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VIA OVERNIGHT DELIVERY

April 26, 2006

Ms. Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

RECEIVED

APR 27 2006

PUBLIC SERVICE
COMMISSION

Re: Consideration of the Requirements of The Federal Energy Policy Act of 2005
Regarding Time-Based Metering, Demand Response and Interconnection Service
Case No. 2006-00045

Dear Ms. O'Donnell:

Enclosed please find an original and ten copies of the responses of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky to the Kentucky Public Service Commission Staff's Second Set of data requests in the above-referenced case.

Please file-stamp and return the two extra copies of this letter in the enclosed over-night envelope.

If you have any questions, please call me at (513) 287-3601.

Sincerely,

John J. Finnigan, Jr.
Senior Counsel

JJF/sew

cc: All parties of record (w/encl.)

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APR 27 2006

**PUBLIC SERVICE
COMMISSION**

KyPSC Staff Second Set Data Requests

ULH&P Case No. 2006-00045

Date Received: April 13, 2006

Response Due Date: April 27, 2006

KyPSC-DR-02-028

REQUEST:

28. Refer to the response to Item 1 of the "Smart Metering" requests in the commission's February 24, 2006 Order. The last section in the response refers to the residential direct load control air conditioning program, which was approved roughly 2.5 years ago. For each of the three offerings identified, provide the current number of installations and the intended penetration level for the program as a whole.

RESPONSE:

The current numbers of residential direct load control air conditioning installations by offering are as follows: The .5 kW option has zero switches installed. The 1.0 kW option has 1,229 switches installed and the 1.5 kW option has 4,049 switches installed to date. The intended penetration for the program is 10,000 switches in total.

WITNESS RESPONSIBLE: Richard G. Stevie

KyPSC Staff Second Set Data Requests

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APR 27 2006

**PUBLIC SERVICE
COMMISSION**

KyPSC-DR-02-029

REQUEST:

29. Refer to the response to Item 4 of the "Smart Metering" requests in the commission's February 24, 2006 Order. The last paragraph in the response refers to The Cincinnati Gas and Electric Company's ("CG&E") experience with a residential Time-of Use ("TOU") rate in Ohio. Provide the CG&E TOU tariff along with a narrative description that highlights the tariff's features.

RESPONSE:

A copy of Duke Energy Ohio's Rate TD, Optional Time-Of-Day Rate For Residential Service, P.U.C.O. Electric No. 19, Sheet No. 33.10 is attached as Attachment KyPSC-DR-02-Smart Metering-029.

Residential customers with single phase service may elect to receive service under Rate TD. The customer's service must have a programmable time-of-day meter. If a time-of-day meter is not already installed, the customer must pay the incremental cost of installing the meter (approximately \$250).

Under Rate TD, distribution, generation, and some of the Rider charges vary by season (summer / winter) and time-of-day (on-peak / off-peak). The summer period is defined as that period represented by the Company's billing for the four (4) revenue months of June through September. The winter period is defined as that period represented by the Company's billing for the eight (8) revenue months of January through May and October through December.

The summer On Peak Period is defined as 11:00 a.m. to 8:00 p.m. Monday through Friday, excluding holidays. The winter On Peak Period is defined as 9:00 a.m. to 2:00 p.m. and 5:00 p.m. to 9:00 p.m. Monday through Friday, excluding holidays.

Off Peak Periods are all hours Monday through Friday not included above plus all day Saturday and Sunday as well as New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day and Christmas Day or on the day nationally designated to be celebrated as such with the exception that if the foregoing holidays occur on a Sunday, the following Monday is considered a holiday.

Seventeen Ohio residential customers receive service under Rate TD.

WITNESS RESPONSIBLE: Paul G. Smith

RATE TD

KyPSC Case No. 2006-00045
KyPSC-DR-02-029 Attachment
Page 1 of 3

OPTIONAL TIME-OF-DAY RATE FOR RESIDENTIAL SERVICE

APPLICABILITY

Applicable to electric service other than three phase service for all domestic purposes in private residences and single occupancy apartments in the entire territory of the Company where distribution lines are adjacent to the premises to be served. This rate is available only as Company demand meters with programmable time-of-day registers are installed on the customer's premises.

