


KYPSC CASE NO. 2017-00427
AG 1st SET
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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, 2018.

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

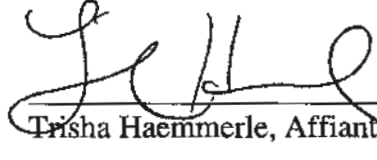

NOTARY PUBLIC

My Commission Expires: 1/5/2019

VERIFICATION

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

The undersigned, Trisha Haemmerle, Senior Strategy & Collaboration 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.



Trisha Haemmerle, Affiant

Subscribed and sworn to before me by Trisha Haemmerle on this 4th day of January, 2018.



NOTARY PUBLIC

My Commission Expires: 7/8/22



E. MINNA ROLFES-ADKINS
Notary Public, State of Ohio
My Commission Expires
July 8, 2022

VERIFICATION

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

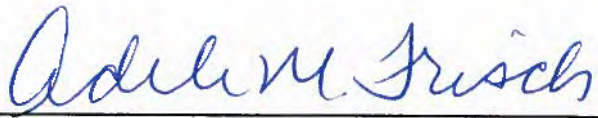
The undersigned, James E. Ziolkowski, Director, Rates & Regulatory Planning, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.



James E. Ziolkowski Affiant

Subscribed and sworn to before me by James E. Ziolkowski on this 4th day of January, 2018.

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



NOTARY PUBLIC

My Commission Expires: 1/5/2019

VERIFICATION

STATE OF OHIO)
)
COUNTY OF HAMILTON) SS:


The undersigned, William Don Wathen Jr., Director of Rates & Regulatory Strategy, 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.



William Don Wathen Jr., Affiant

Subscribed and sworn to before me by William Don Wathen Jr., on this 8TH day of January, 2018.

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



NOTARY PUBLIC

My Commission Expires: 1/5/2019

AG-DR-01-001

REQUEST:

Refer to the IRP in Case No. 2017-00273. The Company noted that its annual planning reserve margin was 13.7% percent.

- a. Has this planning reserve margin changed since the Company's 2014 IRP?
- b. What is the actual reserve margin by year from 2013-2016 and expected reserve margin for years 2017-2020?
- c. What is Duke's current target reserve margin?

RESPONSE:

For long term planning, utilities typically target a reserve margin that is calculated on an ICAP basis (nameplate capacity / peak demand -1). Depending on a number of utility specific factors, most utilities target a reserve margin between 13% and 20%.

For regulated utilities in RTO's, there is the additional requirement that an utility satisfy a reserve margin type metric for the RTO's planning year capacity auction. In the case of PJM, the RTO calculates its Pool Requirement and includes how the utility's load coincides with that of the broader RTO as well as how a utility's generation performs. The specific calculation is described below.

- The PJM Forecast Pool Requirement (FPR_{UCAP}) is calculated using the PJM equivalent demand forced outage rate ($EFOR_d^{PJM}$) and the PJM installed reserve margin (RM_{ICAP}^{PJM}). The FPR_{UCAP} is 9.02%.
- FPR_{UCAP} is translated to a Duke Energy Kentucky (DEK) installed-capacity-basis reserve margin ($RM_{ICAP}^{COINCIDENT}$) using the 5-year average $EFOR_d^{DEK}$ (9.00%). Based on this calculation, $RM_{ICAP}^{COINCIDENT}$ is 19.8%.
- For long range planning, PJM's forecast assumes that the Duke Energy Ohio-Kentucky zone is 95.8% coincident with the PJM peak. Applying this coincidence factor to DEK's 19.8% $RM_{ICAP}^{COINCIDENT}$ results in a planning reserve margin of 14.8%.
 - a. Yes. Although the Company's next IRP is not due to be filed until Q2 of 2018, initial IRP calculations are supporting a reserve margin of approximately 15%.
 - b. Using a definition of reserve margin being ICAP Generation divided by peak load, the actual and expected reserve margins for 2013-2020 are: (* actuals)

YEAR	RESERVE MARGIN
2013*	23%
2014*	22%
2015*	32%
2016*	23%
2017*	29%
2018	31%
2019	31%
2020	29%

- c. See response to part a.

