VERIFICATION

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

The undersigned, Stephanie Simpson, Senior Program Perform Analyst, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Stephanie Simpson, Affiant

Subscribed and sworn to before me by Stephanie Simpson on this 3RD day of JANUARY, 2017

NOTARY PUBLIC

ADELE M. FRISCH
Notary Public, State of Ohio
My Commission Expires 01-05-2019

My Commission Expires: 1/5/2019

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Lari D. Granger, Senior Product & Services Manager, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Lari D. Granger

Lari D. Granger, Affiant

Subscribed and sworn to before me by Lari D. Granger on this 3 day of January, 2017.

Susan E Dinnsen

NOTARY PUBLIC

My Commission Expires: 12-14-19

SUSAN E DINNSEN NOTARY PUBLIC MECKLENBURG COUNTY, NC

VERIFICATION

STATE OF NORTH CAROLINA)
) **SS:**
COUNTY OF MECKLENBURG)

The undersigned, Nathan Cranford, Senior Product & Services Manager, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Nathan Cranford, Affiant

Subscribed and sworn to before me by Nathan Cranford on this 3 day of January, 2017.

NOTARY PUBLIC

My Commission Expires: 12-14-19

SUSAN E DINNSEN NOTARY PUBLIC MECKLENBURG COUNTY, NC

VERIFICATION

STATE OF INDIANA)
) **SS:**
COUNTY OF HENDRICKS)

The undersigned, Vincent D. Literal, Product & Services Specialist, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Vincent D. Literal, Affiant

Subscribed and sworn to before me by Vincent D. Literal on this 2nd day of January, 2017.

HANNAH G. ROGERS
Hamilton County
My Commission Expires 7/20/2024
Commission Number 688301

NOTARY PUBLIC

My Commission Expires: 7/20/2024

VERIFICATION

STATE OF INDIANA)
) **SS:**
COUNTY OF HENDRICKS)

The undersigned, Richard Philip, Lead Product & Services Manager, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Richard Philip, Affiant

Subscribed and sworn to before me by Richard Philip on this 4 day of January, 2017.

NOTARY PUBLIC Jamie Leigh Stevens

My Commission Expires: 10-2-20
County of Residence: Putnam

VERIFICATION

STATE OF INDIANA)
) **SS:**
COUNTY OF HENDRICKS)

The undersigned, Andrew Douglas Taylor, Senior Product & Services Manager, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Andrew Douglas Taylor, Affiant

Subscribed and sworn to before me by Andrew Douglas Taylor on this 4 day of January, 2017.

SEAL
NOTARY PUBLIC INDIANA
JOHN DELOUGHERY
COMMISSION 678735
EXPIRES MARCH 13, 2024
HENDRICKS COUNTY

NOTARY PUBLIC

My Commission Expires: Mar 13 2024

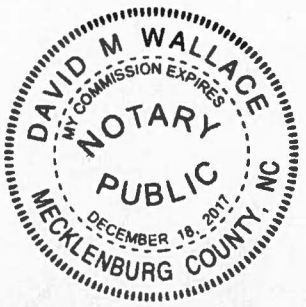
VERIFICATION

STATE OF NORTH CAROLINA)
) **SS:**
COUNTY OF MECKLENBURG)

The undersigned, Christine E. Smith, being duly sworn, deposes and says that she is the Product & Services Manager, and that the matters set forth in the foregoing data requests are true and correct to the best of her information, knowledge and belief.

Christine E. Smith, Affiant

Subscribed and sworn to before me by Christine E. Smith, on this 5 day of January, 2017.



NOTARY PUBLIC

My Commission Expires: 12/18/2017

KYPSC CASE NO. 2016-00382
TABLE OF CONTENTS

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-001

REQUEST:

Refer to the Application, page 7, the table in numbered paragraph 17.

a. Provide similar information for electric load impacts for July 2016 through December 2016.

b. Provide similar information regarding natural gas load impacts for demand-side management ("DSM") programs for July 2015 through December 2016.

RESPONSE:

a. Please see Attachment STAFF-DR-01-001, tab July 2016 – December 2016.

b. Please see Attachment STAFF-DR-01-001, tabs July 2015 – June 2016, and July 2016 – December 2016.

PERSON RESPONSIBLE: Stephanie Simpson

	1	Summary of Load Impacts July 2015 Through June 2016			
Residential Programs		**Incremental Participation**	**kWh**	**kW**	**ccf savings**
Appliance Recycling Program		423	172,063	19	-
Energy Efficiency Education Program for Schools		1,157	361,870	92	4,397
Low Income Neighborhood		618	231,138	68	-
Low Income Services		184	244,993	61	8,303
My Home Energy Report	2	56,801	11,639,346	3,435	-
Residential Energy Assessments		1,328	429,956	81	4,721
Residential Smart $aver®		246,942	5,494,950	762	172
Power Manager®	3	11,487	-	11,535	-
Total Residential		**318,940**	**18,574,317**	**16,052**	**17,593**
Non-Residential Programs		**Incremental Participation**	**kWh**	**kW**	**ccf savings**
Smart $aver® Prescriptive - Energy Star Food Service Products		48	109,914	15	
Smart $aver® Prescriptive - HVAC		199,042	212,557	98	
Smart $aver® Prescriptive - Lighting		28,778	5,038,750	878	
Smart $aver® Prescriptive - Motors/Pumps/VFD		193	142,480	12	
Smart $aver® Prescriptive - Process Equipment		125	55,054	13	
Smart $aver® Prescriptive - IT		3	209	-	
Smart $aver® Custom		474	1,283,543	153	
Small Business Energy Saver		4,623,189	4,121,864	941	
PowerShare®	4	14	-	40,965	
Total Non-Residential		**4,851,866**	**10,964,372**	**43,074**	
Total		**5,170,806**	**29,538,689**	**59,127**	

1 - Impacts are net of freeriders, without losses and reflected at the customer meter point.