For customers taking service under any or all of the provisions of this tariff schedule, this same schedule shall constitute the Company's Standard Service Offer.

NET MONTHLY BILL

Computed in accordance with the following charges:

	<u>Summer Period</u>	<u>Winter Period</u>
1. Distribution Charges		
(a) Customer Charge	\$13.00 per month	\$13.00 per month
(b) Energy Charge		
On Peak kilowatt-hours	\$0.037141 per kWh	\$0.029514 per kWh
Off Peak kilowatt-hours	\$0.006479 per kWh	\$0.006474 per kWh

2. Applicable Riders

The following riders are applicable pursuant to the specific terms contained within each rider:

- Sheet No. 57, Rider TCR, Transmission Cost Recovery Rider
- Sheet No. 80, Rider RGR, Residential Generation Rider
- Sheet No. 81, Rider EER, Energy Efficiency Revolving Loan Program Rider
- Sheet No. 83, Rider OET, Ohio Excise Tax Rider
- Sheet No. 84, Rider RTC, Regulatory Transition Charge Rider
- Sheet No. 85, Rider SC, Shopping Credit Rider
- Sheet No. 86, Rider USR, Universal Service Fund Rider
- Sheet No. 89, Rider AG, Optional Alternative Generation Rider

Effective January 1, 2006 for residential customers, the following additional riders apply:

- Sheet No. 51, Rider AAC, Annually Adjusted Component Rider
- Sheet No. 52, Rider DSMR, Demand Side Management Cost Recovery Rider
- Sheet No. 53, Rider FPP, Fuel and Economy Purchased Power Rider
- Sheet No. 54, Rider IMF, Infrastructure Maintenance Fund Rider
- Sheet No. 55, Rider RSC, Rate Stabilization Charge Rider
- Sheet No. 56, Rider SRT, System Reliability Tracker
- Sheet No. 59, Rider RSS, Rate Stabilization Surcredit Rider
- Sheet No. 103, Rider MSR-E, Merger Savings Credit Rider-Electric

Filed pursuant to an Order dated March 29, 2006 in Case No. 06-407-GE-ATA before the Public Utilities Commission of Ohio.

Issued: March 31, 2006

Effective: April 3, 2006

Issued by Sandra P. Meyer, President

NET MONTHLY BILL (Contd.)

3. Generation Charges

	<u>Summer Period</u>	<u>Winter Period</u>
Energy Charge		
On Peak kilowatt-hours	\$0.106570 per kWh	\$0.084072 per kWh
Off Peak kilowatt-hours	\$0.016734 per kWh	\$0.016739 per kWh

The Generation Charges listed above are applicable to all residential customers, including those customers who receive their energy from a Certified Supplier, through December 31, 2005. Effective January 1, 2006 for residential customers, the following generation charges are applicable to all customers except those customers who receive their energy from a Certified Supplier:

	<u>Summer Period</u>	<u>Winter Period</u>
Energy Charge		
On Peak kilowatt-hours	\$0.076567 per kWh	\$0.060189 per kWh
Off Peak kilowatt-hours	\$0.011183 per kWh	\$0.011187 per kWh

MINIMUM CHARGE

The minimum charge shall be the Customer Charge as stated above.

BILLING PERIODS

For purposes of administration of the above charges, the summer period is defined as that period represented by the Company's billing for the four (4) revenue months of June through September. The winter period is defined as that period represented by the Company's billing for the eight (8) revenue months of January through May and October through December.

RATING PERIODS

The rating periods applicable to the above kilowatt-hour charges are as follows:

- a) Summer On Peak Period - 11:00 a.m. to 8:00 p.m. Monday through Friday, excluding holidays.
- b) Winter On Peak Period - 9:00 a.m. to 2:00 p.m. and 5:00 p.m. to 9:00 p.m. Monday through Friday, excluding holidays.
- c) Off Peak Period - All hours Monday through Friday not included above plus all day Saturday and Sunday as well as New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day and Christmas Day or on the day nationally designated to be celebrated as such with the exception that if the foregoing holidays occur on a Sunday, the following Monday is considered a holiday.

