



Mailing Address:
139 East Fourth Street
1212 Main / P.O. Box 960
Cincinnati, Ohio 45202
o 513-287-4315
f 513-287-4386

VIA OVERNIGHT DELIVERY

September 27, 2013

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Blvd
Frankfort, KY 40601

RECEIVED

SEP 30 2013

PUBLIC SERVICE
COMMISSION

**Re: Case No. 2013-00313
In the Matter of the Application of Duke Energy Kentucky, Inc. to Amend its
Demand Side Management Programs**

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the Responses of Duke Energy Kentucky, Inc. to Commission Staff's Initial Request for Information in the above captioned case.

Please date-stamp the two copies of the letter and responses and return to me in the enclosed envelope.

Sincerely,


Kristen Ryan
Senior Paralegal
kristen.ryan@duke-energy.com

cc: Larry Cook
Richard Raff
Florence W. Tandy
Carl Melcher

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) **SS:**

The undersigned, Kevin A. Bright, being duly sworn, deposes and says that he is the Managing Director Large & Small Business Market Strategies & Products, and that the matters set forth in the foregoing testimony are true and correct to the best of his information, knowledge and belief.

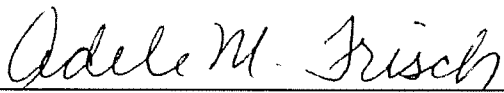


Kevin A. Bright, Affiant

Subscribed and sworn to before me by Kevin A. Bright, on this 26th day of September 2013.



ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires
January 5, 2014



NOTARY PUBLIC

My Commission Expires: 1/5/2014

VERIFICATION

STATE OF OHIO)
) **SS:**
COUNTY OF HAMILTON)

The undersigned, Rose Stoeckle, being duly sworn, deposes and says that she is the Manager Measurement & Verification, and that the matters set forth in the foregoing testimony are true and correct to the best of her information, knowledge and belief.

Rose Stoeckle
Rose Stoeckle, Affiant

Subscribed and sworn to before me by Rose Stoeckle, on this 24TH day of September
2013.



ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires
January 5, 2014

Adele M. Frisch
NOTARY PUBLIC

My Commission Expires: 1/5/2014

TABLE OF CONTENTS

<u>DATA REQUEST</u>	<u>WITNESS</u>	<u>TAB NO.</u>
STAFF-DR-01-001	Rick Mifflin/ Kevin Bright	1
STAFF-DR-01-002	Rick Mifflin	2
STAFF-DR-01-003	Rick Mifflin	3
STAFF-DR-01-004	Kevin Bright/ Rick Mifflin	4
STAFF-DR-01-005	Rose Stoeckle	5
STAFF-DR-01-006	Rick Mifflin	6
STAFF-DR-01-007	Rick Mifflin	7
STAFF-DR-01-008	Rick Mifflin	8
STAFF-DR-01-009	Rick Mifflin	9
STAFF-DR-01-010	Rose Stoeckle	10
STAFF-DR-01-011	Rick Mifflin	11
STAFF-DR-01-012	Rose Stoeckle	12
STAFF-DR-01-013	Rose Stoeckle	13
STAFF-DR-01-014	Rose Stoeckle	14
STAFF-DR-01-015	Rose Stoeckle	15



Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013

STAFF-DR-01-001

REQUEST:

Refer to page 3 of the Application which states, “This Application proposes to expand the scope of the Residential Smart Saver Program and Smart Saver Prescriptive Program for Non-Residential Customers by increasing the available measures within each program to enhance the robustness of the Company’s offerings.” Also, refer to page 2, Residential Smart Saver (New Measures) and Smart Saver Prescriptive – New Measures, in Appendix B of the Application.

- a. Provide a breakdown of the proposed \$48,300 total program cost by each new Residential Smart Saver Program measure.
- b. Provide a breakdown of the proposed \$44,649 total program cost by each new Smart Saver Prescriptive Program measure.

RESPONSE:

- a. See below:

Name	Total Cost
KY_ Multifamily water saving measures	\$ 5,470
KY_ Single Family water saving measures	\$ 20,168
KY_ Heat Pump Water Heater	\$ 7,415
KY_ Pool Pump	\$ 15,247

- b. See below:

Name	Total Cost
KY_ 0.5 Faucet Aerator (DI) - Commercial, public use	\$ 25.65
KY_ 0.5 gpm Faucet Aerator (DI) - COMM, pvt use	\$ 5.62
KY_ 0.5 gpm Faucet Aerator (DI) - School, public use	\$ 100.18

