 (12) (4)+(8)+(11) COSTS TO BE TOTAL 9 80 830 88 ଓ ଓ 8888 INCENTIVE Exhibit C PAGE 168-2 of (11) TOTAL . 80 ន្តន SO SS 8888 88 MAXIMIZING INCENTIVE (5% of COSTS) (10) (4)X(5%) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$172,345 230 20 8 8 888 ର ଓ 88888 Lost revenue and efficiency incentives are based on prospective values.
 Cumulative participants include a reduction for the cumulative participants as of 04/01/2007.
 Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFLI).
 Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFLI). EFFICIENCY INCENTIVE 0 (6) \$0 \$245,794 8 8 8888 SSS 80 SS REVENUES (8) (6)X(7) 8888 NET LOST OTAL n/a n/a \$0.00000 \$0.00000 n/a n/a \$0.00000 \$0.00000 \$0.00000 \$0.06480 \$0.14803 \$0.58599 \$0.25657 LOST REVENUE (S/KWH) 널 4,275,076 TOTAL ENERGY SAVINGS GTRs (6) (KWH/ PARTICIPANT) 819 00 0 lolololo REV/QTRS NET LOST 80 80 S \$125 \$125 88888 SS PROGRAM COSTS (4) TOTAL \$0.00 \$0.00 \$0.00 \$0.00 PER PARTICIPANT (3) (4) / (1) \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 AVERAGE ACTUAL PROGRAM COSTS 10,705 CUMULATIVE PARTICIPANT NUMBER (2) 4,796 PARTICIPANT NUMBER (1) NEW INDUSTRIAL PROGRAMS 
(w/Est, Opt-Outs Removed)

Smart Audir - Class 1
Smart Audir - Class 1
Smart Financing - General
Smart Financing - General KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM TOTAL COMMERCIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS ommercial A/C & Heat Pump Program - Air Conditioner Replacement - Heat Pump Replacement Smart Financing - Existing Building Smart Financing - New Building ommercial Load Management
- Air Conditioner
- Water Heating VAC Diagnostic & Tune-Up
- Air Conditioner
- Heat Pump COMMERCIAL PROGRAMS Smart Audit - Class 1 PROGRAM DESCRIPTIONS TOTAL COMPANY ommercial Incentive YEAR 15 (2nd HALF)

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Year 2011											Exhibit C	
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3											PAGE 17A-1 of	19
YEAR PROGRAM			AVERAGE	TOTAL	- H		NET LOST	TOTAL NET	EFFICIENCY	MAXIMIZING		TOTAL
YEAR 16 (1st QTR)	NEW	CUMULATIVE	PROGRAM			ENERGY		LOST	INCENTIVE	INCENTIVE	TOTAL.	COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)		PER PARTICIPANT (3)	COSTS (4)	(KWH/ PARTICIPANT) (5)	KWH/ QTR (6) (2)X(5)	(\$/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	(11) (9)+(10)	(12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Fitness	0	0	80.00	80	o	0	\$0.00000	os	OS	08	OS SO	SO
Targeted Energy Efficiency - All Electric	67	824	\$1,104.12	\$73,976 \$2,468	508	418,592	\$0.05746 \$0.05746	\$24,052 \$3,411	\$5,174 \$617	08	\$5,174	\$103,202
- Non-All Electric Compact Fluorescent Bulb	0		\$0.00		0	0	\$0,00000	SO	08	80	OS SO	80
High - Efficiency Heat Pump - Resistance Heat		0 0	\$0.00	08	00	00	\$0.00000	08	OS SO	08	08	08
Non Resistance Heat     High - Efficiency Heat Pump     Mobile Home	68.	537	\$493.49	9 \$19,246	437	234,669	\$0.05750	\$13,493	\$5,460	08	\$5,460	\$38,199
Mobile Home New Construction - Heat Pump	41	630	\$594.56	6 \$24,377 0 \$0	430	270,900	\$0.05745 \$0.00000	\$15,563 \$0	\$4,574 \$0	08	\$4,574 \$0	\$44,514 \$0
- Air Conditioner	3000	3,02	\$379.17	\$113,7	217	656,642	\$0.05752	\$37,770	\$14,931	OS	\$14,931	\$166,451
High Efficiency Heat Pump - Resistance Heat Replacement	55	278	\$509.96	S28,048	3 939	261,042	\$0.05748 \$0.05750	\$15,005 \$4,934	\$26,296	\$0 \$2,939	\$26,296 \$2,939	\$69,349
Heat Pump Replacement     Energy Education for Student Program (NEED)	501	1,798					\$0.05714 \$0.05768	\$3,801	\$2,495 \$2,994	08	\$2,495 \$2,994	\$14,062
Besidential Efficient Products						39.864	\$0.05818	\$2,319	\$12,351	SO	\$12,	\$81,131
responding Emperation (CFL) - Specially Bulbs - LED Lights	17,900 80 0	00 4,983 80 13 0 0	\$3.71 \$5.31 \$0.00	84				85	\$84		\$00	08
HVAC Diagnostic & Tune-Up - Air Conditioner - Heat Pump		81 41 53 28	\$125.57	57 \$10,171 57 \$6,655	78 185	3 3,198	\$ \$0.05749	\$184 \$298	\$106 \$603	08	\$106	\$10,4 \$7,5
Residential Load Management		0	OS SO	80.00	80		0000000	SS	SOS	08	08	80
- Air Conditioner - Water Heating			08			0	11	0070	9225	\$2,939	S78,624	\$632,073
TOTAL RESIDENTIAL PROGRAMS	19,852	25		\$419,693	93	2,325,870		========		ii		
		11 12 13 13 13 13 13 13 13 13 13 13 13 13 13										

Control Cont	Year 2011												
Number   N	A LANGE TO											Exhibit C	
Figure   F	KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3											PAGE 17A-2 of	19
Propriet   Participant   Par	YEAR PROGRAM								1 1				TOTAL
PARTICIPANT	OF COLUMN	WHN	CUMULATIVE	AVERAGE ESTIMATED	TOTAL	NET LOST		LOST	1	EFFICIENCY	MAXIMIZING		ESTIMATED
The number of number of the number of number	YEAK 16 (1814) IA	PARTICIPANT	PARTICIPANT	PROGRAM	PROGRAM	REV/QTRS		REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
1	ONCITTION	2 2 2 3 3	NUMBER	PER		(KWH/ PARTICIPANT)	KWH/ QTR	(S/KWH)	REVENUES	0	(5% of COSTS)	INCENTIVE	RECOVERED
This color   Thi	PROGRAM DESCRIP HONS	(1)	(2)	(3)	П	(5)	(6)	(2)	(8) (A) X (7)	(6)	(4)X(5%)	(9)+(10)	(4)+(8)+(11)
The color of the	Control of the Contro			(4) / (1)			(c)v(z)		(1)(1)				
Column   C	COMMERCIAL PROGRAMS			00 05		0	0	n/a	SO	SO	0\$	SS	80
The color of the	Smart Audit - Class 1			20.00		0	0	n/a	80	SO	SO	200	000
From	C - Class 2			80.00		0	o	20.00000	SO	80	28	06	05
Particular   Par	Smart Financing - Existing Building	0	A Contract of the Contract of	\$0.00		0	0	\$0.00000	20	20	DS.	OF.	
1			-										7 to 0.0
The color of the	Commercial A/C & Heat Pump Program	25	Angele and	\$261.42			578	S0.14803	286	531	SO	531	20,744
The control of the countrol	- Air Conditioner Replacement	-		\$861.50			0	\$0.58599	80	\$116	0.5	0.1.0	550,16
1	- Heat Pump Keplacement	1											
1	HVAC Diagnostic & Tune-Up			000					\$189	\$239	08	\$239	\$4,572
Colorante   Colo	- Air Conditioner	33		9129.00					\$80	\$177	SO	\$177	51,011
COGRAMS         1         0         SSOOD         SSOOD         SOOD	- Heat Pump	D .		3123,07						, A1100 a 1100 a			-
COGRAMS         COGRAMS <t< td=""><td>Andreas Manager Control</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>08</td></t<>	Andreas Manager Control											0	08
AMS-   Color   Color	Vir Conditioner	0		\$0.00				- 1	20	08		8 6	SOS
Course   C	Motor Heating	0		80.00				\$0.00000	OS	O.S.			
Cold   Procession   Cold   Col	S. Inspired			170 070	$\perp$	2 730		50.25657	\$4.797	SOS		80	\$149,659
10   10   10   10   10   10   10   10	Commercial Incentive	14		510,347.23	1	20.10					-		***************************************
					5160 110		23,427		\$5,152	\$563		\$563	\$165,825
Color   Colo	TOTAL COMMERCIAL PROGRAMS	00									111111111111111111111111111111111111111		
Color   Colo											***************************************		
1	INDUSTRIAL PROGRAMS -												
1	(w/Est, Opt-Outs Removed)					- disconnection				SO		SO	
Column   C	Smart Audit - Class 1			\$0.00						SO		SO	
1	Smart Audit - Class 2			30.00				30.000		SO		SO	
	Smart Financing - General			90.00					SO	os so		\$0	SO
SO   SO   SO   SO   SO   SO   SO   SO	Smart Financing - Compressed Air System			30.00									
48 \$2,939 \$79,187					SO		0		SO	80			
48 SZ.539 S/4,187	TOTAL INDUSTRIAL PROGRAMS					11							
	TOTAL COMPANY	19 940			\$579,803		2,349,297		\$138,908				
Lost revenue and efficiency incentives are based on prospective Values.     Lost revenue and efficiency incentives are based on prospective Values.     Comulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL).     Comulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL).	IOIAL CONTAIN	mm====================================				12							
<ul> <li>Lost revenue and efficiency incentives are based on prospective values.</li> <li>Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL)).</li> <li>Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL)).</li> </ul>	A STATE OF THE STA												
** Cumulative participants include a reduction for the cumulative participants as of 01/01/2007.  ** Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL)).	Lost revenue and efficiency incentives are t	based on prospective	e values.										
*** Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Enleggy Education on Suprairies and Community Construction for the cumulative participants as of	** Cumulative participants include a reduction	n for the cumulative p	participants as of 01	/01/2007.			Color Chicago	Tand Commit	Ditto Outreach Pr	noram (CFL)).			
	*** Cumulative participants include a reduction	n for the cumulative p	participants as of U.	1101/2009 (Hign E)	ticiency mean r	תשם, בזופו אל בתחר	שונחנו ומו סומייי	וום פו יכי ככווייי	med care				

