

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In The Matter Of:

DUKE ENERGY KENTUCKY, INC.'S)
ANNUAL COST RECOVERY FILING) Case No. 2017-00427
FOR DEMAND-SIDE MANAGEMENT)

DUKE ENERGY KENTUCKY, INC.'S
PETITION FOR THE CONFIDENTIAL TREATMENT OF
CERTAIN INFORMATION CONTAINED IN ITS RESPONSES
TO STAFF'S THIRD SET OF DATA REQUESTS

Duke Energy Kentucky, Inc. (Duke Energy Kentucky or Company), pursuant to 807 KAR 5:001, Section 13, respectfully requests the Commission to classify and protect certain information provided by Duke Energy Kentucky filed in response to STAFF-DR-03-007. The information contained in Confidential STAFF-DR-03-007, for which Duke Energy Kentucky now seeks confidential treatment (Confidential Information), contains confidential and proprietary information including avoided costs data and calculations.

In support of this Petition, Duke Energy Kentucky states:

1. The Kentucky Open Records Act exempts from disclosure certain commercial information. KRS 61.878(1)(c). To qualify for this exemption and, therefore, maintain the confidentiality of the information, a party must establish that disclosure of the commercial information would permit an unfair advantage to competitors of that party. Public disclosure of the information identified herein would, in fact, prompt such a result for the reasons set forth below.

2. The information submitted and for which the Company is seeking confidential protection contains Duke Energy Kentucky's calculation of the value of its Demand Response

programs included in its FRR plans and in the PJM markets. More specifically, the redacted information shows detailed calculations of how the Company values demand response capacity by program that is used by the Company in evaluating its demand side management programs and to satisfy its FRR plan obligation. If made public, this (economically valuable) information would give the Company's vendors and competitors a distinct commercial advantage regarding Duke Energy Kentucky's operations and market capacity position in the future. This is particularly concerning if the Commission does not allow the Company's programs to continue, and the Company is forced to replace this capacity in the Company's FRR plan, counter parties would know precisely how much capacity is needed and the price that the Company had valued such capacity. This information could be used by potential counter parties that are interested in selling capacity to the Company in the future to undermine the Company's efforts to reduce costs, ultimately harming customers.

3. The Confidential Information is distributed within Duke Energy Kentucky only to those who must have access for business reasons and is generally recognized as confidential and proprietary in the energy industry.

4. The Confidential Information for which Duke Energy Kentucky is seeking confidential treatment is not known outside of Duke Energy Corporation.

5. Duke Energy Kentucky does not object to limited disclosure of the Confidential Information described herein, pursuant to an acceptable protective agreement, with the Attorney General or other intervenors with a legitimate interest in reviewing the same for the purpose of participating in this case.

6. This information was, and remains, integral to Duke Energy Kentucky's effective execution of business decisions. And such information is generally regarded as confidential or

proprietary. Indeed, as the Kentucky Supreme Court has found, “information concerning the inner workings of a corporation is ‘generally accepted as confidential or proprietary.’” *Hoy v. Kentucky Industrial Revitalization Authority*, 904 S.W.2d 766, 768 (Ky. 1995).

7. In accordance with the provisions of 807 KAR 5:001, Section 13(3), the Company is filing one copy of the Confidential Information separately under seal, and one copy without the Confidential Information included.

8. Duke Energy Kentucky respectfully requests that the Confidential Information be withheld from public disclosure for a period of ten years. This will assure that the Confidential Information – if disclosed after that time – will no longer be commercially sensitive so as to likely impair the interests of the Company or its customers if publicly disclosed.

9. To the extent the Confidential Information becomes generally available to the public, whether through filings required by other agencies or otherwise, Duke Energy Kentucky will notify the Commission and have its confidential status removed, pursuant to 807 KAR 5:001 Section 13(10)(a).

WHEREFORE, Duke Energy Kentucky, Inc., respectfully requests that the Commission classify and protect as confidential the specific information described herein.

Respectfully submitted,

DUKE ENERGY KENTUCKY, INC.