2 - Actual participants and impact capability shown as of the June 2016 mailings.

3 - Cumulative number of controlled devices installed. Impacts reflect average capability over the contract period.

4 - Impacts reflect average capability over the contract period.

	1	Summary of Load Impacts July 2016 Through December 2016			
Residential Programs		**Incremental Participation**	**kWh**	**kW**	**ccf savings**
Appliance Recycling Program		-	-	-	-
Energy Efficiency Education Program for Schools		744	240,258	64	2,827
Low Income Neighborhood		186	69,566	21	-
Low Income Services		114	136,973	33	4,387
My Home Energy Report	2	57,447	11,786,400	3,478	-
Residential Energy Assessments		892	158,985	29	-
Residential Smart $aver®		197,394	4,543,958	597	73
Power Manager®	3	11,836	-	12,330	-
Total Residential		**268,613**	**16,936,141**	**16,551**	**7,287**
Non-Residential Programs		**Incremental Participation**	**kWh**	**kW**	**ccf savings**
Smart $aver® Prescriptive - Energy Star Food Service Products		66	97,962	12	
Smart $aver® Prescriptive - HVAC		117,140	55,632	24	
Smart $aver® Prescriptive - Lighting		42,767	6,012,522	1,118	
Smart $aver® Prescriptive - Motors/Pumps/VFD		79	41,866	3	
Smart $aver® Prescriptive - Process Equipment		125	55,054	13	
Smart $aver® Prescriptive - IT		-	-	-	
Smart $aver® Custom		1,072	1,773,671	201	
Small Business Energy Saver		1,636,683	1,461,555	305	
PowerShare®	4	14	-	15,474	
Total Non-Residential		**1,797,946**	**9,498,262**	**17,149**	**-**
Total		**2,066,559**	**26,434,402**	**33,700**	**7,287**

1 - Impacts are net of freeriders, without losses and reflected at the customer meter point.

2 - Actual participants and impact capability shown as of the December 2016 mailings.

3 - Cumulative number of controlled devices installed. Impacts reflect average capability over the contract period.

4 - Impacts reflect average capability over the contract period.

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-002

REQUEST:

Refer to the Application, numbered paragraph 22. Duke Kentucky states that the Residential Smart Saver services are jointly implemented with the Duke Energy Indiana, Duke Energy Ohio, and Duke Energy Carolinas territories. Explain how the administrative costs are allocated among the territories.

RESPONSE:

The Residential Smart Saver services are jointly implemented across other Company territories. Where appropriate, administrative costs are allocated among the territories based on either forecasted participation in the program and/or allocated based upon how many residential customers the Company serves in the various jurisdictions.

PERSON RESPONSIBLE: Lari Granger & Nathan Cranford

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-003

REQUEST:

Refer to the Application, page 20, the table in numbered paragraph 50. Explain the decline in participation in the Low Income Services Program in 2015-2016 from 2014-2015.

RESPONSE:

Based on conversations with People Working Cooperatively (PWC), the primary reasons for the decline in participation from 2014-2015 to 2015-2016 is as follows:

1. PWC has had less money available for repairs that must be completed on a customer's home before the weatherization services can be provided. As a result, less weatherization work has been completed.
2. The Weatherization program receives referrals from the Payment Plus Program. In 2015-2016, there was a decrease in LIHEAP eligible customers that attended the classes and would have qualified for weatherization assistance.
3. The weather was milder in 2015-2016, which also typically has in impact on the demand for weatherization services.

PERSON RESPONSIBLE: Vincent Literal

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-004

REQUEST:

Refer to the Application, numbered paragraph 54. Explain the decline in the number of refrigerators tested and replaced in Years 2013-2014, 2014-2015, and 2015-2016.

RESPONSE:

- The refrigerator replacement program typically works in conjunction with the weatherization program. As the weatherization program numbers decline, it is anticipated the refrigerator replacements would also decline.
- PWC also indicated that they only test refrigerators of single family home owners. In addition, a refrigerator cannot be replaced unless the 2-hour meter tests prove it is inefficient. As a result, the percentage of refrigerators eligible in 2015-2016 declined.

PERSON RESPONSIBLE: Vincent Literal

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-005

REQUEST:

Refer to the Application, numbered paragraph 60. For the Power Manager Program, the pro-rated credit amount for each Power Manager event was changed from applying the credit to the month in which the event occurred to applying equal amounts of the minimal event credit to the first five months of the event season.

a. If the participating customer is to receive more than the minimal credit, explain how this bill credit is applied.

b. Explain why the credit method was changed.

RESPONSE:

a. If the total amount of calculated credits across all events during the Power Manager® season (May through October) sums a number greater than the minimum credit, the customer will receive the difference (amount of total calculated credits less the minimum credit) in November.

b. There were several reasons for the change in credit method.

   - Customers often report that they don't see or notice their participation credits and in many years most of the credit posts in the annual settle-up in November. Spreading the payment out during the "Power Manager season" makes it more likely that a customer will notice a monthly credit.

