DUKE ENERGY

Mailing Address
139 East Fourth Street
1303 Main / P O Box 960
Cincinnati Ohio 45202

513 287-4320
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VIA OVERNIGHT DELIVERY

September 29, 2014

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

Re: Case No. 2014-00273
In the Matter of 2014 Joint Integrated Resource Plan of Duke Energy Kentucky, Inc.

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of Duke Energy Kentucky's responses to Staff's First Request for Information. Please date-stamp the extra two copies of the filing and return to me in the enclosed overnight envelope.

Sincerely,

Rocco D. Ascenzo
Associate General Counsel

575551

VERIFICATION

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

The undersigned, Cormack C. Gordon, Manager, Products and Services, 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.

Cormack C. Gordon, Affiant

Subscribed and sworn to before me by Cormack C. Gordon on this 23 day of September, 2014.

NOTARY PUBLIC

JESSE A BRAY
Notary Public - Seal
State of Indiana
My Commission Expires Apr 21, 2021

My Commission Expires: April 21, 2021

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Scott Park, Director of IRP & Analytics - Midwest, 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.

Scott Park, Affiant

Subscribed and sworn to before me by Scott Park on this 23rd day of September, 2014.

NOTARY PUBLIC

My Commission Expires: Oct 20, 2018

VERIFICATION

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

The undersigned, Robin Avant, Products & Services Specialist, 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.

Robin Avant, Affiant

Subscribed and sworn to before me by Robin Avant on this 23rd day of September, 2014.

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, Darcy Pach, Manager of DSM 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.

Darcy Pach, Affiant

Subscribed and sworn to before me by Darcy Pach on this 22nd day of September, 2014.

NOTARY PUBLIC

My Commission Expires: 8/12/19

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Darcy Pach, Manager of DSM 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.

Darcy Pach, Affiant

Subscribed and sworn to before me by Darcy Pach on this 22nd day of September, 2014.

NOTARY PUBLIC

My Commission Expires: 8/12/19

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Lari Granger, Sr. 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 Granger

Lari Granger, Affiant

Subscribed and sworn to before me by Lari Granger on this 22 day of September, 2014.

JIMMIE O STROUD
NOTARY
MY
COMMISSION EXPIRES
10/31/2018
PUBLIC
GASTON COUNTY, NC

Jimmie O. Stroud

NOTARY PUBLIC

My Commission Expires:
October 31, 2018

VERIFICATION

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

The undersigned, Bhagyesh Deshpande, Market Research 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.

Bhagyesh Deshpande, Affiant

Subscribed and sworn to before me by Bhagyesh Deshpande on this 22 day of September, 2014.

Patricia C. Ross
NOTARY PUBLIC

My Commission Expires: 10-17-2014

PATRICIA C. ROSS
NOTARY PUBLIC
Mecklenburg County, North Carolina
My Commission Expires 10/17/2014

VERIFICATION

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

The undersigned, Leon Brunson, Lead Load Forecasting Analyst, 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.

Leon Brunson

Leon Brunson, Affiant

Subscribed and sworn to before me by Leon Brunson on this 22 day of September, 2014.

Sheila Lemoine

NOTARY PUBLIC

My Commission Expires:

Sheila Lemoine
Notary Public
Mecklenburg County
North Carolina
My Commission Expires 7/2/2019

VERIFICATION

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

The undersigned, James Ziolkowski, Director of 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 Ziolkowski, Affiant

Subscribed and sworn to before me by James Ziolkowski on this 15th day of September, 2014.

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

The undersigned, Jeffrey E. Gindling, Principal Engineer, 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.

Jeffrey E. Gindling, Affiant

Subscribed and sworn to before me by Jeffrey E. Gindling on this 22nd day of September, 2014.

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

The undersigned, Thomas Wiles, Director 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.

Thomas Wiles, Affiant

Subscribed and sworn to before me by Thomas Wiles on this 22ND day of September, 2014.

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, J. Michael Geers, Manager of Air Programs and Compliance, 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.

J. Michael Geers, Affiant

Subscribed and sworn to before me by J. Michael Geers on this 17th day of September, 2014.