LATE PAYMENT CHARGE

Payment of the total amount due must be received in the Company's office by the due date shown on the bill. When not so paid, an additional amount equal to one and one-half percent (1.5%) of the unpaid balance is due and payable. The late payment charge is not applicable to unpaid account balances for services received from a Certified Supplier.

Filed pursuant to an Order dated March 29, 2006 in Case No. 06-407-GE-ATA before the Public Utilities Commission of Ohio.

Issued: March 31, 2006

Effective: April 3, 2006

Issued by Sandra P. Meyer, President

TERMS AND CONDITIONS

This rate is available upon application in accordance with the Company's Service Regulations.

The initial term of service under this rate is three (3) years. If the customer desires to cancel service under this tariff within three (3) years, a termination fee may be charged by the Company. The termination fee will be determined by applying the above Customer Charge times the remaining months of the initial service agreement.

Where the Company is denied access to read the customer's time-of-day meter for more than two (2) consecutive months, the Company may, after notifying the customer, place the customer on the Company's standard residential rate. If the Company moves the customer to the standard rate, the customer shall not be billed for the termination fee.

The supplying and billing for service and all conditions applying thereto, are subject to the jurisdiction of the Public Utilities Commission of Ohio, and to Company's Service Regulations currently in effect, as filed with the Public Utilities Commission of Ohio.

Filed pursuant to an Order dated March 29, 2006 in Case No. 06-407-GE-ATA before the Public Utilities Commission of Ohio.

Issued: March 31, 2006

Effective: April 3, 2006

Issued by Sandra P. Meyer, President

KyPSC Staff Second Set Data Requests

ULH&P Case No. 2006-00045

Date Received: April 13, 2006

Response Due Date: April 27, 2006

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KyPSC-DR-02-030

**PUBLIC SERVICE
COMMISSION**

REQUEST:

30. Refer to the March 23, 2006 response A-2 of LG&E and KU to Item 2 of the "Smart Metering" requests, which refers to simple seasonal rates, and to the first bullet under Residential and Small Commercial of the same response. Does ULH&P share the same view regarding simple seasonal rates? Explain the response.

RESPONSE:

LG&E and KU's comments on simple seasonal rates incorporate several interesting issues. Duke Energy Kentucky would like to comment on each of these issues separately.

First, LG&E and KU comment that a simple seasonal rate, specifically a summer / winter rate, may yield questionable demand response capabilities. In general, we agree with this comment. There needs to be a compelling reward to change customer behavior. One rate for the entire summer may induce a moderate level of conservation but would not guarantee any significant level of demand response on critical days. A rate structure which identifies on-peak and off-peak periods with significant price differentials may perform much better. However, this type of rate (a time-of-use or critical peak pricing rate) requires a smart meter.

Second, LG&E and KU comment that Kentucky's low rates may result in certain demand response programs failing to be cost-effective. This may be true for some programs, but Duke Energy Kentucky looks at new programs with a marginal perspective. It is not certain how LG&E and KU are evaluating the cost-effectiveness. Duke Energy Kentucky believes using a marginal benefit-cost approach is a reasonable approach to examine the cost-effectiveness.

Finally, LG&E and KU comment that small commercial and residential customers are different than larger power users. Duke Energy Kentucky agrees with this comment. We offer different programs to different size customers. For larger customers, we offer programs such as PowerShare and RTP. For smaller customers, PowerManager is our current program.

In summary, Duke Energy Kentucky agrees with some of LG&E and KU's comments, although we may look at demand response and smart metering from a different perspective. Duke Energy Kentucky would support investment in a system for

residential and small commercial customers that promotes demand response if the system is cost-effective.

WITNESS RESPONSIBLE: Paul G. Smith and Richard G. Stevie

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KyPSC-DR-02-031

REQUEST:

PUBLIC SERVICE
COMMISSION

31. Provide a brief discussion relative to ULH&P's DSM programs and explain if and how potential demand response resources are considered in your integrated resource planning process.