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Comparison   Com	NEW   CUMULATIVE   ESTIMATED   ESTIMATED	AVERAGE ESTIMATED ES PER PROGRAM COSTS PROGRAM (4)/(1) (4)/(1) (4)/(1) (4)/(1) (5).00 (50.00	NET.LOS REV/OTF (KWH/PPARTICIP) (5)	TOTAL N ENERGY SAVINGS (WHH QTRs (G) (2)X(5) (2)X(5) (1.382.268 (1.98.548 (1	LOSTI LOSTI VENUE (7) (7) (7) (7) (7) (7) (7) (7)	OTAL N LOST REVENUE (8) (6)X(7) S92.7.	EFFICIENCY INCENTIVE (EX. C, PG.188) (9) (9) S21.863 S21.863 S27.766 S0 S0 S0	MAXIMIZING INCENTIVE (5% of COSTS) (10) (4)X(5%) S0 S0 S0 S0	Exhibit C PAGE 17B-1 of 17B-1	19 TOTAL ESTIMATED COSTS TO BE RECOVERED (12) (4)+(9)+(11) S01 S0 S0 S0 S0 S0 S0 S0 S0
1	NEW   CUMULATIVE   ESTIMATED	AVERAGE ESTIMATED ES PROGRAM PROGRAM (3) (4)/(1) (4)/(1) (4)/(1) (5) (1) (4)/(1) (6) (1) (1) (1) (2) (3) (4)/(1) (4)/(1) (4)/(1) (5) (6) (7) (8) (8) (9) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	REVIGITE (KNWH) PARTICIP (5)	TOTAL N ENERGY SAVINGS (WHH QTRs QTRs (B) (2)X(5) (2)X	UOST VENUE (7) (7) (7) (7) (7) (7) (7) (7) (7) (7)	OTAL N  LOST  REVENUE (B) (G)X(7) (S79.4;	EFFICIENCY INCENTIVE (EX. C, PG.188) (9) (9) (9) S21.863 S21.766 S0 S0 S0	MAXIMIZING INCENTIVE (5% of COSTS) (10) (4)X(5%) S0 S0 S0 S0	17B-10f 17B-10f 10f (11) (9)+(10) (9)+(10) (9)+(10) (9)+(10) (10) (10) (10) (10) (10) (10) (10)	19 TOTAL ESTIMATED COSTS TO BE (12) (14) (4)+(9)+(11) S0 S13,512 S21,612 S23,612 S23,612 S0 S0 S0 S0 S0
	NEW   CUMULATIVE	AVERAGE ESTIMATED ESTIMATED COSTS PROGRAM COSTS PROGRAM (4)/(1) (4)/(1) (4)/(1) (4)/(1) (4)/(1) (5)(1) (6)(1) (6)(1) (6)(1) (7)(1) (8)(1) (8)(1) (8)(1) (9)(	NET LOS (KWH/PPARTICIP)	TOTAL N ENERGY SAUNIGS (WH) QTRs (E) (2)X(S) (2)X(S) (2)X(S) (2)X(S) (2)X(S) (3)X(S) (4)X(S) (4)X(S) (5)X(S) (	VENUE (7) (7) (7) (7) (7) (7) (7) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	10ST 10ST 10ST (6)X(7) (6)X(7) (8) (8)X(7) (8) (8)X(7) (8) (8)X(7) (8) (8)X(7)	EFFICIENCY INCENTIVE (EX. C, PG.18B) (9) (9) S21.8B5 S21.8B5 S27.76 S0 S0 S0	MAXIMIZING INCENTIVE (5% of COSTS) (10) (10) (4)X(5%) S0 S0 S0 S0	TOTAL*  INCENTIVE (11) (9)+(10) S0 S21,883 S21,883 S21,776 S0 S0 S0 S0	TOTAL ESTIMATED COSTS TO BE (12) (4)+(8)+(11) S0 S13,743 S23,612 S23,612 S0 S0 S0
New   Campaigned   New   New   Campaigned   New   Campaigned   New   Campaigned   New   New   New   Campaigned   New   N	NEW   CUMULATIVE   FAVERAGE STIMATED   FROGRAM	ESTIMATED ESTIMA	REVIQITE (KWH/ PARTICIP)	TOTAL N ENERGY SAVINGS KWH GTRs (6) (2)X(5) (2)X(5) (1.382.268 169.548 169.548 (1.382.268 (1.382.268 169.548 (1.382.268 169.548 (1.382.268 169.548 (1.382.268 169.548 (1.382.268 (1.382.268 169.548 (1.382.268 169.548 (1.382.268 (1.382.268 (1.382.268 (1.382.268 (1.382.268 (1.382.26	LOSTI (77) (77) 50.00000 50.05746 50.00000 50.00000 50.00000	LOST  REVENUE (8) (6)X(7) (8) (8)24,7	(EX. C, PG.18B) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	(4)X(5%) (4)X(5%) (4)X(5%) (5% of COSTS) (10) (4)X(5%) (5% of COSTS) (4)X(5%) (5% of COSTS) (5% of COSTS) (6% of COSTS) (70) (70) (70) (70) (70) (70) (70) (70	TOTAL*  (11) (9)+(10) S0 S21,853 S21,853 S27,76 S0 S0 S0 S0	ESTIMATED  COSTS TO BE  (12) (4)+(8)+(11)  S0  S413,743  S23,612  S0  S0  S0
Participant   Court	PROGRAM   PARTICIPANT   PROGRAM   PARTICIPANT   COSTS   PROGRAM	PROGRAM COSTS PER PRATICIPANT (3) (4)/(1) (4)/(1) (4)/(1) (4)/(1) (4)/(1) (5)/(1) (6)/(1) (6)/(1) (6)/(1) (7)/(1) (8)/(1) (8)/(1) (8)/(1) (9)/	(KVMH) PARTICIP, (5) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ENERGY SAVINGS KWH QTRs (6) (2)X(5) 0 1.382,268 169,548 169,548 169,548 1765,208	(S/K/WH) (S/K/WH) (S0.00000 S0.00000 S0.05746 S0.05746 S0.05746 S0.00000 S0.00000	(8) (9) (9) (9) (8) (9) (7) (9) (8) (9) (1) (9) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	(EX. C, PG.18B) (9) (9) (9) S0 S21.863 S2.776 S0 S0 S0 S0 S0 S0	(5% of COSTS) (4)X(5%) (4)X(5%) (5% of COSTS) (4)X(5%) (5% of COSTS) (5%	(11) (9)+(10) (9)+(10) S0 S21,863 S2,776 S0 S0	ECCOVER TO BE  (12) (4)+(9)+(11)  Solution  So
Particle	10	PER PARTICIPANT (3) (3) (4) / (1) (2) (3) (4) / (1) (4) / (1) (4) / (1) (4) / (1) (4) / (1) (4) / (4)	(KWH) (F) (S) (S) (S) (S) (S) (S) (S) (S) (S) (S	CTRs (6) (2)X(5) (7)X(5) (1.382.26) (1.382.2	(5/KWH) (7) (7) (7) (7) (7) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	(8) (8) (9) (7) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9			(11) (9)+(10) (9)+(10) (9)+(10) (10) (11) (11) (12) (13) (13) (13) (13) (14) (14) (15) (15) (16) (16) (17) (17) (18) (17) (18) (18) (19) (19) (19) (19) (19) (19) (19) (19	SO (4)+(9)+(11) (4)+(9)+(11) SO SA13,743 S23,612 S0 S0 S0 S0
Number   N	NUMBER   NUMBER   PARTICIPANT COSIS	0	94 (5) (5) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	(6) (2)X(5) (1,382,26 169,54	\$0.00000 \$0.00000 \$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000	(B) (B) (B) (B) (S) (S) (S) (S) (S) (S) (S) (S) (S) (S		_	(11) (9)+(10) SD SZ1,083 SZ,776 SO SO SO SO	
Columbia	tion  The program (NEED)  The program (NEED)  The program (CFL)  The p	\$0.00 \$0.00		1382.26	\$0.00000 \$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000	S79.4 S9.7 S9.7	\$21.863 \$2.776 \$2.776 \$0 \$0	08 08 08	\$0 \$21,126 \$2,776 \$0 \$0 \$0	\$23,612 \$23,612 \$0 \$0 \$0 \$0
Columbia	190	\$0.00  \$1,104.12  \$246.53  \$0.00  \$0.		1,382,266 169,546	\$0.00000 \$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000	S79.4 S9.7 S9.7 S44.0	\$21.863 \$2.776 \$0 \$0 \$0	08 08	\$21,853 \$2,776 \$0 \$0 \$0	\$23,612 \$23,612 \$0 \$0 \$0 \$0 \$0
Particular   Par	y Efficiency         283         907         **         \$1,104,12         \$3           fector         46         199         **         \$2,46,53         \$5           fector         46         199         **         \$2,46,53         \$5           fector         0         0         0         \$0,00         \$0,00           by Heat Pump         0         0         \$0,00         \$0,00         \$0,00           be Heat Rump         191         \$684         **         \$493,48         \$0,00           by Heat Pump         0         0         \$0,00         \$0,00         \$0,00           by Heat Pump         199         **         \$493,48         \$0,00           bitoner         0         \$0,00         \$0,00         \$0,00           bitoner         0         \$0         \$0,00         \$0,00           bitoner         0         \$0         \$0,00         \$0,00         \$0,00           bitoner         0         \$0         \$0         \$0         \$0,00         \$0         \$0,00         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0         \$0 <td>51,104,12 5245,53 50,00 50,00 50,00 50,00 50,00 50,00 50,00 50,00 7. \$5894,57 7. \$589</td> <td></td> <td>1,382,26 169,54 169,54</td> <td>\$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000 \$0.00000</td> <td>\$79.4 \$9.7 \$44.0</td> <td>\$21,863 \$2,776 \$0 \$0 \$0 \$0 \$0</td> <td>08</td> <td>\$21,853 \$2,776 \$0 \$0 \$0</td> <td>\$413,743 \$23,612 \$0 \$0 \$0 \$0 \$0</td>	51,104,12 5245,53 50,00 50,00 50,00 50,00 50,00 50,00 50,00 50,00 7. \$5894,57 7. \$589		1,382,26 169,54 169,54	\$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000 \$0.00000	\$79.4 \$9.7 \$44.0	\$21,863 \$2,776 \$0 \$0 \$0 \$0 \$0	08	\$21,853 \$2,776 \$0 \$0 \$0	\$413,743 \$23,612 \$0 \$0 \$0 \$0 \$0
Columbic Character   Columbi	tion  The program (NED)  The pro	\$246.53 \$246.53 \$0.00 \$0		1,382,26, 169,54, 169,54	\$0.05746 \$0.05746 \$0.00000 \$0.00000 \$0.00000 \$0.00000	\$79.4. \$9.7.	\$2,776 \$2,776 \$0 \$0 \$0 \$0	8 8	\$2,776 \$2,776 \$0 \$0 \$0	\$23,612 \$23,612 \$0 \$0 \$0 \$0 \$0
1	tion	\$0.00 \$0.00		766,20	\$0.05756 \$0.00000 \$0.00000 \$0.00000	\$81,0 844,0	08 08 08 08	8 08	08 08	08
Columbia	tion 199 636 1 50.00  Ition 199 636 1 5493.48 5  Ition 199 636 1 550.00  Itinu			766,20	\$0.00000 \$0.00000 \$0.00000	844,0	00000	0\$	08	08
The column	tion			766,20	\$0.00000 \$0.00000 \$0.05750	2444,0	os so		08 80	08
Column   C	tion 191 584 1 584 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 50.00  100 0 0 0 50.00  100 0 0 0 0 0 50.00  100 0 0 0 0 0 50.00  100 0 0 0 0 0 50.00  100 0 0 0 0 0 0 50.00  100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			766,20	\$0,00000 \$0,00000 \$0,00000	\$44,0	08		08	80
The column	tion			766,20	\$0.0000	\$44,0	OS OS	80	OS SO	08
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1	lion   191   584   11   5483.48   54				\$0.05750	\$44,057	000	G	S25 728	\$165.049
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4.200         7.622         7.62         <	1,489     2,743     ***     \$15,50       4,200     7,622     ***     \$12,60       107,100     71,450     \$2,76     \$2,79       720     440     \$2,06       0     \$0,00       244     \$0,00       162     136     \$125,57       162     136     \$125,57       475     237     \$589,82       162     377     \$589,82	1		Ш						
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475         237         \$569.82         \$2280,166         0         0         \$0,0000         \$0         \$0         \$0,0000         \$	475 237 \$589.82	-								
475         237         \$569.82         \$2280,166         0         0         \$0,00000         \$0 <td>475 237 \$589.82</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$280,166</td>	475 237 \$589.82									\$280,166
475   237   \$589.82   \$280,166   0   50,0000   50   50   50   50   50										\$280,166
ENTIAL PROGRAMS 117,066 89,717 82,136,377 8,929,160 8572,137 8315,716 89,366 8325,073 85 8	475 237 \$589.82							'		
117,065 89,717 32,100,077 117,065 117,0	And and a second		110 001 00	9 929 160		\$572,137				\$3,033,587
	117,065 89,717	89,717	52,136,377	201,020,0	G					