NOTARY PUBLIC

My Commission Expires:

RUTH M. LOCCISANO
Notary Public, State of Ohio
My Commission Expires 06-18-2017

VERIFICATION

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

The undersigned, John Verderame, Director of 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 Verderame, Affiant

Subscribed and sworn to before me by John Verderame on this 24 day of September, 2014.

NOTARY PUBLIC

My Commission Expires: June 14, 2016

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Timothy Duff, GM, Market Solutions Regulatory Strategy & Evaluation, 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.

Timothy Duff, Affiant

Subscribed and sworn to before me by Timothy Duff on this 25th day of September, 2014.

NOTARY PUBLIC

My Commission Expires: August 13, 2017

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, Michael W. Stroben, Environmental Policy Analysis & Strategy Director, 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.

Michael W. Stroben

Michael W. Stroben, Affiant

Subscribed and sworn to before me by Michael W. Stroben on this 24th day of September, 2014.

JIMMIE O STROUD
NOTARY
MY
COMMISSION EXPIRES
10/31/2018
PUBLIC
GASTON COUNTY, NC

Jimmie O. Stroud

NOTARY PUBLIC

My Commission Expires:

October 31, 2018

TABLE OF CONTENTS

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-001

REQUEST:

Refer to Table 1-A on page 10 of Duke Kentucky's 2014 Integrated Resource Plan ("IRP"). In the column titled "DSM (EE&DR)," the cells for years 2015, 2028, and 2032 contain a negative number. Explain why these cells contain a negative number.

RESPONSE:

For 2015, please see the response to question 6b. The drop off in 2028 and 2032 are due to two factors that change the contribution to peak of EE rather than an absolute decrease in the amount of EE in the forecast. Specifically, EE has a load shape that defines its peak contribution to the system's peak. The addition of electric vehicles and solar generation also effect the systems peak and when all of these impacts are combined, the results show a slight reduction in EE's contribution to peak.

PERSON RESPONSIBLE: Scott Park

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-002

REQUEST:

Refer to page 12 of the IRP where it states, "The cost for emitting 1 ton of CO_2 is assumed to be $17/ton in 2020, increasing to $53/ton in 2034." Explain how the cost per ton of CO_2 was determined for each year in the specified timeframe.

RESPONSE:

Duke Energy Kentucky evaluated CO_2 prices starting at $17.47 per ton (nominal dollars) in 2020, increasing at a rate of 8.44% per year through 2034. The $17.47 price is the nominal equivalent of $15 per metric ton expressed in 2009 dollars, which is how Duke Energy Kentucky initially defined its current CO_2 price trajectory several years ago. The $15 per metric ton price was escalated at roughly 6% per year, and when converting to nominal dollars and adding an inflation factor produced the 8.44% escalation rate. Duke Energy Kentucky considers this to be a reasonable trajectory to represent the risk of federal climate change legislation that sets a price on CO_2 emissions, given the political and practical realities and challenges of passing such legislation.

Duke Energy Kentucky believes that if Congress does enact legislation that sets a price on CO_2 emissions, it will do so cautiously so as not to create a program that will have adverse economic impacts. Therefore, Duke Energy Kentucky believes that if or when Congress does enact climate change legislation establishing a price on CO_2 emissions, it is far more likely that the program will result in prices toward the lower end of the range of prices associated with the

Waxman-Markey legislation, which is why Duke Energy Kentucky set its price trajectory as it did.

PERSON RESPONSIBLE: Michael Stroben

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-003

REQUEST:

Refer to Tables 3-A and B on page 15 of the IRP. The industrial sector shows no change in the annual growth rate "after EE" is recognized in Table 3-B.

a. Explain why the annual growth rate for the industrial sector is the same in Table 3-B "after EE" as in Table 3-A "before EE."

b. Identify and describe what actions Duke Kentucky has taken to include the industrial sector in its energy-efficiency ("EE") portfolio since its last IRP.

c. State whether Duke Kentucky has been approached by industrial customers seeking EE programs.

d. Identify any industrial customers represented on Duke Kentucky's demand-side management ("DSM") Collaborative.

