In the Matter of:

THE JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY DEMAND-SIDE MANAGEMENT FOR THE REVIEW, MODIFICATION, AND CONTINUATION OF ENERGY EFFICIENCY PROGRAMS AND DSM COST RECOVERY MECHANISMS

> Volume I Filed – July 19, 2007

)) CASE NO.) 2007-) **@0319**)



Ms. Elizabeth O'Donnell Executive Director Kentucky Public Service Commission 211 Sower Boulevard Frankfort, Kentucky 40602-0615

July 19, 2007

RECEIVED

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PUBLIC SERVICE COMMISSION E.ON U.S. LLC State Regulation and Rates 220 West Main Street PO Box 32010 Louisville, Kentucky 40232 www.eon-us.com

Rick E. Lovekamp Manager – Regulatory Affairs T 502-627-3780 F 502-627-3213 rick.lovekamp@eon-us.com

RE: <u>The Joint Application of Louisville Gas and Electric Company and</u> <u>Kentucky Utilities Company Demand-Side Management for the Review,</u> <u>Modification, and Continuation of Energy Efficiency Programs and</u> <u>DSM Cost Recovery Mechanisms</u> Case No. 2007-00____

Dear Ms. O'Donnell:

Enclosed please find and accept for filing pursuant to the provisions of KRS 278.285 an original and ten (10) copies of Louisville Gas and Electric Company's and Kentucky Utilities Company's Joint Application and 2008-2014 Energy Efficiency Program Plan in the above-referenced matter.

Should you have any questions concerning the enclosed, please do not hesitate to contact me.

Sincerely,

Rick E. Lovekamp

cc: Dennis Howard II Michael L. Kurtz

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE JOINT APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY DEMAND-SIDE MANAGEMENT FOR THE REVIEW, MODIFICATION, AND CONTINUATION OF ENERGY EFFICIENCY PROGRAMS AND DSM COST RECOVERY MECHANISMS

)) CASE NO. 2007-<u>00319</u>

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APPLICATION

Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively "the Companies") hereby petition the Kentucky Public Service Commission ("Commission") to issue an Order approving their proposed Energy Efficiency Program Plan and the proposed Demand Side Management ("DSM") cost recovery tariffs filed herein that will permit recovery of the costs associated with the proposed programs. This application is made pursuant to KRS 278.285. In support of this Application, LG&E and KU respectfully state:

1. The full name and mailing address of LG&E is: Louisville Gas and Electric Company, Post Office Box 32010, 220 West Main Street, Louisville, Kentucky 40232. The full name and mailing address of KU is: Kentucky Utilities Company c/o Louisville Gas and Electric Company, Post Office Box 32010, 220 West Main Street, Louisville, Kentucky 40232. Both LG&E and KU are Kentucky corporations authorized to do business in the Commonwealth of Kentucky. 2. LG&E is a utility engaged in the electric and gas business. LG&E generates and purchases electricity, and distributes and sells electricity at retail in Jefferson County and portions of Bullitt, Hardin, Henry, Meade, Oldham, Shelby, Spencer and Trimble Counties. LG&E also purchases, stores and transports natural gas and distributes and sells natural gas at retail in Jefferson County and portions of Barren, Bullitt, Green, Hardin, Hart, Henry, Larue, Marion, Meade, Metcalfe, Nelson, Oldham, Shelby, Spencer, Trimble and Washington Counties.

3. KU is a utility engaged in the electric business. KU generates and purchases electricity, and distributes and sells electricity at retail in the following counties in Central, Northern, Southeastern and Western Kentucky:

Adair Anderson Ballard Barren Bath Bell Bourbon Boyle Bracken Bullitt Caldwell Carlisle Carroll Casey Christian Clark Clay	Edmonson Estill Fayette Fleming Franklin Fulton Gallatin Garrard Grant Grant Grayson Green Hardin Harlan Harrison Hart Henderson Henry Hickman	Jessamine Knox Larue Laurel Lee Lincoln Livingston Lyon Madison Marion Mason McCracken McCracken McCreary McLean Mercer Montgomery Muhlenberg Nelson	Ohio Oldham Owen Pendleton Pulaski Robertson Rockcastle Rowan Russell Scott Shelby Spencer Taylor Trimble Union Washington Webster Whitley
	-	U U	

4. A certified copy of LG&E's and KU's Articles of Incorporation, as amended, are on file with the Commission in Case No. 2005-00471, *In the Matter of: Application of Louisville*

Gas and Electric Company and Kentucky Utilities Company for Authority to Transfer Functional Control of their Transmission System.

5. Copies of all orders, pleadings and other communications related to this proceeding should be directed to:

Allyson K. Sturgeon Corporate Attorney E.ON U.S. Services Inc. 220 West Main Street Louisville, Kentucky 40202 (502) 627-2088

Kent W. Blake Vice President, State Regulation and Rates E.ON U.S. Services Inc. 220 West Main Street Louisville, Kentucky 40202 (502) 627-2573

6. The Companies filed a combined company Integrated Resource Plan ("IRP") in April of 2005. Part of the IRP was a comprehensive evaluation of DSM alternatives. This filing includes each of the programs from the IRP, except for Polarized Refrigerant Oil Additive which remains an unproven technology, along with a Residential New Construction Program identified in the previous IRP.

7. The Companies have communicated and solicited feedback from members of their Energy Efficiency Advisory Group in developing this plan. The Companies provide information to the Energy Efficiency Advisory Group on program plans and updates on current programs. The Energy Efficiency Advisory Group provides feedback on the plans along with suggestions for program implementation and improvements. In addition to the Energy Efficiency Advisory Group, the Companies also considered feedback from other constituent groups, the National Action Plan for Energy Efficiency, recommendations from a consultant,

ICF International, and program evaluations in developing this plan.

8. The Energy Efficiency Program Plan seeks the Commission's approval of the following enhanced versions of LG&E's and KU's existing DSM programs which expire on December 31, 2007 along with the addition of several new cost effective programs:

Existing Programs - Enhancements

- Residential Conservation (energy audits) addition of online audits and more comprehensive testing for onsite audits
- Residential and Commercial Load Management recently added programmable thermostats as a program option to help customers reduce usage. Plans to enroll an additional 105,000 customers
- Residential Low Income Weatherization increased home repair services and higher numbers of customers served
- Commercial Conservation (energy audits) increased focus on lighting, pumps, motors and refrigeration, through a prescriptive rebate component

New Programs

- Responsive Pricing and Smart Metering Pilot (Case No. 2007-00117)
- Residential High Efficiency Lighting
- Residential New Construction
- Residential and Commercial HVAC Diagnostics and Tune Up
- Customer Education and Public Information
- Dealer Referral Network
- 9. The budget for the portfolio of programs filed herein is estimated at \$25.8 million

for 2008 and is generally flat for the proposed 7-year program period, averaging \$26.0 million

per year for 2008-2014. Actual costs in any one year may vary but will be reconciled through the balancing adjustment component of the DSM cost recovery mechanism.

10. The proposed DSM tariffs which are filed with the Energy Efficiency Program Plan contain separate cost recovery mechanisms for LG&E and KU. The proposed Energy Efficiency programs will be operated as one group of programs available to customers of LG&E and KU. While the programs will operate as "one" from the customer's perspective, separate accounting will allow for the proper recovery of the Demand-Side Management Cost Recovery Mechanism components from each utility's individual customers within the appropriate rate classes.

11. The DSM Cost Recovery Mechanism in the currently-approved tariffs for both LG&E and KU includes a monthly billing item known as the DSM Cost Recovery Component ("DSMRC"). The monthly billing item is comprised of four components: DSM Cost Recovery component ("DCR"), DSM Revenues from Lost Sales ("DRLS"), DSM Incentive ("DSMI"), and DSM Balancing Adjustment ("DBA"). The monthly amount is calculated in accordance with the following formula:

DSMRC = DCR + DRLS + DSMI + DBA

The tariffs proposed in this filing adhere to this long-standing method for calculating the DSM cost recovery component for customers' monthly bills; no change to the fundamental ratemaking method is proposed.

12. The currently-approved tariff employs two different methods for computing the DSM incentive amount. The method employed varies by program. The tariff presently specifies that for all existing programs except Education and Load Control, the DSM incentive amount is computed by multiplying the annual net resource savings expected from the approved programs

times fifteen (15) percent, not to exceed five (5) percent of program expenditures. (Net resource savings are defined as program benefits less utility program costs and participant costs where program benefits will be calculated on the basis of the present value of LG&E's avoided costs over the expected life of the program, and will include both capacity and energy savings.) For the Education and Load Control Program, the DSM incentive amount is computed by multiplying the annual cost of the approved programs times five (5) percent. In this filing, the Companies propose to employ the method used for Education and Load Control for all programs proposed herein, i.e. to compute the DSM incentive amount for all programs by multiplying the annual cost of the approved programs times five (5) percent. The Companies propose this in order to simplify the calculation and to apply a consistent methodology across the entire portfolio of programs.

13. The proposed tariffs assume an effective date of January 1, 2008.

WHEREFORE, Louisville Gas and Electric Company and Kentucky Utilities Company respectfully request that the Public Service Commission issue an order approving the Companies' Energy Efficiency Program Plan and the proposed tariffs that will allow recovery of the costs associated with the proposed Energy Efficiency programs.

Dated at Louisville, Kentucky, this $/9^{+-}$ day of July, 2007.

LOUISVILLE GAS AND ELECTRIC COMPANY KENTUCKY UTILITIES COMPANY

Allyson K Sturgeon Corporate Attorney E.ON U.S. 220 West Main Street Louisville, Kentucky 40202 (502) 627-2088

CERTIFICATE OF SERVICE

The undersigned hereby certifies that an original and ten copies of this Application was filed with Elizabeth O'Donnell, Executive Director, Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601, and that a copy of the Application was sent to Dennis Howard, Office of Rate Intervention, Office of the Attorney General, 1024 Capital Center Drive, Suite 200, Frankfort, Kentucky 40601, and Michael L. Kurtz, Boehm Kurtz & Lowry, 35 East Seventh Street, Suite 1510, Cincinnati, Ohio 45202, this / # day of July, 2007.

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Counsel for Louisville Gas and Electric Company and Kentucky Utilities Company

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

Volume I

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

ES.0 Executive Summary

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

ES.1 Introduction

According to the National Action Plan for Energy Efficiency ("Action Plan"), the U.S. energy system faces a set of serious challenges. Energy demand continues to grow despite historically high energy prices and mounting concerns over energy security and independence as well as air pollution and global climate change. The Action Plan, issued in July 2006, goes on to say that despite the fact that energy efficiency is one of the most constructive, cost-effective ways to address these challenges, it remains a critically underutilized resource in some regions of the country. Kentucky is arguably one of these regions; supplementing the Action Plan is The State Energy Efficiency Scorecard for 2006, released by the American Council for an Energy-Efficient Economy, which ranked Kentucky 35th overall with utility spending on energy efficiency achieving a score of only 0.5 out of a possible 15 points.

In early 2007, E.ON U.S. LLC., parent company of Louisville Gas and Electric Company ("LG&E") and Kentucky Utilities Company ("KU") (collectively, "the Companies"), engaged an international consulting firm, ICF International, to assist with a broad review of its existing and proposed programs as well as industry best practice and strategic planning for energy efficiency (see Volume II Appendix A). Many of ICF's findings and recommendations parallel the Action Plan and are incorporated into the Companies 2008-2014 Energy Efficiency Program Plan.

It is with this understanding and shared concern that the Companies submit this Application for an expanded Energy Efficiency portfolio.

The Companies' Energy Efficiency objective is to develop, implement and promote costeffective offerings that advance the effective and deliberate use of energy by end-use consumers. The aim is to provide customers with the tools they need to help make better use of the energy provided to them by the Companies.

This submittal provides for enhanced versions of our existing programs, which expire on December 31, 2007 along with the addition of several new cost effective programs to the portfolio.

Existing Programs - Enhancements

- Residential Conservation (energy audits) addition of online audits and more comprehensive testing for onsite audits
- Residential and Commercial Load Management recently added programmable thermostats as a program option to help customers reduce usage. Plans to connect an additional 105,000 customers

- Residential Low Income Weatherization increased home repair services and higher numbers of customers served
- Commercial Conservation (energy audits) increased focus on lighting, pumps, motors and refrigeration, through a prescriptive rebate component

New Programs

- Responsive Pricing and Smart Metering Pilot (Case No. 2007-00117)
- Residential High Efficiency Lighting
- Residential New Construction
- Residential and Commercial HVAC Diagnostics and Tune Up
- Customer Education and Public Information
- Dealer Referral Network

The program implementation plans described in this filing represent the Companies plans based upon the best information currently available. We are operating in a dynamic environment with customer attitudes, regulations and the marketplace constantly changing. The Companies request flexibility to make program changes and reallocate resources among programs over the lives of the programs to optimize results for both the customer and the Companies. This flexibility is crucial to the success of the undertaking, given the innovative nature of the effort and need to make timely and responsive changes.

The Companies view all of the proposed new programs as key portfolio elements with excellent energy savings potential. However, the Customer Education and Public Information component is of particular significance. As explained in the Action Plan, "[s]ome of the key barriers to investment in energy efficiency are informational. Education, outreach, and training should be provided to trade allies as well as customers." This plan reaches out to all constituent groups including schoolchildren not only through this stand alone program, but also through program specific educational components within several of the programs.