\$4,090,702 \$1,057,115 \$26,542 \$26,542 \$50,235 \$12,254 \$16,450 \$3,985 \$921,107 8 8 8 8 RECOVERED (12) COSTS TO BE TOTAL ESTIMATED (4)+(8)+(11)19 S0 ======== \$327,958 \$2,885 8888 88 S96 S1,511 \$746 \$532 8 8 8 8 INCENTIVE Exhibit C PAGE 178-2 of (11) TOTAL . 85.958 88888 8 8 88 ကြ l ls 8888 SS MAXIMIZING INCENTIVE (5% of COSTS) (10) (4)X(5%) \$2,885 S96 S1,511 S746 S532 SS 20 88888 Lost revenue and efficiency incentives are based on prospective values.
 Cumulative participants include a reduction for the cumulative participants as of 01/01/2009 (High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL)). EFFICIENCY INCENTIVE 0 (6) \$0 ========= \$733,741 8 8 8 8 \$2,770 \$155,409 \$161,604 \$1,266 88 (8) (6)X(7) 8888 F LOST TOTAL n/a n/a s0.00000 s0.00000 n/a n/a \$0.00000 \$0.00000 \$0.06480 \$0.06476 \$0.00000 \$0.00000 S0.14803 S0.58599 \$0.25657 LOST REVENUE (S/KWH) 0 닐 10,606,240 677,080 42,745 1,648 605,718 TOTAL ENERGY SAVINGS KWH/ QTRs (6) (2)X(5) (KWH/ PARTICIPANT) 0000 515 0000 11.217 103 REV/QTRS NET LOST \$3,029,003 88888 S \$26,542 \$26,542 \$892,626 TOTAL ESTIMATED \$48,873 \$12,934 \$765,698 8888 PROGRAM COSTS (4) (4) / (1) \$0.00 \$0.00 \$0.00 \$125.57 \$589.82 \$663.55 AVERAGE ESTIMATED PROGRAM COSTS \$0.00 \$474.50 \$10,347.27 PER 90,019 16 83 25 302 15 17 34 CUMULATIVE PARTICIPANT NUMBER (2) 117,474 409 103 74 103 45 PARTICIPANT NUMBER (1) NEW KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM INDUSTRIAL PROGRAMS (w/Est. Opt-Outs Removed)
Smart Audit - Class 1
Smart Audit - Class 1
Smart Financing - General
Smart Financing - Compressed Air System TOTAL COMMERCIAL PROGRAMS TOTAL INDUSTRIAL PROGRAMS Commercial A/C & Heat Pump Program
- Air Conditioner Replacement
- Heat Pump Replacement COMMERCIAL PROGRAMS Smart Audit - Class 1 - Class 2 Smart Financing - Existing Building Smart Financing - New Building mmercial Load Management
- Air Conditioner
- Water Healing YEAR 16 (2nd, 3rd & 4th QTRs) HVAC Diagnostic & Tune-Up - Air Conditioner - Heat Pump PROGRAM DESCRIPTIONS TOTAL COMPANY mercial Incentive

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8

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Attachment 1

YEAR (38) 탈 501 699 155 ដូន 136 119 280 1,059 2,818 2,644 2,167 (37) 2nd half 3,42 97 272 489 Exhibit C PAGE 18A of 19 YEAR 15 함 8 375 28 63 61 156 1,130 975 13 33) 2nd half 119 - 61 425 YEAR 14 (34) 926 a fe 108 20. ž 문발 560 £ 13 20 F 2 [5] 를 걸 485 និន \$ P. F. 560 515 29 29 ន 7EAR 130 22 R 뒫 45 ιņ 말 8 440 YEAR 11 草草 88 S S E 86 371 7EAR 10 ts je 99 391 9 2nd 334 1st half 141 59 98 Pag de 5 35 101 12 전 12 Đ, 2nd half 88 Û YEAR 7 (20) 1st fraff 짧양 17 P F 181 a. 134 YEAR 6 1st half 21, Part Fart 99 22 45 101 티 191 Ę, 12 함 101 5, 13 1st haff Ē 148 5 5 2 3 2nd 3 2 2 8 YEAR 1s f 11. 663 93 186 127 2nd half 539 123 109 YEAR 2 (10) 百百 223 YEAR 6/2 \$0.00 \$0.00 \$1,05 103 544.42 \$4.05 \$124.96 \$111.55 \$111.55 \$111.55 \$111.55 \$111.55 \$21.05 \$42.09 \$49.77 \$49.77 \$49.77 \$4.99 \$4.99 \$11.38 \$0.00 \$0.00 \$77.22 \$77.22 \$77.22 \$77.22 \$77.22 \$4.28 \$19.73 \$51.68 \$51.68 \$61.68 \$79.20 \$139.69 \$139.69 \$139.89 50.00 \$58.10 57.24 50.00 \$4,98 \$0,00 5 5 5 5 2010 VALUES 8 8 \$4,98 2 2 Za 2005 2008 2009 VALUES VALUES VALUES n/a n/a 7/2 1/2 \$19.73 \$7.22 \$44.19 \$44.19 \$44.19 \$16.69 \$29.11 n.a. n.a. n.a. 578.22 \$20.78 \$33.69 \$33.69 2 2 2 2 \$28.92 2002 2003 VALUES 1959 VALUES \$5.00 \$84.21 2822 \$0.00 \$0.00 \$9.71 \$1.66 \$0.00 n/a \$0.00 n/a \$178,65 \$382.80 \$4,850.21 \$4,048.80 \$32.50 PROSP. VALUES 2/0 PRESSURE NEUMA N PARTEDANT (1) INITIAL \$38.86 \$1.58 TOTAL COMMERCIAL PROGRAMS Energy Education for Student Program (NEED) INDUSTRIAL PROGRAMS IVIELO DICTOR Removed)
Small Audit - Class 1.
Small Audit - Class 2.
Small Audit - Class 2.
Small Financie - Central
Small Financies - Central TOTAL RESIDENTIAL PROGRAMS
\*\*\* Participants since 09/01/98 ommercial A/C & Heat Pump Program
- Air Conditioner Replacemen
- Heat Pump Replacemen Residential Efficient Products
- Compact Flourescent Lamp (CFL
- Specialty Bubs
- LED Lights Community Outreach Program (CFL) KENTÜCKY POWER COMPANY DERIVATION FOR 3 YEAR DSIM EXPERIMENT CALCULATION OF EFFICIENCY INCENTIVE COMMERCIAL PROGRAMS
Smart Audil - Class 1
- Class 2
Smart Financing - Existing Building
Smart Financing - Existing Building Mobile Home New Construction
- Heat Pump
- Air Conditions: ANNUAL SHARED SAVINGS (S) HVAC Diagnostic & Tune-Up
- Air Conditione:
- Heat Pump sidential Load Managemor - Air Conditioner - Water Healing HVAC Diagnostic & Tune-Us
- Air Conditions
- Heal Pump Commercial Load Managemer
- Air Conditioner
- Water Healing High Efficiency Heat Pump
- Furnace Replacemen
- Heat Puma Replacemen PROGRAM DESCRIPTIONS RESIDENTIAL PROGRAMS Energy Filness Targeted Energy Efficiency
- All Efectric
- Non-All Electric High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat High - Efficiency Heat Pump - Mobile Home Compact Fluorescent Bulb Modified Energy Fitness Commercial Incentive

## KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8

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KENTUCKY POWER COMPANY	AV6490	
DERIVATION FOR 3 YEAR DSM EXPERIMENT	E/1	Stribit C Exhibit C PAGE
CALCULATION OF EFFICIENCY INCENTIVE		19
	YEAR YEAR YEAR YEAR YEAR YEAR	YEAR YEAR YEAR YEAR 15 15 15 15
PROGRAM DESCRIPTIONS	(29) (39) (40) (41) (42) (43) (44) (45) (46) (47) (49) (49) (50) (51) (52) (53) (54) (54) (55) (53) (54) (54) (54) (55) (54) (55) (55) (55	(56) (57) (59) (59) (50) (50) (50) (50) (50) (50) (50) (50
	16 (1989) 15 2nd	2nd 1st 2nd 1st 2nd half half half half half
RESIDENTAL PROGRAMS Energy Finest	6 543,177 547,334 54,347 51,334 53,355 510,370 50 50 50 50 50 50 50 50 50 50 50 50 50	05 05 05
	08 08 08 09 09 09	721-25 200.C12 200.K12 100.012 601.62 CT0.22 601.62 102 02 02 02 02 02 02 02 02 02 02 02 02 0
- All Electric - Non-All Electric	052 053 053 053 053 1955 1751 1505 1505 1505 1505 1505 1505 15	S\$13 \$671 \$507 \$507 \$507 \$507 \$507 \$50 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00
Compact Fluorescent Bulb	0 5425 50 50 50 50 50 50 50 50 50 50 50 50 50	20.00
High - Efficiency Heat Pump - Resistance Heat	0 \$10004 \$22,227 \$1588 \$1552 \$7700 \$4,275 \$1,000 \$1	05 05 05 05 05 05 05 05 05 05 05 05 05 0
High - Efficiency Heat Pump	101 STATES STATES STATES STATES SECTION STATES STAT	50 53,108 52,602 53,564 53,560 53,560 50,539 510,539 52,539 53,1089 53,1089 53,1089
Mobile Home New Construction ***		72. S10,372. S11,248. S11,746. S10,497. S16,120. S10,597. S12,047. S0,816. S11,400. S4,462. S19,274. S4,574.
- Heal Pump - Air Candillonei	103 50 50 50 50 50 50 50 50 50 50 50 50 50	SG:
Modified Energy Filness	100. 87.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177; 37.177;	מונינון מונינון אביותה אביותה הביותה הביות הביותה ה
High Efficiency Heat Pump - Furnace Replacemen	251 William Colon	503.297 545.705 546.205 546.205 546.305 50 50 50 50 50 50 50 50 50 50 50 50 5
- Heat Pump Replacemen		
Energy Education for Student Program (NEED)	1970 UFED) 1970	22,430 23,274
Community Outreach Program (CFL)	, 4,200	514,002 515,194 510,015
Residential Efficient Products		50 512,351
- Compact Flourescent Lamp (CFL - Specialty Bulbs	in Lapp GFL 107,000	05 : 05 +05
- CED Diguis		
HVAC Diagnostic & Tune-Up - Air Conditions - Heat Pume	2441.	098 8163 2010 - 102
Desidental and Managemen		05
Hesidential Load ranagemer - Alt Conditioner - Water Healing		
TOTAL RESIDENTIAL PROGRAMS *** Participants oince 09/01/08	OGRANS CORRIS ST. 201 20 25 25 201 21 21 20 25 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	\$22,000   \$38,00
COMMERCIAL PROGRAMS Smart Audi Class 1 - Class 2 Smart Financing - Existing Building Smart Financing - Existing Building	1	Columbia
Commercial A/C & Heat Purp Program - Air Conditioner Replacemen	at Furty-Program (10.3)	105 105 105
HVAC Diagnostic & Tune-Up		667.3 05
- Air Condilione: - Heat Pung	103	
Commercial Incentive		
Commercial Load Managemer - Air Conditions		
TOTAL COMMERCIAL PROGRAMS	000 03 03 03 03 03 03 03 03 03 03 03 03	20 20 20 20 20 20 20 20 20 20 20 20 20 2
INDUSTRIAL PROGRAMS - (WESL Opl-Outs Remarked) Smart Audit - Class 1 Smart Audit - Class 2	05 05 05 05 05 05 05 05 05 05 05 05 05 0	15         15<
Smart Financing - General Smart Financing - Compressed Alr System	System 0 1 50 50 50 50 50 50 50 50 50 50 50 50 50	05 05 05 05 05 05 05 05 05 05 05 05 05 0
TOTAL INDUSTRIAL PROGRAMS	20 20 20 20 20 20 20 20 20 20 20 20 20 2	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$
ANNUAL SHARED SAVINGS (S)	\$78.051 \$00.055 \$34.547 \$20.003 \$41.571 \$28.055 \$41.050 \$44.05	
		KPSC Case No. 2011-00055