RESPONSE:

Duke Energy Kentucky currently offers the following demand-side management (DSM) programs:

- Residential Conservation and Energy Education
- Residential Home Energy House Call
- Residential Comprehensive Energy Education Program (NEED)
- Payment Plus
- Power Manager
- Energy Star Products
- Energy Efficiency Website
- C&I High Efficiency Incentive
- Personalized Energy Report
- Demand Response Programs

Residential Conservation and Energy Education

This program is designed to help the Company's income-qualified customers reduce their energy consumption and lower their energy cost. This program specifically focuses on LIHEAP customers who meet the income qualification level, *i.e.*, income below 150% of the federal poverty level. The program provides direct installation of weatherization and energy-efficiency measures and educates ULH&P's income-qualified customers about their energy usage and other opportunities to reduce energy consumption and lower their utility bill.

This program also includes refrigerator replacement as a qualified measure in owner occupied homes. Refrigerators can consume a very large amount of electricity

within the home. To determine replacement, the program weatherization provider performs a two-hour meter test of the existing refrigerator unit.

Residential Home Energy House Call

The Home Energy House Call (HEHC) program, implemented by ULH&P subcontractor Enertouch Inc. (dba GoodCents Solutions), provides a comprehensive walk-through in-home analysis by a qualified home energy specialist to identify energy savings opportunities in homes. The energy specialist analyzes the total home energy usage, checks the home for air infiltration, examines insulation levels in different areas of the home and checks appliances and heating/cooling systems. A comprehensive report specific to the customer's home and energy usage is then completed and mailed back to the customer within ten working days. The report focuses on building envelope improvements as well as low-cost and no-cost improvements to save energy. At the time of the home audit, the customer receives a kit containing several energy saving measures at no cost. The measures include a low-flow showerhead, two aerators, outlet gaskets, two compact fluorescent bulbs, and a motion sensor night-light. The auditors will install the measures so customers can begin realizing an immediate savings on their electric bill or the customer may choose to install the measures themselves.

Residential Comprehensive Energy Education

The Residential Comprehensive Energy Education program is operated under subcontract by Kentucky National Energy Education Development (NEED). NEED was launched in 1980 to promote student understanding of the scientific, economic, and environmental impacts of energy. The program is currently available in 46 states, the U.S. Virgin Islands, and Guam.

The program provides unbiased educational information on all energy sources, with an emphasis on the efficient use of energy. Energy education materials, emphasizing cooperative learning, are provided to teachers. Leadership Training Workshops are structured to educate teachers and students to return to their schools, communities, and families to conduct similar training and to implement behavioral

changes that reduce energy consumption. Educational materials and Leadership Training workshops are designed to address students of all aptitudes and have been provided for students and teachers in grades K through 12.

The Kentucky NEED program follows national guidelines for materials used in teaching, but also offers additional services such as: hosting teacher/student workshops, sponsoring teacher attendance at summer training conferences, sponsoring attendance at a National Youth Awards Conference for award-winning teachers and students, and providing curricula, free of charge, to teachers.

Due to efforts of the Kentucky NEED program, the Kentucky Division of Energy was awarded a Special Projects grant from the U.S. Department of Energy. This Rebuild Kentucky project, which began in January 2002, established a new partnership to implement an Energy Smart Schools program in six Northern Kentucky counties. Kentucky NEED is a cost share partner in this project.

The program addresses 1) building energy efficiency improvements through retrofits, financed by use of energy saving performance contracts (ESPC) and improved new construction; 2) school transportation practices; 3) educational programs; 4) procurement practices; and 5) linkages between school facilities and activities within the surrounding community.

To improve and better document the energy savings associated with the NEED program, a change was made in 2004 adding a new survey instrument for use in the classroom and an energy savings “kit” as a teaching tool. New curriculum was developed around this kit and survey to allow teachers to have actual in-home measures assessed and implemented. The result of this change has demonstrated that measures are being installed in the home. These kits include CFL’s, low-flow shower heads, faucet aerators, water temperature gauge, outlet insulation pads and flow meter bag.

Pilot Program: Home Energy Assistance Plus (renamed *Payment Plus*)

Since January of 2002 the Residential Collaborative with the Company has been testing an innovative home energy assistance program called Payment Plus. The pilot program was designed to impact participants' behavior (*e.g.*, encourage meeting utility bill payments as well as eliminate arrearages) and to generate energy conservation impacts. That program was extended with Order 2004-00389 as a pilot through 2006 looking at both the early participants and new participants each year.