Rocco D'Ascenzo (92796)

Deputy General Counsel

Duke Energy Kentucky, Inc.

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Cincinnati, Ohio 45201-0960

(513) 287-4320

(513) 287-4385 (f)


rocco.d'ascenzo@duke-energy.com

Counsel for Duke Energy Kentucky, Inc.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served on the following via electronic mail, this 2ND day of May 2018:

Kent Chandler
The Office of the Attorney General
Utility Intervention and Rate Division
700 Capital Avenue, Suite 20
Frankfort, Kentucky 40601-8204



Rocco O. D'Ascenzo

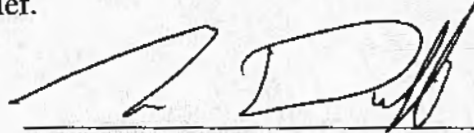
KYPSC CASE NO. 2017-00427
STAFF 3RD SET
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VERIFICATION

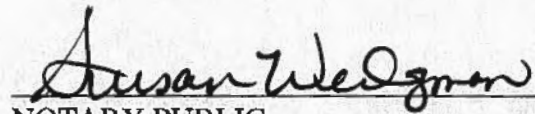
STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG) **SS:**

The undersigned, Tim Duff, GM Customer Reg. Strategy & Analytics, 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.



Tim Duff, Affiant

Subscribed and sworn to before me by Tim Duff on this 24 day of April, 2018.



NOTARY PUBLIC

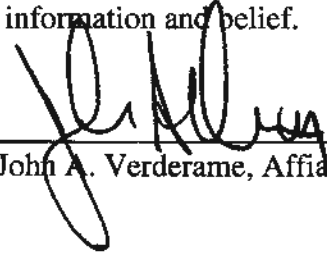
My Commission Expires: August 31, 2022



VERIFICATION

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

The undersigned, John A. Verderame, Managing Direct -- Power, Trading & Dispatch, 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.



John A. Verderame, Affiant

Subscribed and sworn to before me by John A. Verderame on this 24 day of April, 2018.



NOTARY PUBLIC

My Commission Expires:

MARY B VICKNAIR
NOTARY PUBLIC
Davie County
North Carolina
My Commission Expires Sept. 21, 2022

STAFF-DR-03-001

REQUEST:

Refer to the Direct Testimony of Timothy J. Duff ("Duff Testimony"), page 12, lines 10-11. Explain how the targeted customers are identified.

RESPONSE: The Company selects customers to participate in the My Home Energy Report in Kentucky by going through the following selection criteria:

- Customer must have an active residential account
- Customer must have 12 months of usage history
- Customer must have the same service address as mailing address
- Customer may not be in an apartment
- Customer may not be in a multi-family residence (using Experian data)
- Customer may only have single meter at the residence

PERSON RESPONSIBLE: Tim Duff

REQUEST:

Refer to the Duff Testimony, page 17, line 14.

- a. Provide the demand-side management ("DSM") programs available to Duke Kentucky's gas customers.
- b. Confirm that any costs associated with these programs are not subject to the instant case.

RESPONSE:

- a. The Company's portfolio of DSM programs is only available to customers receiving electric service from Duke Energy Kentucky; however, to the extent that these electric customers also receive gas service from Duke Energy Kentucky, the programs are also available to gas customers.
- b. As shown on Page 1 of Appendix B of the Company's application in Case No. 2017-00427, due to EM&V finding gas savings associated with three of the Company's programs, a small portion of the overall portfolio's costs are appropriately allocated to Gas Rider DSM.

PERSON RESPONSIBLE: Tim Duff

**Duke Energy Kentucky
Case No. 2017-00427
STAFF's Third Set of Data Requests
Date Received: April 23, 2018**

STAFF-DR-03-003

REQUEST:

Refer to the Duff Testimony, page 19, lines 13-19. Explain in detail any modifications to the existing DSM programs or any new DSM programs Duke Kentucky is considering in an effort to meet the Capacity Performance standard for the 2020-2021 PJM Delivery Year.