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8 Attachment 1 Page 39 of 40

		19	-		) E	2nd, 34	۱ ۱ ۱	\$21,853	S	88	\$26,738	\$21,093	\$44,793	\$93,230	D) S7,465	\$20,958	\$73,899 \$75.00	\$320	8.5	\$315,7		\$98 115113		\$8	OS.	88	\$2.88	1 1	25	1 ; 1	8	
ENTUCKY POWER COMPANY	ERIVATION FOR	ALCULATION OF FRICIENCY INCENTIVE		POCE AM DESCRIPTIONS			RESIDENTIAL PROGRAMS. Energy Finess	- All Electric - Non-All Electric	Compact Fluorescent Bulb	High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	High - Efficioncy Heat Pump - Mobile Homs	tobile Home New Construction ***  - Host Purns  - Air Conditione:	Modified Energy Filness	High Ellicloncy Heal Pump - Furnace Replacemen - Heal Pump Replacemen	Education for Student Program (NEE)	Community Outreach Program (CFL)	Residential Efficient Products - Compact Flourescent Lamp (GFL - Specialty Bulbs - LED Lights	HVAC Diagnostis & Tune-Up - Air Conditional - Heat Pump	Residential Load Managemer - Air Contitioner - Miche Loadianer	TOTAL RESIDENTIAL PROGRAMS *** Participants since 09:01:09	COMMERCIAL PROGRAMS Smart Audit - Class 1 - Class 2 - Class 2 - Smart Flancing - Existing Building Smart Flancing - Existing Building	Commercial AIC & Heat Pump Program  - Air Conditioner Replacemen  - Heat Pump Replacemen	HVAC Diagnostic & Tune-Up	- Heat Pump	mmercial Incordiv	Commercial Load Managemer - Alt Conditioner - Water Healing	TOTAL COMMERCIAL PROGRAMS	ANACODE INCTINUE	(wEst, Opt-Outs Removed) Smart Audit - Class 1	Smart Audil - Class 2 Smart Financing - General Smart Financine - Compressed Air System	TOTAL INDUSTRIAL PROGRAMS	

	KENTUCKY POWER COMPANY		Exhibit C	
~	FORECAST OF 2011 KENTUCKY RETAIL ENERGY SALES IN KWH		PAGE 19 of	19
-	FOR RESIDENTIAL, COMMERCIAL AND INDUSTRIAL SECTORS			
	DDOCDAM VD 40, 2014			
LINE	PROGRAM YR 16 - 2011	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
NO.	YEAR	SECTOR	SECTOR	SECTOR
1	TOTAL ULTIMATE SALES (KWH) *	2,468,900,000	1,432,700,000	3,309,600,000
2	LESS NON-METERED **	14,813,400	8,596,200	19,857,600
	FE22 MOIN-METEVED	14,013,400	0,530,200	19,007,000
3	TOTAL ESTIMATED RETAIL KWH SALES	2,454,086,600	1,424,103,800	3,289,742,400
4	LESS OPT - OUT CUSTOMERS KWH	0	0	0
5	KWH BEFORE LOST REVENUE IMPACTS	2,454,086,600	1,424,103,800	3,289,742,400
	KWIT BET ONE EOOT NEVENOE IIVII AOTO	2,404,000,000	1,424,100,000	0,200,7 42,400
6	LESS LOST REVENUE IMPACTS ***	12,255,030	700,507	0
7	ADJUSTED KWH BY SECTOR	2,441,831,570	1,423,403,293	3,289,742,400
8	LINE 7/LINE 1	98.9%	99.4%	99.4%
	LITTLE IT LITTLE I	==========	==========	=========
LINE	DDCCDAM VD 1C (1-t CTD)	RESIDENTIAL SECTOR	COMMERCIAL SECTOR	INDUSTRIAL SECTOR
NO.	PROGRAM YR 16 (1st QTR)	SECTOR	SECTOR	SECTOR
9	TOTAL ULTIMATE SALES (KWH) *	828,100,000	369,700,000	840,100,000
10	LINE 8	98.9%	99.4%	99.4%
11	ADJUSTED KWH BY SECTOR	818,990,900	367,481,800	835,059,400
	ADJUSTED RIVIN BY SECTOR	810,990,900	307,401,600	035,039,400
LINE	PROGRAMAND 40 (0 1 0 10 44 0 TP)	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
NO.	PROGRAM YR 16 (2nd, 3rd & 4th QTR)	SECTOR	SECTOR	SECTOR
12	TOTAL ULTIMATE SALES (KWH) *	1,640,800,000	1,063,000,000	2,469,500,000
14	TO THE GETTING THE GREET (TOWN)	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000,100,000	2110010001000
13	LINE 8	98.9%	99.4%	99.4%
	AD WOTED WALL DV OF OTOD	4 000 754 000	4.050.000.000	0.454.000.000
14	ADJUSTED KWH BY SECTOR	1,622,751,200	1,056,622,000	2,454,683,000
*	SOURCE: 2011 LOAD FORECAST COMPILED BY			
	AEP CORPORATE PLANNING AND BUDGETING DEPT.			
**	AND FORMATED TO BE NOW METERED (OL) DETERMINED			
	.60% ESTIMATED TO BE NON-METERED (OL) DETERMINED FROM BILLED JURISDICTIONAL TARIFF SUMMARY FOR			
	12 MOS. ENDED DECEMBER 2009.			
***	LOST REVENUE IMPACTS			
	Page 17A of 18, Column 6 - TOTAL RESIDENTIAL PROGRAMS	2,325,870 9,929,160	23,427 677,080	-
	Page 17B of 18, Column 6 - TOTAL RESIDENTIAL PROGRAMS TOTAL	12,255,030	700,507	-
	101114	.2,200,000	100,001	

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## Residential Efficient Products Measure Assumptions Based on APT RFP Response

Kentucky Power Company	Schedule of DSM Residemtial Programs Efficiency Incentives and Net Average kWh/Participant Savings
------------------------	--

Program Total 2010 3-Year Prospective	-40.5	-0.010	283,700 20%	52.31	3%	\$326,438	\$468,100	\$24,000	\$818,538	-9937	-2.5	-0.3	\$1,659,698	\$1,074,480	\$585,218	6.	\$0.31	-32	3.8	-122
Holiday Light LED Strings (25 bulb string) 2010 3-Year Prospective	-51.8 -0.115	0.000	1,800 20%	10	\$2.00	\$3,600	\$5,162	\$265	\$9,027	-81	0.0	0.0	\$15,258	\$24,386	-\$9,128	0.5	(\$0.76)	-41	v-	-41
Specialty Bulbs 2010 Three Year Prospective	-36.0 -0.045	-0.009	21,400	10	\$2.00	842 800	\$61,374	\$3,147	\$107,320	999-	-0.2	0.0	\$186,821	\$138,870	\$47,952	1.3	\$0.34	-29	***	-29
CFLs 2010 3-Year Prospective	-40.8 -0.051	-0.010	260,500	6 6 89 15	\$1.08	8280 D38	\$401,564	\$20,589	\$702,190	-9190	-2.3	-0.2	\$1,457,618	\$911,224	\$546,394	1.6	\$0.31	-33	4	-131
Program Parameters	Per Bulb/String Energy Impact (Annual kWh) Per Participant Demand Impact (kW)	Winter Peak Coincident Summer Peak Coincident	Total No. of Participants or CFLs	Equipment Life	Inclemental Edupinent Cost. Evaluation Cost, Percent Rebates, Incentives		Ocal incentives Administration & Promotion Cost	Evaluation Cost	Total Expected Cost	Total Energy Impact (Annualized MWh at end of year 3)	Total Winter Demand Impact (MW)	Total Summer Demand Impact (MW)	NPV Benefit - TRC Test	NPV Cost - TRC Test	NPV Net Benefit - TRC Test	TRC Ratio	Efficency Incentive (Ln 20/Ln 5 X 0.15)	Net Average Annual kWh/Participant (1-Ln 6) (Energy Impact x (1-Freender %)	Number of Bulbs per Participant	Net Average kWh/Participant
Line	- 2	ω 4	. r.o. a	o	თ თ <u>რ</u>	5 4	- 2	1 65	4	5	16	17	18	19	20	21	22	23	25	26

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HVAC Tune-up Program Measure Assumptions

Kentucky Power Company Schedule of DSM Programs Efficiency Incentives and Net Average kWh/Participant Savings

Program Total 2008 3-Year Prospective	-560.6	-0.085	-0.211	1,730	%0 *0	596.76	2%	\$55.64	\$50.00	\$182,750	\$39,110	\$11,700	\$233,560	-1049	-0.16	-0.40	\$253,476	\$178,414	\$75,062	1.42	3 2 2	re-ne	-561	1.0	-561
Commercial Central A/C 2008 3-Year Prospective	-687.0	0.000	-0.357	332	%0 *0	5120 00	)	\$75.00	\$50.00	\$41,500	026,8\$	\$2,720	\$54,190	-247	0.0	0.1	\$68,556	\$52,539	\$16,017	1.30	10. 53	47.16	<b>1</b> 89-	~	-687
Commercial Heat-Pump Pump 2008 3-Year Prospective	-1638.0	-0.507	-0.357	98	%0	5 5120 00		\$75.00	\$50.00	\$7,250	\$1,760	\$480	\$9,490	-103	0:0	0.0	\$20,625	\$9,196	\$11,429	2.24	0 0 0	429.50	-1,638	<b>-</b>	-1,638
Residential Central A/C 2008 Three Year Prospective	-311.0	0000	-0.169	802	%0	5	, ,	\$50.00	\$50.00	\$80,500	\$16,430	\$5,100	\$102,030	-271	0.0	-0.1	\$77,090	\$70,068	\$7,022	1.10		\$1.31	-311	***	-311
Residential Heat-Pump 2008 3-Year Prospective	-741.0	-0.219	-0.169	535	%0	2000	00:00%	\$50.00	\$50.00	\$53,500	\$10,950	\$3,400	\$67,850	-428	-0.1	-0.1	\$87,205	\$46,611	\$40,594	1.87		\$11.38	-741	τ-	-741
Program Parameters	Per Participant Energy Impact (KWh)	rei Failtichailt Deiliaila impact (NV) Winter Peak Coincident	Summer Peak Coincident	Total No. of Participants	Freender Percentage	Equipment Life	incremental Equipment Cost Evaluation Cost / Percent	Rebates / Incentives To Customer	Rebates / Incentives To Vendor	Total Incentives	Administration & Promotion Cost	Evaluation Cost	Total Expected Cost	Total Energy Impact (MWh)	Total Winter Demand Impact (MW)	Total Summer Demand Impact (MW)	NPV Benefit - TRC Test	NPV Cost - TRC Test	NPV Net Benefit - TRC Test	TRC Ratio	Efficiency Incentive	(Ln 20/Ln 5 X 0.15)	Net Average Annual kWh/Participant (Ln 1 (1-Ln 6) (Energy Impact x (1-Freerider %)	Number of Units per Participant	Net Average Annual kWh/Participant
Line	← (	<b>и</b> ю	4	5	9	٠ - ٥	သော	, 0	Ξ	12	13	14	15	16	17	18	19	50	21	22		23	24	26	27