The pilot program has three parts:

1. Energy & Budget Counseling – to help customers understand how to control their energy usage and how to manage their household bills, a combined education/counseling approach is used.
2. Weatherization – participants in this program are required to have their homes weatherized as part of the normal Residential Conservation and Energy Education (low-income weatherization) program unless weatherized in past program years.
3. Bill Assistance – to provide an incentive for these customers to participate in the education and weatherization, and to help them take control of their energy bills, payment assistance credits are provided to each customer when they complete the other aspects of the program. The credits are: \$200 for participating in the energy efficiency counseling, \$150 for participating in the budgeting counseling, and \$150 to participate in the Residential Conservation and Energy Education program. If all of the requirements are completed, a household could receive up to a total of \$500. Current funding allows for approximately 100 homes to participate per year.

This program is offered over six winter months per year starting in November. Customers are tracked and the program evaluated after two years to see if customer energy consumption has dropped and changes in bill paying habits have occurred.

Power Manager

The purpose of the Power Manager program is to reduce demand by controlling residential air conditioning usage during peak demand conditions in the summer months. The program is offered to residential customers with central air conditioning. The

Company attaches a load control device to the customer's compressor to enable the Company to cycle the customer's air conditioner off and on when the load on the system reaches peak levels. Customers receive financial incentives for participating in this program based upon the cycling option selected. If a customer selects Option A, their air conditioner is cycled to achieve a 1 kW reduction in load. If a customer selects Option B, the air conditioner is cycled to achieve a 1.5 kW load reduction. Incentives are provided at the time of installation: \$25 for Option A and \$35 for Option B. In addition, when a cycling event occurs, a Variable Daily Event Incentive based upon marginal costs is also provided.

The cycling of the customer's air-conditioning system will have minimal impact on the operation of the air-conditioning system or on the customer's comfort level. The load control device has built-in safe guards to prevent the "short cycling" of the air-conditioning system. The air-conditioning system will always run the minimum amount of time required by the manufacturer. The cycling simply causes the air-conditioning system to run less which is no different than what it does on milder days. Research from other programs including previous programs operated by the Company has shown that the indoor temperature should rise approximately one to two degrees for control Option A and 1 approximately two to three degrees for control Option B. Additionally, the indoor fan will continue to run and circulate air during the cycling event.

The initial design of Power Manager has been structured on the same basic principles as the Company's innovative PowerShare[®] program. Power Manager will couple direct load control with a flavor of "real time pricing" through the Variable Daily Event Incentive structure as described above. By implementing the Variable Daily Event Incentive structure, the Company can educate customers on the real time cost of electricity.

Energy Star Products

The Energy Star Products program provides market incentives and market support through retailers to build market share and usage of Energy Star products. Special

incentives to buyers and in-store support stimulate demand for the products and make it easier for store participation. The program targets Residential customers' purchase of specified technologies through retail stores and special sales events. The first year of the program focuses on compact fluorescent lamps (bulbs) and torchiere lamps. Technologies may change in the future years of program operation based on new technologies and market responses.

There are several market barriers addressed through the program. The first is price. Purchase rewards are provided for customers to lower the initial cost of the item and stimulate interest. The second barrier is retailer participation. Through retail education, in-field sales support (signs, ads, *etc.*), and stimulated market demand retailers stock more product, provide special promotions and plan sales strategies around these Energy Star products. Additional support is provided through manufacturer relationships that often can reduce prices through special large-scale purchases.

The intent is to provide incentives or "customer rewards" through special in-store "Instant Reward" events that occur in stores at the time of purchase.

The Company contract with the Wisconsin Energy Conservation Corporation (WECC) to provide this service. Recognized as the national leader in this program and located in the region, the Company is taking advantage of WECC's current activity to control costs and leverage other activity.

Energy Efficiency Website

The Energy Zone™ is the Company's enhanced energy efficiency web site. It provides customers with the most advanced programs, tools, and measures available to manage their energy and achieve load impacts. The website features a multi-tiered design providing the consumer the opportunity to receive quick customized energy tips and, if they choose, the ability to complete an online audit and receive ten self-install energy efficiency measures. The marketing of the Energy Efficiency Website

is an initiative meant to diversify and increase the reach of the Company's set of DSM programs.