KY_ 1.0 Faucet Aerator (DI) - Commercial, public use	\$ 19.02
KY_ 1.0 gpm Faucet Aerator (DI) - COMM, pvt use	\$ 7.98
KY_ 1.0 gpm Faucet Aerator (DI) - School, public use	\$ 37.61
KY_ 1.5 gpm Low Flow Showerhead (DI) - COMM, public use	\$ 14.78
KY_ 1.5 gpm Low Flow Showerhead (DI) - COMM, pvt use	\$ 28.31
KY_ Chilled Water Reset- Air Cooled Chillers, Grocery	\$ 103.96
KY_ Chilled Water Reset- Air Cooled Chillers, Other	\$ 42.62
KY_ Chilled Water Reset- Air Cooled Chillers, Retail	\$ 131.83
KY_ Chilled Water Reset- Water Cooled Chillers, Other	\$ 32.77
KY_ Chilled Wtr Reset- Air Cooled Chillers, College or Sm Ofc	\$ 33.51
KY_ Chilled Wtr Reset- Air Cooled Chillers, SCH (K-12)	\$ 32.89
KY_ Chilled Wtr Reset- Wtr Cooled Chillers, College or Sm Ofc	\$ 32.45
KY_ Chilled Wtr Reset- Wtr Cooled Chillers, Retail	\$ 125.47
KY_ Chilled Wtr Reset- Wtr Cooled Chillers, SCH (K-12)	\$ 32.08
KY_ Chilled Wtr Reset-Wtr Cooled Chillers, Grocery	\$ 124.48
KY_ Controlled Plug Strip	\$ 73.83
KY_ CoolRoof New Replace on Burnout College	\$ 135.69
KY_ CoolRoof New Replace on Burnout Health	\$ 70.97
KY_ CoolRoof New Replace on Burnout Hotel	\$ 47.44
KY_ CoolRoof New Replace on Burnout Large Office	\$ 202.53
KY_ CoolRoof New Replace on Burnout Medium Office	\$ 133.00
KY_ CoolRoof New Replace on Burnout Motel	\$ 12.27
KY_ CoolRoof New Replace on Burnout Other	\$ 28.47
KY_ CoolRoof New Replace on Burnout Retail	\$ 138.41
KY_ CoolRoof New Replace on Burnout School	\$ 132.77
KY_ CoolRoof New Replace on Burnout Strip Mall	\$ 172.60
KY_ Ductless Mini-Split AC, College vs room AC	\$ 0.00
KY_ Ductless Mini-Split AC, Convenience vs PTAC	\$ 0.00
KY_ Ductless Mini-Split AC, Lodging vs PTAC	\$ 0.00
KY_ Ductless Mini-Split AC, Other vs room AC	\$ 0.00
KY_ Ductless Mini-Split AC, Schools (K-12) vs room AC	\$ 0.00
KY_ Ductless Mini-Split Heat Pump, College vs room AC	\$ 996.77
KY_ Ductless Mini-Split Heat Pump, Lodging vs PTHP	\$ 0.00
KY_ Ductless Mini-Split Heat Pump, Lodging vs room AC	\$ 1,024.97
KY_ Ductless Mini-Split Heat Pump, Other vs PTHP	\$ 0.00
KY_ Ductless Mini-Split Heat Pump, Other vs room AC	\$ 1,043.76
KY_ Ductless Mini-Split HP, Convenience vs PTHP	\$ 0.00
KY_ Ductless Mini-Split HP, Convenience vs room AC	\$ 1,321.01
KY_ Ductless Mini-Split HP, Schools (K-12) vs room AC	\$ 916.89
KY_ Energy Star 2.0 Server	\$ 0.00
KY_ Energy Star 6.0 Desktop Computer	\$ 62.54
KY_ Energy Star 6.0 Small Scale Server (Data Storage)	\$ 0.00
KY_ Exterior LED Lighting Motion-Sensor Control	\$ 683.74