The Companies filed a Joint Integrated Resource Plan ("IRP") in Case No. 2005-00162 in April 2005. Part of the IRP was a comprehensive evaluation of the Demand-Side Management ("DSM") alternatives. This filing includes each of the programs from the IRP except for Polarized Refrigerant Oil Additive, which remains an unproven technology. The Residential New Construction Program was identified in the previous IRP. Additionally, the Responsive Pricing and Smart Metering Program (Case No. 2007-00117) filed with the Kentucky Public

Service Commission ("Commission") on March 21, 2007 fulfills the terms of the rate case settlement from Case No. 2003-00433.

The Companies have communicated and solicited feedback from members of the Energy Efficiency Advisory Group in developing this plan. The Companies provide information to the Energy Efficiency Advisory Group on program plans and updates on current programs. The Energy Efficiency Advisory Group provides feedback on the plans along with suggestions for program implementation and improvements. In addition to the Energy Efficiency Advisory Group, the Companies also considered feedback from other constituent groups, The Action Plan, recommendations from the ICF International report and program evaluations in developing this plan.

ES.2 History

LG&E began negotiations with intervenors in 1992 regarding the implementation of DSM programs by LG&E for the benefit of its customers and the recovery of the costs associated with such programs. This collaborative effort resulted in a request to the Commission in November 1993 to approve "The Joint Application for the Approval of Demand-Side Management Programs, a DSM Cost Recovery Mechanism, and a Continuing Collaborative Process on DSM for Louisville Gas and Electric Company" (Case No. 93-150). Initial DSM programs were implemented in 1994.

In December 1995, the DSM Collaborative submitted a filing, including new DSM programs and recommended continuation of the existing programs. The Commission approved this filing in June 1996. Current programs initiated through this filing included initial research and development for the Residential Load Management Program and the Program Development and Administration program which was developed to capture the cost of developing and administering the complete set of DSM programs.

In 1997, the DSM Collaborative submitted several filings that resulted in all the programs previously approved being proposed again to the Commission along with the addition of the Residential Energy Audit Program. The Commission approved this filing in April 1998.

The most recent filing authorizing the current programs was approved by the Commission in 2000.

At this time, DSM programs are considered as one set of elements within the wider category of Energy Efficiency Programs.

ES.3 Energy Efficiency Goals and Objectives

The Companies' Energy Efficiency objective is to develop, implement and promote costeffective offerings that advance the effective and deliberate use of energy by end-use consumers. The aim is to provide customers with the tools they need to help make better use of the energy provided to them by the Companies.

Energy Efficiency is a resource. Energy efficiency programs offer the potential to reduce the amount of energy needed by customers, assist them to use energy more wisely and improve their load factor. These programs may reduce or delay the need for the Companies to build power plants or purchase additional energy in the wholesale market.

The detailed objectives of the Companies' Energy Efficiency approach include the following:

- 1. To recognize energy efficiency as a high-priority energy resource;
- 2. To make a strong, sustainable, long-term commitment to implement cost-effective energy efficiency;
- 3. To broadly communicate the benefits of and opportunities for energy efficiency while encouraging consumer acceptance of responsibility for consumption levels;
- 4. To promote energy efficiency programs to customers in a manner that optimizes participation;
- 5. To ensure a balanced approach to meeting the anticipated resource needs for LG&E and KU customers;
- 6. To enhance overall customer satisfaction and actively respond to climate change;
- 7. To collaborate with appropriate stakeholders (including customers, federal and state officials, industry experts, utility associations, and others) on energy efficiency matters, consistent with the National Action Plan for Energy Efficiency, the Kentucky Comprehensive Energy Strategy, and other applicable energy efficiency action plans.

Key fundamental elements of the Energy Efficiency Program include the following:

- 1. Cost-effective Energy Efficiency initiatives are an important component of the Companies' broad focus on climate change.
- 2. The Companies should provide customers tools to help them take control of their own energy use.
- 3. The Companies should educate consumers about the tools provided and about the importance of using energy wisely.

ES.4 Demand-Side Management Cost Recovery Mechanism (DSMRM)

The attached tariffs contain separate cost recovery mechanisms for LG&E and KU. The proposed Energy Efficiency programs will be operated as one group of programs available to customers of LG&E and KU. While the programs will operate as "one" from the customer's perspective, separate accounting will allow for the proper recovery of the DSMRM components from each utility's individual customers within the appropriate rate classes. The attached tariffs assume an effective date of January 1, 2008.

The Demand-Side Management Balance Adjustment ("DBA") is used to reconcile the difference between what was actually billed and what should have been billed for approved Energy Efficiency programs. DBA adjustments will become effective each April for the purpose of reconciling DBA revenues collected in the previous calendar year.

ES.5 Program Evaluation

Program evaluation is necessary to control quality of the programs, to optimize resources and to respond to customers' needs. Program evaluation is usually done in the following two phases: 1) process evaluation and 2) impact evaluation. Process evaluation is a systematic assessment of a utility Energy Efficiency program for the purposes of improving its design, its delivery, and the usefulness and quality of the services delivered to the customers, while impact evaluation focuses on quantifying the energy and demand savings and other economic benefits of the program. All programs will be evaluated by the Companies to determine their benefits and costs. The Companies will continue to monitor all the programs and if any program is deemed to be ineffective, the Companies reserve the right to cancel or discontinue the program with a letter or motion to the Commission.

ES.6 Program Benefit / Cost Calculations

Listed below are the benefit / cost ratios performed according to the California Standard Practice Manual for each of the proposed Energy Efficiency programs. The Companies worked closely with program design consultants to create programs that are in the best interest of the participating customers and result in programs passing the Total Resource Cost Test. Each of the proposed programs passes the Participant Test (Programs designated n/a have no participant costs) and the Total Resource Cost Test.

The benefit / cost calculations were performed using DSManager. DSManager is a PC-based software package developed by EPS Solutions under contract with Electric Power Research Institute ("EPRI"). The DSManager output reports for each of the programs can be found in Volume II Appendix B. The DSManager input summary report for each of the programs can be found in Volume II Appendix C.

	Participants Test	Utility Cost Test	Ratepayer Impact Test	Total Resource Cost Test
Residential Conservation	4.19	1.37	0.60	1.50
Residential Load Management	Infinity	2.67	1.90	3.75
Commercial Load Management	Infinity	4.52	2.09	6.12
Res. Low Income Weatherization	Infinity	0.81	0.37	2.28
Commercial Conservation /Rebates	4.30	11.21	0.89	3.64
Residential High Efficiency Lighting	11.04	4.40	0.64	2.87
Residential New Construction	2.23	1.49	0.61	1.09
Residential HVAC Tune Up	7.66	1.13	0.62	1.10
Commercial HVAC Tune Up	20.32	2.04	0.53	1.79
*Customer Education & Public Information	n/a	0	0	0
*Dealer Referral Network	n/a	0	0	0
*Program Development and Admin.	n/a	0	0	0
Overall Portfolio	7.02	3.31	0.89	2.80

Benefit/Cost Ratios

* Benefits are captured in analysis of supported programs

ES.7 Timeline

Implementation of this program plan will require employment of additional personnel by the Companies. While going through the approval process of this program plan, the Companies will not add Energy Efficiency Operations employees but do intend to move forward with the process of selecting contractors for the programs. The Companies will not sign contracts with the successful bidders until the program plan and corresponding cost recovery have been approved by the Commission. Implementation plans will proceed under the assumption that approval will be granted prior to January 1, 2008. The Companies intend to implement all programs as quickly as reasonably possible following approval with reimplementation of existing programs taking priority. Assuming no major delays in finding qualified employees, all programs are expected to be operational by the end of 3rd quarter 2008.

ES.8 Energy and Demand Reductions

*Projected Annual Savings for							
	all the Energy Efficiency Programs						
	2008	2009	2010	2011	2012	2013	2014
MWh	125,621	248,466	368,816	484,966	598,093	707,193	813,058
MW	47	95	142	186	229	267	303
MCF	490	978	1,482	1,939	2,406	2,818	3,209

* Energy impacts represent cumulative savings from initiatives beginning in 2008

ES.9 Program Budget

The following budget projections give an overview of the proposed budget by expense type, by program, and by rate class.

E.S.9.1 Annual Budget – Expense Type

	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$1,712,261	\$1,764,500	\$1,813,035	\$1,731,019	\$1,782,492	\$1,835,501	\$1,890,091
Office Supplies & Expenses	\$46,527	\$49,678	\$55,589	\$57,480	\$60,136	\$63,075	\$66,337
Data Processing	\$538,800	\$363,558	\$367,894	\$340,067	\$334,578	\$339,180	\$343,874
Advertising	\$5,246,966	\$5,350,505	\$5,652,040	\$5,753,809	\$6,047,814	\$6,180,510	\$6,429,959
Equipment	\$4,078,818	\$3,700,522	\$3,783,283	\$3,126,825	\$3,182,479	\$2,468,863	\$2,118,262
Outside Services	\$7,044,982	\$7,086,638	\$7,511,264	\$7,406,138	\$7,701,937	\$7,433,551	\$7,395,034
Rebates & Incentives	\$5,646,879	\$5,817,225	\$6,076,776	\$6,189,977	\$6,316,259	\$6,417,156	\$6,513,212
Program Education Expenses	\$299,483	\$237,236	\$214,037	\$240,226	\$223,693	\$229,019	\$234,429
Market Research	\$205,125	\$132,853	\$155,710	\$137,412	\$160,978	\$142,155	\$166,453
New Program R&D	\$250,000	\$256,250	\$261,375	\$266,603	\$271,935	\$277,373	\$282,921
Program Evaluation	\$851,468	\$695,594	\$740,302	\$777,515	\$657,513	\$666,557	\$790,339
Customer Fees	(\$64,750)	(\$110,500)	(\$140,000)	(\$164,000)	(\$175,000)	(\$175,000)	(\$175,000)
Total Plan	\$25,856,558	\$25,344,059	\$26,491,306	\$25,863,068	\$26,564,816	\$25,877,939	\$26,055,910

E.S.9.2 Annual Budget – Programs & Rate Class

	2008	2009	2010	2011	2012	2013	2014
Residential Programs		Ì					
Residential Conservation	642,432	698,339	741,895	770,249	777,624	796,276	815,473
Residential Demand Conservation	9,991,125	10,247,157	10,793,803	9,782,181	10,241,082	9,091,041	8,661,803
WeCare	1,728,665	1,738,166	1,788,208	1,868,463	1,892,711	1,947,260	2,003,401
Responsive Pricing Pilot	1,094,220	221,810	221,810	107,500	0	0	0
Residential High Efficiency Lighting	3,434,829	3,388,963	3,396,569	3,416,046	3,447,148	3,489,677	3,543,481
Residential New Construction	859,994	864,292	1,064,054	1,102,635	1,204,469	1,281,140	1,401,685
Residential HVAC Diagnostics & Tune Up	204.825	339,747	392,391	487,332	482,994	492,092	537,642
Customer Education & Public Information	2,480,594	2,531,811	2,606,787	2,703,261	2,825,110	2,978,045	3,170,248
Dealer Referral Network	129,058	118,886	121,750	124,686	127,695	130,781	133,943
Program Development & Administration	603,782	622,110	637,899	654,104	670,737	687,808	705,331
Total Residential Programs	21,169,525	20,771,282	21,765,166	21,016,458	21,669,571	20,894,119	20,973,008
Total Residentiar Programs							
Commercial Programs							100.050
Commercial Demand Conservation	436,110	398,688	450,564	438,750	431,397	447,948	432,350
Comm. Conservation w/Prescriptive Rebates	3,177,328	3,149,081	3,170,021	3,214,230	3,213,256	3,235,571	3,258,365
Responsive Pricing Pilot	178,129	38,465	38,465	17,500	0	0	0
Commercial HVAC Diagnostics & Tune Up	190,077	268,122	328,117	411,778	455,180	466,894	512,048
Customer Education & Public Information	544,521	555,763	572,222	593,399	620,146	653,717	695,908
Dealer Referral Network	28,330	26,097	26,726	27,370	28,031	28,708	29,402
Program Development & Administration	132,538	136,561	140,027	143,584	147,235	150,982	154,829
Total Commercial Programs	4,687,033	4,572,777	4,726,141	4,846,611	4,895,245	4,983,821	5,082,902
Total Plan	25,856,558	25,344,059	26,491,306	25,863,068	26,564,816	25,877,939	26,055,910

\$

LG&E and KU Energy Efficiency 2008-2014 Program Plan

1.0 Residential Conservation Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential Conservation Program

1.1 Description

The Residential Conservation Program is being expanded to offer residential customers two options for a home energy analysis. Customers may complete an online (or telephone assisted) audit at no charge or may choose a more comprehensive onsite audit by a qualified energy audit professional for a nominal charge.

The online audit will be targeted to customers who are interested in energy information regarding their home, but may not be interested in investing the time or money to have an onsite audit performed. The online audit will take customers through a series of questions regarding energy related characteristics of their home, their existing electric and gas appliances and their personal energy usage habits. Customer information gathered is compared to historical energy usage to develop energy saving recommendations. Recommendations will be delivered to the customer in a formal audit report detailing each recommendation and providing potential energy and cost savings.

The onsite audit encompasses a more comprehensive walk-through inspection recording appliance data, taking measurements and testing of energy related attributes of the home. The information gathered from the audit is compared to the customer's historical energy usage to develop a set of energy saving recommendations. The customer receives personal energy counseling from the auditor along with a comprehensive audit report detailing recommendations and providing potential energy and cost savings. The customer pays \$25.00, which will be used to offset a portion of the audit cost.

1.1.1 History

This program, formerly known as the Residential Energy Audit Program, was originally filed in February 1997 and approved in April 1998, and re-approved in 2000. An independent evaluation of the program was completed by Summit Blue Consulting ("SBC"), see Volume III Appendix D. Evaluation results indicate that customer participation far exceeded expectations, audits are valued by customers and that there is a high degree of customer satisfaction; however, few customers implemented recommended measures. Based upon review of measure implementation surveys, SBC determined that the implementation rate of measures that required extra effort or capital was less than 5%. The overall program achieved 2,698 MWh or 54% of planned electric savings and was much more successful on the gas side achieving 450 MCF or 234% of gas savings.