RESPONSE:

a. One of the assumptions in the Duke Energy Kentucky forecast is that the non-residential utility energy efficiency projections should be applied towards the commercial and governmental customer class, and not the industrial customer class. Customers in the industrial class typically gain approval to implement their own customized energy efficiency programs, making any related EE projections difficult to apply to our forecasting methodology. This results in the constant growth rate seen when comparing the industrial EE and industrial non-EE forecast scenarios.

b. Duke Energy Kentucky's Smart $aver® Non-Residential Incentive programs are available to and promoted to all customers types, including industrial customers, except for those customers receiving service at transmission voltage.

   Of the 2,408 non-residential accounts with SIC classifications in the major category of Manufacturing, Warehousing & Other Industrial, 112 have participated in the Smart $aver program since January 1, 2009. Recorded participation of those customers accounts for 8,770 MWh annual savings as compared to 883,394 MWh of annual energy consumption by the same group.

c. Please refer to the response for 3b.

d. There are no industrial customers that actively participate in the Duke Energy Kentucky DSM Collaborative.

PERSON RESPONSIBLE:

3a- Leon Brunson

3b-3d – Cory Gordon

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-004

REQUEST:

Refer to Tables 3-C on page 18 of the IRP. Confirm that the actual energy and internal peak amounts shown herein have not been weather-adjusted.

RESPONSE:

The energy in Table 3-C on page 18 of the IRP are confirmed to be the sum of actual billed retail sales, company use MWH sales, and estimated losses for years 2009 to 2013.

The internal peak values in Table 3-C are weather adjusted values. The table to the right contains actual internal peaks that are not weather adjusted, based on load research data for Duke Kentucky, for years 2009 to 2013.

Year	Date	Peak
2009	8/10/2009	791
2010	8/4/2010	881
2011	7/21/2011	878
2012	7/25/2012	886
2013	7/18/2013	869

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-005

REQUEST:

Refer to pages 18 and 80 of the IRP.

a. Clarify whether both sentences, or just the first sentences in the first paragraph under the heading "Changes in Methodology" on page 18 represent changes in Duke Kentucky's forecast methodology.

b. The first sentence under the heading "Forecast Methodology" on page 80 indicates that Duke Kentucky's methodology is essentially the same as that presented in past IRPs. Confirm whether the change(s) identified on page 18 are the only changes since the last IRP.

RESPONSE:

a. References to changes in methodology only relates to the first sentence under the heading 'Changes in Methodology' on page 18.

b. The Itron SAE forecast modeling process, the Itron software in which this process generates the forecast, and the peak forecast methodology (see response to DR-01-12) are the only changes made since the 2011 IRP.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-006

REQUEST:

Refer to page 20 of the IRP, Table 4-A, regarding projected DSM impacts.

a. Provide a table that shows, by DSM program, EE impacts per MWh and per MW for the years 2014 through 2029.

b. Refer to the Power Share column. Explain why the Power Share "DR Impacts – MW" decreases from 21.3 MW in 2014 to 14.7 MW in 2015.

RESPONSE:

a. Please see the attached spreadsheet labeled "KY 2014 IRP PS Data Request Response – Q6a. This spreadsheet contains the MWh and MW impacts by program for the EE programs for years 2014-2029. Please note that the MW impacts included in this table are slightly different than those included in the IRP Table 4-A. In the attached spreadsheet, the MW values are calculated using the DSMore software which assumes that the system peak occurs at a fixed hour during the entire IRP period. The MW values included in Table 4-A are calculated using an aggregate portfolio level hourly impact from all measures combined at the time of the system Coincident Peak, which may occur at different times during the IRP period due to changes in the overall load profile. That is the basis for the differences in the MW impacts.

b. Duke Energy Kentucky operates within the PJM Interconnection. All Duke Energy Kentucky Demand Response programs that are registered with PJM are required to meet the requirements

established by PJM. In 2014, PJM changed the notification time and dispatch for Demand Response resources from two hours to thirty minutes for the 2015/16 delivery year. This change will likely have a short term effect on the forecasted MW participation of the PowerShare program. Thus, the forecasted participation in PowerShare decreases for 2015 from 21.3 MW to 14.7 MW.