KY_ HT ES Multi-Tank - CNV DW w-Boost Htr (Elec) New -repl on BO	\$ 0.00
KY_ HT ES Multi-Tank - CNV DW w-Boost Htr (Gas) New -repl on BO	\$ 0.00
KY_ HT ES Sngl Tank - CNV DW w-Boost Htr (Elec) New -repl on BO	\$ 0.00
KY_ HT ES Sngl Tank - CNV DW w-Boost Htr (Gas) New -repl on BO	\$ 0.00
KY_ HT ES Sngl Tank - Door DW w-Boost Htr (Elec) New -repl on BO	\$ 526.51
KY_ HT ES Sngl Tank - Door DW w-Boost Htr (Gas) New -repl on BO	\$ 482.00
KY_ HT ES UC DW w-Boost Htr (Elec) New -repl on BO	\$ 0.00
KY_ HT ES UC DW w-Boost Htr (Gas) New -repl on BO	\$ 0.00
KY_ LED Bollards (rplcng or ILO INCD, CFL, or HID bollards)	\$ 1,320.76
KY_ LED Canopy replacing 176-250W HID	\$ 1,953.45
KY_ LED Canopy replacing 251-400W HID	\$ 5,785.13
KY_ LED Canopy replacing up to 175W HID	\$ 3,988.42
KY_ LED Display Case (rplcng or ILO INCD or FL display case Ltng)	\$ 521.60
KY_ LED FLD rplcng or ILO GRT 100W HAL, INCD, or HID	\$ 710.49
KY_ LED FLD rplcng or ILO up to 100W HAL, INCD, or HID	\$ 358.54
KY_ LED Highbay replacing 251-400W HID	\$ 773.97
KY_ LED Highbay replacing greater than 400W HID	\$ 8,905.60
KY_ LED Lowbay replacing 176W-250W HID	\$ 393.79
KY_ LED Lowbay replacing up to 175W HID	\$ 193.34
KY_ LED Panel 1x4 replacing or in lieu of T8 FL	\$ 320.92
KY_ LED Panel 2x2 replacing or in lieu of T8 FL	\$ 404.89
KY_ LED Panel 2x4 replacing or in lieu of T8 FL	\$ 1,322.65
KY_ LED Portable Task Lights (rplcng or ILO INCD, HAL, or CFL task Ltng)	\$ 831.53
KY_ LED Shelf-mounted Task Lights (rplcng or ILO FL task Ltng)	\$ 320.54
KY_ LED Track Ltng (rplcng or ILO INCD, HAL, CFL, or HID track Ltng)	\$ 1,495.15
KY_ Low-Temp ES Multi-Tank - CNV DW New -repl on BO	\$ 0.00
KY_ Low-Temp ES sngl Tank - CNV DW New -repl on BO	\$ 0.00
KY_ Low-Temp ES sngl Tank - Door DW New -repl on BO	\$ 503.36
KY_ Low-Temp ES UC DW New -repl on Burnout	\$ 0.00
KY_ PC Power Management from Network	\$ 1,371.04
KY_ Remote-Mounted Daylight Sensor	\$ 1,146.02
KY_ Server Virtualization	\$ -
KY_ Switch or Fixture-Mounted Daylight Sensor	\$ 903.62
KY_ T8 HB 4ft 2L rplcng 150-249W HID (retrofit only)	\$ 922.91
KY_ VFDs on chilled water pumps 10HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 10HP	\$ 0.00
KY_ VFDs on chilled water pumps 15HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 15HP	\$ 0.00
KY_ VFDs on chilled water pumps 20HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 20HP	\$ 0.00
KY_ VFDs on chilled water pumps 25HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 25HP	\$ 0.00
KY_ VFDs on chilled water pumps 30HP w Economizer	\$ 0.00

KY_ VFDs on chilled water pumps 30HP	\$ 0.00
KY_ VFDs on chilled water pumps 40HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 40HP	\$ 0.00
KY_ VFDs on chilled water pumps 50HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 50HP	\$ 0.00
KY_ VFDs on chilled water pumps 5HP w Economizer	\$ 0.00
KY_ VFDs on chilled water pumps 5HP	\$ 0.00
KY_ VFDs on chilled water pumps 7.5HP w Economizer	\$ 977.49
KY_ VFDs on chilled water pumps 7.5HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 10HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 15HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 20HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 2HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 3HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 5HP	\$ 0.00
KY_ VFDs on CRAC CRAH AHU fans 7.5HP	\$ 0.00
KY_ Walk-In Cooler Automatic Door-Closer Retrofit	\$ 35.75
KY_ Walk-In Freezer Automatic Door-Closer Retrofit	\$ 26.80
KY_ Water Heater Pipe Insulation	\$ 23.55

PERSON RESPONSIBLE: a Rick Mifflin
b. Kevin Bright



STAFF-DR-01-002

REQUEST:

Refer to page 4 of the Application.

- a. Describe the Energy Star electric heat pump water heaters.
- b. Provide the average cost of a heat pump water heater including any associated installation cost.
- c. Explain how the \$300 customer incentive and \$50 dealer incentive were determined for the heat pump water heaters.

RESPONSE:

- a. Heat pump water heaters (HPWH) are about 2 times more efficient than a standard or resistance electric water heater. Qualified HPWH equipment captures heat more efficiently from the surrounding air by using a refrigeration cycle that transfers the BTUs to the integrated water heating storage tank.
- b. Determining the average equipment and installation costs for HPWH can be challenging because of the many variables included in the equipment selection, installation conditions and contractors. The total price of the equipment and installation can range from around \$1,200 to over \$2,000.
- c. The incentive structure was developed by discussing the program with energy consultants and other utilities that offered similar programs. Cost effectiveness tests were run to determine if the program passed the required standards. The \$300 was felt to offer the

customer a reasonable payback on the additional investment and the \$50 is used to improve trade ally engagement and to compensate for application submission.

PERSON RESPONSIBLE: Rick Mifflin



STAFF-DR-01-003

REQUEST:

Refer to page 5 of the Application. Explain how the \$400 customer incentive and \$50 dealer incentive were determined for the pool energy-efficiency program.

RESPONSE:

The program design and incentive structure were determined by working energy consultants and reviewing similar pool pump programs offered to utility customers. The \$400 was deemed to offer an attractive payback on the additional customer investment while the \$50 dealer incentive will improve trade ally engagement and compensate them for submitting applications.

PERSON RESPONSIBLE: Rick Mifflin



STAFF-DR-01-004

REQUEST:

Refer to pages 5-9 of the Application listing proposed additions to Duke Kentucky's demand-side management ("DSM") portfolio. For each of the new measures listed:

- a. State the incentives provided to the customer and the dealer; and
- b. State what qualifies a customer to participate in each measure.