PERSON RESPONSIBLE: Scott Park

Duke Energy Kentucky
Case No. 2017-00427
Attorney General's First Set Data Requests
Date Received: December 22, 2017

AG-DR-01-002

REQUEST:

Provide the amount of off-system sales by Duke for each year since 2013, by energy and dollar amounts. Provide these amounts by total annual off-systems sales and by off-systems sales net off-system purchases. Explain, in complete detail, any increase or decrease of these amounts of 50% or more as compared to the prior year.

RESPONSE:

Annual amounts of off-system sales to PJM and purchased power from PJM are detailed below.

Duke Energy Kentucky		
Off-system Sales to PJM		
<u>Year</u>	<u>MWh</u>	<u>Revenue</u>
2013	257,139	\$ 7,741,822
2014	160,972	\$ 8,147,544
2015	843,528	\$ 26,911,427
2016	299,756	\$ 7,630,073
Jan - Nov 2017	594,501	\$ 15,641,635
Purchased Power from PJM		
<u>Year</u>	<u>MWh</u>	<u>Cost</u>
2013	913,020	\$ 33,247,522
2014	1,528,738	\$ 77,228,058
2015	600,495	\$ 19,368,455
2016	1,033,765	\$ 30,343,791
Jan - Nov 2017	525,308	\$ 17,048,945

Duke Energy Kentucky generation is dispatched by PJM according to a security constrained economic dispatch model. The quantity and dollar amounts of sales to PJM and purchases from PJM vary from hour to hour and from year to year depending on various factors including native load demand, availability of generation and the variable cost of generation relative to PJM locational marginal prices. In addition to the above general explanation it should be noted that that for the first 5 months of 2015 non-native sales were higher and purchased power was lower due to the fact that the Company purchased the remaining share of the East Bend station effective at the end of 2014 but continued to operate the Miami Fort 6 unit until its retirement on 6/1/2015. In other words, Duke Energy Kentucky had additional generating capacity for the first five months of 2015.

PERSON RESPONSIBLE: Scott Burnside

AG-DR-01-003

REQUEST:

For any off-system sales that Duke makes, are any portion of the sales returned to customers?

- a. If "yes": (i) what portion of the sales is returned to customers, and what portion does Duke retain and (ii) how is any portion of off-system sales returned to customers.
- b. If Duke has an existing formula and provides such formula in response to (a), above, provide the genesis of that formula and explain whether the Company has requested or plans to request Commission approval to alter that formula.

RESPONSE:

Yes.

- a. The current formula provides that 100% of the first \$1 million of margins on off-system sales is shared with customers via the Profit Sharing Mechanism (Rider PSM). For margins above \$1 million, 75% of the margins flow through to customers via Rider PSM.
- b. The current Rider PSM formula referenced in AG-DR-1-003(a) was ordered by the Commission in Case No. 2010-00203. The original Rider PSM formula was first approved by the Commission in Case No 2003-00252, and affirmed in Case

No. 2006-00172. The original PSM formula provided for an equal sharing (50/50) of net margins after the first \$1 Million between the Company and customers.

The Company has a proposal to modify the formula for Rider PSM in its pending application for an adjustment to base electric rates, Case No. 2017-00321.

PERSON RESPONSIBLE: William Don Wathen Jr.

**Duke Energy Kentucky
Case No. 2017-00427
Attorney General's First Set Data Requests
Date Received: December 22, 2017**

AG-DR-01-004

REQUEST:

Provide any and all workpapers and analyses used to produce the documents, charts, tables, figures, studies, exhibits and appendices provided in the Company's November 15, 2017 filing. To the extent the responsive documents are in Excel, provide such workpapers electronically, with formulas and calculations intact.