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 8 Attachment 4 Page 1 of 1

### Small Commercial High-Efficienty HP/AC Program Measure Assumptions

# Kentucky Power Company Schedule of DSM Programs Efficiency Incentives and Net Average kWh/Participant Savings

Line No	Program Parameters	Commercial Heat- Pump 2008 3-Year Prospective	Commercial Central A/C 2008 3-Year Prospective	Program Total 2008 3-Year Prospective
1	Per Participant Energy Impact (kWh)	-1240.0	-313.0	-467.5
2	Per Participant Demand Impact (kW)	0.050	0.000	0.4
3	Winter Peak Coincident	0.350	0.000	0.1
4	Summer Peak Coincident	0.164 50	-0.164 250	-0.1 300
5	Total No. of Participants	10%	10%	10%
6	Freerider Percentage	10%	15	10%
7 8	Equipment Life Incremental Equipment Cost	\$900.00	\$800.00	816.7
9	Evaluation Cost / Percent	\$900.00	φουσ.συ	5%
10	Rebates / Incentives To Customer	\$450.00	\$400.00	\$408.33
11	Rebates / Incentives To Customer Rebates / Incentives To Vendor	\$0.00	\$0.00	0.0
	Repaies / incentives to vendor	ψ0.00	ψυ.υυ	0.0
12	Total Incentives	\$22,500	\$100,000	\$122,500
13	Administration & Promotion Cost	\$8,940	\$35,760	\$44,700
14	Evaluation Cost	\$2,000	\$8,000	\$10,000
15	Total Expected Cost	\$33,440	\$143,760	\$177,200
16	Total Energy Impact (MWh)	-60	-76	-136
17	Total Winter Demand Impact (MW)	0.0	0.0	0.02
18	Total Summer Demand Impact (MW)	0.0	0.0	-0.03
19	NPV Benefit - TRC Test	\$34,050	\$73,838	\$107,889
20	NPV Cost - TRC Test	\$14,683	\$72,295	\$86,979
21	NPV Net Benefit - TRC Test	\$19,367	\$1,543	\$20,910
22	TRC Ratio	2.32	102	1.24
	Efficiency Incentive			
23	(Ln 20/Ln 5 X 0.15)	\$58.10	\$0.93	\$10.46
24	Net Average Annual kWh/Participant (Ln 1 (1-L.n 6)	-1,116	-282	-421
25	(Energy Impact x (1-Freerider %)			
26	Number of Units per Participant	1	1	1.0
	Net Average			
27	Annual kWh/Participant	-1,116	-282	-421

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 9 Page 1 of 1

# Kentucky Power Company

### REQUEST

Refer to Schedule C, pages 16B-2, 17A-2 and 17B-2 of 19 of the DSM Report. Confirm that the lost revenue factor for the Commercial A/C & Heat Pump Program-Air Conditioner Replacement program is \$0.14803 per kWh for the second half of 2010 and for all of 2011.

#### RESPONSE

The lost revenue factor for the Commercial A/C & Heat Pump Program-Air Conditioner Replacement program for 2010 and 2011 is \$0.14803. The lost revenue factor is reviewed every 6-month review period and is adjusted, if necessary, based on actual Revenues (excluding Fuel Clause), Metered KWH's, and # of Customers for the current 12 months Billed and Accrued. The next review period to potentially result in an adjustment to the 2011 lost revenue factor will be for the period ending June 30, 2011. This practice is consistent with past reporting periods.

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# **Kentucky Power Company**

### REQUEST

Refer to Schedule C, pages 16B-2, 17A-2 and 17B-2 of 19 of the DSM Report. Confirm that the lost revenue factor for the Commercial Incentive program is \$0.25657 per kWh for the second half of 2010 and for all of 2011.

#### RESPONSE

The lost revenue factor for the Commercial Incentive Program for 2010 and 2011 is \$0.25657. The lost revenue factor is reviewed every 6-month review period and is adjusted, if necessary, based on actual Revenues (excluding Fuel Clause), Metered KWH's, and # of Customers for the current 12 months Billed and Accrued. The next review period to potentially result in an adjustment to the 2011 lost revenue factor will be for the period ending June 30, 2011. This practice is consistent with past reporting periods.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 11 Page 1 of 9

# Kentucky Power Company

## REQUEST

Refer to Schedule C, page 17A-1 of 19 of the DSM Report concerning the HVAC Diagnostic & Tune-up - Air Conditioner program. For the first quarter of 2011, the projected number of new participants in this program is 53. The number of cumulative participants for the first quarter of 2011 is projected to be 54.

- a. Given that this is a new program which began implementation in 2011, explain how there can be more cumulative participants than proposed new participants in the first quarter of 2011.
- b. On page 37 of the Status Report under Comments, the projected participant levels for 2011 are 325 central air conditioners and 215 heat pumps. On Schedule C, page 17A-1 of 19, there are 53 projected participants for air conditioners and 81 projected participants for heat pumps. Explain why the projected participants for heat pumps are greater than the air conditioners.

#### RESPONSE

- a. The cumulative participant count for the Residential HVAC Diagnostic & Tune-up Air Conditioner program is an error. Schedule C, pages 17A-1 and 17B-1 have both been updated. See the attachment to Item No. 8 for an updated copy of Schedule C, pages 17A-1 and 17B-1 of 19.
- b. On Schedule C, pages 17A-1 and 17B-1 under Residential HVAC Diagnostic & Tune-up Air Conditioner, the projected participant counts for Air Conditioner and Heat Pump were reversed. Participant count for Air Conditioners should have been 81 and Heat Pump should have been 53 on page 17A-1 of 19. Participant count for Air Conditioner should have been 244 and Heat Pump should have been 162 on page 17B-1 of 19. See the attachment to Item No. 8 for an updated copy of Schedule C, pages 17A-1 and 17B-1 of 19.

	VENTUORY DOMED COMPANY	Exhibit C					Ite	m
	KENTUCKY POWER COMPANY DERIVATION OF 3 SECTOR SURCHARGES FOR 3 YR EXPERIMENT	EXHIBITO				PAGE 1 of	19	age
	RESIDENTIAL SECTOR	TOTAL YEARS	YEAR 15 (2010) 1st	YEAR 15 (2010) 2nd	YEAR 16 (2011) 1st	YEAR 16 (2011) 2nd, 3rd & 4th	TOTAL	
		(1)	HALF (2)	HALF (3)	QTR (4)	QTRs (5)	(6)	-
						00.000.507	040.070.400	L
2	CURRENT PERIOD AMOUNT TO BE RECOVERED CUMULATIVE ( OVER)/UNDER COLLECTION	\$12,267,626 0	\$1,021,058 519,414	\$1,125,058 631,736	\$632,073 427,163	\$3,033,587 (260,977)	\$18,079,402	L
3	18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	(41,824)	0	0	0	0	(41,824)	L
	TOTAL TO BE RECOVERED TOTAL AMOUNT RECOVERED	12,225,802 11,706,042	1,540,472 908,736	1,756,794 1,329,631	1,059,236 0	2,772,610	18,037,578 13,944,409	_
6	EXPECTED FUTURE RECOVERIES TRANSFER PORTION OF BALANCE FROM INDUSTRIAL	(9,833)	0	0	1,320,213 0	1,256,009 0	2,576,222 (9,833)	-
	TRANSFER PORTION OF BALANCE FROM COMMERCIAL	9,487	0	0	0	0	9,487	F
9	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$519,414 =======	\$631,736	\$427,163 =======	(\$260,977)	\$1,516,601	\$1,516,601 ======	
10	AMOUNT TO BE RECOVERED					\$2,772,610		L
11	ADJ. ESTIMATED SECTOR KWH - YEAR 16				818,990,900	1,622,751,200		L
	SURCHARGE RANGE (\$PERKWH)							L
12 13	FLOOR (CARRYOVER) MIDPOINT - proposed rate	COL. 5, L 2 / COL. 5			0.001612			1
14	CEILING (TOTAL COST)	COL. 5, L 4 / COL.	5, L 11			0.001709		
		TOTAL YEARS	YEAR 15	YEAR 15	YEAR 16	YEAR 16		$\vdash$
	COMMERCIAL SECTOR	1 thru 14	(2010) 1st	(2010) 2nd	(2011) 1st	(2011) 2nd, 3rd & 4th	TOTAL	-
		(1)	HALF (2)	HALF (3)	QTR (3)	QTRs (4)	(5)	
15	CURRENT PERIOD AMOUNT TO BE RECOVERED	\$2,899,298	\$0	\$155	\$165,825	\$1,057,115	\$4,122,393	╁
16	CUMULATIVE (OVER)/UNDER COLLECTION  18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	1,520	0	0	(20,360)		0 1,520	
	TOTAL TO BE RECOVERED	2,900,818	0	155	145,465	1,179,796	4,123,913	-
19	TOTAL AMOUNT RECOVERED	2,888,053	0	20,515	22,784	0 651,936	2,908,568 674,720	
21	EXPECTED FUTURE RECOVERIES TRANSFER PORTION OF BALANCE FROM INDUSTRIAL	(3,278)	0	0	0	0	(3,278)	)
22	TRANSFER BALANCE TO RESIDENTIAL	(9,487)	0	0	0	0	(9,487)	-
22	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$0	\$0 =======	(\$20,360)	\$122,681 =======	\$527,860 =======	\$527,860 =======	-
23	AMOUNT TO BE RECOVERED					\$1,179,796		1
24	ADJ. ESTIMATED SECTOR KWH - YEAR 16				367,481,800	1,056,622,000		İ
25	SURCHARGE RANGE (\$ PER KWH) FLOOR (CARRYOVER)					0.000116		
26 27	MIDPOINT - proposed rate CEILING (TOTAL COST)				0.000062	0.000617 0.001117		F
								$\pm$
	INDUSTRIAL SECTOR	TOTAL YEARS 1 thru 14	YEAR 15 (2010)	YEAR 15 (2010)	YEAR 16 (2011)	YEAR 16 (2011)	TOTAL	
			1st HALF	2nd HALF	1st QTR	2nd, 3rd & 4th QTRs		
		(1)	(2)	(3)	(3)	(4)	(5)	T
28	CURRENT PERIOD AMOUNT TO BE RECOVERED	\$79,026	\$0	\$0	\$0	\$0	\$79,026	
	CUMULATIVE (OVER)/UNDER COLLECTION 18 MOS. RETROACTIVE(OVER)/UNDER ADJUSTMENT	0	0	0	0		0	
	TOTAL TO BE RECOVERED	79,026	0	0	0			
33	TOTAL AMOUNT RECOVERED EXPECTED FUTURE RECOVERIES	92,137	0	0	0	0	0	
	TRANSFER BALANCE TO RESIDENTIAL & COMMERCIAL	13,111	0	0	0			
35	(OVER)/UNDER COLLECTION TO BE REFUNDED	\$0 =======	\$0 =======	\$0 ======	\$0 ======	\$0 =========	\$0 =========	
36	AMOUNT TO BE RECOVERED					\$0		+
37	ADJ. ESTIMATED SECTOR KWH - YEAR 16				835,059,400	2,454,683,000		-
	SURCHARGE RANGE (\$ PER KWH)					0.00000		1
38 39	MIDPOINT				0.000000			+
40	CEILING (TOTAL COST) - proposed rate					0.00000	الر ا	+