RESPONSE:

Non-Residential Prescriptive Measures:

The new measures fall under the Smart Saver Prescriptive Program meaning that the following requirements apply:

Available to non-residential customers in the Company's electric service area taking service under non-residential rates who choose to participate by completing and submitting an application. In order to receive an incentive payment under this program, the owner must submit an application before or within ninety (90) days of installation, along with the required documentation and verification that the installed efficiency measures meet the requirements of this program. The Company reserves the right to inspect the premises of the customer both before and after implementation of the measure for which payment is requested. Incentive payments will be made only after the equipment has been installed, and is operable, as verified by the Company. Multiple incentive payments may be requested for each establishment; however, the Company reserves the right to limit the payments per establishment per year.

Measure Name	Incentive	Unit of Measure
0.5 Faucet Aerator (DI) - Commercial, public use	\$ 4.50	per aerator
0.5 gpm Faucet Aerator (DI) - COMM, pvt use	\$ 4.50	per aerator
0.5 gpm Faucet Aerator (DI) - School, public use	\$ 4.50	per aerator
1.0 Faucet Aerator (DI) - Commercial, public use	\$ 4.50	per aerator
1.0 gpm Faucet Aerator (DI) - COMM, pvt use	\$ 4.50	per aerator
1.0 gpm Faucet Aerator (DI) - School, public use	\$ 4.50	per aerator
1.5 gpm Low Flow Showerhead (DI) - COMM, public use	\$ 12.50	per showerhead
1.5 gpm Low Flow Showerhead (DI) - COMM, pvt use	\$ 12.50	per showerhead
Chilled Water Reset- Air Cooled Chillers, Grocery	\$ 1.50	per ton
Chilled Water Reset- Air Cooled Chillers, Other	\$ 1.50	per ton
Chilled Water Reset- Air Cooled Chillers, Retail	\$ 1.50	per ton
Chilled Water Reset- Water Cooled Chillers, Other	\$ 1.50	per ton
Chilled Wtr Reset- Air Cooled Chillers, College or Sm Ofc	\$ 1.50	per ton
Chilled Wtr Reset- Air Cooled Chillers, SCH (K-12)	\$ 1.50	per ton
Chilled Wtr Reset- Wtr Cooled Chillers, College or Sm Ofc	\$ 1.50	per ton
Chilled Wtr Reset- Wtr Cooled Chillers, Retail	\$ 1.50	per ton
Chilled Wtr Reset- Wtr Cooled Chillers, SCH (K-12)	\$ 1.50	per ton
Chilled Wtr Reset-Wtr Cooled Chillers, Grocery	\$ 1.50	per ton
Controlled Plug Strip	\$ 4.00	per plug strip
CoolRoof New Replace on Burnout College	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Health	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Hotel	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Large Office	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Medium Office	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Motel	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Other	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Retail	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout School	\$ 100.00	per 1000 sq ft
CoolRoof New Replace on Burnout Strip Mall	\$ 100.00	per 1000 sq ft
Ductless Mini-Split AC, College vs room AC	\$ 140.00	per ton
Ductless Mini-Split AC, Convenience vs PTAC	\$ 140.00	per ton
Ductless Mini-Split AC, Lodging vs PTAC	\$ 140.00	per ton
Ductless Mini-Split AC, Other vs room AC	\$ 140.00	per ton
Ductless Mini-Split AC, Schools (K-12) vs room AC	\$ 140.00	per ton
Ductless Mini-Split Heat Pump, College vs room AC	\$ 240.00	per ton
Ductless Mini-Split Heat Pump, Lodging vs PTHP	\$ 240.00	per ton
Ductless Mini-Split Heat Pump, Lodging vs room AC	\$ 240.00	per ton
Ductless Mini-Split Heat Pump, Other vs PTHP	\$ 240.00	per ton
Ductless Mini-Split Heat Pump, Other vs room AC	\$ 240.00	per ton
Ductless Mini-Split HP, Convenience vs PTHP	\$ 240.00	per ton
Ductless Mini-Split HP, Convenience vs room AC	\$ 240.00	per ton
Ductless Mini-Split HP, Schools (K-12) vs room AC	\$ 240.00	per ton
Energy Star 2.0 Server	\$ 15.00	per server
Energy Star 6.0 Desktop Computer	\$ 10.00	per Desktop Computer