RESPONSE:

Please see AG-DR-01-004 Attachment 1.xlsx, AG-DR-01-004 Attachment 2.xlsx, AG-DR-01-004 Attachment 3.xlsx, and AG-DR-01-004 –Attachment 4.xlsx.

PERSON RESPONSIBLE: Stephanie Simpson /
Jim Ziolkowski

AG-DR-01-004
ATTACHMENT 1
-EXCEL FORMAT-
BEING PROVIDED
ON CD

AG-DR-01-004
ATTACHMENT 2
-EXCEL FORMAT-
BEING PROVIDED
ON CD

AG-DR-01-004
ATTACHMENT 3
-EXCEL FORMAT-
BEING PROVIDED
ON CD

AG-DR-01-004
ATTACHMENT 4
-EXCEL FORMAT-
BEING PROVIDED
ON CD

Duke Energy Kentucky
Case No. 2017-00427
Attorney General's First Set Data Requests
Date Received: December 22, 2017

AG-DR-01-005

REQUEST:

Explain, in complete detail, why the number of customers served by the Low Income Services Program- Weatherization, has been significantly lower in years 2013-2014 and 2015-2017, as compared to other years in the past decade. Provide the costs for this program between the years 2011 and 2017.

RESPONSE:

Customer participation is driven by a couple of factors. Weather has an effect on whether customers request the service. Warmer weather over the last couple of years has resulted in lower participation. In addition, the weatherization work is tied to the Payment Plus Program which has seen a decrease in the last couple of years as well. The customer's marketed that program must have arrears of at least \$300, and they are not allowed to use the program more than one time. As such, we have seen the number of eligible LIHEAP customers decreasing over the last few years (based on duplication), which may be a direct correlation to the number of homes being weatherized.

Fiscal Year Ending	Program Costs
2011	\$ 640,199.03
2012	\$ 636,468.79
2013	\$ 369,183.05
2014	\$ 311,064.75
2015	\$ 576,058.83
2016	\$ 381,770.70
2017	\$ 297,605.49

PERSON RESPONSIBLE: Lorrie Maggio

Duke Energy Kentucky
Case No. 2017-00427
Attorney General's First Set Data Requests
Date Received: December 22, 2017

AG-DR-01-006

REQUEST:

Refer to page 49 of the Application, paragraph 134. Does the \$19.23 million represent the amount recovered from customers for the past reporting period, or the costs of the program from that same period? Provide a breakout of that amount detailing same.

RESPONSE:

The \$19.23 million represents the total actual program costs, lost revenues and shared savings for July 2016 – June 2017 represented on page 1 of Appendix B.

Residential Program Expenditures	\$ 5,069,582
Residential Lost Revenues	\$ 2,066,843
Residential Shared Savings	\$ 900,617
Non-Residential Program Expenditures	\$ 7,528,874
Non-Residential Lost Revenues	\$ 755,018
Non-Residential Shared Savings	\$ 1,996,711
PowerShare Program Expenditures	\$ 719,984
PowerShare Shared Savings	\$ 194,108
Total	\$ 19,231,738

PERSON RESPONSIBLE: Trisha Haemmerle

Duke Energy Kentucky
Case No. 2017-00427
Attorney General's First Set Data Requests
Date Received: December 22, 2017

AG-DR-01-007

REQUEST:

Provide the amount the average electric residential customer paid via the DSM surcharge in the past reporting period, the expected amount for calendar year 2017, and the actual amount paid for years 2010-2016. For the same time periods, provide the average total residential electric bill, including base rates, all surcharges, and riders. This information should reasonably lead to the ability to calculate what percentage of the total electric residential bill that DSM charges represent for the average Duke customer.

RESPONSE:

AG-DR-01-007 Attachment Tab A shows the total and average DSM charges paid by customers served under Rate RS for the most recent reporting period (July 2016 – June 2017).

AG-DR-01-007 Attachment Tab B shows the total and average DSM charges paid by customers served under Rate RS for the calendar years 2010 through November 2017. December 2017 revenue figures are not yet available.