Total	Year 2011											:	
Number   Chaillain   Frostradia   Frogram   Frostradia   Frogram   Frostradia   Frogram   Frostradia   Fros	TUCKY POWER COMPANY											PAGE	
MANAGEMEN   PROCESS   PARTICIPANT   PARTICIPANT   PROCESS   PARTICIPANT   PROCESS   PARTICIPANT   PARTIC	R PROGRAM											1/A-1 0f	2
MANAGER   MANAGER   PROCESS   PARTICIPANT   PARTICIPAN	2 16 (1st OTR)	NEW	CUMULATIVE	AVERAGE ESTIMATED	TOTAL ESTIMATED	NETLOST	TOTAL	NET	TOTAL NET *	EFFICIENCY	MAXIMIZING		TOTAL
Number   N		PARTICIPANT	PARTICIPANT	PROGRAM COSTS	PROGRAM	REVIQTRS	SAVINGS	REVENUE	LOST	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
Columb   C	GRAM DESCRIPTIONS	NUMBER	NUMBER	PER PARTICIPANT		(KWH/ PARTICIPANT) (5)	KWH/ QTR (6)	(S/KWH)	REVENUES (8)	(EX. C, PG.18B) (9)	(5% of COSTS) (10)	INCENTIVE (11)	RECOVERED (12)
Column   C			(5)	(4) / (1)			(2)X(5)		(E)X(7)		(4)X(5%)	(9)+(10)	(4)+(8)+(11)
Part	IDENTIAL PROGRAMS gy Fitness	0	0	80.00	80	0	0	\$0.0000	80	80	0\$	80	08
10	eted Energy Efficiency - All Electric	29	1 1		\$73,976		418,592	\$0.05746	\$24,052	\$5,174 \$617	08	\$5,174	\$103,202 \$6,496
10   0   0   0   0   0   0   0   0   0	Non-All Electric pact Fluorescent Bulb	0		20			0	\$0.0000	0\$	80	\$0	08	08
10   10   10   10   10   10   10   10	- Efficiency Heat Pump Resistance Heat Non Resistance Heat	0 0	00	\$0.00 \$0.00		00	00	\$0.00000	80	08	08	80	08
1	- Efficiency Heat Pump - Mobile Home	38			\$19,246	437	234,669	\$0.05750	\$13,493	\$5,460		\$5,460	\$38,199
Decement   Secretary   Secre	ile Home New Construction - Heat Pump - Air Conditioner	41	00		\$24,3	430	270,900	\$0.05745 \$0.00000	\$15,563 \$0	\$4,574 \$0		\$4,574 \$0	\$44,514 \$0
56         278         ****         \$500.96         \$228,048         999         261,042         \$0.05748         \$15,005         \$2296           501         1,798         ****         \$470.30         \$58,776         37         66,526         \$0.0574         \$3,801         \$2,495           600         4,978         ***         \$12,50         \$7,766         37         66,526         \$0.05744         \$3,801         \$2,495           7         600         4,978         ***         \$12,61         \$7,766         45         \$224,010         \$0.05788         \$12,921         \$2,495           8         4,978         ***         \$12,61         \$7,766         45         \$224,010         \$0.05788         \$12,921         \$2,495           17,900         4,978         ***         \$12,61         7         \$1,606 <td>lified Energy Fitness</td> <td>300</td> <td>3,026</td> <td></td> <td>\$113,750</td> <td>217</td> <td>656,642</td> <td>\$0.05752</td> <td>\$37,770</td> <td>\$14,931</td> <td>08</td> <td>\$14,931</td> <td>\$166,451</td>	lified Energy Fitness	300	3,026		\$113,750	217	656,642	\$0.05752	\$37,770	\$14,931	08	\$14,931	\$166,451
600         4,978         ***         \$12,50         \$7,766         37         66,526         \$0.0574         \$5,801         \$2,495           600         4,978         ***         \$12,61         \$7,766         4,963         \$12,61         \$7,663         \$12,921         \$2,994           17,900         4,963         \$3,71         \$66,461         8         39,864         \$0.05818         \$2,319         \$12,351           80         13         \$6,61         7         91         \$0.05818         \$2,31         \$12,351           80         13         \$6,64         7         91         \$0.05818         \$2,31         \$12,351           80         13         \$6,67         7         91         \$0.0584         \$0           80         \$0.00         \$0.00         \$0.0584         \$0.0584         \$0         \$0           81         41         \$125,57         \$10,171         78         \$1,98         \$0.05749         \$19           80         9         80         9         \$0.00749         \$298         \$603           80         9         80         9         \$0.00749         \$298         \$603           80         9	- Efficiency Heat Pump - Resistance Heat Replacement - Heat Pump Replacement	125	278				261,042 85,800	1 1 1 1	\$15,005 \$4,934	\$26,296 S0	82	\$26,296 \$2,939	\$69,349
600         4,978         ***         \$12.61         \$7,563         45         \$224,010         \$0.05768         \$12,921         \$2,994           17,900         4,983         \$3,71         \$86,461         8         39,864         \$0.05818         \$2,319         \$12,351           0         17         \$6,31         \$4,67         7         \$1         \$0.05733         \$5,319         \$12,351           0         \$0         \$0         \$0         \$0.0684         \$2,319         \$12,351         \$12,351           0         \$0         \$0         \$0         \$0         \$0.0684         \$0.06783         \$84         \$0           0         \$0         \$0         \$0.06864         \$0.06864         \$0         \$0         \$0           0         \$0         \$0.06864         \$0.06864         \$0.06864         \$0         \$0         \$0         \$0           0         \$0         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864           0         \$0         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864         \$0.06864	roy Education for Student Program (NEED)	501	1,798				66,526		\$3,801	\$2,495		\$2,495	\$14,062
amp (CFL)         17,900         4,983         S3,71         \$66,461         8         39,864         \$0.05818         \$2,319         \$12,351           1         0         13         \$6,371         \$66,461         8         39,864         \$0.05793         \$5         \$84           1         0         13         \$6,37         \$6,36         7         91         \$0.05793         \$5         \$84           1         0         \$0,000         \$0.00         \$0.00         \$0.05749         \$0         \$0         \$10           1         41         \$1,25,57         \$10,171         78         \$1,188         \$0.05749         \$184         \$106           1         53         28         \$125,57         \$6,655         185         \$1,80         \$0.05749         \$298         \$603           1         0         \$0.00         \$0.000         \$0.000         \$0         \$0         \$0         \$0         \$0	nmunity Outreach Program (CFL)	009	4,978			45	224,010	\$0.05768	\$12,921	\$2,994		\$2,994	\$23,478
81         41         \$125,57         \$10,171         78         \$198         \$0,05749         \$184         \$106           53         28         \$125,57         \$6,656         186         \$1,80         \$0,05749         \$298         \$603           0         0         0         \$0,00         \$0         0         \$0         \$0           0         0         0         \$0,00         \$0         \$0         \$0         \$0           0         0         0         \$0,00         \$0         \$0         \$0         \$0	idential Efficient Products - Compact Flourescent Lamp (CFL) - Specially Bulbs - LED Lights	17,900	4,9	\$3.71 \$5.31 \$0.00			39,864 91 0		\$2,3	\$12		\$12,351 \$84 \$0	\$81,131 \$514 \$508
OS         OS         000000'0S         O         OS         00'0S         O         O           OS         OS         000000'0S         O         OS         00'0S         O         O	AC Diagnostic & Tune-Up - Air Conditioner - Heat Pump	81		\$125.57 \$125.57			3,198	1	\$184 \$298			\$106	\$10,461 \$7,556
	idential Load Management - Air Conditioner - Mater Heating	00		80.00			0 0			08		08 80	
\$419,693 2,325,870 \$133,756	TOTAL RESIDENTIAL PROGRAMS	19,852	6'21				2,325,870		\$133,756			3 \$78,624	\$632,073

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Compact Commany Name   Commany Name   Commany Name   Commany   Commany Name   C	NEW PARTICIPANT (1) (1) (2) (2) (33		1 1 1								100	
NAME   CAMALATINE   CASTA   NAME	NUMBER (1) (1) (2) (2) (33 (2) (2) (3) (3) (3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		1 1					_			17A-2 of	19
Number   N	NEW NUMBER NUMBER 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1					TOTAL				TOTAL
Part	NEW   PARTICIPANT		_			TOTAL	LOST		FFICIENCY	MAXIMIZING		ESTIMATED
PARTICIPANT   PARTICIPANT   COSTS   PARTICIPANT   COSTS   PARTICIPANT   COSTS   COST	NUMBER (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		_				EVENUE		NCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
NIMBER   N	NUMBER (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	0000		-			-	1	c	(5% of	INCENTIVE	RECOVERED
Column   C	(1)  (1)  (1)  (1)  (1)  (1)  (1)  (1)		ARTICIPANT		ARTICIPANT)	-	-	(8)	(6)	(10)	(11)	(4)+(8)+(11)
Figure   F	ng ng p Program ment nt	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(3)	(4)	10)	(2)X(5)		(6)X(7)		(4)0(0)0(4)		
Figure   Color   Col	ng p Program ment rnt	0 0 0 0 0 17	111/4				18/0	SO	80	80	80	OS OS
Program   23   177   226142   28622   34   578   5700000   59   59   59   59   59   59   59	niding pp Program ment rnt	0 0 0 71	\$0.00	SO	0	0	n/a	80	80	OS CO	05	SC
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Figure   Column   C	ram	0 2	20.00	08	0		80.00000	08	9			
Figure   F	iram	17	00.00							C		\$8,744
1		17			70	578	\$0.14803	\$86	831	200		\$1,839
The color of the	11		\$261.42	\$8,627	34	0	\$0.58599	80	\$116	De		
PROGRAMS   PROGRAMS   PROGRAMS   PROGRAMS   PROGRAMS   PROGRAMS   PRogram		0	2001.00									200
1							007.00	2189	\$239			54,572
1		17	\$125.58	54,144	172	2,924	30.00400	280	\$177			2
Coccord   Cocc	ner	3	\$125.67	\$754	410	1,230	20.00470					
COCRAMS   COCR									Co			80
Coccompany   Coc		0	00 03	80	0	0	\$0.00000	200	OS OS			
CIAL PROGRAMS		5 0	80.00	SO	0	0	\$0.0000	3				C4 40 RED
Color   Colo					0010	10 805	\$0.25657	\$4,797	80			
COLAL PROCRAMS         BB         42         \$160,110         23,427         \$5,162         \$56,152         \$56,02         \$50         \$		22	\$10,347.29	\$144,862	3,739	20,0						\$165.825
CIAL PROGRAMS         88         42         STBOLITO         ST						23 427		\$5,152	\$563			
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Part   Processed Air System   Processed Air	-Outs Removed)	0	\$0.00	89		0	n/a		S			
neral         0         0         0         0         0         50,00000         SO         SO <th< td=""><td></td><td>0</td><td>\$0.00</td><td>20</td><td></td><td>C</td><td>\$0,00000</td><td></td><td>S</td><td></td><td></td><td></td></th<>		0	\$0.00	20		C	\$0,00000		S			
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TOTAL INDUSTRIAL PROGRAMS         Company         Compa						0		80	9			
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lost revenue and efficiency incentives are based on prospective values.												
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	I not revenue and efficiency incentives are based on prospective values.	100	101/2007				C Poor Stark	Outre	ach Program (C	FL.)).		