	Goal	Achieved	Achieved vs. Goal
Participation	6,000	7,334	122%
Electric Energy Savings (MWh)	4,980	2,698	54%
Gas Energy Savings (CCF)	192,120	449,665	234%

Evaluated Program Goals and Results through December 31, 2005

Evaluated Participant-Basis Goals and Results through December 31, 2005

	Goal	Achieved	Achieved vs. Goal
Electric Energy Savings (MWh)	0.83	0.37	44%
Gas Energy Savings (CCF)	32.02	61.3	191%

Discussions with SBC, other evaluation contractors, and peers within the industry indicate that low measure implementation rates in residential audit programs is a common problem throughout the industry. SBC recommended the Companies' consider following a national trend of moving toward online audits, as they meet the needs of customers casually interested in an energy audit without incurring the high cost associated with site visits. Online audits may assist in qualifying customers who are more likely to implement recommendations.

1.2 Rationale for Program

This program is designed to bring energy efficiency information and solutions to a broad segment of the residential customer group. The Companies and the utility industry have a long history of providing energy audits to customers. The energy education and energy saving measures are two components of this program that favorably impact our customers. The energy education component helps the customer understand where and how energy is being used, and recommendations identify direct actions that may be taken to reduce consumption and utility bills. Moreover, depending upon the type of audit they receive, participants may be provided compact fluorescent light bulbs ("CFL's"), programmable thermostats, water heater blankets, faucet aerators, and low-flow showerheads; which decrease energy consumption and lower energy bills.

1.3 Program Goals

1.3.1 Participation Goals

Customer participation in Residential Conservation Program is assumed to be 50% LG&E and 50% KU. The projected objectives for participation are as follows:

	Residential C	onservation - Ann	nual Participation	
	Online	Onsite	Online	Onsite
Year	LG&E	LG&E	KU	KU
2008	1,500	400	1,500	400
2009	2,500	400	2,500	400
2010	3,000	400	3,000	400
2011	3,000	400	3,000	400
2012	3,000	400	3,000	400
2013	3,000	400	3,000	400
2014	3,000	400	3,000	400

1.3.2 Energy Impacts

P	Projected A	nnual Savir	igs for the	Residential	Conservat	tion Progra	m
	2008	2009	2010	2011	2012	2013	2014
MWh	1,495	3,491	5,738	7,984	10,231	12,478	14,725
Kw	614	1,436	2,363	3,290	4,216	5,143	6,070
CCF	118,454	214,245	315,587	416,929	518,271	619,613	720,955

1.4 Incentives

There are no direct incentives paid to customers through this program. Customers receive an online energy audit at no charge or a high quality onsite audit for only \$25.00. Customers participating in online and onsite audits may receive CFL's. Customers participating in onsite audits may also receive programmable thermostats, air sealing services, energy-saving showerheads, water heater wraps, and faucet aerators.

1.5 Implementation Plan

1.5.1 Promotion

This program will be promoted through brochures, direct mail, customer newsletters and via the web. Additionally, customers may learn about the existence of this and other energy efficiency programming through components of the Customer Education and Public Information program described in section 9 of this document. Customers may request an audit via the internet, by telephone or by returning a mail-back application included with all direct mail brochures.

1.5.2 Delivery

1.5.2.1 Online Audits

The online audit website provider maintains a web based audit tool including entry screens, calculation engines, an audit database and a report generator. Electronic records will contain detailed customer and building information such as square footage, type and size of heating and cooling systems, appliance information, other customer and premise information and the energy saving recommendations. The web based audit tool will contain links to the Dealer Referral Network described in section 10.

The audit database will contain detailed business reporting information needed for contractor billing and program analysis and evaluation.

For online audits, the customer will simply go to the audit website, activate a check box agreeing to the audit and provide account information enabling the company to verify the applicant as a customer and to extract usage data for analysis. The audit can be started immediately and the timing is entirely at the customers' discretion. Customers not having internet access may participate in the audit by telephone.

The audit report along with customer educational materials will be delivered electronically for the customer to view and/or print or may be mailed to customers not having internet access. Customers fully completing online audits will be encouraged to use and may be provided some CFL's. Online audit recipients may be encouraged to move up to the more comprehensive audit option.

1.5.2.2 Onsite Audits

The onsite audit contractor is responsible for enrolling customers, performing audits, issuing audit reports and recommendations and providing customer education. The contractor will maintain an audit database containing detailed customer and building information, such as square footage, type, size, and efficiency of heating and cooling systems, insulation values, blower door readings, appliance information, provided measures and energy savings recommendations. For onsite audits, the Companies receive an application form by mail, internet or telephone along with a check payment of \$25.00 or the customers' permission to place the payment on their utility bill. (The audit contractor will collect the permission signature of the utility customer at the time of the audit). The Companies then send the customer's energy usage information to the audit contractor. The audit contractor contacts the customer to schedule a time that is suitable for the customer to perform the audit and install company provided measures.

During the inspection, the energy audit contractor checks and records the building shell, windows, doors, HVAC, water heater, insulation, and other areas, as needed. Information regarding size and efficiency stamped on the heating and cooling appliances is collected. Based upon a visual inspection of the HVAC equipment, the auditor may recommend the customer take advantage of the Companies' new HVAC Diagnostics/Tune-up Program. The building will be tested for air infiltration. In addition to the audit, some or all of the following measures may be installed by the energy audit contractor at no cost to the customer; CFL's, Demand Conservation programmable thermostats, air sealing services, energy-saving showerheads, water heater wraps, and faucet aerators.

The energy audit contractor discusses energy efficiency with the customer and provides an educational information packet containing energy savings advice. The customer is provided with a comprehensive report, which includes energy-saving recommendations appropriate for the home, an estimate of the cost to implement the recommendations along with projected savings and Dealer Referral Network information.

1.5.3 Quality Assurance

Energy Efficiency staff will conduct announced and unannounced audit site visits and will pull samples of online audits as part of active program management. Additionally, independent evaluation contractors will be engaged to review the program

1.5.4 Customer Satisfaction Survey

A quality assurance review will be conducted for each energy audit performed. A follow-up survey created by the Companies will be distributed by the audit contractor at the time of the initial audit. These surveys will be returned to the Companies online or by mail depending upon the type of audit and customer capabilities.

1.5.5 Measure Implementation Survey

A random sample of audit customers large enough to be statistically significant will be surveyed by telephone to determine energy saving measures implemented by the customer and the customer's overall perception of the value of the audit. The survey will cite recommendations generated by the audit and will ask the customer detailed questions to accurately capture energy savings implementation data for evaluation purposes.

1.5.6 Program Tracking and Database

Program tracking databases are an important issue for both program implementers and evaluators. Databases supply an accurate and complete representation of the programs and make it much easier to make mid-course program corrections.

1.6 Annual Budget

Residential Conservation

	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$65,871	\$68,176	\$70,222	\$72,328	\$74,498	\$76,733	\$79,035
Office Supplies & Expenses	\$1,000	\$1,025	\$1,046	\$1,066	\$1,088	\$1,109	\$1,132
Data Processing	\$25,000	\$10,250	\$10,455	\$20,664	\$10,877	\$11,095	\$11,317
Advertising	\$88,000	\$90,200	\$92,004	\$93,844	\$95,721	\$97,635	\$99,588
Outside Services/Audits	\$219,000	\$236,575	\$248,552	\$255,548	\$262,745	\$270,149	\$277,765
Installed Measures	\$188,900	\$231,940	\$254,936	\$258,526	\$262,213	\$266,000	\$269,888
Education Expenses	\$26,200	\$26,855	\$27,392	\$27,940	\$28,499	\$29,069	\$29,650
Market Research	\$5,125	\$5,228	\$5,332	\$5,439	\$5,547	\$5,658	\$5,772
Program Evaluation	\$43,337	\$48,090	\$51,957	\$54,893	\$56,435	\$58,827	\$61,326
Customer Fees	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)
Total Program Expenses	\$642,432	\$698,339	\$741,895	\$770,249	\$777,624	\$796,276	\$815,473

Assumptions

- Program labor assumes 2/3 FTE
- Advertising expense is based on \$10 per onsite audit delivered plus printed promotional materials
- Data processing includes \$15,000 to develop a new residential conservation database in 2008, \$10,000 for an update in 2011 and \$10,000 per year to maintain databases and host an online audit site
- Outside services are based on \$5 for each online audit and \$200 for each onsite audit
- Installed measures include combinations of low flow shower heads, aerators, water heater blankets, CFL's and air sealing
- Education expenses include printed educational materials related to residential audits and Program Manager development
- Market research covers customer surveys related to customer satisfaction and program improvement
- Program evaluation is 7% of total program costs
- Customer fees are based on a \$25 charge for all onsite audits

LG&E and KU Energy Efficiency 2008-2014 Program Plan

2.0 Residential and Commercial Load Management Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential and Commercial Load Management

2.1 **Program Description**

The objective of this program is to reduce peak demand and energy usage through the installation of load control devices on residential and commercial customer equipment, emphasizing central air conditioners and heat pumps, but also including electric water heaters and pool pumps.

Load reduction is accomplished by cycling equipment on and off according to a predetermined control strategy. For example, if an air conditioner is turned off for 15 minutes during a 30-minute period, it is "cycled" on a 50 percent control strategy. The Company's strategy has been to control between 30% and 45%, depending on temperature and customer equipment, resulting in an average demand reduction of over 1 KW per switch.

Additional energy savings come from the use of the setback features of a programmable thermostat, which includes similar technology as the switch to cycle the unit during peak periods. The U.S. Department of Energy ("DOE") indicates that proper use of a programmable thermostat can result in savings of around 10% a year on heating and cooling usage by simply turning the thermostat back 10° - 15° for eight hours per day, when asleep or away.

2.1.1 Program History

In 2001, the Companies began implementation of this load control program ("Demand Conservation") and as of June 1, 2007 over 98,000 devices have been installed on air conditioners, electric water heaters, and pool pumps. Because these devices often control multiple appliances, there are over 114,000 air conditioners, water heaters and pool pumps under control.

The current electric system summer peak demand reduction is in excess of 107 MW. Program performance and demand reduction assumptions have been verified by independent program evaluations by SBC in 2004 (see Volume III Appendix E) and GoodCents Solutions in 2005 (see Volume III Appendix F).

The program plans call for up to 20 control days per year. As seen in the table below, the Companies have historically utilized the system an average of 11 days per year.

Year	Number of control days
2003	11
2004	7
2005	16
2006	10

On August 2, 2006, LG&E and KU set a new combined system peak of 6,852 MW. During this peak, load control devices were activated and over 93 MW of demand was eliminated from the peak.

During 2005, equipment manufacturers began incorporating the functions of a load control switch into programmable thermostats. During the winter of 2005-2006, the Companies purchased 2,000 load control thermostats and began deploying them to customers. The functionality of the thermostat is the same from a load control perspective, but has the added benefit of additional energy savings through the use of programmable temperature set back at night or during times the home is not occupied.

Currently, customers are offered the option of a load control "switch" with a bill credit during the summer months or a load control programmable thermostat without the bill credit. While the first cost of the programmable thermostat option has a higher first cost, the elimination of the on-going bill credits results in lower life cycle cost. The thermostat option also results in significant Kwh energy savings and reduced HVAC contractor concerns regarding installation of load control switches and their perceived interference with system operation.

2.2 Rationale for Program

Load management of air conditioning, and other large loads, has become a significant tool to delay future generating capacity since it targets one of the main drivers of the summer peak. Current market saturation is approximately 15% of residential central air conditioning units. Based on results seen in other utilities such as Excel Energy and Florida Power & Light, it is not unreasonable for the Companies to double this market penetration. This program should help in delaying the need for future generation capacity. This program has also provided another tool by responding to emergency situations. At the time of forced outages, the immediate shed of all controlled loads, for short periods, has given the Companies a new tool to respond in the most cost effective manner. This short-term load reduction helps the Companies by providing

additional time to maintain or return to operational compliance required by the North American Reliability Council ("NERC").

2.3 Participation Goals

A saturation of approximately 33% would be required to obtain the program's goal of 199,000 air conditioning participants. The Companies assumed that participation in the air conditioning portion of this program would be split equally among LG&E and KU customers. We propose to install load control devices according to the table below:

2.3.1

	Thermostats A/C		Switches A/C		Total A/C		Water Heaters		Total Devices	
	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.
2008	11,700	11,700	6,300	6,300	18,000	18,000	6,300	6,300	24,300	24,300
2009	11,700	23,400	6,300	12,600	18,000	36,000	6,300	12,600	24,300	48,600
2010	11,700	35,100	6,300	18,900	18,000	54,000	6,300	18,900	24,300	72,900
2011	9,100	44,200	4,900	23,800	14,000	68,000	4,900	23,800	18,900	91,800
2012	9,100	53,300	4,900	28,700	14,000	82,000	4,900	28,700	18,900	110,700
2013	6,500	59,800	3,500	32,200	10,000	92,000	3,500	32,200	13,500	124,200
2014	5,200	65,000	2,800	35,000	8,000	100,000	2,800	35,000	10,800	135,000

Residential participation goals

Commercial participation goals

	Thermostats A/C		Switches A/C		Total A/C		Water Heaters		Total Devices	
	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.	Annual	Cumul.
2008	520	520	280	280	800	800	-		800	800
2009	520	1,040	280	560	800	1,600	-	-	800	1,600
2010	520	1,560	280	840	800	2,400	-	-	800	2,400
2011	520	2,080	280	1,120	800	3,200	-	-	800	3,200
2012	455	2,535	245	1,365	700	3,900	-	-	700	3,900
2013	390	2,925	210	1,575	600	4,500	-	-	600	4,500
2014	325	3,250	175	1,750	500	5,000	-	-	500	5,000
	2008	2009	2010	2011	2012	2013	2014			
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MWh	4,802	9,605	14,407	18,142	21,877	24,545	26,679			
MW	20	39.9	59.9	75.4	90.9	102	110.9			
CCF	284,000	576,000	851,000	1,071,000	1,292,000	1,449,000	1,575,000			

2.3.2 Energy Impacts - Residential

2.3.3 Energy Impacts - Commercial

	2008	2009	2010	2011	2012	2013	2014
MWh	213	427	640	854	1,040	1,201	1,334
MW	1.2	2.3	3.5	4.7	5.7	6.5	7.3
CCF	13,000	25,000	38,000	50,000	61,000	71,000	79,000

2.4 Incentives

All residential electric customers and commercial customers of LG&E or KU with qualifying central air conditioning equipment will be eligible to participate. In conjunction with a central air conditioning system, customers with electric water heaters or pool pumps will also be eligible. In some areas, paging communications are not reliably available and the program is not offered to those customers.