RESPONSE: The Company is currently in the very early phases of trying to identify potential modifications or pairings to enable Power Manager to have annual Capability and meet the Capacity Performance standard and does not have any specific details at this time. In parallel, Duke Energy Kentucky is actively participating in PJM's Summer Only Capacity Only Demand Response Senior Task Force, which is developing a proposal to continue the recognition of summer-only resources.

PERSON RESPONSIBLE: Tim Duff

**Duke Energy Kentucky
Case No. 2017-00427
STAFF's Third Set of Data Requests
Date Received: April 23, 2018**

STAFF-DR-03-004

REQUEST:

Refer to the Duff Testimony, page 20, lines 21-23. For the past five years, provide the annual participation level, kW, and kWh savings for each DSM program.

RESPONSE:

The Company provides this information in Table 1 of the Company's Annual DSM filings, however, for simplicity sake the Company has consolidated into a single work book. Please see Attachment STAFF-DR-03-004.XLSX.

PERSON RESPONSIBLE: Tim Duff

STAFF-DR-03-004
ATTACHMENT
IS BEING
PROVIDED
ELECTRONICALLY
AND ON CD

	1	Summary of Load Impacts July 2016 Through June 2017		
		Incremental Participation	kWh	kW
Residential Programs				
Appliance Recycling Program		-	-	-
Energy Efficiency Education Program for Schools		1,504	483,863	129
Low Income Neighborhood		689	257,693	76
Low Income Services		220	274,939	65
My Home Energy Report	2	54,512	11,187,354	3,301
Residential Energy Assessments		2,469	433,777	78
Residential Smart Saver®		349,515	8,135,927	1,022
Power Manager®	3	12,553	-	12,317
Power Manager® for Apartments		-	-	-
Total Residential		421,462	20,773,552	16,988
Non-Residential Programs				
		Incremental Participation	kWh	kW
Smart Saver® Non-Residential Performance Incentive Program		-	-	-
Smart Saver® Prescriptive - Energy Star Food Service Products		121	153,200	17
Smart Saver® Prescriptive - HVAC		222,076	365,121	139
Smart Saver® Prescriptive - Lighting		139,979	15,810,694	3,013
Smart Saver® Prescriptive - Motors/Pumps/VFD		79	41,866	3
Smart Saver® Prescriptive - Process Equipment		225	99,097	24
Smart Saver® Prescriptive - IT		-	-	-
Smart Saver® Custom		2,691	3,852,617	428
Small Business Energy Saver		4,067,887	3,757,565	768
Power Manager® for Business		-	-	-
PowerShare®	4	17	-	7,316
Total Non-Residential		4,433,075	24,080,160	11,708
Total		4,854,537	44,853,712	28,696

- 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 2017 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 2015 Through June 2016		
		Incremental Participation	kWh	kW
Residential Programs				
Appliance Recycling Program		423	172,063	19
Energy Efficiency Education Program for Schools		1,157	361,870	92
Low Income Neighborhood		618	231,138	68
Low Income Services		184	244,993	61
My Home Energy Report	2	56,801	11,639,346	3,435
Residential Energy Assessments		1,328	429,956	81
Residential Smart Saver®		246,942	5,494,950	762
Power Manager®	3	11,487	-	11,535
Total Residential		318,940	18,574,317	16,052
Non-Residential Programs				
		Incremental Participation	kWh	kW
Smart Saver® Prescriptive - Energy Star Food Service Products		48	109,914	15
Smart Saver® Prescriptive - HVAC		199,042	212,557	98
Smart Saver® Prescriptive - Lighting		28,778	5,038,750	878
Smart Saver® Prescriptive - Motors/Pumps/VFD		193	142,480	12
Smart Saver® Prescriptive - Process Equipment		125	55,054	13
Smart Saver® Prescriptive - IT		3	209	-
Smart Saver® 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 2014 Through June 2015*			
	Incremental Participation	kWh	kW
Residential Programs			
Appliance Recycling Program	779	316,032	35
Energy Efficiency Education Program for Schools	2,213	577,006	166
Low Income Neighborhood	718	557,078	147
Low Income Services	243	351,265	89
My Home Energy Report	2 53,267	10,869,228	3,207
Residential Energy Assessments	577	447,175	88
Residential Smart Saver®	385,099	8,639,278	1,243
Power Manager	3 10,719	-	11,033
Total Residential	453,615	21,757,061	16,007
Non-Residential Programs			
	Incremental Participation	kWh	kW
Smart Saver® Prescriptive - Energy Star Food Service Products	803	519,321	19
Smart Saver® Prescriptive - HVAC	101,560	910,166	247
Smart Saver® Prescriptive - Lighting	37,112	4,435,230	771
Smart Saver® Prescriptive - Motors/Pumps/VFD	572	364,758	34
Smart Saver® Prescriptive - Process Equipment	125	55,054	13
Smart Saver® Custom	1,793	5,071,530	638
Small Business Energy Saver	592,308	528,145	119
Power Share®	4 22	-	21,787
Total Non-Residential	734,295	11,884,203	23,630
Total	1,187,910	33,641,264	39,637