To get customers to the website for its efficiency recommendations, an incentive of an Energy Efficiency Starter Kit will be sent to customers who complete an audit.

The kit provides the customer with the following measures:

- (1) 15w CFL Bulb
- (1) 20w CFL Bulb
- (1) 2.0 GPM Earth Showerhead
- (1) Dual Setting Touch Flow Kitchen Aerator with Swivel
- (1) 1.5 GPM Standard Faucet Aerator
- (1) LimeLite Nite Light
- (1) Pkg. Toilet Dye Tablets
- (2) Switch/Outlet Draft Stoppers
- (1) Energy Star Efficiency Guide

For those customers interested in how they use energy and lowering their energy bill, the website contains an audit tool, an appliance efficiency calculator, efficient products e-catalog and a library of energy information.

C&I High Efficiency Incentive

Under this program, the Company provides incentives to small commercial and industrial customers to install high efficiency equipment (motors, lighting and HVAC) in applications involving new construction, retrofit, and replacement of failed equipment. The types of equipment covered by incentives include:

High-Efficiency Lighting

- 8 ft 1 & 2 Lamp T-8/ E Ballast
- 8 ft HO 1 & 2 T-8/ EB
- 4 ft 1-4 T-8 /EB
- 3 ft 1-4 T-8 /EB
- 2 ft 1-4 T-8 /EB
- LED Exit Signs New/Electronic
- CFL Fixture

- CFL Screw in
- T-5 with Elec Ballast replacing T-12
- T-5 HO with Elec Ballast replacing T-12
- Tubular Skylight
- Hi Bay Fluorescent 4LT5HO
- Hi Bay Fluorescent 6LF32T8
- Hi Bay Fluorescent 8L 42W CFL

High Efficiency HVAC

- Packaged Terminal AC
- Packaged Terminal HP
- Unitary AC & Rooftop
 - <65,000 BTUH 1 Phase
 - <65,000 BTUH 3 Phase
 - 65-135,000 BTUH
 - 135-760,000 BTUH
 - 760,000 + BTUH
- Unitary & Rooftop HP
 - <65,000 BTUH 1 Phase
 - <65,000 BTUH 3 Phase
 - 65-135,000 BTUH
 - 135-760,000 BTUH
 - 760,000 + BTUH
- Ground Source HP – Closed Loop
- Water Source HP – Building Loop

High Efficiency Motors 20 to 250 hp

- Greater than 1500 hours per year
- High Efficiency Pumps 1.5 to 20 hp

Primary delivery of the program is through existing market channels, equipment providers and contractors. The Company also provides education and training to its market providers to understand the program and the appropriate applications for the technologies.

Personalized Energy Report

The Personalized Energy Report (PER) is a concept which provides the customer with customized energy report aimed at helping them better manage their energy costs.

With rising energy costs in all aspects of daily life, the customer is searching for information they can use and ideas they can implement which will impact their monthly energy bill. The PER program also includes the "*Energy Efficiency Starter Kit*" which contains nine easily installed measures that demonstrate how easy it is to move towards improved home energy efficiency.

The program targets the entire home from an energy usage standpoint. The customer will be provided energy tips and information regarding how they use energy and what simple, low cost/no cost measures can be undertaken to lower their energy bill.

Both an energy survey which is completed by the customer and generates the personalized energy report and the report itself are excellent educational tools. They stimulate the customer to think about how they use energy and then provide them with tools and information to lower their energy costs. Additionally, the instructions on how to install the energy measures, demonstrates to the customer how easy it is to improve their efficiency.

The PER program commences with a letter to the customer, offering the Personalized Energy Report if they would return a short, 14 question survey about their home. The survey asks very simple questions such as age of home, number of occupants, types of fuel used to heat, cool and cook. Once returned, the survey is used to generate a customized energy report. The report contains the following information:

- Month-to Month Comparisons of 2005 for electric and/or gas usage including the amount of the bill
- Predictions of customer's usage based on 95th percentile weather conditions (extremely hot summer/extremely cold winter) and 5th percentile weather conditions (extremely mild summer/extremely mild winter). Also includes bill amounts based on 2006 tariffs.
- Trend chart showing usage of electric and/or gas by kWh/CF by month and amount of monthly bill
- Bill comparison vs. the average national electric and/or gas rate

- An end-use breakdown of how the customer uses electricity and/or gas
- Description of Budget Bill
- Customized energy tips

Customized tips are based upon the customers specific answers to questions in the survey.