Switch Option - A residential customer with central air conditioning will receive \$20 per year for each air conditioning unit participating in the switch option. Commercial customers receive \$20 for units up to 5 tons and a larger amount for larger units. Those air conditioning customers with a qualifying water heater or pool pump will receive an additional \$8 per year, per unit to participate.

Programmable Thermostat Option - Customers choosing the programmable load control thermostat option will not receive an annual credit for air conditioning units controlled, but will receive \$8 per year for eligible electric water heaters and pool pumps.

Multi-family Option – Multi-family units are eligible. We have had great success in working with property owners and managers to enroll entire complexes. The incentive is reduced to \$16 per year for each air conditioner, and is split between the property owner and the tenant.

2.5 Implementation Plan

This program proposes to continue to install load control switches and load control programmable thermostats on central air conditioners of an additional 100,000 residential 5,000 commercial air conditioners between 2008 and 2014.

The system employs a one-way commercial paging message to activate devices connected to the participating customers' appliances. The Companies will communicate with the load control devices during system peak hours and during emergency situations to modify the duty cycle of the appliance.

The flexibility of the system allows a customer who experiences discomfort to remain in the program and to participate in a less aggressive cycling strategy. The device can be reprogrammed without requiring a site visit. We have moved several hundred customers from the normal cycling rate to this lower level of cycling and avoided removing devices as a result. At the time of this filing, cumulative switch removals have been less than 2% of total installations.

Participating customers see very little if any kWh savings as a result of load management with the switch option. In the case of air conditioning, the internal air temperature of the house as well as the thermal mass of the structure may increase slightly over a cycling control period. When the air conditioning unit is no longer controlled, this thermal energy is removed from the structure resulting in the "payback" of the small energy savings attributed to the increased internal temperature.

The addition of the programmable load control thermostat should result in demand reduction as well as energy savings for customers choosing to use the setback functions of the thermostat.

Historically the program's most significant means of promotion has been direct mail. While we will continue to use this cost effective means, we will increase our level of referrals from the existing programs and new programs. As market penetration has increased, word of mouth promotion has become prevalent. We will also continue to use information put on customer bills and newsletters, the Companies' web site, and new grassroots promotion channels through groups and organizations.

2.6	Program	Budget
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Demand Conservation - Resi	Demand Conservation - Residential						
	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$217,110	\$223,377	\$229,828	\$236,467	\$243,300	\$250,332	\$257,571
Office Supplies & Expenses	\$15,375	\$15,683	\$15,996	\$16,316	\$16,642	\$16,975	\$17,315
Data Processing	\$50,000	\$20,910	\$21,328	\$21,755	\$22,190	\$22,634	\$23,086
Advertising	\$540,000	\$540,000	\$630,000	\$490,000	\$560,000	\$400,000	\$320,000
Outside Services/install	\$2,842,256	\$2,908,629	\$2,976,519	\$2,569,505	\$2,628,758	\$2,193,649	\$1,990,556
Equipment	\$3,484,033	\$3,553,513	\$3,624,383	\$2,973,978	\$3,033,257	\$2,341,832	\$2,005,005
Switch Maintenance	\$385,952	\$475,245	\$569,549	\$650,762	\$736,334	\$807,018	\$871,270
Customer Incentives	\$2,200,400	\$2,376,800	\$2,553,200	\$2,690,400	\$2,827,600	\$2,925,600	\$3,004,000
Market Research	\$30,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Program Evaluation	\$80,000	\$40,000	\$80,000	\$40,000	\$80,000	\$40,000	\$80,000
Switch to T-stat	\$146,000	\$73,000	\$73,000	\$73,000	\$73,000	\$73,000	\$73,000
Total Program Expenses	\$9,991,125	\$10,247,157	\$10,793,803	\$9,782,181	\$10,241,082	\$9,091,041	\$8,661,803

2.6.2 Commercial

Demand Conservation - Con	Demand Conservation - Commercial						
	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$44,652	\$45,930	\$47,245	\$48,599	\$49,991	\$51,424	\$52,899
Office Supplies & Expenses	\$2,050	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Data Processing	\$2,050	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Advertising	\$24,000	\$24,000	\$28,000	\$28,000	\$28,000	\$24,000	\$20,000
Outside Services/install	\$104,117	\$106,513	\$108,964	\$111,469	\$105,183	\$98,559	\$91,584
Equipment	\$144,176	\$147,009	\$149,899	\$152,847	\$140,221	\$127,030	\$113,257
Switch Maintenance	\$6,665	\$9,253	\$11,991	\$14,884	\$17,613	\$20,157	\$22,492
Customer Incentives	\$53,400	\$61,800	\$70,200	\$78,600	\$85,950	\$92,250	\$97,500
Market Research	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0
Program Evaluation	\$30,000	\$0	\$30,000	\$0	\$0	\$30,000	\$30,000
Switch to T-stat	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$436,110	\$398,688	\$450,564	\$438,750	\$431,397	\$447,948	\$432,350

Assumptions

- Program labor assumes 1.85 FTE
- Advertising expense is based on \$30 per participant, increasing to \$40 per participant over the course of the program
- Outside services provides for installation of switches at \$75 each and thermostats at \$80 each plus \$30k annual paging expenses
- Equipment cost based on \$72/switch and \$178/ thermostat plus testing equipment

- A switch maintenance component includes performing a quality assurance check on 10% of installed switches each year
- Incentives for the switch option are \$20 per air conditioning unit and \$8 per water heater or pool pump each year for residential, and \$30 per year for commercial air conditioners
- Existing "switch" customers will be charged a \$40 fee to have the switch removed and change to the thermostat option

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

3.0 Residential Low Income Weatherization Program (WeCare)

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential Low Income Weatherization Program

3.1 Program Description

The WeCare Program is an education and weatherization program designed to reduce energy consumption of LG&E and KU's low-income customers. The program is designed to provide energy audits, energy education, perform blower door tests, and install weatherization and energy conservation measures on qualified houses.

Eligible households will be those at or below the then-effective LIHEAP Federal Poverty guidelines issued by the United States Department of Health and Human Services. The marketing and recruitment process identifies low-income households through LIHEAP programs at Community Action Agencies in our service territory. Potential participants are pro-actively contacted for participation in the program. Alternatively, customers who feel they qualify for the program who have not applied for LIHEAP may request to go through an intake process to be qualified. These customers frequently enter the program through word-of-mouth or referral by churches and other community organizations.

3.1.1 History

A pilot program that included an education and weatherization process was implemented in 1994 and was filed as Residential Conservation and Energy Education Program and renamed the Energy Partners Program ("EPP"). The pilot program targeted 1,500 participants in the initial three-year period. Independent evaluations determined that the program met customer participation goals, positively impacted customers bills and achieved high customer satisfaction, but fell short of targeted energy savings and was terminated pursuant to the Commission's order (Case No, 97-083) in April 1998.

The program was redesigned with assistance of the Proctor Engineering Group ("PEG") utilizing a tier approach with the maximum dollars allocated for energy saving measures for each customer based upon historical annual energy usage. Additionally, the new program moved from a "one size fits all" approach to utilization of a matrix to identify the highest energy savings potential and most cost effective measure(s) applicable for each home. The auditor uses this matrix in developing a customized work plan for each home. The current redesigned program was approved by the Commission in Case No. 2000-00459.

A billing analysis completed by SBC, see Volume III Appendix G, in 2004 verified with a 95% confidence level that the program was achieving 92% of engineering estimates of overall electric savings and 97% of engineering estimates of overall natural gas savings.

SBC completed a formal evaluation of the program from inception through July 2006 and found that the program is exceeding overall energy saving goals for both electric and gas, see Volume III Appendix H. The evaluation determined that the program is achieving very high satisfaction ratings and is highly valued by customers. The evaluation did point out that tier A and B customers were exceeding energy savings goals for both gas and electric, while tier C customers were falling short of goal with the exception of KU electric customers. SBC recommended that tier level adjustments be made to participation and savings goals to ensure cost maximizing cost effectiveness. SBC's recommendations are incorporated in this filing.

Evaluated Electric Percentage Savings Compared to Goal – LG&E

Tier	No. of Customers	Average Bill (kWh)				
A	607	7,841.7	1,061.5	13.5%	2%	677%
В	941	13,448.6	1,078.0	8.0%	5%	160%
С	1,549	20,468.0	2,331.0	11.4%	13%	88%
Total	3,097	15,861	1,702	10.7%	10%	107%

Evaluated Electric Percentage Savings Compared to Goal – KU

Tier	No. of Customers			Percent		Percent Goal Achieved (%)
A	209	7,695	779	10.1%	2%	506%
В	243	13,882	1,942	14.0%	5%	280%
С	286	23,090	3,277	14.2%	13%	
Total	738	15,698	2,130	13.6%	10%	136%

Evaluated Gas Percentage Savings Compared to Goal – LG&E

Tier	No. of Customers	Average Bill (CCF)		Percent		Percent Goal Achieved (%)
A	1,900	808.8	273.8	33.9%	3%	
В	540	1,511.0	369.9	24.5%	13%	188%
С	285	2,204.4	515.1	23.4%	29%	81%
No Gas	372					
Total	3,097	926.5	279.9	30.2%	22%	137%

Tier	No. of Customers	and the second		The second s
A	214	672.4	132.7	19.7%
В	22	1,472.0	263.1	17.9%
С	7	2,085.9	367.7	17.6%
No Gas	495			
Total	738	258.6	49.8	19.3%

Evaluated Gas Percentage Savings (No Goal) - KU

3.2 Rationale for Program

The Low Income Weatherization Program was designed to reduce the energy consumption of LG&E and KU's low-income customers. The program provides both directly installed weatherization measures and an education component to enlist the customer as a "partner" in ensuring the energy savings. Through the education portion of the program, customers gain a better understanding of how to keep utility bills as low as possible through better energy usage habits. Weatherization improves customers' comfort, reducing the tendency to raise the thermostat in winter or lower it in summer.

The Low Income Weatherization Program gives low-income customers who would otherwise not be likely to participate in Energy Efficiency programs an opportunity to do so. By providing energy efficient products and energy management techniques, it allows the recipients of the program to gain control over their utility bills.

3.3 Program Goals

3.3.1 Participation

• Provide an audit, energy education, and home weatherization services to 8,400 lowincome participants. The program breaks customers into three tiers based on their energy savings potential.

Annual Participation	LG&E	KU	Total
Tier A Customers	250	250	500
Tier B Customers	200	200	400
Tier C Customers	150	150	300
Total Customers	600	600	1200

3.3.2 Energy Impacts

	2008	2009	2010	2011	2012	2013	2014
MWh	2,297	4,593	6,890	9,187	11,484	13,780	16,077
KW	262	524	787	1,049	1,311	1,573	1,835
CCF	213,441	426,882	640,323	853,764	1,067,205	1,280,646	1,494,087

3.4 Incentives

There are no dollars given directly to the participants, but each participant is provided an audit, energy education, and home weatherization services at no cost. The level of service provided is based upon the participant's energy use tier:

Tier	Annual Energy Consumption	Allowable Measure Cost
А	Up to 1,299 ccf or up to 11,499 kWh	\$200
В	1,300 to 1,800 ccf or 11,500 to 16,000 kWh	\$750
С	Greater than Tier B	\$1,700

Weatherization services participants may be eligible to receive a wide variety of energy savings measures as per the Measure Input Assumptions and Savings Summary Matrix. Non-quantified benefits include arrearage reductions, reduced disconnections, and improved health and safety conditions. The ultimate benefit received by customers is a more affordable and comfortable home.

When possible, a consolidated service is provided by coordinating with the local Weatherization Assistance Program ("WAP") and/or other available funding sources, in the effort to serve the participant's home. This pooling of resources minimizes duplication of services and allows the home to receive additional improvements beyond that resourced in the WeCare Program. The service coordination with the local WAP funds will primarily benefit those participants who are in the lower tier of usage and who do not have a high level of expenditure available through the Low Income Weatherization Program.

3.5 Implementation Plan

3.5.1 Responsibility

Program oversight is the responsibility of the Companies. The major responsibilities are to ensure production schedules are met, the evaluation and tracking database is kept current, and the fiscal matters are under control. The Companies make final decisions on the contractors, performance, and expenditures within guidelines set by the program design. The program oversight is provided through contractor monthly invoicing and production reports, as well as evaluations prepared by the evaluation consultant.