- 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 2015 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.

Summary of Load Impacts July 2013 Through June 2014*

	<u>Incremental Participation</u>	<u>Load Impacts Net of Free Riders at Meter</u>	
		<u>kWh</u>	<u>kW</u>
Residential Programs			
Appliance Recycling Program	745	657,793	167
Energy Efficiency Education Program for Schools	1,939	225,486	18
Low Income Neighborhood	719	634,158	165
Low Income Services	180	251,243	60
My Home Energy Report**	55,517	11,325,468	3,342
Residential Energy Assessments	557	411,489	91
Residential Smart Saver®	307,772	13,428,091	2,023
Power Manager***	10,453	-	10,272
Total Residential	377,882	26,933,728	16,137
Non-Residential Programs			
Smart Saver® Prescriptive - Energy Star Food Service Products	963	803,561	50
Smart Saver® Prescriptive - HVAC	25,613	325,050	145
Smart Saver® Prescriptive - Lighting	19,244	3,425,577	728
Smart Saver® Prescriptive - Motors/Pumps/VFD	567	484,362	50
Smart Saver® Prescriptive - Process Equipment	200	88,086	21
Smart Saver® Custom	1,490	544,184	84
Power Share****	22	-	20,824
Total Non-Residential	48,099	5,670,821	21,902
Total	425,981	32,604,549	38,039

*Impacts are without losses and reflected at the customer meter point

**Actual participants and impact capability shown as of the June 2014 mailings.

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

Summary of Load Impacts July 2012 Through June 2013*

Residential Programs	Incremental Participation	Load Impacts Net of Free Riders at Meter	
		kWh	kW
Appliance Recycling Program	526	489,958	127
Energy Efficiency Education Program for Schools	773	89,892	7
Low Income Neighborhood	109	96,138	25
Low Income Services	297	281,439	50
My Home Energy Report**	44,372	9,717,468	2,529
Residential Energy Assessments	504	198,641	134
Residential Smart Saver®	539,465	24,467,554	3,477
Power Manager***	8,956	-	10,374
Total Residential	595,002	35,341,089	16,723
Non-Residential Programs			
	Incremental Participation	Load Impacts Net of Free Riders at Meter	
		kWh	kW
Smart Saver® Prescriptive - Energy Star Food Service Products	3	6,904	1
Smart Saver® Prescriptive - HVAC	15,436	666,422	197
Smart Saver® Prescriptive - Lighting	24,476	4,135,827	814
Smart Saver® Prescriptive - Motors/Pumps/VFD	361	300,097	50
Smart Saver® Prescriptive - Process Equipment	140	61,660	15
Smart Saver® Custom	1,408	1,034,769	115
Power Share****	20	-	26,617
Total Non-Residential	41,844	6,205,679	27,808
Total	636,846	41,546,768	44,531

*Impacts are without losses and reflected at the customer meter point

**Actual participants are shown as the June 2013 mailings. Impacts reflect additions due to incremental program participation

***Cumulative number of controlled devices installed

REQUEST:

Refer to the Duff Testimony, page 23, line 10. Explain why Duke Kentucky views the Utility Cost test ("UTC") as the optimal test as opposed to the Total Resource Cost ("TRC") test.