The “*Energy Efficiency Starter Kit*” contains the following items:

- 2 each 1.5 GPM showerheads
- 1 each Kitchen Swivel Aerator 2.2 GPM
- 1 each Bathroom Aerator 1.0 GPM
- 1 each Bath Aerator 1.5GPM
- 1 each Small Roll Teflon Tape
- 1 each 15 Watt CFL Mini Spiral
- 1 each 20 Watt CFL Mini Spiral
- 2 each 17’ Roll Door Weatherstrip
- 1 each Combination Pack Switch/Outlet Gasket Insulators
- Installation instructions for all measures

Demand Response Programs

The demand response programs of the Company were previously described in response to KyPSC-DR-01-Smart Metering-001.

Consideration of DSM and Demand Response in the Integrated Resource Plan

Within the Company’s Collaborative process, all DSM program ideas are initially screened for cost-effectiveness. Once consensus on the programs have been reached by the Collaborative and approval for implementation has been given by the Kentucky Public Service Commission, the projected load impacts are provided to System Planning for direct incorporation into the Integrated Resource plan.

With regard to demand response programs, once again, the projected load impacts are provided to System Planning for direct incorporation into the Integrated Resource plan.

WITNESS RESPONSIBLE: Richard G. Stevie

KyPSC Staff First Set Data Requests

ULH&P Case No. 2006-00045

Date Received: April 13, 2006

Response Due Date: April 27, 2006

RECEIVED

APR 27 2006

**PUBLIC SERVICE
COMMISSION**

KyPSC-DR-02-032

REQUEST:

32. Refer to the response to Item 3 of the "Interconnection" requests in the Commission's February 24, 2006 Order. Refer also to the response of LG&E and KU to the same Commission request, which refers to customers with "open transition" switched generation that operates separately from the distribution grid.
- a. Does ULH&P require customers to obtain its authorization to have such "open transition" switched generation arrangements for operational purposes? Explain the response.
 - b. How many customers and what amount of such generation do ULH&P customers operate and to what extent has ULH&P inquired about and/or pursued the potential for having access to this generation at times of peak demand or extreme emergency on its system? Explain the response. If you do not have full knowledge in this area, provide whatever information you have.
 - c. Would ULH&P see any value in a program encouraging these customers (through the provision of bill credits, for example) to utilize this generation voluntarily to meet their needs and free up utility resources during periods of peak demand or extreme emergency? Explain the response. If yes, describe what actions would need to be taken to allow for such a program.

RESPONSE:

- a. Duke Energy Kentucky's Electric Service Manual states in Section 403 on Standby Generators, "No other source of electricity can be connected to the customer's wiring system without transfer equipment to prevent feedback into the Company's system. Energy Delivery must be contacted well in advance to allow time for engineering review and approval." The term, "transfer equipment" includes open-transition switching. In most cases this approval has been verbal and has not been formally documented.
- b. Duke Energy Kentucky has not kept formal records on this type of customer owned generation. Past efforts to obtain this information from larger customers has produced a list of 21 customers with generators totaling 17 MW of capacity. This list is believed to be very incomplete, particularly for those customers with generators smaller than 300kW. We are currently conducting a pilot program on the feasibility to access customer generation in the Duke Energy Ohio service

area. Currently, six residential customers are participating in the pilot. Since this is a new program, there is no operational information available at this time. The Company would face different operational considerations in accessing many small residential customers' generators to serve the Company's peak demand, as compared to accessing larger generating units owned by commercial or industrial customers.

In addition, Duke Energy Kentucky presently offers Rider PLM, Peak Load Management which includes a Generation Sell Back option for distributed generation. Generators connected through open-transition switches can utilize this option to obtain incentives for reductions in load.

- c. Yes, Duke Energy Kentucky sees value in such a program and currently has one available to customers through Rider PLM, Peak Load Management.

WITNESS RESPONSIBLE: James W. Lemke