The implementation contractor enrolls customers, performs audits, provides weatherization services and is responsible for invoicing jobs completed. The auditor submits hard copy invoices as well as completed electronic database records for each completed unit. The records will contain customer and residence information; such as square footage of conditioned space, type and size of heating and cooling systems, amount of insulation and will document work performed on the home.

3.5.2 Delivery

3.5.2.1 Energy Audit, Education, and Initial Installation

The initial visit includes an energy audit, customer education, and completion of simple energy efficiency improvements. It is performed by an educator/technical specialist capable of complex diagnostic testing and decision-making.

Audit - The auditor measures the residence, inspects the HVAC equipment, water heater, building shell and appliances; evaluates the residence and determines improvements needed based upon tier limitations and the likelihood of the improvements effectively reducing the client's energy usage.

The energy education component includes meeting with the customer to illustrate and discuss energy use patterns as well as techniques to employ to reduce energy usage associated with lifestyle patterns. The auditor includes the customer in the process of evaluating the house, making specific suggestions on items that can effectively impact energy usage.

3.5.2.2 Subsequent Measure Installation

The implementation contractor (or subcontractor) arranges for subsequent visits to safely and effectively complete more complex improvements provided by the program. Follow up energy efficiency improvement work is planned to minimize the number of visits to each customer's home.

3.5.3 Quality Assurance

The program manager is responsible for ensuring that installed measures meet program standards and that database inputs are correct. The Companies' staff and program evaluators makes planned and unannounced visits to the implementation contractor's office and to customers' homes to verify quantity and quality of measures installed. A planned 50% increase in participation goals will require that an additional independent resource be contracted to assist with quality assurance.

3.5.4 Database

Program tracking databases are an important issue for both program implementers and evaluators. Complete and accurate data is needed to assess progress toward program goals. A comprehensive program database will be maintained for the WeCare program and will be modified to capture new program attributes and evaluation contractor recommended improvements.

3.6 Annual Budget

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	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$139,574	\$144,460	\$148,793	\$153,257	\$157,855	\$162,590	\$167,468
Office Supplies & Expenses	\$1,000	\$1,025	\$1,046	\$1,066	\$1,088	\$1,109	\$1,132
Data Processing	\$25,000	\$10,250	\$10,455	\$10,664	\$10,877	\$11,095	\$11,317
Advertising	\$49,200	\$24,600	\$25,092	\$52,467	\$26,106	\$26,628	\$27,160
Outside Services/Audits	\$1,384,000	\$1,431,000	\$1,472,454	\$1,515,122	\$1,559,040	\$1,604,245	\$1,650,775
Education Expenses	\$11,800	\$7,995	\$8,155	\$8,318	\$8,484	\$8,654	\$8,827
Market Research	\$5,000	\$5,125	\$5,228	\$5,332	\$5,439	\$5,547	\$5,658
Program Evaluation	\$113,090	\$113,712	\$116,986	\$122,236	\$123,822	\$127,391	\$131,064
Total Program Expenses	\$1,728,665	\$1,738,166	\$1,788,208	\$1,868,463	\$1.892.711	\$1,947,260	\$2,003,401

Assumptions

- Program labor assumes 1.3 FTE
- Data processing allows for modification and maintenance of existing database
- Advertising provides for printed informational materials regarding the program and customer intake
- Outside services provides for implementation contractor to provide intake services, audits, education and installation of measures
- Program evaluation costs at 7% of program operating costs
- Costs are escalated to reflect inflation

LG&E and KU Energy Efficiency 2008-2014 Program Plan

4.0 Commercial Conservation Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Commercial Conservation/Rebate Program

4.1 **Program Description**

The objectives of the Commercial Conservation/Rebate Program are to identify energy efficiency opportunities for the Companies' commercial class customers through no-charge energy audits and to increase implementation rates for effective measures by offering energy efficient-new technology equipment incentives for replacement of aging, less efficient equipment. Rebates available to all customers in this program's rate classes will be prescriptive in nature with values being developed for each type of appliance based upon a dollar value per kW. These commercial rebates will be administered through the Commercial Conservation program. An audit will not be required for rebate eligibility; however, all rebates will require verification, with proof of purchase and installation of the new measures.

The energy audit services provided through the Commercial Conservation program is being modified and expanded from three levels to five levels of audits. Walk through and light commercial audits are being added for small commercial customers that will benefit from an energy analysis, but don't have enough energy usage to make a comprehensive audit cost effective. The primary emphasis of these audits will be prescriptive measures such as lighting, water heating, air conditioning, HVAC tune-up and other measures that are cost effective, and can be identified and analyzed relatively easily. Customers receiving a walk through or light audit will be eligible for rebates.

The three existing levels of more comprehensive full service audits will remain in place. The focus of these audits will differ according to the customer's facility and the annual energy consumption of the facility. Based upon recent evaluation conducted by SBC, additional emphasis will be assigned to process load such as pumps, motors, refrigeration, and cooking equipment. Delivered audit reports will contain more customized recommendations related to energy saving measures.

To broaden the involvement of a greater proportion of trade allies the program will solicit additional contractor participation. A dealer referral network, as described in section 10 of this document, will be established to assist participants of all energy efficiency programs in selecting qualified energy service companies that can complete implementation of recommended measures.

4.1.1 History

- A Commercial Conservation Pilot program was approved by the Commission in Case No. 93-150. The first energy efficiency commercial audits were performed in 1994.
- In 1997 a management auditor, Corporate Economic Strategies ("CES"), evaluated the pilot program and reported that participants were highly satisfied with the program and that the program was saving electricity.
- XENERGY was engaged in 1998 to redesign the Commercial Conservation program.
- SBC evaluated the program in 2006, see Volume III Appendix I, and found that the program is achieving targeted electric savings, exceeding targeted gas savings, and that there is high customer satisfaction with the program. The SBC evaluation also pointed out that the program focus had moved toward smaller commercial customers and that additional emphasis should be placed on non-lighting measures.

	Recommended Measures	Actual Measures Implemented	Goal
Demand Savings (KW)	27,536	3,375	3,493
Energy Savings (MWh)	103,241	14,052	14,015
Gas Savings (ccf)	4,213,327	501,279	22,950

Summary of Evaluated Program Savings (through 7/31/2006)

4.2 Rationale for Program

The program is designed to reduce demand and usage of energy by assisting commercial customers in identifying energy saving opportunities within their businesses. The ultimate success of the program comes from customers' implementation of energy savings measures. Measure implementation rates in the commercial sector have been adequate, but less than desired. A rebate component added to the program will increase measure implementation rates

4.3 **Program Goals**

The goal of this program is to promote energy-efficient improvements within the commercial sector.

4.3.1 Annual Participation

Audit Type	*Participants
Walk Through Audits	50
Light Commercial Audits	175
Level I	380
Level II	255
Level III	20

*Participants are 50% LG&E and 50% KU

4.3.2 Energy Impacts

Projected Annual Savings for the Commercial Conservation Program									
	2008	2009	2010	2011	2012	2013	2014		
MWh	54,988	109,976	164,964	219,952	274,940	329,928	384,916		
KW	20,689	41,377	62,066	82,755	103,443	124,132	144,821		
CCF*	(152,882)	(305,763)	(458,645)	(611,527)	(764,409)	(917,290)	(1,070,172)		

*CCF savings is negative due to lost heat factor from lighting in winter

4.4 Incentives

Customers will be offered incentives on retrofits or replacement energy efficient equipment, such as; high efficiency lighting, motors, pumps, and refrigeration. Incentives will be prescriptive and will be based on an amount per KW saved. Incentives will be monitored and the amount adjusted to maintain maximum cost effectiveness. In order to ensure fair incentive opportunities for all commercial customers, rebates will be limited to \$50,000 per facility in a calendar year.

4.5 Implementation Plan

4.5.1 Responsibility

Program oversight is the responsibility of the Companies. The major responsibilities are: to promote the program within the LG&E and KU service territory, to monitor quality assurance, to ensure contractor payment, to oversee the program database and to process customer applications and pull usage for the field contractors. The Companies will make final decisions on the contractors, performance and all program expenditures. The program oversight is provided through invoicing and production reporting from the audit contractor,

retaining customer documentation of rebated measure information as well as an evaluation report prepared by the outside evaluation contractor.

The audit contractor enrolls customers, performs audits, provides audit reports with recommended energy saving improvements, and may install energy saving measures. The audit contractor is responsible for maintaining the commercial audit database. Additionally, the audit contractor will verify rebate eligibility and track rebates along with related energy impacts. The audit contractor submits monthly invoices along with customer audit data and results and supporting information regarding all work performed.

4.5.2 Promotion

Direct mail, commercial newsletters, our Business Service Center and company website will be primary sources for reaching the customer. Additional promotion sources will come from the audit contractor and trade allies (such as energy service companies). All classes of commercial customers will be eligible for service. In order to ensure maximum cost effectiveness, heavy energy use customers will be targeted.

4.5.3 Delivery

The audit contractor will process audit applications from customers, obtain energy usage information from the Companies and provide energy audits per program guidelines. The customer is provided with a comprehensive report, which includes energy-saving recommendations appropriate for the facility, an estimate of the cost to implement the recommendations along with projected savings and Dealer Referral Network information.

For rebate processing the customer will provide proof of purchase and installation of qualifying energy efficient equipment along with location information and certification of the equipment being replaced. Each installation where large rebates are involved will be inspected along with a sampling of locations for smaller rebates to ensure that the rebate request meets program guidelines and that the installation has been completed.

4.5.4 Quality Assurance

Energy Efficiency staff will review the Program on an ongoing basis and will conduct independent evaluations.

4.5.5 Customer Satisfaction Survey

A follow-up survey created by the Companies will be distributed by the audit contractor at the time of the initial audit. These surveys will be returned to the Companies online or by mail depending upon the type of audit and customer capabilities. Topics will include customer satisfaction on the content, timeliness of the audit and courtesy of the audit contractor.

4.5.6 Measure Implementation Survey

A random sample of audit customers large enough to be statistically significant will be surveyed by telephone to determine energy saving measures implemented by the customer and the customer's overall perception of the value of the audit. The survey will contain the recommendations generated by the audit and will ask the customer detailed questions to accurately capture the nature and degree of energy saving measures for evaluation purposes. Data collected will be useful for ongoing monitoring and identifying improvement opportunities and will be provided to the evaluation contractor for program evaluation.

4.5.7 Program Database

Program tracking databases are an important issue for both program implementers and evaluators. Complete and accurate data is needed to assess progress toward program goals. A comprehensive program database will be maintained for the Commercial Conservation program including rebate tracking.

4.6 Annual Budget

Commercial Conservation Pr	ogram					**************************************	
	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$89,280	\$92,405	\$95,177	\$98,032	\$100,973	\$104,002	\$107,122
Office Supplies & Expenses	\$1,000	\$1,025	\$1,046	\$1,066	\$1,088	\$1,109	\$1,132
Data Processing	\$25,000	\$10,250	\$10,455	\$10,664	\$10,877	\$11,095	\$11,317
Advertising	\$44,000	\$45,100	\$46,002	\$46,922	\$47,860	\$48,818	\$49,794
Outside Services	\$833,594	\$851,828	\$866,780	\$882,032	\$897,588	\$913,455	\$929,640
Rebates & Incentives	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Education Expenses	\$45,050	\$10,291	\$10,497	\$32,035	\$10,921	\$11,139	\$11,362
Market Research	\$25,000	\$25,625	\$26,138	\$26,660	\$27,193	\$27,737	\$28,292
Program Evaluation	\$114,405	\$112,557	\$113,927	\$116,819	\$116,755	\$118,215	\$119,706
Total Program Expenses	\$3,177,328	\$3,149,081	\$3,170,021	\$3,214,230	\$3,213,256	\$3,235,571	\$3,258,365

Assumptions:

- Program labor assumes 0.75 FTE
- Data processing includes \$15,000 to establish database in 2008 and \$10,000 per year hosting and maintenance
- Advertising expense assumes \$50 per audit delivered
- Outside services includes contractor infrastructure, audit costs ranging from \$150 to \$2,075 per audit and rebate verification and rebate fulfillment
- Rebates and incentives are based upon 20,000 kW of load reduction at \$0.10 per watt for verified retrofits
- Education expenses includes development and printing of informational brochures, program manager professional development and a lighting energy savings calculator
- Market research includes focus groups and customer surveys to drive program improvements
- Program evaluation at 7% of program operating costs plus 2% of rebate costs
- Costs except rebates and incentives are inflated

LG&E and KU Energy Efficiency 2008-2014 Program Plan

5.0 Responsive Pricing and Smart Metering Pilot Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Responsive Pricing and Smart Metering Pilot Program

5.1 **Program Description**

The Responsive Pricing and Smart Metering Pilot ("Pilot") program was filed with the Commission on March 21, 2007. A brief overview is contained below, for complete information and detail see Case No. 2007-00117.

The goal of the program is to determine customers' ability and willingness to shift usage from higher-demand and -cost time periods to lower-demand and -cost time periods. The program will test a combination of a variable rate structure to encourage this shift in usage with enabling equipment, as well as various combinations of equipment without the rate incentive.

The Pilot couples critical peak pricing with DSM technology. More particularly, the Pilot will utilize smart metering, information displays (displaying usage and energy cost information), programmable thermostats, load control switches, and a variable rate structure that includes a time-of-use and real-time, critical peak price components. Critical peak hours will be during times of high system demand, which can occur at typical peaking periods of winter and summer load curves and/or due to the resource-to-load balance deficiencies.