RESPONSE:

When Energy Efficiency (EE) and Demand Response (DR) are considered as part of the overall resource plan, the UCT should be employed because it is consistent with the analysis performed in an Integrated Resource Plan. The UCT allows utilities to evaluate the costs and benefits of EE and DR programs on a comparable basis with supply-side investments because it essentially evaluates the long-term impact on revenue requirements to customers (Avoided Costs) relative to the investment required of the utility to implement the EE and DR programs, which is equivalent to what the Utility would be expecting to recover through its rates. A UCT greater than 1.0 indicates that the total costs to realize the energy savings associated with the EE and DR programs are less than the utility's costs to deliver the energy with supply side resources.

While the TRC test looks at the same Avoided Costs on the benefit side, the cost side of the test is different and does not represent what the utility will expect to recover through rates. Instead, the TRC test excludes the cost of the measure level incentives that the utility provides to its customers to encourage participation. The TRC replaces this

utility-paid customer incentive with the customer's incremental cost to install the more efficient equipment. For this reason it is less consistent with viewing cost effectiveness through the lens of the IRP.

PERSON RESPONSIBLE: Tim Duff

**Duke Energy Kentucky
Case No. 2017-00427
STAFF's Third Set of Data Requests
Date Received: April 23, 2018**

STAFF-DR-03-006

REQUEST:

Refer to the Duff Testimony, Attachment TJD-1. Provide all supporting calculations for each cost-effective test in Excel Spreadsheet format with all formulas intact and unprotected, and with all columns and rows accessible.

RESPONSE:

Please see the attached file Excel file: Attachment STAFF-DR-03-006.XLSX

PERSON RESPONSIBLE: Tim Duff

STAFF-DR-03-006
ATTACHMENT
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PROVIDED
ELECTRONICALLY
AND ON CD

WORKSHEET FOR COMPARISON

Item No.	Description	Quantity	Unit	Rate	Amount	Remarks
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Item No.	Item Description	Quantity	Unit	Weight	Volume	Material	Notes
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Code	Item	Unit	Rate	Q1	Q2	Q3	Q4	YTD	Actual	Variance
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102

Financial Summary Table

Table with 2 columns: Description, Amount

Total: ...

Duke Energy Kentucky
 2018 Projection: July 2018 - June 2019
 Program Cost Summary

Total Utility Costs
 Program Costs

Program	Unit Type	Cost Recovery			
		M	N	O	P
		Non-M&V Costs	M&V Costs	Total Costs	Cost Recovery Revenue
	\$ data	\$ data	\$ M+N	\$ O	
Shared Savings Revenue					
Res					
Energy Efficiency					
Appliance Recycling Program		0	0	\$ -	\$ -
Energy Efficiency Education Program for Schools		190,204	65,000	\$ 255,204	\$ 255,204
Low Income Neighborhood		283,237	60,000	\$ 343,237	\$ 343,237
Low Income Services		747,545	0	\$ 747,545	\$ 747,545
My Home Energy Report		723,962	75,000	\$ 798,962	\$ 798,962
Residential Energy Assessments		230,015	70,000	\$ 300,015	\$ 300,015
Residential Smart Saver*		2,085,700	237,762	\$ 2,323,461	\$ 2,323,461
Total		\$ 4,260,662	\$ 507,762	\$ 4,768,424	\$ 4,768,424
Demand Response					
Power Manager*		665,837	95,000	\$ 760,837	\$ 760,837
Total		\$ 665,837	\$ 95,000	\$ 760,837	\$ 760,837
NonRes					
Energy Efficiency					
Small Business Energy Saver		908,657	1,000	\$ 909,657	\$ 909,657
Smart Saver* Custom		563,335	35,000	\$ 598,335	\$ 598,335
Smart Saver* Non-Residential Performance Incentive Program		205,022	0	\$ 205,022	\$ 205,022
Smart Saver* Prescriptive - Energy Star Food Service Products		29,378	11,320	\$ 40,698	\$ 40,698
Smart Saver* Prescriptive - HVAC		127,183	3,080	\$ 130,263	\$ 130,263
Smart Saver* Prescriptive - IT		7,997	0	\$ 7,997	\$ 7,997
Smart Saver* Prescriptive - Lighting		1,300,425	48,720	\$ 1,349,145	\$ 1,349,145
Smart Saver* Prescriptive - Motors/Pumps/VFD		12,874	880	\$ 13,754	\$ 13,754
Smart Saver* Prescriptive - Process Equipment		7,116	0	\$ 7,116	\$ 7,116
Total		\$ 3,161,987	\$ 100,000	\$ 3,261,987	\$ 3,261,987
Demand Response					
Power Manager* for Business		180,181	0	\$ 180,181	\$ 180,181
PowerShare*		892,217	31,500	\$ 923,717	\$ 923,717
Total		\$ 1,072,398	\$ 31,500	\$ 1,103,898	\$ 1,103,898
Cost Recovery					
Payment Plus		163,799	0	\$ 163,799	\$ 163,799
Total		\$ 163,799	\$ -	\$ 163,799	\$ 163,799
Total		\$ 9,324,684	\$ 734,262	\$ 10,058,946	\$ 10,058,946