PERSON RESPONSIBLE: Tom Wiles (a)
Darcy Pach (b)

CASE NO. 2014-00273
Commission Staff Data Request - Question 6a

MWh Impacts by Program

Program Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Residential Programs																
Appliance Recycling Program	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162	2,162
Energy Efficiency Education Program for Schools Program	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183	183
Low Income Neighborhood Program	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556
Low Income Services Program	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277	277
My Home Energy Report Program[1]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Energy Assessments Program	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207
Residential Smart $aver Program	4,222	4,287	4,129	3,555	3,441	3,441	3,441	3,441	3,441	3,441	3,441	3,441	3,441	3,441	3,441	3,441
Non-Residential Programs																
Energy Management Information and Services Pilot	350	0	517	538	727	727	727	727	727	727	727	727	727	727	727	727
Smart $aver Custom Program	4,420	4,641	4,873	5,116	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360
Smart $aver Prescriptive Program	7,915	9,319	10,029	10,723	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250	11,250
Grand Total Annual Incremental MWh	**20,291**	**21,633**	**22,934**	**23,318**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**	**24,164**

1 The My Home Energy Report Program has a one year measure life and does not provide incremental MWh savings during the IRP period. Annual savings exist but are already included in the Load Forecast. Annual program expenditures are required to maintain these savings.

MW Impacts by Program[1]

Program Name	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Residential Programs																
Appliance Recycling Program	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
Energy Efficiency Education Program for Schools Program	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Low Income Neighborhood Program	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Low Income Services Program	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
My Home Energy Report Program[2]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Energy Assessments Program	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Residential Smart $aver Program	0.93	0.93	0.91	0.85	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Non-Residential Programs																
Energy Management Information and Services Pilot	0.08	0.00	0.11	0.12	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Smart $aver Custom Program	0.50	0.53	0.56	0.58	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
Smart $aver Prescriptive Program	1.68	1.87	1.98	2.10	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Grand Total Annual Incremental MWh	**4.09**	**4.23**	**4.47**	**4.55**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**	**4.72**

1 The MW values presented above do not match those presented in Table 4-A due to a difference in methodology used in the IRP table. The MW values above are calculated assuming that the system peak occurs at a fixed hour during the entrire IRP period. However, the MW values included in Table 4-A are based on a different methodology which uses the aggregate portfolio level of the hourly impacts from all the measures combined at the time of the system Coincident Peak.

2 The My Home Energy Report Program has a one year measure life and does not provide incremental MW savings during the IRP period. Annual savings exist but are already included in the Load Forecast. Annual program expenditures are required to maintain these savings.

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-007

REQUEST:

Refer to the first paragraph under the heading "Existing Pooling and Bulk Power" on page 28 of the IRP. Provide information on the process Duke Kentucky undergoes reviewing the Fixed Resource Requirement versus Reliability Pricing Model selection within PJM.

RESPONSE:

Objection. The Company objects to this request to the extent it seeks information protected pursuant to the doctrines of Attorney Client Privilege and Work Product. Without waiving said objections, the Company responds as follows:

Duke Energy Kentucky, in accordance with the Commission's Order in Case No., 2010-00203, satisfies its capacity obligation for the RAA under the Fixed Resource Requirement (FRR) alternative. The PJM tariff requires a minimum five year selection as either FRR or full participation in Reliability Pricing Model (RPM). As PJM procures capacity on a three year forward looking basis in both FRR and RPM constructs, Duke Energy Kentucky has already satisfied the PJM minimum requirement for through the Planning Year 2017/2018. The earliest the Company could participate in the PJM RPM auctions is for the 2018/2019 Planning Year. A decision to fully participate in RPM is periodically evaluated on both the current form of the RPM construct and any potential changes; and would need to meet a burden that customers could reasonably be expected to be better off in RPM than FRR. The Company would petition the

Commission to fully participate in RPM if it felt that there were benefits to customers. The Company has evaluated moving Duke Energy Kentucky into full participation in RPM; but as yet, has not found sufficient benefits to bring a petition for change to the Commission. Two of the biggest decision drivers are the generation resource portfolio mix and the capacity margin relationship to native load demands. Both of these aspects of the portfolio are in flux as Duke Energy Kentucky manages through meeting upcoming MATS environmental requirements. Additionally the auction construct itself is in flux as a result of a changing resource mix across the RTO footprint as well as challenges brought about during generation performance during the recent Polar Vortex. Duke Energy Kentucky continues to monitor developments in the marketplace.