While formulating the Pilot, LG&E hypothesized that customers might obtain optimal costsavings without the responsive pricing rate structure or with a less-inclusive complement of equipment. In order for LG&E to obtain for itself and provide to the Commission data about the costs and benefits of different combinations of smart metering, information displays, programmable thermostats, and load control switches, LG&E will include in the Pilot and Expanded Smart Metering-Energy Efficiency component. To carry out the proposed program, LG&E will equip approximately 2,000 customers, including responsive pricing participants with the same kind of smart meters used for customers participating in the responsive pricing component of the Pilot. The customers residing along the selected metering routes who do not volunteer for the responsive pricing rate structure will nevertheless receive DSM equipment as follows (these figures are approximate): (1) one hundred fifty will receive programmable thermostats and information displays; (2) one hundred fifty will receive programmable thermostats and load control devices; (3) one hundred will received information displays; and (4) the remaining customer will receive smart meters only. All of the Pilot participants will have access to their usage data via the Internet on a dedicated site LG&E will establish for that purpose. None of the Expanded Smart Metering-DSM component participants will be on the responsive rate structure because the purpose of this component will be to determine whether providing customers with different blends of information and control devices without a change in tariff energy

rates can produce energy- and cost-saving behavior comparable to that of responsive pricing participants.

Customer acceptance of the Pilot will be evaluated along with the energy impacts and benefits to LG&E. The results of the evaluation will enable LG&E to document the costs and benefits to the participants and to the Company, and determine if the Pilot should be modified, cancelled, or expanded to additional customers.

On July 12, 2007 the Commission issued an order approving LG&E's application.

LG&E and KU Energy Efficiency 2008-2014 Program Plan

6.0 Residential High Efficiency Lighting Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential High Efficiency Lighting Program

6.1 Description

The objective of this program is to facilitate market transformation by creating a shift in LG&E and KU consumer purchasing from incandescent light bulbs to CFL's. The Companies intend to utilize this program to increase customer awareness of environmental and financial benefits of CFL's and as a result, increase societal acceptance and market penetration. To facilitate the introduction of CFL's into customers' homes, the Companies' plan to partner with retail outlets and provide incentives to place 5.8 million Energy Star rated CFL's over the next seven years.

a. **Program Oversight**

Program oversight is the responsibility of the Companies. The major responsibilities of the Companies are: to promote the program within the LG&E and KU service territory, to provide customer education materials and opportunities, select and develop partnerships with retailers, monitor and manage distribution of CFL'S, ensure appropriate documentation for payment of incentives and maintain program data.

b. Retail Partner Responsibilities

Selected retail partners will maintain adequate inventories of appropriate CFL's to meet program objectives. The retail partners will award discounts according to terms printed on coupons provided to residential customers by the Companies. Retail partners will be asked to capture and report to the Companies' specific data including: number and type of CFL's sold, invoicing for discounts provided to customers and bar-coded customer information preprinted on the coupons. Additionally, retail partners will be expected to include program recognition in local market advertising, and work with the Companies to jointly develop and maintain point-of-sale information and education materials.

6.2 Rationale for Program

The energy use of CFL's is far less than that of incandescent bulbs. The most common CFL's offer the following energy savings:

Incandescent Bulb	Equivalent CFL	Energy Savings
60 watt standard	13 watts	47 watts
100 watt standard	26 watts	74 watts
65 watt indoor flood	16 watts	49 watts
75 watt outdoor flood	23 watts	52 watts

Despite the tremendous energy savings, customer acceptance of CFL's remains low. According to Energy Star (joint Environmental Protection Agency "EPA" and DOE) statistics, retail sales of CFL's total only 5% to 8% of incandescent bulb retail sales. Customer resistance is primarily related to quality and brightness of light concerns and the time gap between flipping the switch on and the bulb energizing.

CFL technology has improved significantly over the past few years and Energy Star rated bulbs have quality related requirements that address the amount of lumens produced by specific wattage bulbs and bulb warm-up times.

The Companies believe that providing incentives to persuade customers to try high quality Energy Star rated CFL's will facilitate greater customer acceptance of this technology.

6.3 **Program Goals**

6.3.1 Participation

The goal of this program is to promote increased use of Energy Star rated CFL's within the residential sector. The program will provide incentives for the purchase of 5.8 million Energy Star rated CFL's or an average of approximately one bulb per customer per year over a seven-year period:

Year	*CFL's
2008	1,030,515
2009	955,287
2010	885,551
2011	820,906
2012	760,980
2013	705,428
2014	653,932
Total	5,812,601

*CFL's are assumed to be distributed 50% to LG&E customers and 50% to KU customers.

6.3.2 Energy Impacts

Annual Savings for the Residential Lighting Program									
	2008	2009	2010	2011	2012	2013	2014		
MWh	60,603	116,782	168,860	217,137	261,889	303,374	341,831		
KW	4,092	7,886	11,403	14,663	17,684	20,486	23,083		

6.4 Incentives

Customer incentives include \$1.00 per CFL discount for standard bulb replacements and \$2.00 per bulb per CFL flood. CFL sales will be closely monitored and the number of bulbs that may be purchased at a discount will be adjusted as necessary to ensure the program remains within budget. Any adjustments to the number of bulbs that may be purchased will be made at the beginning of a distribution cycle to ensure all customers have an equal purchase opportunity.

6.5 Implementation Plan

The Companies' plan to send coupon sheets with educational materials to customers via mail multiple times per year. The coupons may be taken to our retail partners to receive a per bulb discount on a specified number of Energy Star rated CFL bulbs. Our retail partners will award the discounts according to the terms of the coupon. Additionally, our retail partners will be asked to capture bar coded customer information along with the number and type of CFL's purchased and the dollar value of discounts awarded. Captured data will be provided to the Companies on a monthly basis and stored in a database. Data will be utilized as follows:

- Verify payments to the retail partners
- Program audits and evaluation
- Program modifications to increase effectiveness
- Future program planning

6.6 Annual Budget

Residential Lighting Program

		2008	2009	2010	2011	2012	2013	2014
Direct Program Labor		\$52,080	\$53,903	\$55,520	\$57,185	\$58,901	\$60,668	\$62,488
Office Supplies & Expenses	0210	\$6,000	\$6,150	\$6,273	\$6,398	\$6,526	\$6,657	\$6,7 <u>9</u> 0
Data Processing	0330	\$65,000	\$15,375	\$15,683	\$15,996	\$16,316	\$16,642	\$16,975
Program Promotion	0601	\$1,867,200	\$1,968,990	\$2,066,269	\$2,168,422	\$2,275,697	\$2,388,351	\$2,506,655
Rebates/Incentives		\$1,357,592	\$1,258,487	\$1,166,618	\$1,081,455	\$1,002,508	\$929,325	\$861,485
Program Evaluation	0301	\$86,957	\$86,058	\$86,207	\$86,589	\$87,199	\$88,033	\$89,088
Total Program Expenses		\$3,434,829	\$3,388,963	\$3,396,569	\$3,416,046	\$3,447,148	\$3,489,677	\$3,543,481

Assumptions

- Program Labor assumes 0.5 FTE
- Program promotion assumes 4 annual mailings per residential customer at \$.50 each for development, printing and mailing plus \$75,000 per year for printed point of sale materials
- Rebates/incentives assume an average of \$1.32 per bulb on an average of 830,372 bulbs per year
- Program evaluation assumes 2% of annual program operating costs
- Costs except incentives are escalated to reflect inflation

LG&E and KU Energy Efficiency 2008-2014 Program Plan

7.0 Residential New Construction Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential New Construction Program

7.1 **Program Description**

The objective of this program is to reduce residential energy usage and facilitate market transformation by creating a shift in builders' new home energy efficient construction practices. The Companies intend to utilize this program to educate builders, contractors and customers to increase awareness of environmental and financial benefits of whole-house energy efficient building practices. To facilitate this introduction into customers' homes, the program will partner with Homebuilders Associations within the state of Kentucky to adopt and implement the DOE's ENERGY STAR[®] new homes energy efficiency program. Additionally, select National Association of Home Builders' approved green building methods may be blended in to further the positive impact to the environment, and reduce carbon dioxide ("CO²") emissions.

7.2 Rationale for Program

Energy Star is a widely known and universally accepted program with certification requiring home energy performance exceeding the 2004 International Residential Code ("IRC") by a minimum of fifteen (15) percent. E.ON U.S. Services Inc. commissioned a study by an evaluation contractor ("Goodcents Solutions") in 2006 to observe a sampling of new homes in Kentucky to determine code and potential Energy Star compliance, see Volume III Appendix J. Homes in this study were not officially rated; however, Goodcent's documented observations of building envelopes and mechanical systems highlight significant weaknesses in construction practices, and leads us to believe that the majority of homes were not code compliant related to energy efficiency standards and that very few were at or near Energy Star level. The Companies believe that the Energy Star standard can be met and most likely exceeded.

The Residential New Construction Program has passed the screening processes in the Companies' Integrated Resource Plan and is supported by the Governor's Office of Energy Policy.

Achieving Energy Star standards will require changes in building practices; however, it is not an expensive proposition for the builder or ultimate buyer of the home. The University of Kentucky's College of Agriculture and the Kentucky Office of Energy Policy recently completed analysis of a typical 2,000 sq. ft. new home built to state code and compared its cost to the same home built to the Energy Star standard. Their finding was that the additional cost to build an Energy Star certified home to be \$1,763. Their report goes on to illustrate that a homeowner would actually save money by building an Energy Star home because the additional cost, spread over the life of the mortgage, is offset by the energy savings each month.

Despite the potential energy savings and the fact that many energy saving opportunities are lost once a home is complete, builder penetration and customer participation in the Energy Star program is low. According to Energy Star statistics, Kentucky-based Energy Star homes for 2006 totaled less than 80 units among 20 builders (this excludes the Cincinnati and military residential housing market). Poor market penetration and builder-customer resistance is directly related to the availability of low cost energy, a lack of certifiedpracticing Home Energy Rating System ("HERS") raters and quality control providers, and customer-perceived high program-related costs.

Builders and potential provider-rater partners (i.e., infrastructure) reflected slight growth in 2006, resulting from greater national exposure and awareness of rising energy costs, and the effort to reduce energy consumption and carbon dioxide emissions. Greater market acceptance of CFL technology, green building health benefits and improved indoor air quality also increase customer awareness and demand for Energy Star homes. As a result, 27 new Energy Star builder-partners registered in the state in 2006.

The companies believe that the combination of infrastructure support, and builder and customer education combined with companies-paid site inspections will persuade customers to seek better performing, lower energy cost, Energy Star plus rated homes.

7.3 **Program Goals**

The goal of this program is to educate customers and promote increased construction of Energy Star rated homes within the residential sector.

7.3.1 Participation Goals

In addition to education and infrastructure support, the program will create sufficient supply to drive HERS rater demand, spurring growth and support for service to over 4,400 residential sites in the next seven years with an average building life of more than 25 years each.

Year	*Home Starts	
2008	151	
2009	292	
2010	586	
2011	674	
2012	775	
2013	892	
2014	1025	
Total	4,487	

*Home starts are assumed to be distributed 50% to LG&E customers and 50% to KU customers.

7.3.2 Energy Impacts: Energy and Demand Reduction

Projected Annual Savings for the Residential New Construction Program									
	2008	2009	2010	2011	2012	2013	2014		
MWh	409	1,202	2,793	4,624	6,729	9,149	11,933		
KW	100	383	891	1,475	2,146	2,919	3,807		
CCF	14,087	41,351	96,111	159,085	231,505	314,788	410,564		

7.4 Incentives

Incentives from this program focus on infrastructure development to support the inspection and rating analysis of new homes and on the plan review and inspections required for Energy Star certification.

New home inspections are required under DOE Energy Star guidelines to be completed by HERS qualified raters, the number of which in Kentucky is insufficient to service program growth projections. Education requirements, equipment, HERS certification, and liability and errors and omissions insurance could prove cost prohibitive for potential new raters entering the market.

- To promote the entry of new raters into the market, the Companies will provide equipment purchase incentives to new raters who complete HERS training, pass the national exam, provide proof of insurance and purchase testing equipment.
- The Companies plan to sponsor educational seminars, training classes and reference materials for Raters and Builders as indicated in the education line of the budget. These services will be brought in and made available by the companies. They will not be paid as incentives.

The cost of plan reviews and inspection costs related to an Energy Star home are a barrier for builders who otherwise might adopt the program. Costs are estimated to run between \$450 and \$750 depending upon the size of the home. The Companies plan to reimburse builders for these costs upon successful certification of a home. Re-inspection costs for homes failing to pass inspection will be absorbed by the builder.

7.5 Implementation Plan

Program oversight is the responsibility of the Companies. Major responsibilities of the Companies are: to promote the program within the LG&E and KU service territories; to provide customer education materials and opportunities; to provide builder and contractor energy efficient building education and expand training opportunities; and to select and develop critical infrastructure to support program home inspections and accreditation. Oversight of rating administration, standards' compliance documentation and home performance benchmarking, along with program customer satisfaction measurement, ensure program market viability and customer accountability.

Early program development will encompass considerable contact with representatives from the Kentucky Office of Energy Policy and home builders' associations within the state. Mutually beneficial objectives will be identified, but operational control of the provider-rater partner will remain that of the companies. Other resource partnering such as state and federal grants will be explored and pursued with benefits offsetting the cost of operating the program.

7.5.1 Promotion Advertising

Tactics will focus on the development of tools like a customer-builder electronic newsletter, a marketing and operations program website, yard signage, program brochures and literature that communicates whole-house energy efficiency and comfort related benefits.

7.5.2 Education

Strategy focuses on educating customers, primary providers and influencers in the market to understand the financial and environmental benefits of building energy-saving homes in addition to the technical aspects of building and rating an Energy Star home.