Notes:

- 1 My Home Energy Report Impacts represent cumulative capability, and does not reflect incremental program participation from the prior filing period.
- 2 Demand Response Impacts reflect average capability over the respective program contract period, not incremental impacts or actual events. Participants are KW Net FR @ Meter.
- 3 Power Manager* for Business includes an EE and DR component and achieves KWH and KW savings. Participants are based on EE measure.

For "Without Avoided Capacity" see row 35

Updated Avoided Costs

Appendix A

Cost Effectiveness Test Results

Program Name	UCI	TRC	RIM	PCT	Cumulative Avoided T&D Electric	NPV Avoided Ancillary	Cumulative Cost Based Avoided Elec Production	NPV Cost Based Avoided Elec Production	Cumulative Elec Fuel NF	NPV Net Loss Rev Gas	NPV Program Costs (incl. Incubates and Fuel NF)	NPV Participant Costs (net)	NPV Participant Costs (gross)	NPV Loss Rev Gas	Participant Elec Bill Savings (gross)	Participant Gas Savings (gross)
Residential Programs																
Appliance Recycling Program	1.13	1.38	0.80		37,813		114,502	51,266	166,856		156,214	31,990		261,810	260,133	
Energy Efficiency Education Program for Schools	0.47	1.39	0.35		27,641		69,046	35,497	91,976		95,040	188,197		144,317	150,427	
Low Income Neighborhood	0.31	1.49	0.25		140,083		37,560	54,216	185,001		155,395	582,130		200,345	200,345	
My Home Energy Report	1.40	1.40	0.68		233,531		290,553	261,690	261,690		723,862	16,340		1,195,051	1,194,051	
Residential Energy Assessments	1.37	1.47	0.65		59,450		194,425	194,425	254,901		16,340			391,861	391,861	
Residential Smart Savers*	1.53	1.34	0.64	3.65	785,355		2,115,311	502,913	2,311,635		944,851	1,446,409		4,502,295	6,184,916	
Power Managers* for Apartments	1.41	1.47	0.75	3.38	1,724,686		3,154,487	2,280,046	4,393,238		2,726,718	1,189,752		5,891,790	8,659,003	
Total																
Non-Residential Programs																
Power Managers* for Businesses	1.10	1.34	0.81		82,049		48,011	87,098	88,572		148,638	31,543		94,383	94,883	
Smart Savers*	2.06	0.89	2.06		751,619		1,078,617	1,078,617	1,560,280		300,857	589,350		2,512,207	2,512,207	
Smart Savers* - Non-Residential Performance Incentives Program	2.12	0.86	2.06		2,984,950		1,408,163	1,684,901	1,855,460		81,569	141,453		574,982	1,132,491	
Smart Savers* Custom	2.57	0.69	0.79	1.39	163,166		1,056,251	213,179	1,269,376		293,430	1,115,453		2,049,876	2,308,168	
Smart Savers* Prescriptions - Energy Star Food Service Products	3.04	1.84	0.92	3.73	13,613		83,386	17,545	100,931		17,876	11,402		151,690	151,690	
Smart Savers* Prescriptions - HVAC	3.28	0.89	0.96	1.46	198,074		151,354	136,400	860,616		402,399	65,924		293,645	422,297	
Smart Savers* Prescriptions - Lighting	0.00	0.00	0.00	3.24	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - Motors (Pumps)/VFD	0.00	0.00	0.00	4.90	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - Process Equipment	0.00	0.00	0.00	4.90	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - IT	2.41	1.11	0.99	1.89	2,091,200		6,039,010	2,843,545	6,284,424		2,173,431	2,860,973		9,632,486	11,196,132	
Total																
Overall Portfolio Total																
From DSM/RE																
Calculated values from filing sources																