Year 2011												
KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM											Exhibit C PAGE 17B-1 of	19
YEAR 16 (2nd, 3rd & 4th QTRs)	NEW	CUMULATIVE	AVERAGE ESTIMATED PROGRAM COSTS	TOTAL D ESTIMATED A PROGRAM	NET LOST REV/QTRS	TOTAL ENERGY SAVINGS	NET LOST REVENUE	TOTAL NET*	EFFICIENCY	MAXIMIZING	TOTAL *	TOTAL ESTIMATED COSTS TO BE
PROGRAM DESCRIPTIONS	NUMBER (1)	NUMBER (2)	PER PARTICIPANT (3) (4) I (1)	VT COSTS (4)	(KWH/ PARTICIPANT) (5)	KWH/ QTRs (6) (2)X(5)	(S/KWH)	REVENUES (8) (6)X(7)	(EX. C, PG.18B)	(5% of COSTS) (10) (4)X(5%)	(11) (9)+(10)	RECOVERED (12) (4)+(8)+(11)
RESIDENTIAL PROGRAMS Energy Filness	0	0	\$0.00	08 00	0	0	\$0.00000	08	S	08	30	80
Targeted Energy Efficiency - All Electric - Non-All Electric	283	907	** \$1,104.12 ** \$246.53	2 \$312,465 3 \$11,094	1,524	1,382,268	\$0.05746 \$0.05746	\$79,425 \$9,742	\$21,853 \$2,776	80	\$21,853 \$2,776	\$413,743 \$23,612
Compact Fluorescent Bulb	0	0	\$0.00	0\$ 01	0	0	\$0.00000	\$0	0\$	30	80	80
High - Efficiency Heat Pump - Resistance Heat - Non Resistance Heat	0 0	0	80.00	00 80	0	0	\$0.00000 \$0.00000	800	0S 0S	08	08	08
High - Efficiency Heat Pump - Mobile Home	191	584	\$493.48	18 \$94,254	1,312	766,208	\$0.05750	\$44,057	\$26,738	80	\$26,738	\$165,049
Mobile Home New Construction - Heat Pump - Air Conditioner	189	636	\$594.57	57 \$112,373 00 \$0	1,291	821,076	\$0.05745	\$47,171	\$21,083 \$0	08	\$21,083 \$0	\$180,627 \$0
Modified Energy Fitness	006	3,090	** \$379.17	7 \$341,250	653	2,017,770	\$0.05752	\$116,062	844,793	80	\$44,793	\$502,105
High Efficiency Heat Pump - Resistance Heat Replacement - Heat Pump Replacement	195	405 4828 7	\$457.94	34 \$89,298 54 \$187,167	2,819	1,141,695	\$0.05748 \$0.05750	\$65,625	\$93,230 \$0	898. 08	\$93,230 \$9,358	\$248,153 \$217,997
Ehergy Education for Student Program (NEED) Community Outreach Program (CFL)	1,499	2,743	\$15.50	50 \$23,235	110	301,730	\$0.05714	\$17,241	S7,465 S20,958	08	\$7,465 \$20,958	\$47,941
Residential Efficient Products - Compact Flourescent Lamp (CFL) - Specially Bulbs - LED Lights	107,100 720 0	71,450 440 0	\$2.79 \$2.66 \$0.00	79 \$299,075 56 \$1,914 00 \$0	25 22 0 0	1,786,250 9,680	\$0.05818 \$0.05793 \$0.05854	\$103,924 \$561 \$0	\$73,899 \$756 \$0	08	\$73,899 \$756 \$0	\$476,898 \$3,231 \$0
HVAC Diagnostic & Tune-Up - Air Conditioner - Heat Pump	244	203	\$125.57 \$125.57	57 \$30,639 57 \$20,343	233	47,299	\$0.05749 \$0.05749	52,719 54,347	\$320 \$1,844	80	\$320 \$1,844	\$33,678 \$26,534
Residential Load Management - Air Conditioner - Water Healing TOTAL RESIDENTIAL PROGRAMS	475 475 117 065	237	\$589.82 \$589.82	32 \$280,166 32 \$280,166 52 136,377	00	0 0	\$0.00000	S0 S0 S0 S572,137	\$0 \$0 \$0 \$315,715	\$0 89 89 89 89	\$0 \$0 \$0 \$0 \$325,073	\$280,166 \$280,166 \$3,033,587
						22 10 11 11 11 11 11 11 11 11 11 11 11 11				ii	11 11 11 11 11 11 11 11 11 11 11 11 11	AV 24 40 00 00 00 00 00 00 00 00 00 00 00 00

KENTUCKY POWER COMPANY ESTIMATED SECTOR SURCHARGES FOR 3 YEAR PROGRAM YEAR 16 (2nd, 3rd & 4th QTRs) PARTICIPANT PROGRAM DESCRIPTIONS NUMBER (1)				-							Exhibit C	
											PAGE 178-2 of	19
			VERAGE	TOTAL			N H H	TOTAL	) (1)	SMIZIMIZAM		TOTAL
	CUMULATIVE		ESTIMATED E	ESTIMATED	NET LOST	FNERGY	LOST	- Lac	INCENTIVE	INCENTIVE	TOTAL *	COSTS TO BE
	NT PARTICIPANT			PROGRAM	REVIQTRS	SAVINGS	Z L	100		) (HE)		
	N		PER	COSTS	(KWH/ PARTICIPANT)	KWH/ QTRs	(S/KWH)	REVENUES (8)	(6)	(01)	INCENTIVE (11)	RECOVERED (12)
	(2)		(4) / (1)	(4)	(5)	(2)X(5)		(E)X(7)		(4)X(5%)	(8)+(10)	(4)+(0)+(11)
COMMERCIAL PROGRAMS			000	S	0	0	n/a	80	80	80	0,0	SOS
Smart Audit - Class 1	0	0 0	20.00	OS SO	0	0		SO	SO		000	So
- Class 2	5 0	00	\$0.00	80	0	0		SO	OS OS		SO	80
Smart Financing - Existing Building	0	0	\$0.00	80	0	0	20.0000	000				
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Commercial A/C & Heat Pump Program	103	83	\$474.50	\$48,873	103	8,549	-	202,12	53		\$1,511	\$12,254
- Air Conditioner Replacement	26	16	\$376.04	29,777	103	1,648	\$0.08088	0000				
יופמר עוול ייפאופסייים									0.10		S746	\$16,450
HVAC Diagnostic & Tune-Up	207	83	\$125.57	\$12.934	515	42,745		\$2,770		8 5	\$532	\$3,985
- Air Conditioner	18	15	\$125.56	\$2,260	1,228		\$0.06476	51,193				
												\$26,542
Commercial Load Management	AR	34	\$589.82	\$26,542	0		20.00000	06 6	200	08	80	\$26,542
- Air Conditioner	40	17	\$663.55	\$26,542	0							
- Water Heating				000	77	805 718	so 25657	\$155,409	80	08 80	SO	\$921,107
Commercial Incentive	74	54	\$10,347.27	\$765,698	717,11	Ľ					200,000	C4 057 115
		-		802 6083		677,080		\$161,604				2 11 11 11 11 11 11 11 11 11 11 11 11 11
TOTAL COMMERCIAL PROGRAMS		302		111111111111111111111111111111111111111			11					
ONA GOOD INITIALITY												
NOUS I RIAL PROGRAMS												
(w/Est, Opt-Outs Removed)	0	0	\$0.00	80		0	0 0	Sos		08 80		SO
Smart Audit - Class 1	0	0	\$0.00	80			0000				80	
Smart Audit - Class 2	0	o	80.00	SO		0 0	20,0000			80		
Smart Financing - General	0	0	\$0.00	20								
offiari Filialicing - Compressor of the								\$0		80   80		
TOTAL INDISTRIAL PROGRAMS	0	0		S			2 11			11		CA 000 702
	11			50000000		10.606.240	0	\$733,741			2327,930	
TOTAL COMPANY	117,474	90,019		93,023,000			11		11			
		=======================================				Avenue						
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Lost revenue and efficiency incentives are based on prospective values.	specifice values.	10 JO 00	11/2007						0			
** Cumulative participants include a reduction for the cumulative participants as of	Jalive participer	20 00	14/2009 /High	Fficiency He	at Pump, Energy	Education for S	Students and C	OMMUNITY OUR	national High Efficiency Heat Pump, Energy Education for Students and Community Outreach Program (CFL).	L13.		

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Control   Cont																		Exhibit C PAGE 18A of	55
Section   Sect	Do:					YEAR 2	YEAR 3	HH	YEAR 5 5 (16)	YEAR 6 6 (18)	YEAR 7 (20)	MBER OF N YEAR 6 (22)	TICIPANTS YEAR 9 (24)	YEAR 10 (26)	YEAR 11 (26)	YEAR 12 (30)	YEAR 13 (32)	.	YEAR 15 (36)
Section   Sect	Na Na	(2) PROSP. VALUES	2002/ 2003/ 2005 2005 2005 2005 2005 2005	(6) (7) 2009 2009 SI VALUES VALUE	2010 VALUES	ist 2r	1st 2r	1st half	1st half	1st 2nd half half	tst half	1st half	1st haif	haif 0	tsi haif	1st half	1st 2nd half half	1st 2nd half half	1st half
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		\$1.66 \$5	\$4.28 n/a	73 \$61.68 \$61.1	\$61.68	26	24	0	0	9 0	o						0	0	0
				ה/מ	n/a n/a	123	21 26	5	88.0	23							00	0 0	00
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	11	\$178.65 \$382.80 \$4,850.21 \$4,048.80						0						)   					
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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 11 Page 7 of 9

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 22, 2011 Item No. 11 Page 8 of 9