Educational targets will include: customers, builders, HVAC and insulation contractors, state home building association staff, Realtors[®], utility employees, and new and existing raters.
Training topics will be presented by DOE, EPA and publicly recognized training institutions like Southface Corporation and the Energy Efficiency Building Association (i.e., DOE Building America Programs). Small group and one-on-one builder program orientation will occur via the provider-rater partner and/or the program manager.

In addition to the delivery of educational components, an extensive online library of energy efficiency resources will be maintained within the program database. An annual education and training calendar will be established and published via the program website for distribution to all constituent groups. Email distribution will occur to all audience targets who register via the program website for program related announcements, newsletter requests or training calendar requests.

7.5.3 Program Administration/Operations/Billing

The program provider-partner will fulfill daily communications, administration and operations. Additionally, a comprehensive integrated website and database will be created and serve as the mechanism-enabling customer service tool, compliance and data record platform for the provider and the Companies' oversight. The program website will offer landing platforms to service customers, builders, provider-partners and the Companies' energy efficiency personnel.

Provider-partner will collect rating and audit fees from the builders and will be responsible for paying all employee and independent raters and will handle raters' incentives for equipment. Provider-partner will submit a monthly invoice for non-rating administrative and database work completed and equipment incentives paid under program guidelines. The Companies will validate work performed and process monthly payments to Provider-partner and incentive payments to builders.

7.5.4 Quality Assurance

- Provider-rater fee structures will be broken into tiers, which will be determined, by size and complexity of the subject home. This will assure that each home will be allocated sufficient resources for a thorough and complete evaluation.
- The Companies' energy efficiency personnel will conduct site visits and perform inspections.
- Field raters, vendors and service providers within the program will undergo a satisfaction survey via mail or online vehicle. Results will be reviewed by the Companies' and the Provider-partner. Positive ratings maintain good standing, while negative ratings may impact program eligibility and assignments. Surveys will be designed to measure performance against known and communicated expectations.

- Future program planning will incorporate feedback from multiple sources including customers, home builders and associations, the Provider-partner, vendors and service providers, the Energy Efficiency Advisory Group and independent evaluation results.
- Independent evaluation of overall program and individual components.

7.6 Program Budget

Acoucher at the construction							
	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$176,985	\$182,295	\$187,763	\$193,396	\$199,198	\$205,174	\$211,329
Office Supplies & Expenses	\$4,502	\$6,723	\$11,785	\$13,309	\$15,082	\$17,119	\$19,462
Data Processing	\$139,500	\$104,500	\$104,500	\$104,500	\$104,500	\$104,500	\$104,500
Advertising	\$58,066	\$35,365	\$49,330	\$43,069	\$45,873	\$57,563	\$54,125
Outside Services	\$212,760	\$212,760	\$212,760	\$212,760	\$212,760	\$212,760	\$214,823
Icentives & Rebates	\$110,488	\$195,138	\$361,758	\$414,522	\$475,200	\$544,980	\$625,227
Education Expenses	\$81,433	\$70,970	\$45,946	\$48,944	\$51,841	\$55,230	\$58,664
Market Research	\$20,000	\$0	\$20,600	\$0	\$21,218	\$0	\$21,855
Program Evaluation	\$56,261	\$56,542	\$69,611	\$72,135	\$78,797	\$83,813	\$91,699
Total Program Expenses	\$859,994	\$864,292	\$1,064,054	\$1,102,635	\$1,204,469	\$1,281,140	\$1,401,685

Residential New Construction

Assumptions:

- Program Labor assumes 1.25 FTE.
- Data processing provides for development, maintenance and hosting of an extensive website/database that maintains all program data, manages communications, and hosts technical and educational programs and an energy library.
- Advertising includes a new home newsletter, program brochures and literature and yard signs to assist with marketing new Energy Star homes.
- Outside services includes Provider-partner infrastructure and builder liaison.
- Incentives and rebates include rating and inspection costs averaging \$600, which are rebated to builders for a successful certification. Program starts with 151 homes in 2008 and ramps up to 1,025 homes in 2014. New HERS raters equipment incentives are \$500 per blower door and \$500 per duct blaster purchased, limited to \$20,000 in 2008 and 2009 and \$10,000 for each subsequent year.
- Education includes seminars, builder/rater orientation, HERS training support, codebooks and manuals.
- Market research includes benchmarking to establish home energy baselines.
- Program evaluation assumes 7% of annual program operating costs
- Costs except incentives are escalated to reflect inflation

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

8.0 Residential and Commercial HVAC Diagnostics and Tune up Programs

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Residential and Commercial HVAC Diagnostic and Tune-Up Program

8.1 **Program Description**

The objective of this program is to reduce peak demand and energy use by conducting a diagnostic performance check on residential and small commercial unitary air conditioning and heat pump units, air restricted indoor and outdoor coils, and over and under refrigerant charge. Units determined to have any one of these four problems will be eligible for corrective action through an Authorized Dealer Network of servicing HVAC companies.

The program will target customers with probable HVAC system performance issues, not the market as a whole. In addition to customers independently seeking this service, customers participating in other Energy Efficiency programs such as the Demand Conservation and Residential Conservation programs whose unit(s) are perceived or diagnosed to be underperforming will be referred to this program.

Residential customers and small commercial customers with unitary central air conditioning or heat pump systems are eligible. The program is not designed for customers who seek repair of non-operational units. Those units fall outside the service scope of this program.

8.2 Rationale for Program

Several studies, including a report entitled "Field Measurements of Air Conditioners, see Volume III Appendix K, with and without TXVs" prepared by Robert J. Mowris, Anne Blankenship and Ean Jones, Robert Mowris & Associates, indicate that over 60% of existing HVAC systems need one or more corrective actions that are specific to this program. The installation technicians in the Company's Demand Conservation program estimate that over 80% of the systems where customers request a removal of the Demand Conservation switch have a maintenance or operational problem with their unit.

Many HVAC systems with these maintenance needs are marginally operational and the customer is unaware. These units experience longer run times than normal resulting in excess energy consumption and demand, and reduced unit life. The resulting repairs will reduce energy usage and demand, improve customer comfort and extend the serviceable life of the equipment.

Participation Goals 8.3

8.3.1 Participation

It is assumed that 65% of residential and 60% of small commercial customers that have a diagnosis performed will also have tune-ups performed.

	Diagnostics	Tune-Ups	Diagnostics	Tune-Ups
Year	LG&E	LG&E	KU	KU
2008	175	114	175	114
2009	400	260	400	260
2010	500	325	500	325
2011	600	390	600	390
2012	600	390	600	390
2013	600	390	600	390
2014	600	390	600	390

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Commercial HVAC Diagnostics and Tune-Up

	Diagnostics	Tune-Ups	Diagnostics	Tune-Ups
Year	LG&E	LG&E	KU	KU
2008	100	60	100	60
2009	175	105	175	105
2010	250	150	250	150
2011	300	180	300	180
2012	350	420	350	420
2013	350	420	350	420
2014	350	420	350	420

8.3.2 Energy Impacts

Energy and demand savings of 15% are assumed. This assumption was derived from average savings estimates from seven field studies, which included thousands of units and resulted in 17% average savings.

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Residential HVAC Diagnostics and Tune-Up									
	2008	2009	2010	2011	2012	2013	2014		
KW	130	426	797	1,241	1,686	2,130	2,575		
MWH	286	939	1,755	2,734	3,714	4,693	5,672		

Commercial HVAC Diagnostics and Tune-Up									
	2008	2009	2010	2011	2012	2013	2014		
KW	127	348	665	1,044	1,488	1,931	2,374		
MWH	528	1,451	2,769	4,352	6,189	8,045	9,891		

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8.4 Incentives

There are no incentives paid directly to customers. Customers will be charged a discounted, fixed-fee for the diagnosis and if needed, a similar fee for implementation of corrective actions. The program will supplement the unpaid portion of diagnostic and tune-up costs.

8.5 **Implementation Plan**

A professional, licensed HVAC technician contracted by the Companies will use specialized diagnostic equipment to identify one or more of the most common problems, (i.e., restricted air flow in the evaporator or condenser coil, or an over charge or under charge of refrigerant). The technician will also inspect the unit for other issues that may affect performance.

The technician will provide the customer with a findings report. If any of the previously summarized problems are discovered, the customer will be eligible for a tune-up, and corrective action of the identified problem (for a discounted, fixed fee). Other service to the unit will be at the customer's expense. In order for the customer to receive the discounted corrections, a participating dealer in our Dealer Referral Network must be used. A minimum 10% of the tune ups performed will incur quality assurance inspections to assure corrective action is being performed properly and that resulting energy savings are being achieved.

8.6 Program Budget

	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$44,652	\$45,930	\$47,245	\$48,599	\$49,991	\$51,424	\$52,899
Office Supplies & Expenses	\$2,050	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Data Processing	\$5,000	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Advertising	\$19,000	\$32,000	\$40,000	\$48,000	\$48,000	\$48,000	\$48,000
Outside Services/install	\$134,873	\$284,635	\$359,880	\$439,383	\$452,564	\$466,141	\$480,125
Equipment	\$12,000	\$0	\$6,000	\$0	\$6,000	\$0	\$0
Market Research	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0
Program Evaluation	\$0	\$25,000	\$0	\$25,000	\$0	\$0	\$30,000
Customer Cost	(\$22,750)	(\$52,000)	(\$65,000)	(\$78,000)	(\$78,000)	(\$78,000)	(\$78,000)
Total Program Expenses	\$204,825	\$339,747	\$392,391	\$487,332	\$482,994	\$492,092	\$537,642

8.6.1 Residential HVAC Diagnostics-Tune-up

8.6.2 Commercial HVAC Diagnostics-Tune-up

	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$44,652	\$45,930	\$47,245	\$48,599	\$49,991	\$51,424	\$52,899
Office Supplies & Expenses	\$2,050	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Data Processing	\$5,000	\$2,091	\$2,133	\$2,175	\$2,219	\$2,263	\$2,309
Advertising	\$15,000	\$17,500	\$25,000	\$30,000	\$35,000	\$35,000	\$35,000
Outside Services/install	\$129,375	\$214,010	\$303,606	\$369,828	\$439,750	\$452,943	\$466,531
Equipment	\$6,000	\$0	\$3,000	\$0	\$3,000	\$0	\$0
Market Research	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0
Program Evaluation	\$0	\$25,000	\$0	\$25,000	\$0	\$0	\$30,000
Customer Cost	(\$22,000)	(\$38,500)	(\$55,000)	(\$66,000)	(\$77,000)	(\$77,000)	(\$77,000)
Total Program Expenses	\$190,077	\$268,122	\$328,117	\$411,778	\$455,180	\$466,894	\$512,048

Assumptions:

- Program labor assumes ³/₄ FTE
- Advertising expense is based on \$40 per participant for residential and \$50 per participant for commercial
- Outside services are based on diagnostics costs of \$125 per residential unit and \$200 per commercial unit and tune up costs of \$200 per residential unit and \$300 per commercial unit
- Customers costs are discounted and are assumed to be: residential diagnostics \$35, tuneup \$50; commercial diagnostics, \$50, and tune-up \$100.
- Commercial customers average 2 air conditioning units
- Quality assurance checks will be done on 10% of a tune ups

LG&E and KU Energy Efficiency 2008-2014 Program Plan

9.0 Customer Education and Public Information

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Customer Education and Public Information

9.1 Description

The objective of this program is to increase public awareness and understanding of both the urgent need for more efficient use of energy and the environmental and financial impacts created by climate change issues. Additionally, this program will also increase customer awareness and encourage utilization of the energy efficiency products and services made available through this filing. This program includes an important educational component for elementary and middle school students.

9.2 Rationale for Program

Public awareness and acceptance of the fact that inefficient use of electricity and natural gas are adversely impacting climate change and the environment are essential drivers for behavioral changes in energy usage. Additionally, consumers should understand the cost advantage of addressing load growth by embracing energy efficiency programs relative to the higher costs associated with adding generating assets and/or environmental compliance.

This program will inform consumers that energy efficiency initiatives can provide opportunities for them to improve their comfort and level of service while reducing energy bills. These programs can help customers make sound energy use decisions, increase control over energy bills, and empower them to actively manage their energy usage.

The Companies believe that it is important to specifically reach out to school children with these messages, as they are not only our future customers, but also may significantly influence the consumption behavior of their parents and families.

The Companies also believe that if our customers have a higher level of understanding about our energy efficiency offerings, they will participate in greater numbers, resulting in greater acceptance and significantly higher utilization and effectiveness of our services.

Customer education and public awareness are essential for the long-term sustainability of the Energy Efficiency portfolio.

9.3 Program Goals

This program is designed to enhance customer awareness and understanding of energy efficiency and related concepts. Energy and demand reductions influenced through customer education and public awareness initiatives will be reflected through impacts achieved by the individual energy efficiency programs. Customers will be surveyed to evaluate effectiveness of provided materials and to improve communications content.

9.4 Incentives

There are no incentives associated with this program.

9.5 Implementation Plan

a. Elementary and Middle School Programming

- An unlimited-use online resource is planned for elementary and middle school teachers to effectively deliver climate change and energy efficiency concepts and solutions to students. The website will include lesson plans for teachers, printable teaching materials and student worksheets. The website will feature online student worksheets for students with internet access.
- A full time resource (i.e., a direct or outsourced representative) is planned for directservice to school systems and teachers' associations to illustrate system-program resources, stress critical components and exemplify other schools/teachers best practices.
- Developed printed materials will be maintained for ongoing school and teacher outreach.

b. Mass Media

Mass media will consist of television, radio and newspaper messages emphasizing critical content of our Customer Education and Public Information plan, namely:

• Climate change: Emphasis will be placed on the need for energy efficiency and the Companies' and customers' roles in changing behaviors; the Companies' responsibility to provide information and tools to enable good customer choices and the customers' responsibility to utilize what we provide to make behavioral changes.