Without Avoided Capacity

Appendix A

Cost Effectiveness Test Results

Program Name	UCI	TRC	RIM	PCT	Cumulative Avoided T&D Electric	NPV Avoided Ancillary	Cumulative Cost Based Avoided Elec Production	NPV Cost Based Avoided Elec Production	Cumulative Elec Fuel NF	NPV Net Loss Rev Gas	NPV Program Costs (incl. Incubates and Fuel NF)	NPV Participant Costs (net)	NPV Participant Costs (gross)	NPV Loss Rev Gas	Participant Elec Bill Savings (gross)	Participant Gas Savings (gross)
Residential Programs																
Appliance Recycling Program	0.85	1.04	0.45		37,813		121,521	69,016	166,856		156,214	33,990		261,810	260,133	
Energy Efficiency Education Program for Schools	0.34	1.02	0.26		27,641		69,046	35,497	91,976		95,040	188,197		144,317	150,427	
Low Income Neighborhood	0.24	1.15	0.29		140,083		37,560	54,216	185,001		155,395	592,150		200,345	200,345	
My Home Energy Report	1.00	1.00	0.53		233,531		501,600	501,600	234,901		723,862	16,342		1,195,061	1,194,061	
Residential Energy Assessments	1.10	1.19	0.51		59,450		184,465	184,465	254,901		11,873			391,961	391,961	
Residential Smart Savers*	1.29	1.13	0.64	3.65	785,355		2,125,311	502,913	2,331,635		944,831	1,446,469		4,502,295	6,187,896	
Power Managers* for Apartments	1.15	1.75	1.15		1,724,686		3,154,487	2,282,253	4,393,238		2,726,748	1,189,752		5,891,790	8,659,003	
Total																
Non-Residential Programs																
Power Managers* for Businesses	0.62	0.75	0.47		82,049		48,011	87,098	88,572		148,638	31,543		94,383	94,883	
Smart Savers*	2.05	0.85	2.06		751,619		1,078,617	1,078,617	1,560,280		300,857	589,350		2,512,207	2,512,207	
Smart Savers* - Non-Residential Performance Incentives Program	2.11	0.83	2.19		2,984,950		1,408,162	1,684,901	1,855,460		81,493	141,453		574,982	1,132,491	
Smart Savers* Custom	2.16	0.58	0.67	2.47	163,166		1,056,251	213,179	1,269,376		293,430	1,115,453		2,049,876	2,308,168	
Smart Savers* Prescriptions - Energy Star Food Service Products	3.25	1.56	0.78	3.73	13,613		83,386	17,545	100,931		17,876	11,402		151,690	151,690	
Smart Savers* Prescriptions - HVAC	1.97	0.98	0.91	1.66	198,074		151,354	136,400	860,616		402,399	65,924		293,645	422,297	
Smart Savers* Prescriptions - Lighting	0.00	0.00	0.00	3.24	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - Motors (Pumps)/VFD	0.00	0.00	0.00	4.90	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - Process Equipment	0.00	0.00	0.00	4.90	0		0	0	0		0	0		0	0	
Smart Savers* Prescriptions - IT	1.92	0.82	0.73	1.83	2,091,200		6,039,010	2,843,545	6,284,424		2,173,411	2,860,972		9,632,458	11,196,132	
Total																
Overall Portfolio Total																
From DSM/RE																
Calculated values from filing sources																

STAFF-DR-03-007 PUBLIC

REQUEST:

Refer to the Direct Testimony of John A. Verderame (“Verderame Testimony”), pages 23-24, Tables 1 and 2.