PERSON RESPONSIBLE:
As to Objection- Legal
As to Response - John Verderame

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-008

REQUEST:

Refer to the discussion of non-utility generation on page 29 of the IRP. Explain whether any Duke Kentucky customers have made use of its cogeneration tariffs.

RESPONSE:

No customers have made use of Duke Energy Kentucky's cogeneration tariffs.

PERSON RESPONSIBLE: James E. Ziolkowski

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-009

REQUEST:

Refer to pages 39-40 of the IRP which indicate that parts of three counties in the Cincinnati area and "parts of two counties in Kentucky" were designated as nonattainment areas.

a. Explain whether the five counties are considered to be in the same zone by the federal Environmental Protection Agency.

b. The discussion of the two Kentucky counties on page 40 states, "Neither designation is expected to impact Duke Energy Kentucky operations." Explain why the Kentucky counties which were designated as nonattainment are not expected to impact Duke Kentucky's operations.

RESPONSE:

a. The two separate sections on pages 39-40 that discusses parts of three counties in the Cincinnati area and parts of two counties in Kentucky that were designated as nonattainment areas refers to two different non-attainment area designations for two different National Ambient Air Quality Standards (NAAQS). The smaller non-attainment area designated under the 1-hour SO_2 standard contains portions of two counties and is described in detail in part (b.) of this response. The larger nonattainment area is designated under the 8 Hour Ozone standard and it includes portions of three counties (Boone, Campbell and Kenton) in Northern Kentucky. While not mentioned in the IRP, this nonattainment area also includes a portion of Dearborn County, Indiana and

all of Butler, Clermont, Clinton, Hamilton and Warren counties in Ohio. The smaller SO_2 non-attainment area lies geographically within the 8 Hour Ozone area, but the requirements for the two programs are completely separate.

b. Under the 2010 1-hour SO_2 NAAQS, the EPA has designated nonattainment areas that include portions of two Kentucky counties. The first is a multi-state nonattainment area that includes portions of Campbell County, Kentucky and Clermont County, Ohio. In its technical support document, EPA concluded that the W.C. Beckjord Station is likely the major contributor to the violating air monitor's design value. East Bend was not identified as a potential contributor. In August of 2014, Duke Energy Corp announced that it had retired all six of the coal fired units at Beckjord Station.

   The second Kentucky nonattainment area contains only a portion of Jefferson County. EPA identified a number of sources in the near vicinity of the violating air monitor. It did not identify East Bend. Because of its great distance from the monitor and low emissions, East Bend is unlikely to have any significant effect on the monitor's readings. While EPA has not completed its designation process, there are currently no other nonattainment areas for the 1-hour SO_2 standard in the vicinity of East Bend.

PERSON RESPONSIBLE: J. Michael Geers

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-010

REQUEST:

Refer to page 52 of the IRP where it states, "This IRP assumes that 5% of retail sales would be met with renewable energy sources beginning in 2019, increasing 0.5% annually through 2028." Explain how the timing for the beginning of the renewable energy resources requirement, the initial 5 percent of retail sales level for renewable energy resources, and the 0.5 percent annual increment of additional renewable energy resources were determined.

RESPONSE:

Despite the lack of a state or federal Renewable Portfolio Standard (RPS), we felt that it would be prudent to plan for some level of renewable energy requirement either as part of a RPS or possible future carbon regulation. One clarification is that the assumed annual renewable energy requirement starts at .5% in 2019 and grows to 5% in 2028. The presence of a renewable energy requirement is only a minimum; additional cost effective renewable energy can also be added to the plan. The timing and level that was assumed was based on the belief that a renewable energy requirement of some form could start within the next 5 years and ramp up over time. Since this is a planning assumption and that there is no current requirement, we did not want this assumption to unduly influence the resource plan and the renewable energy requirement was held constant at 5% after 2028.

PERSON RESPONSIBLE: Scott Park

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-011

REQUEST:

Refer to page 55 of the IRP regarding Sensitivities. Explain how the range of 15 percent higher to 15 percent lower than current cost was developed for coal and gas prices.