Energy Star 6.0 Small Scale Server (Data Storage)	\$ 15.00	per Small Scale Server
Exterior LED Lighting Motion-Sensor Control	\$ 27.00	per control
HT ES Multi-Tank - CNV DW w-Boost Htr (Elec) New -repl on BO	\$ 1,500.00	per dishwasher
HT ES Multi-Tank - CNV DW w-Boost Htr (Gas) New -repl on BO	\$ 1,500.00	per dishwasher
HT ES Sngl Tank - CNV DW w-Boost Htr (Elec) New -repl on BO	\$ 1,000.00	per dishwasher
HT ES Sngl Tank - CNV DW w-Boost Htr (Gas) New -repl on BO	\$ 1,000.00	per dishwasher
HT ES Sngl Tank - Door DW w-Boost Htr (Elec) New -repl on BO	\$ 700.00	per dishwasher
HT ES Sngl Tank - Door DW w-Boost Htr (Gas) New -repl on BO	\$ 700.00	per dishwasher
HT ES UC DW w-Boost Htr (Elec) New -repl on BO	\$ 400.00	per dishwasher
HT ES UC DW w-Boost Htr (Gas) New -repl on BO	\$ 400.00	per dishwasher
Low-Temp ES Multi-Tank - CNV DW New -repl on BO	\$ 1,500.00	per dishwasher
Low-Temp ES sngl Tank - CNV DW New -repl on BO	\$ 1,000.00	per dishwasher
Low-Temp ES sngl Tank - Door DW New -repl on BO	\$ 700.00	per dishwasher
Low-Temp ES UC DW New -repl on Burnout	\$ 400.00	per dishwasher
LED Bollards (rplcng or ILO INCD, CFL, or HID bollards)	\$ 40.00	per fixture
LED Canopy replacing 176-250W HID	\$ 90.00	per fixture
LED Canopy replacing 251-400W HID	\$ 170.00	per fixture
LED Canopy replacing up to 175W HID	\$ 80.00	per fixture
LED Display Case (rplcng or ILO INCD or FL display case Ltng)	\$ 10.00	per foot
LED FLD rplcng or ILO GRT 100W HAL, INCD, or HID	\$ 50.00	per fixture
LED FLD rplcng or ILO up to 100W HAL, INCD, or HID	\$ 20.00	per fixture
LED Highbay replacing 251-400W HID	\$ 170.00	per fixture
LED Highbay replacing greater than 400W HID	\$ 225.00	per fixture
LED Lowbay replacing 176W-250W HID	\$ 90.00	per fixture
LED Lowbay replacing up to 175W HID	\$ 80.00	per fixture
LED Panel 1x4 replacing or in lieu of T8 FL	\$ 40.00	per fixture
LED Panel 2x2 replacing or in lieu of T8 FL	\$ 40.00	per fixture
LED Panel 2x4 replacing or in lieu of T8 FL	\$ 40.00	per fixture
LED Portable Task Lights (rplcng or ILO INCD, HAL, or CFL task Ltng)	\$ 25.00	per fixture
LED Shelf-mounted Task Lights (rplcng or ILO FL task Ltng)	\$ 10.00	per foot
LED Track Ltng (rplcng or ILO INCD, HAL, CFL, or HID track Ltng)	\$ 35.00	per fixture
PC Power Management from Network	\$ 6.00	per Desktop PC and Monitor(s)
Remote-Mounted Daylight Sensor	\$ 20.00	per control
Switch or Fixture-Mounted Daylight Sensor	\$ 20.00	per control
T8 HB 4ft 2L rplcng 150-249W HID (retrofit only)	\$ 50.00	per fixture
VFDs on chilled water pumps 10HP w Economizer	\$ 1,000.00	per pump
VFDs on chilled water pumps 10HP	\$ 1,000.00	per pump
VFDs on chilled water pumps 15HP w Economizer	\$ 1,329.00	per pump
VFDs on chilled water pumps 15HP	\$ 1,329.00	per pump
VFDs on chilled water pumps 20HP w Economizer	\$ 1,504.00	per pump
VFDs on chilled water pumps 20HP	\$ 1,504.00	per pump
VFDs on chilled water pumps 25HP w Economizer	\$ 1,793.00	per pump
VFDs on chilled water pumps 25HP	\$ 1,793.00	per pump
VFDs on chilled water pumps 30HP w Economizer	\$ 2,111.00	per pump

VFDs on chilled water pumps 30HP	\$ 2,111.00	per pump
VFDs on chilled water pumps 40HP w Economizer	\$ 2,451.00	per pump
VFDs on chilled water pumps 40HP	\$ 2,451.00	per pump
VFDs on chilled water pumps 50HP w Economizer	\$ 3,069.00	per pump
VFDs on chilled water pumps 50HP	\$ 3,069.00	per pump
VFDs on chilled water pumps 5HP w Economizer	\$ 500.00	per pump
VFDs on chilled water pumps 5HP	\$ 500.00	per pump
VFDs on chilled water pumps 7.5HP w Economizer	\$ 750.00	per pump
VFDs on chilled water pumps 7.5HP	\$ 750.00	per pump
VFDs on CRAC CRAH AHU fans 10HP	\$ 1,000.00	per fan
VFDs on CRAC CRAH AHU fans 15HP	\$ 1,329.00	per fan
VFDs on CRAC CRAH AHU fans 20HP	\$ 1,504.00	per fan
VFDs on CRAC CRAH AHU fans 2HP	\$ 200.00	per fan
VFDs on CRAC CRAH AHU fans 3HP	\$ 300.00	per fan
VFDs on CRAC CRAH AHU fans 5HP	\$ 500.00	per fan
VFDs on CRAC CRAH AHU fans 7.5HP	\$ 750.00	per fan
Walk-In Cooler Automatic Door-Closer Retrofit	\$ 40.00	per automatic door-closer
Walk-In Freezer Automatic Door-Closer Retrofit	\$ 40.00	per automatic door-closer
Water Heater Pipe Insulation	\$ 1.40	per foot