- With lower energy prices experienced in the PJM market in recent years, the individual credits for an event, at times, have been very low—sometimes less than 10 cents/event. For the customers who notice the credits, this can create a reaction akin to "I am participating for that little of an incentive," which can result in customer service calls and the need to remind customers that they are guaranteed to receive the remainder of their annual credit in November.
- Historically, the sum of the Power Manager event credits has never really even approached the minimum credit level and the majority of the credit has been paid upon "settle up" at the end of the event season. Spreading the payment out evenly during the event season is expected to give customers a more "even" bill impact and consistent message about their participation.
- It is administrately easier for Duke Energy Kentucky to administer the credits in this manner—less opportunity for error when administering small amounts of credits based on each event that varies by month.
- This change was implemented in Duke Energy Ohio and Duke Energy Indiana in 2016 and no negative feedback was received from customers.

PERSON RESPONSIBLE: Rich Philip

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-006

REQUEST:

Refer to the Application, numbered paragraph 87. Duke Kentucky states that the Smart Saver Custom Program services are jointly implemented with the Duke Energy Indiana, Duke Energy Ohio, and Duke Energy Carolinas territories. Explain how the administrative costs are allocated among the territories.

RESPONSE:

Administrative costs are allocated proportionately based on impact (kWh) budgets across different territories.

PERSON RESPONSIBLE: Andy Taylor

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-007

REQUEST:

Refer to the Application, Appendix A, and to Case No. 2016-00289,[1] Application, Appendix A. In those instances where the cost-effectiveness test results change by 50 percent or more in the current proceeding, explain why.

RESPONSE:

Please see Attachment STAFF-DR-01-007.xlsx.

PERSON RESPONSIBLE: Stephanie Simpson

[1] Case No. 2016, *Electronic Application of Duke Energy Kentucky, Inc. to Amend Its Demand Side Management Programs* (filed Aug. 15, 2016).

Appendix A
Cost Effectiveness Test Results

	2015-2016				2014-2015				Delta				
Program Name	UCT	TRC	RIM	PCT	UCT	TRC	RIM	PCT	UCT	TRC	RIM	PCT	Reason for Change (1)
Residential Programs													
Appliance Recycling Program	0.94	1.36	0.61		0.95	1.15	0.61		-1%	18%	1%		N/A
Energy Efficiency Education Program for Schools	1.66	1.96	0.96		1.06	1.22	0.73		56%	61%	32%		EMV received for the NTC portion of the program in August of 2015 increased impacts approximately 25%, while program costs changed minimally relative to participation, resulting in increased cost effectiveness scores for the filing period.
Low Income Neighborhood	0.82	1.68	0.61		1.16	1.50	0.77		-29%	12%	-20%		N/A
Low Income Services	0.58	0.89	0.47		0.60	0.79	0.48		-3%	13%	-2%		N/A
My Home Energy Report	2.44	2.44	1.20		1.83	1.83	1.02		34%	34%	18%		N/A
Residential Energy Assessments	3.53	3.73	1.55		3.53	3.55	1.71		0%	5%	-9%		N/A
Residential Smart $aver®	3.19	2.51	1.22	2.81	2.87	2.98	1.15	6.10	11%	-16%	6%	-54%	Overall participation in Residential Smart $aver® measures was lower this filing period than last, decreasing impacts and incentives. Additionally, customers chose to participate in measures with greater customer costs, such as specialty bulbs, LEDs and heat pump water heaters. This resulted in a lower ratio of bill savings and incentives vs. customer costs, decreasing the participant test score for the filing period.
Power Manager®	4.28	5.64	4.28		3.31	3.86	3.31		29%	46%	29%		N/A
Non-Residential Programs													
Smart $aver® Custom	4.53	1.22	1.36	1.28	7.56	3.46	1.49	3.98	-40%	-65%	-8%	-68%	Customers participate in a unique set of projects/measures in each filing period. These measures have different impacts, resulting in different cost effectiveness scores. Impacts decreased significantly during the 2015-2016 filing period.
Smart $aver® Prescriptive - Energy Star Food Service Products	5.32	1.50	1.53	1.65	7.96	3.70	1.42	5.51	-33%	-60%	7%	-70%	The decrease in impacts for this filing period was not offset by the decrease in program costs, resulting in a lower ratio of avoided costs vs. program costs and decreasing the UCT score. Additionally, customers participated in measures with a greater ratio of customer costs vs. incentives during this filing period, resulting in decreased TRC and Participant test scores.
Smart $aver® Prescriptive - HVAC	2.33	1.51	1.39	1.18	3.67	1.01	1.39	1.38	-36%	50%	0%	-14%	Customers participated in a mix of measures with a lower ratio of net customer costs vs. incentives, resulting in an increased TRC score for this filing period.
Smart $aver® Prescriptive - Lighting	4.38	1.74	1.44	1.69	5.02	1.35	1.49	1.72	-13%	29%	-4%	-2%	N/A
Smart $aver® Prescriptive - Motors/Pumps/VFD	5.84	3.94	1.47	4.61	6.56	2.35	1.50	3.36	-11%	68%	-2%	37%	Customers participated in a mix of measures with a lower ratio of net customer costs vs. incentives, resulting in an increased TRC score for this filing period.
Smart $aver® Prescriptive - Process Equipment	6.56	5.69	1.83	6.02	6.64	4.75	1.80	6.19	-1%	20%	2%	-3%	N/A
Smart $aver® Prescriptive - IT	0.01	0.01	0.01	1.98	0.00	0.00	0.00		N/A	N/A	N/A	N/A	There were no measures installed during the 2014-2015 time period, and 3 measures installed during the 2015-2016 time period, resulting in valid cost effectiveness scores for this filing period.
Small Business Energy Saver	4.16	2.72	1.56	2.61	3.79	2.42	1.49	2.69	10%	13%	4%	-3%	N/A
PowerShare®	3.58	15.57	3.58		3.98	12.61	3.98		-10%	23%	-10%		N/A

(1) Measures listed as modifications in Appendix A in Case No. 2016-00289 are not included in this analysis, as they are the scores for modifications proposed to begin in 2017, not scores for the 2014-2015 time period.