RESPONSE:

Previously, debating the level and symmetry of the sensitivities has taken away from the purpose of sensitivity analysis which is to measure the responsiveness of a portfolio to changes in a single variable. Sensitivity analysis does not directly answer the question of which portfolio is better. The symmetric assumption of +/-15% is consistent with the range of sensitivities that have been used in the past and avoids the aforementioned debate.

PERSON RESPONSIBLE: Scott Park

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-012

REQUEST:

Refer to the "Peak Load" paragraph on page 85 of the IRP. Explain how 90 degrees and 10 degrees, respectively, were selected as the threshold temperatures used to determine which days will be included in the summer and winter peak models.

RESPONSE:

The 90-10 process was used to generate the peaks for the 2011 IRP, and was not utilized in generating the peak forecast in the 2014 IRP. For the 2014 IRP, peaks are generated using Itron's SAE peak forecast process. The peak forecast SAE model estimates historical peak loads against heating end-use energy sales, cooling end-use energy sales, and non-weather sensitive energy sales. A rank-sort procedure is used to generate a projection of peak weather, resulting in the generation of the peak forecast.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-013

REQUEST:

Refer to the "Pricing Policy" paragraph on page 88 of the IRP. Identify when (1) an inverted rate structure was mandated for residential customers and (2) a time-of-day rate was mandated for all large commercial and industrial customers.

RESPONSE:

The references to the residential electric tariff under "Pricing Policy" on page 88 are not correct and should be deleted. In Case No. 2006-00172, the Commission approved a new Rate RS structure that replaced seasonal stepped rates with a single year-round rate.

Duke Energy Kentucky's retail electric tariff specifies that non-residential distribution voltage customers with average monthly demands of 500 kW or greater take service under Rate DT, Time-Of-Date Rate For Service At Distribution Voltage. Transmission voltage customers take service under Rate TT, Time-Of-Day Rate For Service At Transmission Voltage. These rates are mandatory for applicable customers per the terms of the Company's electric retail tariff. These rate sheets were first approved by the Commission in the late 1980's or early 1990's.

PERSON RESPONSIBLE: James E. Ziolkowski

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-014

REQUEST:

Refer to the first paragraph under the "Energy and Peak Models" heading on page 90 of the IRP, which indicates that local weather data are obtained from the National Oceanic and Atmospheric Administration ("NOAA").

a. For how long has Duke Kentucky used NOAA as its source for local weather data?

b. NOAA published 30-year weather "normal" every 10 years, with the most recent covering 30 years ending in 2010. Explain whether Duke Kentucky relies on NOAA or develops internal weather data to update these normals.

c. Identify the number of years of weather data Duke Kentucky uses to develop weather-adjusted or weather-normalized energy sales and peak demands and describe what consideration, if any, has been given to using a different number of years for this purpose.

RESPONSE:

a. Duke Kentucky has used NOAA as its primary weather source for approximately 15 years.

b. Duke Kentucky relies on NOAA to provide actual weather data for the territory, and revises the normalization process annually.

c. Duke currently uses a 10-year normal, and has done so for approximately 7 years. In the past, Duke Kentucky has considered using a 20 or 30 year normalization period, and is open to changing methodologies if a different period is proven to be more effective in capturing the normalization process.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-015

REQUEST:

Refer to the "Appliance Saturation and Efficiency" paragraph on page 91 of the IRP. Explain how often Company Appliance Saturation Surveys are performed and state when the most recent such survey was performed.

RESPONSE:

Duke Energy performs appliance saturation survey approx. every three years. The most recent survey was conducted in July of 2013. This survey was in field from July to mid-August. The results were tabulated and available by end of September.

PERSON RESPONSIBLE: Bhagyesh Deshpande

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-016

REQUEST:

Refer to the "Methodology Enhancements" section on pages 94-95 of the IRP. The first sentence reads, "The Company changed its approach regarding the development of its appliance stock variable to rely more completely on information from Itron, Inc. for estimates of historical appliance efficiency." Describe how the appliance stock variable was developed previously.