Residential Smart Saver:

- a. See below:

Measure Name	Average Customer Incentive	Trade Ally Incentive
KY_ Multifamily Water Saving Measures	\$ 46.29	\$ 0.0
KY_ Single Family Water Saving Measures	\$ 30.79	\$ 0.0
KY_ Heat Pump Water Heater (HPWH)	\$ 300.0	\$ 50.0
KY_ Pool Pump	\$ 400.0	\$ 50.0

- b. **Heat pump water heater and pool pump measures:** Eligible customers include single-family, owner occupied residential customers with electric water heating for HPWH. Customers must purchase and install a qualifying measure using a Duke Energy approved contractor. Customer premise must contain an in-ground pool to be eligible for the pool pump incentive.

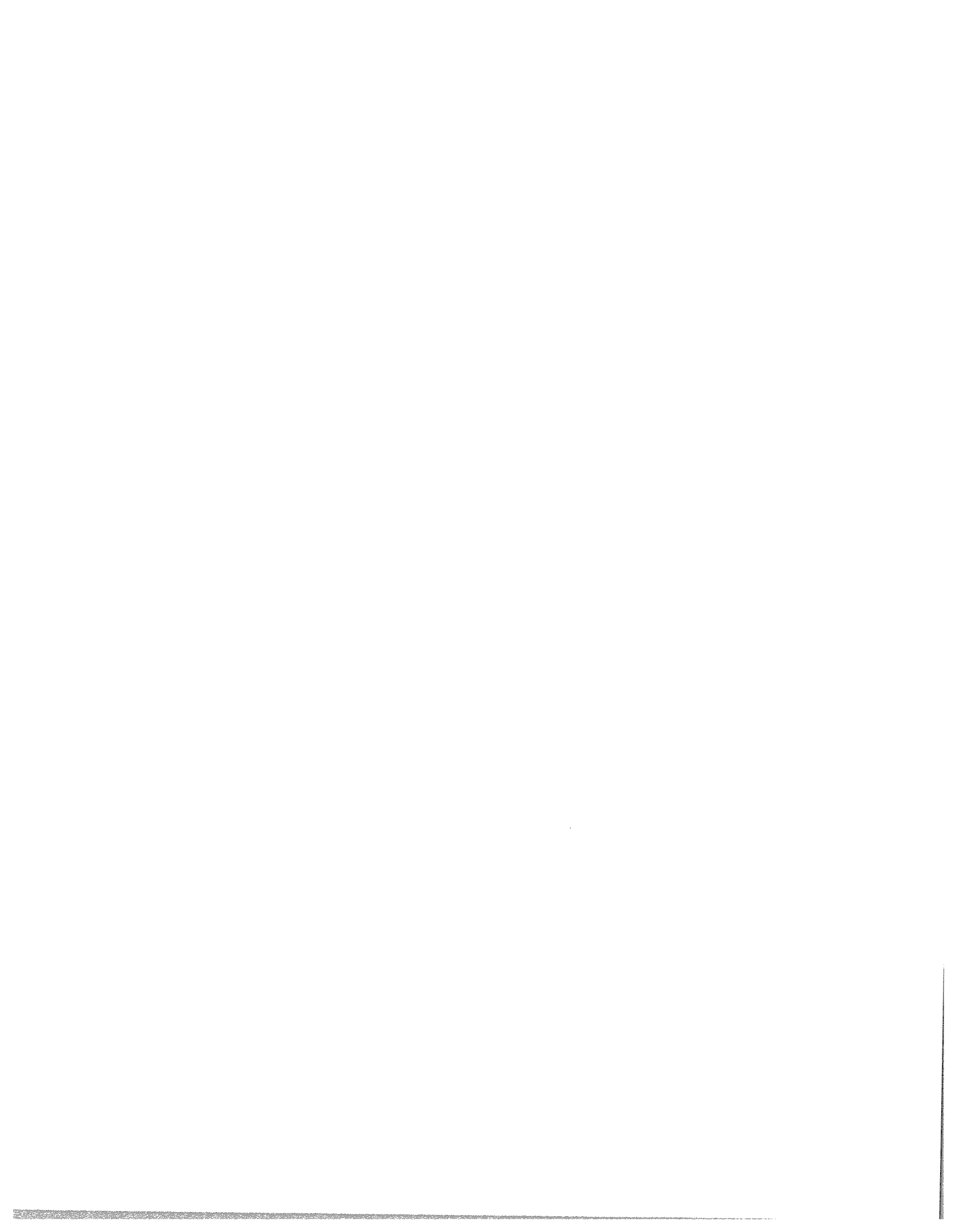
Single family water measures:

Eligible customers must on a residential electric rate and must have use an electric water heater for their water heating needs.

Multi-family water measures:

Eligible apartment complexes must have at least 4 individually metered residential apartments with electric individual electric water heaters for each unit. The property manager enrolls in the program for all qualifying residential units in the complex.