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-008

REQUEST:

Refer to the Application, Appendix B, page 1 of 7.

a. Provide the percentage difference between the actual program expenditures (column 4) and projected program costs (column 1) for each residential and commercial program. If the difference is greater than 20 percent, explain why.

b. Refer to the projected Program Costs (column 1) of the Commercial Smart Saver Prescriptive Programs. Footnote A indicates that the amounts were identified in a report filed in Case No. 2015-00277.[1] Explain why the projected Program Costs for the Smart Saver Prescriptive Programs are not the same as the projected program costs found on page 2 of 7 of Appendix B in Case No. 2015-00277.

RESPONSE:

a. Please see Attachment STAFF-DR-01-008.xlsx

b. The costs for the Commercial Smart $aver® Prescriptive program in Case No. 2015-00277 (filed in August, 2015) include the original projected program costs (filed in November, 2014, Case No. 2014-00388) as well as the modifications of $419,387, listed as a separate line item. These costs for the modifications have been incorporated into the individual program cost totals in this filing.

PERSON RESPONSIBLE: Stephanie Simpson

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[1] Case No. 2015-00277, *Application of Duke Energy Kentucky, Inc. to Amend Its Demand Side Management Programs* (Ky. PSC Feb. 12, 2016).

Kentucky DSM Rider

Comparison of Revenue Requirement to Rider Recovery

Residential Programs	(1) Projected Program Costs 7/2015 to 6/2016 (A)	(4) Program Expenditures 7/2015 to 6/2016 (B)	Delta	Comments
Appliance Recycling Program	$ 109,613	$ 81,596	-26%	The difference is due to the program ending in 2015. On November 19, 2015, JACO, the implementation vendor, abruptly discontinued operations.
Energy Efficiency Education Program for Schools	$ 196,961	$ 209,468	6%	Not Applicable
Low Income Neighborhood	$ 276,950	$ 257,188	-7%	Not Applicable
Low Income Services	$ 700,410	$ 560,710	-20%	PWC has seen a decline in weatherization requests in N Kentucky primarily due to warmer weather in the previous year as well as a decline in repair dollars available to assist with the weatherization program.
My Home Energy Report	$ 625,156	$ 645,136	3%	Not Applicable
Residential Energy Assessments	$ 231,284	$ 191,052	-17%	Not Applicable
Residential Smart $aver®	$ 896,852	$ 1,300,197	45%	The increase is participation driven and customer are choosing LED's versus CFL's in the online saving store which is contributing to the additional expense.
Power Manager®	$ 437,796	$ 456,430	4%	Not Applicable
Home Energy Assistance Pilot Program (I)	$ 252,236	$ 290,145	15%	Not Applicable

Commercial Programs	(1) Projected Program Costs 7/2015 to 6/2016 (A)	(4) Program Expenditures 7/2015 to 6/2016 (B)	Delta	Comments
Smart $aver® Custom	$ 512,160	$ 250,533	-51%	The Smart $aver Custom program expenditures are primarily driven by incentives resulting from customer participation in the program. During this time period, program participation was much lower than projected. As a result, incentives and program costs as a whole were below projections.
Smart $aver® Prescriptive - Energy Star Food Service Prod	$ 57,432	$ 22,503	-61%	The Smart $aver Prescriptive program expenditures are primarily driven by the incentives that are paid based on customer applications. During this time period, customer interest in energy efficient Foodservice, HVAC, Motors/Pumps/VFDs and IT equipment was lower than expected, and higher than expected for Process equipment. Typically, this is based on customers' available capital to invest in energy efficiency, and also timing of project completion. The current program year has been stronger than expected, which indicates that some projects could have been delayed from last year and are now being completed in the current year.
Smart $aver® Prescriptive - HVAC	$ 328,497	$ 138,596	-58%	Same response for all Prescriptive categories
Smart $aver® Prescriptive - Lighting	$ 1,053,191	$ 923,255	-12%	Not Applicable
Smart $aver® Prescriptive - Motors/Pumps/VFD	$ 56,722	$ 26,516	-53%	Same response for all Prescriptive categories
Smart $aver® Prescriptive - Process Equipment	$ 2,101	$ 12,088	475%	Same response for all Prescriptive categories
Smart $aver® Prescriptive - IT	$ 42,538	$ 6,757	-84%	Same response for all Prescriptive categories
Small Business Energy Saver	$ 757,668	$ 1,036,947	37%	During the period of July 2015 – June 2016, the Small Business Energy Saver program experienced a significant amount of interest from Duke Energy Kentucky small business customers. Due to this customer interest and participation, the Program significantly exceeded the stated kWh impact projections for the July 2015 – June 2016 reporting period. Given the fact the SBES program vendor operates within a "pay-for-performance" agreement wherein Duke Energy compensates the vendor on a per kWh-saved basis, the achievement of additional kWh savings impacts over the projected amount resulted in actual Program costs being significantly over projected costs as well.
PowerShare®	$ 924,747	$ 1,047,301	13%	Not Applicable

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-009 PUBLIC

REQUEST:

Refer to the Application, Appendix B, page 2 of 7. Provide the source of the 2017-2018 projected program costs, lost revenues, and shared savings.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (as to Attachment only)

Please see Confidential Attachment STAFF-DR-01-009.xlsx, which is being filed under Petition for Confidential Treatment.