PERSON RESPONSIBLE: James E. Ziolkowski

**DUKE ENERGY KENTUCKY
 RIDER DSMR REVENUES BILLED TO RESIDENTIAL CUSTOMERS**

TAB A

RATE		RS						
MONTH	kWh	Total Bill	Rider DSMR	No. Bills	Avg. kWh/Bill	Avg. Total Bill	Avg. DSMR/Bill	DSMR %
7/1/2016	147,661,117	\$13,120,757	\$1,052,745	126,130	1,171	\$104.03	\$8.35	8.0%
8/1/2016	162,377,542	\$14,151,875	\$1,156,942	126,309	1,286	\$112.04	\$9.16	8.2%
9/1/2016	150,191,448	\$13,233,596	\$1,070,570	126,482	1,187	\$104.63	\$8.46	8.1%
10/1/2016	104,100,864	\$9,468,910	\$741,739	126,774	821	\$74.69	\$5.85	7.8%
11/1/2016	86,331,115	\$7,833,177	\$615,430	126,733	681	\$61.81	\$4.86	7.9%
12/1/2016	127,529,356	\$10,867,180	\$908,489	127,128	1,003	\$85.48	\$7.15	8.4%
1/1/2017	153,653,412	\$12,997,098	\$1,095,385	127,315	1,207	\$102.09	\$8.60	8.4%
2/1/2017	118,028,503	\$10,229,197	\$866,736	126,793	931	\$80.68	\$6.84	8.5%
3/1/2017	106,514,608	\$9,189,436	\$781,994	127,508	835	\$72.07	\$6.13	8.5%
4/1/2017	93,090,236	\$7,982,039	\$741,586	126,859	734	\$62.92	\$5.85	9.3%
5/1/2017	89,589,016	\$7,536,991	\$712,469	127,149	705	\$59.28	\$5.60	9.5%
6/1/2017	116,763,586	\$9,682,596	\$929,553	127,180	918	\$76.13	\$7.31	9.6%
Grand Total	1,455,830,803	\$126,292,852	\$10,673,639	1,522,360	956	\$82.96	\$7.01	8.5%

Source: Duke Energy Kentucky revenue reports.

**DUKE ENERGY KENTUCKY
 RIDER DSMR REVENUES BILLED TO RESIDENTIAL CUSTOMERS**

TAB B

RATE		RS							
YEAR	kWh	Total Bill	Rider DSMR	No. Bills	Avg. kWh/Bill	Avg. Total Bill	Avg. DSMR/Bill	DSMR %	
2010	1,564,329,727	\$129,288,260	\$2,952,768	1,459,007	1,072	\$88.61	\$2.02	2.3%	
2011	1,515,458,545	\$126,560,157	\$2,531,320	1,463,573	1,035	\$86.47	\$1.73	2.0%	
2012	1,463,759,203	\$127,770,457	\$3,078,787	1,476,270	992	\$86.55	\$2.09	2.4%	
2013	1,479,061,355	\$129,482,464	\$3,527,613	1,483,787	997	\$87.26	\$2.38	2.7%	
2014	1,493,528,781	\$135,133,649	\$3,968,546	1,491,480	1,001	\$90.60	\$2.66	2.9%	
2015	1,459,286,105	\$125,980,928	\$6,836,652	1,499,593	973	\$84.01	\$4.56	5.4%	
2016	1,464,499,408	\$129,599,497	\$9,867,486	1,515,224	967	\$85.53	\$6.51	7.6%	
2017	1,281,340,506	\$109,976,050	\$9,935,027	1,400,591	915	\$78.52	\$7.09	9.0%	
Grand Total	11,721,263,630	\$1,013,791,462	\$42,698,200	11,789,525	994	\$85.99	\$3.62	4.2%	

Note: 2017 Data through November 2017. December 2017 billing data is not yet available.
 Source: Duke Energy Kentucky revenue reports.