PERSON RESPONSIBLE: Kevin Bright
a and b. Rick Mifflin



Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013

STAFF-DR-01-005

REQUEST:

Refer to Exhibit D of the Application and ordering paragraph 3 of the Final Order of Case No. 2012-00495.¹

- a. Explain whether Duke Kentucky is proposing to revise or expand its existing Energy Education Program for Schools.
- b. If the answer to part a. is no, explain why the Process Evaluation of National Energy Efficiency Education (“NEED”) Program for Schools Kentucky was filed in this Application when Duke Kentucky was to evaluate its entire portfolio of DSM programs by December 31, 2016. The exception from that evaluation date would be for applications that include a new program or an expansion of an existing program.
- c. If the answer to part a. is no, provide the cost of performing the evaluation and when Duke Kentucky proposes to recover the evaluation cost.

RESPONSE:

- a.) No.
- b.) Please refer to Conclusions, page 14, item 6, number 4 of the Order in Case No. 2012-00495. Duke Energy Kentucky was ordered to file all program evaluations with the Commission by August 15 of each year. Duke Energy Kentucky will continue to file

¹ Case No. 2012-00495, Application of Duke Energy Kentucky, Inc. for the Annual Cost Recovery Filing for Demand Side Management (Ky. PSC Apr. 11, 2013)

evaluations by August 15 of each year until the entire portfolio is evaluated by December 31, 2016.

c.) The cost of planning and executing the evaluation was \$33,557. Duke Energy Kentucky requests recovery of evaluation costs in the filing period in which they are incurred.

PERSON RESPONSIBLE: Rose Stoeckle



STAFF-DR-01-006

REQUEST:

Refer to page 3 of Exhibit D of the Application which states, "Between January 1, 2011 and October 1, 2012, the NEED program distributed 401 energy efficiency kits against a goal of 1000 kits. This represents an achievement of 40% of goal. Additional kit distributions were planned for late 2012, but the number of participating teachers and the corresponding volume of kits appeared unlikely to reach the goal of 1000." Provide, by year, the number of kits distributed for 2011, 2012, and 2013 to date.

RESPONSE:

Duke Energy Efficiency kits distributed:

2011: 83 kits

2012: 359 kits

2013 YTD: 73 kits

PERSON RESPONSIBLE: Rick Mifflin



**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-007

REQUEST:

Refer to page 3 of Exhibit D which states, "Between January 1, 2011 and October 1, 2012, the NEED project has conducted three teacher workshops, training 109 teachers from 63 participating schools. From among these schools, 32 classrooms distributed Duke Kentucky sponsored energy efficiency kits to 460 student families." Provide, the number of teacher workshops, teachers trained, and the number of schools participating from October 1, 2012 to present.

RESPONSE:

Since October 1, 2012:

Teacher workshops: 1

Teachers trained: 31

Schools participating: 17

* 1 workshop scheduled for October 3, 2013

PERSON RESPONSIBLE: Rick Mifflin

STAFF-DR-01-008

REQUEST:

Refer to page 3 of Exhibit D which states,

- While the program appears to be doing an adequate job of training teachers each year, the sharp decline between number of teachers receiving NEED training and the number of teachers actually distributing Duke Energy sponsored energy efficient kits is the most notable barrier to success for this program.
- The primary reason identified for low teacher participation is the issue of classroom equity. As designed, the program only permits efficiency kit distribution to students whose parents are Duke Energy customers. Because many classrooms contain students who are not Duke Energy customers, the teachers opt out of program participation rather than creating a situation of inequality where some students receive the kits and others do not.
- Based on interviews with the NEED coordinator, another barrier to success appears to be parental objections to participating due to misunderstandings about program eligibility and parental desires for confidentiality about their Duke Energy account information.
 - a. Describe the extent to which participation of teachers has declined over the years.
 - b. Explain whether Duke Kentucky has considered partnering with any other agencies that might provide, with no cost or expense to Duke Kentucky ratepayers or shareholders, energy-efficiency kits to students whose parents are not customers of Duke Kentucky.
 - c. Describe Duke Kentucky's efforts to overcome parental objections.

RESPONSE:

- a. Teacher participation in workshops has remained stable over the years with an average of 30 teachers in each workshop.
- b. Duke Energy Kentucky and NEED considered partnering with other agencies that might provide non-Duke customer kits but there was not interest. Duke Energy Kentucky opted to offer non-Duke customer kits to no more than 25% of students in a classroom if not all student families are Duke Energy Kentucky customers. This will encourage targeting schools with the majority of students in Duke Energy service territory.
- c. Duke Energy Kentucky continues to work with NEED to provide information to teachers about program eligibility and this is addressed in the teacher training workshops. Currently, the NEED kit sign up process is a paper process but there is no account information listed on the sign up form that would compromise customer account information. Teachers will be encouraged to host student family nights for parental outreach in an effort to answer any questions and concerns from parents. Parents will be encouraged to sign up for kits at school parent nights to improve quality of forms returned.