This ongoing communications initiative will be designed to maintain high customer awareness and interest.

The Companies' energy efficiency services and products portfolio promotions. All energy efficiency initiatives will be included under a single recognizable "brand" facilitating customer recognition and strong program participation. Initiative periods will coincide with the summer cooling and winter heating seasons.

Corporate Website c.

The Companies plan to expand the E.ON U.S. corporate website by including extensive topic sensitive libraries, data and tools related to energy efficiency. Direct links will be offer quick access to websites providing additional reliable and relevant information. Specifically, the website will include the following:

- Energy efficiency program descriptions and enrollment screens
- Educational materials
- Energy cost calculators
- Energy Efficiency Technology Information
- Energy Star Products
- **Energy Star Homes**

9. 6 Annual Budget

Education & Public I	niormation						
	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$259,005	\$268,070	\$276,112	\$284,396	\$292,928	\$301,715	\$310,767
Office Supplies & Expenses	\$3,000	\$3,075	\$3,137	\$3,199	\$3,263	\$3,328	\$3,395
Mass Media	\$2,500,000	\$2,562,500	\$2,639,888	\$2,742,420	\$2,874,680	\$3,043,420	\$3,258,319
School Programs	\$50,000	\$35,875	\$36,593	\$37,324	\$38,071	\$38,832	\$39,609
Market research	\$25,000	\$25,625	\$26,138	\$26,660	\$27,193	\$27,737	\$28,292
Data Processing - Web	\$100,000	\$102,500	\$104,550	\$106,641	\$108,774	\$110,949	\$113,168
Evaluation	\$88,110	\$89,929	\$92,592	\$96,019	\$100,347	\$105,779	\$112,606
Total Program Expenses	\$3,025,115	\$3,087,575	\$3,179,009	\$3,296,660	\$3,445,256	\$3,631,762	\$3,866,156

Education & Dublic Information

Assumptions

- Program labor assumes 2.25 FTE including educational liaison resource •
- Mass media assumes development and delivery of two major messages per year related to • energy efficiency awareness and services available to customers
- School programs provide web-based educational materials and teacher lesson plans . related to energy efficiency
- Market research includes surveys and focus groups to determine educational outreach and • energy efficiency materials needed on web.
- Web costs provide customers online access for energy efficiency products, processes, energy calculators, statistics, etc.
- Program evaluation assumes 3% of annual program operating costs
- Costs are escalated to reflect inflation

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

10.0 Dealer Referral Network Program

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Dealer Referral Network

10.1 Description

The Companies' plan to establish and maintain a web based Dealer Referral Network to deliver the following services to program constituents:

- Assisting customers in finding qualified and reliable personnel to install energy efficiency improvements recommended and/or subsidized by the various energy efficiency programs
- Identifying energy related subcontractors for contractors seeking to build energy efficient homes or improve energy efficiency of existing homes
- Fulfillment of incentives and rebates

10.2 Rationale for Program

A common weakness of audit type programs that depend upon customers implementing recommended energy savings recommendations is low implementation rates. Implementation rates are impacted by a variety of factors including cost of measures, potential utility bill reductions from energy savings, understanding recommendations, ease and convenience. Recommendations for installation of measures such as insulation, air sealing, window replacements, weather-stripping, lighting fixture replacement and programmable thermostats, may find customers unfamiliar with the technologies and with qualified service providers or installers.

The Companies' believe that assisting customers in finding and obtaining qualified service providers to install measures will result in increased implementation rates and result in more effective programs. Additionally, incentive or rebate initiatives' effectiveness depends upon simple and timely payment of incentives.

10.3 Program Goals

10.3.1 Participation

The program's goal is to offer service provider information in combination with all energysaving measure recommendations to all customers receiving incentives or rebates. All processing of incentives and rebates will flow through this program. There are not a specific number of participants targeted.

10.3.2 Impacts

This program will increase energy savings as it will facilitate implementation measures in various programs. The energy impacts will be captured within the individual programs.

10.4 Incentives

There are no incentives specifically associated with this program.

10.5 Implementation Plan

10.5.1 Dealer Referrals

The Dealer Referral Network will be maintained by a contractor who will establish a webbased database listing energy efficiency service providers sorted by the type of work they perform. Service providers wishing to be part of the network will submit an online application profiling their business and qualifications. Based upon criteria established by the Companies, the contractor will evaluate each application for the following:

- Confirmation that the service provider is interested in and will accept work matching the Companies' recommendations to customers
- Service-provider qualifications, certifications and licensing verifications
- Service provider agreement to adhere to building codes, manufacturer required installation procedures and/or best practices energy efficiency specifications
- Acceptable levels of liability and errors and omissions insurance

The Companies will not guarantee or accept any liability for work provided by service providers on the network, nor will they attempt to rate the service providers or recommend one provider versus another. Service providers meeting the above criteria will be approved and added to the network. Service providers found failing to comply with the criteria or achieving poor customer satisfaction results may be reviewed, put on notice or removed from the Dealer Referral Network.

The contractor will add approved service providers to the database, which will be accessible to the general public through the Companies' energy efficiency internet site. Additionally, the database will be utilized to develop printed listings of service providers, which will be provided to and discussed with customers as part of their energy audit report.

10.5.2 Rebate & Incentive Fulfillment

The rebate and incentive fulfillment process will be maintained by a contractor experienced in rebate processing. The contractor will require verifications and follow specific procedures approved by the Companies for claim and processing prior to any payments to customers and vendors.

The contractor will match three documents prior to making each payment:

- An application submitted by the applicant (when required) which has been approved by the Companies or by the contractor based upon company eligibility guidelines
- Original receipts documenting the purchase and/or installation of qualifying equipment at the location specified on the application
- Written approval from the Companies' appropriate Program Manager indicating that the incentive was reviewed and verified based upon each program's requirements

Once documents are matched, the contractor will initiate checks for payment and record the payment in the Dealer Referral Network database. All written documentation will be maintained in accordance with the Companies' documentation retention policy.

10.6 Program Budget

	2008	2009	2010	2011	2012	2013	2014
Direct Program Labor	\$52,080	\$53,903	\$55,520	\$57,185	\$58,901	\$60,668	\$62,488
Office Supplies & Expenses	\$1,000	\$1,025	\$1,046	\$1,066	\$1,088	\$1,109	\$1,132
Data Processing	\$30,000	\$15,375	\$15,683	\$15,996	\$16,316	\$16,642	\$16,975
Outside Services	\$50,000	\$51,250	\$52,275	\$53,321	\$54,387	\$55,475	\$56,584
Printed Customer Information Materials	\$10,000	\$10,250	\$10,455	\$10,664	\$10,877	\$11,095	\$11,317
Program Evaluation	\$14,308	\$13,180	\$13,498	\$13,823	\$14,157	\$14,499	\$14,850
Total Program Expenses	\$157,388	\$144,983	\$148,476	\$152,056	\$155,726	\$159,488	\$163.346

Dealer Referral Network

Assumptions

- Program Labor assumes 0.5 FTE
- Data processing includes \$15,000 to develop and establish new web database and \$10,000 per year hosting and maintenance
- Outside services includes dealer qualification and incentive fulfillment services
- Program evaluation assumes 10% of annual program operating costs

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LG&E and KU Energy Efficiency 2008-2014 Program Plan

11.0 Program Development and Administration

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Program Name: Program Development and Administration

11.1 Description

Program Development and Administration is established to capture costs incurred in the development and administration of Energy Efficiency programs where it is difficult to assign costs specifically to an individual program. These costs include but are not limited to:

- consultant costs for new program concept and initial design
- market research related to new programming
- research and technical evaluation of new technologies and programs
- overall program tracking and management
- attendance at Energy Efficiency/DSM conferences and workshops
- development of key personnel
- membership in associated trade organizations
- subscriptions to educational and trade publications
- office supplies and equipment related to general management of the organization

11.2 Rationale for Program

This program is designed to track the costs that are common to all Energy Efficiency programs. Cost associated with this program include management and coordination of department activities, monitoring program schedules and budgets, planning, communications and coordination with customers and constituent groups, and employee education and training.

The Companies intend to engage in careful and thoughtful investigation of technologies, products, and innovative delivery mechanisms for future Energy Efficiency initiatives and in the program designs that may incorporate them. This is necessary for long-term sustainability of the Companies' energy efficiency initiatives. Market research, consultants and contacts with other utilities, manufacturers and trade allies will be part of the effort to develop comprehensive program designs, goals, budgets, and impact estimates. Support for applicable third-party research on energy efficiency initiatives (e.g. EPRI) may also be included as appropriate. These program development costs will be accrued into this administrative budget until such times as they are incorporated into pilot or full-scale program offerings submitted in subsequent filings. The following are examples of new programming the Companies may be evaluating in the future:

- Energy Star certification for existing homes
- Energy Star certified appliance rebates
- Duct evaluation and sealing
- Refrigerator retirements
- Energy efficiency certifications for new commercial buildings
- Energy efficiency certifications for existing commercial buildings
- Other potential programming identified through the Integrated Resource Plan process

The Companies will recover these general administrative costs through the current DSM cost recovery mechanism. Because of the difficulty in determining an exact allocation to individual programs or rate classes, these general Energy Efficiency development and administrative costs will be allocated to each rate class.

Program Development and Administration support is essential for the long-term sustainability of the Energy Efficiency portfolio.

11.3 Program Goals

There are no specific demand or energy goals associated with this program.

11.4 Incentives

There are no incentives associated with this program.

11.5 Implementation Plan

Program Development and Administration is an ongoing daily activity, therefore there is not a specific implementation strategy. Expenditure activity proposed in this filing will not commence until the filing is approved by the Commission.

11.6 Annual Budget

Program Development & Admnistration									
	2008	2009	2010	2011	2012	2013	2014		
Direct Program Labor	\$394,320	\$408,121	\$420,365	\$432,976	\$445,965	\$459,344	\$473,124		
Office Supplies, Equip & Exp	\$7,000	\$7,175	\$7,319	\$7,465	\$7,614	\$7,766	\$7,922		
Training & Travel	\$10,000	\$10,250	\$10,455	\$10,664	\$10,877	\$11,095	\$11,317		
Market Research	\$50,000	\$51,250	\$52,275	\$53,321	\$54,387	\$55,475	\$56,584		
New Program R&D	\$250,000	\$256,250	\$261,375	\$266,603	\$271,935	\$277,373	\$282,921		
Data Processing	\$25,000	\$25,625	\$26,138	\$26,660	\$27,193	\$27,737	\$28,292		
Total Program Expenses	\$736,320	\$758,671	\$777,926	\$797,688	\$817,972	\$838,791	\$860,160		

Assumptions

- Program Labor assumes 3 FTE including Department Manager, Assistant and Analyst
- Market research includes customer surveys, focus groups and acquisition of market and regulatory intelligence
- New program R&D provides for identifying, testing and analyzing new energy efficiency technologies and potential programs
- Data processing provides for computer equipment and license fees

LG&E and KU Energy Efficiency 2008-2014 Program Plan

12.0 Implementation Plans

LG&E and KU 2008-2014 ENERGY EFFICIENCY PROGRAM PLAN

Implementation Plans

12.1 Implementation Discussion

The Companies' goal is to implement the Energy Efficiency programs proposed in this filing as quickly and effectively as reasonably possible following approval by the Commission. In order to ensure the programs are adequately planned and effectively implemented, introduction of program changes and new programs will be staged over a period of time. This filing represents a significant increase in Energy Efficiency programming which will require additional internal staffing and development of new contractor relationships. The Companies' are unable to commit to these additional resources until the programs are approved; however, work on developing program details and identifying potential service providers has already started.

12.2 Existing Programs

Existing programs and their related enhancements will be addressed first as the program management structure and programming is already in place and it's important to maintain continuity of service. Final program specifications will be finalized and RFP's will be sent out during 3rd quarter 2007. Negotiations will be completed and contractors selected during 4th quarter. Contract documents will be prepared and ready to execute upon receiving program approval. The current programs expire on December 31, 2007 and no interruption of existing services is anticipated.

Expected Implementation

Residential Conservation Program - Onsite Audits	1/1/2008
Residential Conservation Program - Online Audits	1st Quarter 2008
Residential Demand Conservation	1/1/2008
Commercial Demand Conservation	1/1/2008
WeCare (Low Income Weatherization)	1/1/2008
Commercial Conservation - Audits	1/1/2008
Commercial Conservation - Audits - Prescriptive Rebates	1st Quarter 2008

12.3 New Programming

The Companies intend to implement new Energy Efficiency programs as quickly as reasonably possible. New program management position descriptions will be prepared and ready to post upon program approval. Positions will be filled as quickly as possible; however, recent experience in filling a position revealed that expansion of Energy Efficiency activity throughout the country has created a shortage of qualified personnel. Existing Energy Efficiency staff has started and will complete as much preliminary work as possible in late 2007 and early 2008.

Assuming program management positions are filled within a reasonable period of time, the Companies expect to have all programs operational by the end of the 3rd quarter 2008.

Expected Implementation

Responsive Pricing and Smart Metering Pilot Program Residential High Efficiency Lighting Residential New Construction Program Residential HVAC Diagnostics & Tune Up Commercial HVAC Diagnostics & Tune Up Customer Education & Public Information Dealer Referral Network 1/1/2008 2nd Quarter 2008 3nd Quarter 2008 2nd Quarter 2008 1st Quarter 2008 2nd Quarter 2008