PERSON RESPONSIBLE: Stephanie Simpson

STAFF-DR-01-009 CONFIDENTIAL ATTACHMENT IS FILED UNDER PETITION FOR CONFIDENTIAL TREATMENT

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-010

REQUEST:

Refer to the Application, Appendix B. Provide a copy of this exhibit in Excel spreadsheet format with all formulas intact and unprotected, and with all columns and rows accessible.

RESPONSE:

Please see Attachment STAFF-DR-01-010.xlsx.

PERSON RESPONSIBLE: Stephanie Simpson

Kentucky DSM Rider

Comparison of Revenue Requirement to Rider Recovery

Residential Programs	(1) Projected Program Costs 7/2015 to 6/2016 (A)	(2) Projected Lost Revenues 7/2015 to 6/2016 (A)	(3) Projected Shared Savings 7/2015 to 6/2016 (A)	(4) Program Expenditures 7/2015 to 6/2016 (B)	(5) Program Expenditures (C) Gas	(6) Program Expenditures (C) Electric	(7) Lost Revenues 7/2015 to 6/2016 (B)	(8) Shared Savings 7/2015 to 6/2016 (B)	(9) 2015 Reconciliation Gas (D)	(10) 2015 Reconciliation Electric (E)	(11) Rider Collection (F) Gas	(12) Rider Collection (F) Electric	(13) (Over)/Under Collection Gas (G)	(14) (Over)/Under Collection Electric (H)
Appliance Recycling Program	$ 109,613	$ 177,379	$ (204)	$ 81,596	$ -	$ 81,596	$ 73,946	$ (525)						
Energy Efficiency Education Program for Schools	$ 196,961	$ 40,057	$ 6,450	$ 209,468	$ 51,580	$ 157,888	$ 53,586	$ 10,903						
Low Income Neighborhood	$ 276,950	$ 101,284	$ 14,464	$ 257,188	$ -	$ 257,188	$ 69,193	$ (4,520)						
Low Income Services	$ 700,410	$ 54,819	$ (8,455)	$ 560,710	$ 267,344	$ 293,366	$ 45,038	$ (8,488)						
My Home Energy Report	$ 625,156	$ 542,633	$ 84,254	$ 645,136	$ -	$ 645,136	$ 611,160	$ 93,083						
Residential Energy Assessments	$ 231,284	$ 61,485	$ 48,815	$ 191,052	$ 43,549	$ 147,503	$ 59,408	$ 48,370						
Residential Smart $aver®	$ 896,852	$ 1,568,308	$ 105,011	$ 1,300,197	$ 1,094	$ 1,299,103	$ 1,850,469	$ 283,871						
Power Manager®	$ 437,796	$ -	$ 149,597	$ 456,430	$ -	$ 456,430	$ -	$ 142,798						
Home Energy Assistance Pilot Program (I)	$ 252,236			$ 290,145	$ 121,952	$ 168,194					$ 107,491	$ 148,249		
Revenues collected except for HEA											$ 4,017,126	$ 8,474,191		
Total	$ 3,727,259	$ 2,545,965	$ 399,932	$ 3,991,923	$ 485,519	$ 3,506,404	$ 2,762,800	$ 565,493	$ 2,404,856	$ 5,047,241	$ 4,124,618	$ 8,622,440	$ (1,234,243)	$ 3,259,498

(A) Amounts identified in report filed in Case No. 2015-00277.
(B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2015 through June 30, 2016.
(C) Allocation of program expenditures to gas and electric in accordance with the Commission's Order in Case No. 2014-00388.
(D) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00085.
(E) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00085.
(F) Revenues collected through the DSM Rider between July 1, 2015 and June 30, 2016.
(G) Column (5) + Column (9) - Column(11).
(H) Column (6) + Column (7) + Column (8) + Column (10) - Column(12).
(I) Revenues and expenses for the Home Energy Assistance Pilot Program.

Commercial Programs	(1) Projected Program Costs 7/2015 to 6/2016 (A)	(2) Projected Lost Revenues 7/2015 to 6/2016 (A)	(3) Projected Shared Savings 7/2015 to 6/2016 (A)	(4) Program Expenditures 7/2015 to 6/2016 (B)	(5) Lost Revenues 7/2015 to 6/2016 (B)	(6) Shared Savings 7/2015 to 6/2016 (B)	(7) 2015 Reconciliation (C)	(8) Rider Collection (D)	(9) (Over)/Under Collection (E)
Smart $aver® Custom	$ 512,160	$ 97,430	$ 91,979	$ 250,533	$ 148,556	$ 77,697			
Smart $aver® Prescriptive - Energy Star Food Service Proc	$ 57,432	$ 24,915	$ 42,139	$ 22,503	$ 23,522	$ 9,618			
Smart $aver® Prescriptive - HVAC	$ 328,497	$ 30,015	$ 105,390	$ 136,596	$ 28,238	$ 18,452			
Smart $aver® Prescriptive - Lighting	$ 1,053,191	$ 301,497	$ 478,195	$ 923,255	$ 283,070	$ 312,090			
Smart $aver® Prescriptive - Motors/Pumps/VFD	$ 58,722	$ 23,435	$ 20,324	$ 26,516	$ 19,714	$ 12,726			
Smart $aver® Prescriptive - Process Equipment	$ 2,101	$ 2,202	$ 1,468	$ 12,088	$ 2,879	$ 6,591			
Smart $aver® Prescriptive - IT	$ 42,538	$ 7,070	$ 28,094	$ 6,757	$ 2	$ (645)			
Small Business Energy Saver	$ 757,668	$ 27,556	$ 161,764	$ 1,036,947	$ 65,436	$ 328,044			
Total	$ 2,810,308	$ 514,120	$ 929,354	$ 2,417,194	$ 571,417	$ 764,572	$ 1,722,988	$ 4,005,868	$ 1,470,303
PowerShare®	$ 924,747	$ -	$ 166,874	$ 1,047,301	$ -	$ 270,224	$ (1,482,429)	$ 362,434	$ (527,338)