PERSON RESPONSIBLE: Rick Mifflin



**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-009

REQUEST:

Refer to page 11 of Exhibit D of the Application which states, "However, the number of potential teachers is actually likely to be less due to retirement, job changes, moves, and teachers returning for refresher training." Explain whether Duke Kentucky is aware if the schools that are apart of Duke Kentucky's NEED program have considered using the school's energy manager to assist in implementing the NEED program.

RESPONSE:

Duke Energy Kentucky is aware school energy managers support the NEED program but there is no direct impact to the Program since they don't have direct student contact in classrooms to implement the education and distribution of kits. The NEED program is part of a teacher curriculum and is presented over several weeks in a classroom.

PERSON RESPONSIBLE: Rick Mifflin



Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013

STAFF-DR-01-010

REQUEST:

Refer to Exhibit E, Process and Impact Evaluation of the Energy Star Products (“CFLs) Program in Kentucky, of the Application.

- a. Explain how this portion of Duke Kentucky’s DSM portfolio is being enhanced or expanded.
- b. Provide the cost of the evaluation and when Duke Energy expects to seek recovery of the evaluation cost.

RESPONSE:

- a. Duke Energy Kentucky is expanding its lighting offer to include specialty bulbs such as indoor recessed lights, candelabras, three-way bulbs and dimmable bulbs. The web based e-commerce store will provide discounted specialty lights and ship directly to the home.
- b. The cost of the Process and Impact evaluation was \$129,019.80. Duke Energy Kentucky requests recovery of evaluation costs in the filing period in which they are incurred.

PERSON RESPONSIBLE: Rose Stoeckle



**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-011

REQUEST:

Explain how Duke Kentucky plans to use CFLs in its DSM portfolio once incandescent light bulbs are no longer available.

RESPONSE:

Duke Energy Kentucky continues to monitor the evolving incandescent marketplace. As we understand it today, there is incandescent inventory available for all sizes even though the EISA manufacturing requirements have been implemented for 100 watt and 75 watt standard incandescent lamps. As the inventory diminishes over time, Duke Energy Kentucky we will determine how the baseline may have changed (more efficient incandescent, halogen or something else) for customer behavior and respond accordingly with program changes and enhancements.

Duke Energy Kentucky is actively working to offer specialty lighting (reflectors, globes, candelabras, 3-way, dimmable, etc.) in the portfolio which has been less impacted by standards changes. The specialty lighting choices include CFLs and LEDs. The selection of choices should grow over the coming months which will improve adoption and impacts for specialty lighting fixtures.

PERSON RESPONSIBLE: Rick Mifflin



**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-012

REQUEST:

Refer to Exhibit G, Process Evaluation of the Non-Residential Smart Saver Prescriptive Program in Ohio and Kentucky: Lighting, Occupancy Sensors, and VFDs, of the Application. Provide the cost of the evaluation report, Duke Kentucky's share of the evaluation cost, and when Duke Kentucky expects to seek recovery of the evaluation cost.

RESPONSE:

The total cost of the evaluation was \$56,283.14. Duke Energy Kentucky's portion of this was \$13,974.38. Duke Energy Kentucky will seek recovery of the evaluation costs as part of the annual cost recovery filing.

PERSON RESPONSIBLE: Rose Stoeckle

**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-013

REQUEST:

Refer to Exhibit H, Impact Evaluation and Review of the 2012 Power Manager Program in Ohio and Kentucky, of the Application. Provide the cost of the evaluation report, Duke Kentucky's share of the evaluation cost, and when Duke Kentucky expects to seek recovery of the evaluation cost.

RESPONSE:

Impact Evaluation Report costs were \$27,698.10. Of this amount, Duke Energy Kentucky's costs were \$6,956.79. Duke Energy Kentucky requests recovery of evaluation costs in the filing period in which they are incurred.

PERSON RESPONSIBLE: Rose Stoeckle



**Duke Energy Kentucky
Case No. 2013-00313
Staff First Set Data Requests
Date Received: September 20, 2013**

STAFF-DR-01-014

REQUEST:

Explain why Exhibit H and Exhibit I are the same evaluation report – Impact Evaluation and Review of the 2012 Power Manager Program in Ohio and Kentucky.

RESPONSE:

Two copies of the same report were inadvertently filed. Please disregard Exhibit I.

PERSON RESPONSIBLE: Rose Stoeckle



STAFF-DR-01-015

REQUEST:

- a. Since the DSM portfolios of Ohio and Kentucky are similar, explain whether evaluations will be done for both states, on a going-forward basis, at the same time or separately for each state.
- b. Explain whether, in future DSM filings, Duke Kentucky will file joint evaluation reports for Ohio and Kentucky, irrespective of whether there are new or expanded DSM programs, before December 31, 2016, and, if so, explain why.

RESPONSE:

- a.) Although the programs are similar between Ohio and Kentucky, they do not always align as far as participation level. When there is not enough participation for a statistically significant analysis for Kentucky only, we will consider a combined state report when the programs are otherwise closely aligned.
- b.) Future filings may have joint evaluations when program offerings are consistent and participation levels and scheduling activities for the evaluations suggest a combined report is appropriate.

PERSON RESPONSIBLE: Rose Stoeckle