KENTUCKY POWER COMPANY DERIVATION FOR	Papel	
3 YEAR DSM EXPERIMENT CALCULATION OF EFFICIENCY INCENTIVE		5
PROGRAM DESCRIPTIONS	YEAR YEAR YEAR 1500 4.41) (42) (43) (44) (45) (46) (47) (48) (48) (500 1500 1500 1500 1500 1500 1500 1500	(64) (7)X(34)
***************************************	(TIME) (EXCIP)	2nd
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RESIDENTIAL PROGRAMS	0 0 0 854377 S21354 S44377 S11364 S45370 S10370 S10370 S10 50 50 50 50 50 50 50 50 50 50 50 50 50	11
Energy Finness	2003 3076 3076 3076 3076 3076 3076 3076 3	59.189 \$10.611
- All attendance	Sign 500 523 5137 5137 5137 5137 5137 5137 5137 513	1 .
Comment Bingercont Buth	0 0 0 0 25-25 350 550 550 550 550 550 550 550 550 55	
Compact Photoscen pure	08 05 05 05 05 05 05 05 05 05 05 05 05 05	05 05
High - Ellicency Heal Pump - Resistance Heal	05 05 05 05 05	2
- NON RESISTANCE TREE	65C 01 20 20 20 20 20 20 20 20 20 20 20 20 20	S8.539 \$13,659
- Mobile Home		
Mobile Home New Construction	25 c c c c c c c c c c c c c c c c c c c	59,816 511,490
- Heat Pump	2 (2) (2) (2) (3) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	521,152 518,654
The state of the s	300 900	1
Modified Energy Fitness		513.387 \$30.120
High Efficiency Heal Pump	1 (55) (55)	_[_]
- Heat Pump Replacement	125	50 \$5,627
(NEED)	680 1 1989	1
Energy Equication for Stoucht, Florings (Newson)	1000 1000	
Community Outreach Program (CFL)	8	
Residential Efficient Products - Compact Flourescent Lamp (CFL)	12	
- Specially Bulbs	00 00 00 00 00 00 00 00 00 00 00 00 00	
HVAC Diagnostic & Tune-Up		
- Air Canditioner - Heat Pump	25 53 162	
Residential Load Management		
- Air Conditioner - Water Healina		\$68.051 \$109.395
TOTAL RESIDENTIAL PROGRAMS	877.555 580.539 \$25.601 \$14.599 \$17.545 \$77.555 \$10.005 \$20.005 \$10.005 \$15.60 \$15.60 \$15.60 \$15.005 \$10.005 \$	
*** Participants since 09/01/98	The state of the s	
STREET OF THE STREET	05	05 05
Smart Audit - Class 1	05 05 05 05 05 05 05 0	20 20
Smart Financing - Existing Building	54.27 35.01 52.003 52.003 52.77 51.51.2 54.197 50 50 50 50 50 50 50 50 50 50 50 50 50	
Smart Financing - New Bullania		
Commercial AJC & Heat Pump Program - Air Conditioner Replacement - Heat Pump Replacement	0 33 103	
HVAC Diagnostic & Tune-Up		
- Air Conditioner - Heat Pump		
Commercial Incentive		
Commercial Load Management		
- Air Cenditioner - Water Hoaling	The second secon	30 50
TOTAL COMMERCIAL PROGRAMS	\$666         \$60         \$68 96         \$6.555         \$72.72         \$7.77         \$5.581         \$5.580         \$50.01         \$5.90         \$9	
WINDSTRUCTION OF STRUCTURE OF S		
(WIES, Opt-Outs Removed)		88 8
Smart Audit - Class 1 Smart Audit - Class 2	1	Ц
Smart Financing - General Smart Financing - Compressed Air System	65 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80
TOTAL INDUSTRIAL PROGRAMS	9 50 50 50 50 50 50 50 50 50 50 50 50 50	\$69,061 \$108,395
ANNUAL SHARED SAVINGS (5)	1865 S14,587 S14,843 S17,812 S4,595 S1,559 S51,559 S52,57 S19,007 S15,505 S18,505 S15,505 S15,	

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 22, 2011 Item No. 11 Page 9 of 9

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 12 Page 1 of 1

# Kentucky Power Company

# REQUEST

In reference to Schedule C, page 18A of 19 of the DSM Report, should the column heading in Column 36 be "1st half" and not "1st qtr"?

### RESPONSE

Yes, Schedule C, page 18A of 19 Column 36 heading should be "1st half" and not "1st qtr".

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 13 Page 1 of 1

# Kentucky Power Company

# REQUEST

On Schedule C, page 18B of 19 of the DSM Report, should the column heading in Column 37 be "2nd half" and not "2nd qtrs"?

### RESPONSE

Yes, Schedule C, page 18B of 19 Column 37 heading should be "2nd half" and not "2nd qtr".

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 14 Page 1 of 1

# Kentucky Power Company

# REQUEST

On Schedule C, page 18B of 19 of the DSM Report, should the column heading in Column 39 be "2nd, 3rd & 4th qtrs" and not "2nd qtrs"?

### RESPONSE

Yes, Schedule C, page 18B of 19 Column 39 heading should be "2nd, 3rd, & 4th qtrs" and not "2nd qtr".

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 15 Page 1 of 1

### Kentucky Power Company

### REQUEST

The final Order in Case No. 2010-00198 noted that the first year projected number of participants for the Commercial Incentive program was seven and the projected budget was \$176,198 for the second half of 2010. On Schedule C, page 16B-2 of 19, of the instant application, there are no participants or program costs recorded for the second half of 2010. Explain why there was no participation in 2010 once the program was approved.

### RESPONSE

An implementation contractor was required to administer this program. Contract negotiations were completed and a master agreement was executed February 1, 2011. This program could not begin until this master agreement was completed.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 16 Page 1 of 1

# Kentucky Power Company

### REQUEST

The Final Order in Case No. 2010-00198 noted that the projected number of participants for the Commercial Incentive program for the second year was 88 and the projected budget was \$896,152 for year 2011. On Schedule C, pages 17A-2 and 17B-2 of 19, of the instant application, there are a total of 88 participants, as budgeted, but the estimated program costs are \$910,560 for year 2011. Explain the \$14,408 increase in projected program costs.

#### RESPONSE

KEMA Services Inc. was the low bid contractor for this program and their 2011 budgeted cost for contractor administration and customer incentives was marginally higher (\$14,408) than the estimated program budget filed with Case No. 2010-00198.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 17 Page 1 of 1

# Kentucky Power Company

### REQUEST

On page 55 under Comments of the Status Report, it is stated that negotiations are ongoing with the implementation contractor for the Commercial Incentive program.

- a. Has an implementation contractor been selected? Explain.
- b. If the answer to 17.a. is yes, provide the name and background of the implementation contractor.

#### RESPONSE

- a. Yes. An agreement dated February 1, 2011, has been executed with a nationally-recognized program implementation contractor.
- b. KEMA Services Inc. with principal business located at 67 South Bedford Street, Suite 201E, Burlington, MA 01803.

From KEMA website (www.kema.com):

A global, leading authority in energy consulting and testing & certification, active throughout the entire energy value-chain – in a world of increasing demand for energy, KEMA has a major role to play in ensuring the availability, reliability, sustainability and profitability of energy and related products and processes. With more than 1,700 people and offices and representatives in more than 20 countries around the globe, we are committed to offering reliable, sustainable and practical solutions. We understand and recognize the technical consequences of a business decision, as well as the business consequences of a technical decision. Innovative technology has been our starting point for more than 80 years.

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 18 Page 1 of 1

# Kentucky Power Company

### REQUEST

The Final Order in Case No. 2010-00198 noted that the first year projected number of participants for the Residential Load Management program was 25 Air Conditioner Switches and 25 Water Heater Switches, and the projected budget was \$149,405 for the second half of 2010.

- a. On Schedule C, page 16B-1 of 19 of the instant DSM Report, there are no participants or program costs for the actual second half of 2010. Explain why there was no participation in 2010 once the program was approved.
- b. Discuss the future plan for promoting and implementing the Residential Load Management program.

### RESPONSE

- a. Approval was received from this program on October 15, 2010. An implementation contractor is required for this Residential and Commercial Load Management program. The program has been awarded to a vendor for these services and a contract is pending final vendor equipment testing and mutual agreement of contractual terms. The vendor equipment testing is being conducted at the AEP Dolan laboratory and Canton Meter Laboratory to ensure compliance with applicable codes and standards as well as the program objectives.
- b. Kentucky Power will target program participants based on certain usage patterns and promote the program via direct mail and telemarketing. Kentucky Power plans to track customer response and participation rates. Kentucky Power may test different direct mail formats (standard letter, over-sized postcard and self mailer) to identify and secure program participants.

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 19 Page 1 of 1

# **Kentucky Power Company**

### REQUEST

What efforts have there been in the past year to promote and implement all of Kentucky Power's DSM programs and what measures are in place for continued promotion and implementation in the future? Explain.

#### RESPONSE

Kentucky Power's initiatives to promote the DSM programs over the past year include an updated company website, promotional fact sheets, newspaper advertisement, public/community meetings, direct meetings with trade allies, direct meetings with school superintendents and educators, and mass phone messaging. Future promotion of DSM programs will also include company bill inserts, continued development of program fact sheets and marketing materials, instore promotions at select retail stores, vendor sponsored trade ally seminars, telemarketing, and targeted direct mail promotion. In addition, a new company webpage specific to energy saving programs is planned for mid-2011.

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 20 Page 1 of 1

# **Kentucky Power Company**

### REQUEST

Provide an organization chart of Kentucky Power's DSM organization along with a listing which identifies the individuals responsible for promoting, implementing and supporting the functions of the DSM programs.

#### RESPONSE

The following information includes the employees of the Energy Delivery DSM Department for Kentucky Power Company. The assigned responsibilities for administration of DSM programs are listed.

E. J. Clayton - Manager EE and Consumer Programs

Programs: Modified Energy Fitness (vendor - Honeywell), Community Outreach CFL, Commercial Incentive (vendor - KEMA), Pilot Residential & Small Commercial Load Management (vendor - TBD)

Scott Bishop - DSM/EE Coordinator

Programs: Targeted Energy Efficiency, High Efficiency Heat Pump, Mobile Home Heat Pump, Mobile Home New Construction, Commercial High Efficiency HP/AC, Residential & Small Commercial HVAC Diagnostic and Tune-Up, Energy Education for Students, Residential Efficient Products (vendor - APT)

Kathy Brandenburg - Administrative Associate

<u> </u>		

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 21 Page 1 of 2

# Kentucky Power Company

### REQUEST

The Status Report as of December 31, 2010 includes information as to discontinued programs that are part of historical data.

- a. Does Kentucky Power review these programs for future viability so that these programs may be promoted and implemented again? Explain.
- b. Even though the discontinued programs are part of the Status Report total dollar costs and kWh and kW impacts, should discontinued programs, such as the following, continue to be listed on Exhibit C, pages 17A-1, 17A-2, 17B-1, and 17B-2 of DSM Report once the discontinued programs no longer have any costs that are to recovered? Explain.

#### RESIDENTIAL PROGRAMS

**Energy Fitness** 

Compact Fluorescent Bulb

High - Efficiency Heat Pump

- Resistance Heat
- Non Resistance Heat

#### COMMERCIAL PROGRAMS

Smart Audit - Class 1

- Class 2

Smart Financing - Existing Building

Smart Financing - New Building

INDUSTRIAL PROGRAMS -(w/Est. Opt-Outs Removed)

Smart Audit - Class 1

Smart Audit - Class 2

Smart Financing - General

Smart Financing - Compressed Air System

KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 21 Page 2 of 2

#### RESPONSE

- a. Kentucky Power continues to review past program concepts for future viability, either to be implemented or used in conjunction with new programs, based on the potential market and success of a program. We do not plan to promote or implement the original programs again.
- b. No, Kentucky Power does not feel that the discontinued programs should be listed on the Schedule C, pages 17A-1, 17A-2, 17B-1, and 17B-2 of the DSM Report. In connection with "Going Green", Kentucky Power would like to reduce the amount of paper provided in the DSM Status Report in regards to discontinued programs, where the data has previously been provided and is not being revised.

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KPSC Case No. 2011-00055 Commission Staff's Initial Set of Data Requests Order Dated March 23, 2011 Item No. 22 Page 1 of 1

# Kentucky Power Company

# REQUEST

Provide in an electronic format with formulas intact, the calculations performed to determine the proposed DSM factors in Exhibit C of the DSM Report.

### RESPONSE

Please see attachment to Item No. 8 labeled "DSM 180 Month - Year 2010 - 1st Qtr + 2nd, 3rd & 4th Qtrs\_Revised.pdf" and xls version on CD for intact formulas.