A) Amounts identified in report filed in Case No. 2015-00277.
B) Actual program expenditures, lost revenues (for this period and from prior period DSM measure installations), and shared savings for the period July 1, 2015 through June 30, 2016.
C) Recovery allowed in accordance with the Commission's Order in Case No. 2012-00085.
D) Revenues collected through the DSM Rider between July 1, 2015 and June 30, 2016.
E) Column (4) + Column (5) + Column (6) + Column (7) - Column (8)

Kentucky DSM Rider

2017-2018 Projected Program Costs, Lost Revenues, and Shared Savings

Residential Program Summary (A)

	Costs	Lost Revenues	Shared Savings	Total	Allocation of Costs (B) Electric	Gas	Budget (Costs, Lost Revenues, & Shared Savings) Electric Costs	Electric	Gas Costs
lance Recycling Program	$ -	$ 15,695	$ -	$ 15,695	100.0%	0.0%	$ -	$ 15,695	$ -
rgy Efficiency Education Program for Schools	$ 275,930	$ 67,148	$ (495)	$ 342,584	76.1%	23.9%	$ 209,889	$ 276,522	$ 66,062
Income Neighborhood	$ 306,206	$ 37,486	$ (15,051)	$ 328,642	100.0%	0.0%	$ 306,206	$ 328,642	$ -
Income Services	$ 925,461	$ 51,905	$ (46,167)	$ 931,199	57.3%	42.7%	$ 529,855	$ 535,593	$ 395,606
Home Energy Report	$ 798,061	$ 706,256	$ 25,078	$ 1,529,394	100.0%	0.0%	$ 798,061	$ 1,529,394	$ -
idential Energy Assessments	$ 276,410	$ 79,884	$ 8,280	$ 364,574	100.0%	0.0%	$ 276,410	$ 364,674	$ -
idential Smart $aver®	$ 2,503,271	$ 1,026,020	$ 85,565	$ 3,614,856	100.0%	0.0%	$ 2,503,271	$ 3,614,856	$ -
er Manager®	$ 706,922	$ -	$ 840,876	$ 1,547,798	100.0%	0.0%	$ 706,922	$ 1,547,798	$ -
er Manager® for Apartments	$ 58,552	$ -	$ 5,795	$ 64,347	100.0%	0.0%	$ 58,552	$ 64,347	$ -
l Costs, Net Lost Revenues, Shared Savings	$ 5,850,813	$ 1,984,494	$ 903,882	$ 8,739,188			$ 5,389,146	$ 8,277,521	$ 461,667
ne Energy Assistance Pilot Program	$ 255,722							$ 148,230	$ 107,492

NonResidential Program Summary (A)

	Costs	Lost Revenues	Shared Savings	Total	Allocation of Costs (B) Electric	Gas	Budget (Costs, Lost Revenues, & Shared Savings) Electric Costs	Electric	Gas
l Business Energy Saver	$ 1,077,726	$ 232,139	$ 127,508	$ 1,437,373	100.0%	0.0%	$ 1,077,726	$ 1,437,373	NA
rt $aver® Custom	$ 435,565	$ 109,614	$ 64,889	$ 610,068	100.0%	0.0%	$ 435,565	$ 610,068	NA
rt $aver® Non-Residential Performance Incentive Program (C)	$ 44,593	$ 14,276	$ 6,908	$ 65,777	100.0%	0.0%	$ 44,593	$ 65,777	NA
rt $aver® Prescriptive - Energy Star Food Service Products	$ 40,177	$ 14,711	$ 7,236	$ 62,124	100.0%	0.0%	$ 40,177	$ 62,124	NA
rt $aver® Prescriptive - HVAC	$ 224,262	$ 27,306	$ 20,926	$ 272,495	100.0%	0.0%	$ 224,262	$ 272,495	NA
rt $aver® Prescriptive - IT	$ 15,537	$ 5,272	$ (1,553)	$ 19,256	100.0%	0.0%	$ 15,537	$ 19,256	NA
rt $aver® Prescriptive - Lighting	$ 1,223,636	$ 283,247	$ 125,607	$ 1,632,490	100.0%	0.0%	$ 1,223,636	$ 1,632,490	NA
rt $aver® Prescriptive - Motors/Pumps/VFD	$ 30,337	$ 10,489	$ 3,034	$ 43,861	100.0%	0.0%	$ 30,337	$ 43,861	NA
rt $aver® Prescriptive - Process Equipment	$ 9,832	$ 2,331	$ (983)	$ 11,181	100.0%	0.0%	$ 9,832	$ 11,181	NA
er Manager® for Business	$ 143,872	$ 6,906	$ (2,021)	$ 148,758	100.0%	0.0%	$ 143,872	$ 148,758	NA
erShare®	$ 924,919	$ -	$ 80,183	$ 1,005,102	100.0%	0.0%	$ 924,919	$ 1,005,102	NA
l Costs, Net Lost Revenues, Shared Savings	$ 4,170,458	$ 706,291	$ 431,735	$ 5,308,484			$ 4,170,458	$ 5,308,484	NA
l Program	$ 10,021,271	$ 2,690,784	$ 1,335,617	$ 14,047,672					