- a. Explain why the demand response (“DR”) decreases by almost 50 percent from the 2018-2019 planning year to the 2019-2020 planning year.
- b. Explain why the DR decreases by one-third from the 2019-2020 planning year to the 2020-2021 planning year.
- c. Confirm that the listed DR impact is only from Duke Kentucky’s PowerShare and Power Manager DSM programs.
 1. If this cannot be confirmed, provide each DSM program’s impact on the total DR.
 2. If this is confirmed, by program, provide the impact each DSM program has on the value of the capacity resource as calculated by PJM Capacity Markets.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET

- a. As noted in Tim Duff’s testimony on pages 18-19, there are changes to PJM’s Demand Response program requirements that go into effect for Duke Energy Kentucky in 2019-2020. This eliminates the current Limited Demand Response

offering, leaving an option that has no maximum number of emergency curtailment events, the potential for events to be called on weekends and holidays as well as a maximum event length of 10 hours. In an effort to meet those requirements and mitigate the potential for customer fatigue if more events occur, Duke Energy Kentucky plans to rotate customer and program groups during longer events, which means that the same amount of program resource for 2018-2019 will have less “capacity capability” in the PJM market in 2019-2020.

b. As noted in Tim Duff’s testimony on pages 19-20, there are changes to PJM’s Demand Response program requirements that go into effect for DEK in 2020-2021. This change requires all registered demand response capability to be available year round—eliminating the “summer only” option that was previously available. Without changes to the programs and with the current rules from PJM, Power Manager Capability and some of the current PowerShare capability will not meet the “Capacity Performance” standard.

c. Confirmed

1. N/A

2. The table below describes the Megawatt contribution of each Demand Response Program dedicated to the Duke Energy Kentucky FRR plan based on the percentage of the respective program MWs allocated to the Plan. The BRA price is used as a proxy for alternative bilateral transactions.

Deliver Year	Total DR MWs	Percentage Share		MW Share		BRA Price (\$/MW-Year)	Total DR Value
		Power Manager	Power Share	Power Manager	Power Share		

This information is being filed under the seal of a Motion for Confidential Treatment and will be provided to all parties upon the execution of a Confidentiality Agreement.

PERSON RESPONSIBLE: John Verderame

REQUEST:

Refer to the Verderame Testimony, page 31, lines 18-21. Mr. Verderame emphasizes the importance of the PowerShare and the Power Manager DSM programs. Provide the value of each of the other DSM programs to Duke Kentucky's participation in the PJM.

RESPONSE:

In addition to PowerShare and PowerManager, the Company also offers Energy Efficiency programs described in Mr. Duff's testimony. To date, these programs have been small. In order for megawatts from these programs to be explicitly included as resources in the FRR Plans, PJM requires significant Evaluation, Measurement, and Verification (EM&V) protocols. EM&V is a collection of methods and processes used to assess and ultimately validate the performance of energy efficiency activities. These protocols can be expensive to implement at low levels of EE saturation. This does not mean that the programs do not provide value to customers or that the Company may not in the future make the decision to utilize these programs as explicit capacity resources. It is simply not cost effective at low participation rates. These programs currently provide energy value by reducing customer load during the most expensive hours of the year and by reducing peak loads, ultimately reducing the load obligation requirement from PJM. It

is very possible that with wider participation rates, these programs could become significant resources for the Company to meet Customer capacity requirements.

PERSON RESPONSIBLE: John Verderame/ Tim Duff