Costs, Lost Revenues (for this period and from prior period DSM measure installations), and Shared Savings for Year 6 of portfolio.
Allocation of program expenditures to gas and electric in accordance with the Commission's Order in Case No. 2014-00388.
Originally filed as "Pay for Performance" in Case No. 2016-00289

Kentucky DSM Rider

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Calculations for Programs

July 2017 to June 2018

	Program Costs (A)
Electric Rider DSM	
Residential Rate RS	$ 8,277,521
Distribution Level Rates Part A DS, DP, DT, GS-FL, EH & SP	$ 4,303,382
Transmission Level Rates & Distribution Level Rates Part B	$ 1,005,102
Gas Rider DSM	
Residential Rate RS	$ 461,667

(A) See Appendix B, page 2 of 7.

Kentucky DSM Rider

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Billing Determinants

Year	2017
Projected Annual Electric Sales kWH	
Rate RS	1,450,131,074
Rates DS, DP, DT, GS-FL, EH, & SP	2,415,938,199
Rates DS, DP, DT, GS-FL, EH, SP, & TT	2,598,355,199
Projected Annual Gas Sales CCF	
Rate RS	58,813,254

Kentucky DSM Rider

Duke Energy Kentucky
Demand Side Management Cost Recovery Rider (DSMR)
Summary of Calculations

July 2016 to June 2017

Rate Schedule Riders	True-Up Amount (A)	Expected Program Costs (B)	Total DSM Revenue Requirements	Estimated Billing Determinants (C)		DSM Cost Recovery Rider (DSMR)	
Electric Rider DSM							
Residential Rate RS	$ 3,275,795	$ 8,277,521	$ 11,553,316	1,450,131,074	kWh	$ 0.007967	$/kWh
Distribution Level Rates Part A							
DS, DP, DT, GS-FL, EH & SP	$ 1,477,655	$ 4,303,382	$ 5,781,036	2,415,938,199	kWh	$ 0.002393	$/kWh
Transmission Level Rates & Distribution Level Rates Part B							
TT	$ (529,975)	$ 1,005,102	$ 475,127	2,598,355,199	kWh	$ 0.000183	$/kWh
Distribution Level Rates Total							
DS, DP, DT, GS-FL, EH & SP						$ 0.002576	$/kWh
Gas Rider DSM							
Residential Rate RS	$ (1,240,415)	$ 461,667	$ (778,747)	58,813,254	CCF	$ (0.013241)	$/CCF
Total Rider Recovery			$ 17,030,733				

Customer Charge for HEA Program	Annual Revenues	Number of Customers	Monthly Customer Charge
Electric No.4			
Residential Rate RS	$ 148,230	123,525	$ 0.10
Gas No. 5			
Residential Rate RS	$ 107,492	89,577	$ 0.10
Total Customer Charge Revenues	$ 255,722		
Total Recovery	$ 17,286,455		

(A) (Over)/Under of Appendix B page 1 multiplied by the average three-month commercial paper rate for 2014 to include interest on over or under-recovery in accordance with the Commission's order in Case No. 95-312. Value is: 1.005000
(B) Appendix B, page 2.
(C) Appendix B, page 4.

Summary of Load Impacts July 2015 Through June 2016*

Allocation Factors based on July 2015-June 2016

idential Programs	kWh	% of Total Res Sales	ccf	% of Total Res Sales	Elec % of Total Sales	% of Total % of Sales	Gas % of Total % of Sales
liance Recycling Program	172,063	0.0124%	-	0.0000%	100%		0%
rgy Efficiency Education Program for Schools	361,870	0.0261%	4,397	0.0085%	75%		25%
v Income Neighborhood	231,138	0.0167%	-	0.0000%	100%		0%
v Income Services	244,993	0.0177%	8,303	0.0161%	52%		48%
Home Energy Report	11,639,346	0.8403%	-	0.0000%	100%		0%
idential Energy Assessments	429,956	0.0310%	4,721	0.0092%	77%		23%
idential Smart $aver®	5,494,950	0.3967%	172	0.0003%	100%		0%
ver Manager®	-	0.0000%	-	0.0000%	100%		0%
al Residential	18,574,317	1.3410%	17,593	0.0342%			
al Residential (Rate RS) Sales	1,385,150,993	100%	51,514,012	100%			

July 2015 Through June 2016

ad Impacts Net of Free Riders at Meter

Summary of Load Impacts July 2017 Through June 2018 (1),(2)

Allocation Factors Projected - Revised

sidential Programs	kWh	% of Total Res Sales	ccf	% of Total Res Sales	Elec % of Total % of Sales	Gas % of Total % of Sales
oliance Recycling Program	-	0.0000%	-	0.0000%	100%	0%
ergy Efficiency Education Program for Schools	446,186	0.0308%	5,696	0.0097%	76%	24%
v Income Neighborhood	219,037	0.0151%	-	0.0000%	100%	0%
v Income Services	422,167	0.0291%	12,784	0.0217%	57%	43%
Home Energy Report	13,532,694	0.9332%	-	0.0000%	100%	0%
sidential Energy Assessments	430,491	0.0297%	-	0.0000%	100%	0%
sidential Smart $aver®	6,633,025	0.4574%	-	0.0000%	100%	0%
wer Manager®	-	0.0000%	-	0.0000%	100%	0%
wer Manager® for Apartments	-	0.0000%	-	0.0000%	100%	0%
al Residential	21,683,600	1.4953%	18,480	0.0314%		
al Residential (Rate RS) Sales	1,450,131,074	100%	58,813,254	100%		
jected						

oad Impacts Net of Free Riders at Meter
Appliance Recycling Program will continue to collect lost revenues for prior period participation.

Duke Energy Kentucky
Case No. 2016-00382
Staff First Set Data Requests
Date Received: December 27, 2016

STAFF-DR-01-011

REQUEST:

Refer to the Application, Appendix E.

a. Refer to pages 10-11 of 89. For each conclusion and recommendation, explain how Duke Energy plans to incorporate these findings into the future of the National Energy Education in Schools Program ("NEED").

b. Refer to page 14 of 89. In Table 203, the achievement level is only 49 percent of the target. Explain what Duke Kentucky is doing to increase participation.

c. Refer to page 40-41 of 89.

    1. There seems to be confusion between the NEED program and the Duke-sponsored performance by the National Theatre for Children ("NTC"). Explain how Duke Kentucky plans to remedy this.

    2. There seems to be confusion over the kits provided by the NEED program and the NTC. Explain how Duke Kentucky plans to remedy this.

RESPONSE:

a. Please see Attachment STAFF-DR-01-011.docx

b. Duke Energy Kentucky is working with NEED to increase classroom participation by increasing information provided to teachers up front to help answer any questions they might have. Marketing efforts will focus on outreach to teachers that have been through the NEED workshop training since they are

familiar with the Program and so they can take advantage of the home energy kits. Additionally, Duke is reviewing processes with NEED to streamline the kit distribution process and potentially ship kits direct to student households rather than to the classroom, which would help alleviate the burden on teachers to distribute kits to the students.

c.

1. Duke Energy Kentucky provides the NTC performance schedule to NEED each semester so that communications can be tailored to teachers where there is potential for overlap. Additionally, NEED has been encouraged to target schools not receiving NTC performances, such as middle schools and high schools, where a more in depth curriculum would be a good fit.
2. Please see above response which also applies to the kit. The same kit is available for both Programs.

PERSON RESPONSIBLE: Christine Smith

Recommendations	Action
Recommendation: A review of the kit measure offerings should be made to assess and weight the benefits and costs of each measure including opportunity for energy savings, cost effectiveness, and education. Opportunities may exist to remove low performing measures and add new measure types or increase the quantity of existing measures that currently perform well such as lighting measures. However, careful review is needed before amending the kit measure mix to ensure it would not hinder the program's educational and behavioral impacts.	The kit measure items are reviewed for customer satisfaction through a Business Reply Card included in the kit. The feedback will continue to be reviewed to gauge opportunities and further analysis of the data will review each item in the kit periodically to measure satisfaction and install rates.
Recommendation: Investigate opportunities to increase installation rates of water measures through focus group research (or comparable qualitative in-depth methods) to learn: 1) what types of aerators and showerheads customers use and like; and 2) whether emphasizing certain features of low-flow showerheads or aerators (for example, multiple spray settings) would entice customers to install low-flow products.	The kit's water measures are reviewed for customer satisfaction through the Business Reply Card included in the kit and this includes questions about installing the water measures. More in depth research will be considered to better understand the motivations for installation of water measures and what types are preferable and why; however the kit offers generic low cost measures and these options do not always fit the aesthetics or hardware of various households. The Program focus is on the broader educational message to encourage energy efficient behaviors. In 2017, new offerings from other water measure programs should be available for customers which offer more selection, which should improve installation rates of water measures in DEK overall.
Recommendation: Leverage the DEK kit to cross-promote other DEK rebate offerings to DEK customers who receive a kit. DEK customers requesting DEK kits are good targets for these promotions, as they: • Demonstrated willingness to take energy saving actions in their home • Are reading the energy saving information included in the kit • Are predominantly single family home-owners	Cross promotions for lighting measures on Duke's online Energy Saving Store have been offered for Duke customers that have already received a K12 kit. While the student households are a captive audience for energy efficiency, the results are still in review and initially do not demonstrate a synergy with E-Store offerings. Cross promotions for other offerings will be considered if there are no overlapping measures and if they would complement the Program.

Recommendation: DEK may wish to consider one of two options: 1) ensure that the NEED and NTC programs operate in separate schools to make it possible to assess the effectiveness of the NEED kit distribution process (possibly having the added benefit of increasing the total number of schools affected); or 2) work with both NEED and NTC to develop an approach to coordinating their activities within schools so that teachers know the difference between the two programs and are completely clear on whose responsibility it is to carry out kit distribution in any given school.	The NEED and NTC programs are both available to all schools and work together to promote energy efficiency behavior with students. Both options have been used. • The NTC performance schedule is shared with NEED to help NEED coordinate activities and outreach with their specific schools. NEED has targeted different schools, including middle schools and high schools with the NEED curriculum. NEED can successfully target schools not receiving the NTC performance program, which is about 50% of schools in the Kentucky territory. • NEED works closely with teachers through the Teacher Workshops to educate them on the kit sign up process and eligibility guidelines. NEED has a separate sign up form and collects the forms directly from teachers so there are clear and separate communications. NEED has distinctive branding on all of its materials. Duke has initiated discussions with NEED to evaluate the kit sign up process and consider more automated kit distribution, whether to the classroom which is currently the process, or possibly direct to the household which is similar to the NTC program.