RESPONSE:

Appliance saturation and efficiency are handled exactly the same in Duke Kentucky's 2011 and 2014 IRPs, with one exception: The 2014 process is also utilizing Itron's MetrixND software, which provides a more effective and efficient process of integrating end-use data into the forecasting process.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-017

REQUEST:

Refer to the table on page 97 of the IRP. Explain what accounts for the load factor improvement in the year 2013.

RESPONSE:

The improvement in the load factor is directly related to the rebound in Duke Kentucky's 2013 MWH sales, which has specifically been driven by the Industrial class.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-018

REQUEST:

Refer to Figure B-1 on page 99 of the IRP. Explain why the levels of "Losses and Unaccounted For" in Column (8) are consistently and substantially greater in the forecast years than the levels in the historical years.

RESPONSE:

Forecasting utilizes the most recent historical experience to project line losses. In 2013, the last historical year, the average line loss percentage was 6.8 percent, and was 7.2% in the fourth quarter of 2013. In addition, a small percentage of unaccounted for utility energy efficiency (UEE) was added to the losses and unaccounted for column. This is a new adjustment driven by the large amount of mandated UEE that did not exist in the previous IRP.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-019

REQUEST:

Refer to the table on page 109 of the IRP. Explain why the number of industrial customers is projected to decline by more than 10 percent over the forecast period ending 2034.

RESPONSE:

Industrial customers have declined 4.2% from 2000 to 2013, and are expected to continue to decline in the future. Despite the resurgence in manufacturing, technological advances will continue to increase efficiency and productiveness in this sector, and as a result, reduce the amount of employees and industrial customers overall.

PERSON RESPONSIBLE: Leon Brunson

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-020

REQUEST:

Refer to page 120 of the IRP, Table C-1. Explain whether environmental costs were considered in the cost-effectiveness test results, as recommended on page 18 of the Staff Report on Duke Kentucky's prior IRP in Case No. 2011-00235.[1]

RESPONSE:

Please see page 174 of IRP that says- "The inputs used in the DSMore software to evaluate the cost effectiveness of the current DSM programs included the expected impact of carbon prices and other environmental costs as part of the Avoided Production Costs at the time of the most recent Portfolio Filing in 2012."

PERSON RESPONSIBLE: Scott Park

[1] Case No. 2011-00235, 2011 Integrated Resource Plan of Duke Energy Kentucky, Inc. (Ky. PSC Feb. 21, 2013).

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-021

REQUEST:

Refer to the first full paragraph on page 122 of the IRP concerning the Residential Smart Saver® lighting program. Beginning with the third sentence, it reads, "The program offers a variety of CFLs and LEDs including: Reflectors, Globes, Candelabra, 3 ways, Dimmables and A-line type bulbs. The incentive levels vary by bulb type and the customer pays the difference, including shipping." Describe the level of acceptance by customers of purchasing various specialty lighting, in particular, light emitting diodes ("LED"), from The Savings Store versus a big box store.

RESPONSE:

Kentucky customers continue to respond favorably to the Duke Energy Savings Store lighting program. Since the launch of the program in April 2013, over 12,000 Kentucky customers have visited the store and over 16% have purchased bulbs with an average of 15 bulbs per order. In 2013, specialty CFLs represented 95% of the lighting purchases and LED's represented 5% of total purchases. However, as pricing, selection and quality of LEDs products improve, we see an upward trend of LED purchases on the Saving Store. In 2014, CFLs represent 77% of total purchases and LEDs increased to 23% of bulbs purchased. The online store allows Duke Energy Kentucky to track participation at the customer account level and targeted marketing efforts continue to drive participation. Additional benefits of the Saving Store include improved

customer experience, ease and convenience, simplified program coordination, advanced inventory management and reduced program costs.

Since LED bulbs are relatively new to the mainstream residential market, it difficult to compare the Saving Store to the big box store. Typically with a big box (upstream) model, we lose the ability to track purchases at the account level contributing to leakage/spillover and increased free ridership. Due to the small Kentucky footprint, the Saving Store allows Duke to mitigate these risks and provide a cost effect program to our customers.

PERSON RESPONSIBLE: Lari Granger

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-022

REQUEST:

Refer to page 126 of the IRP, specifically concerning the Low Income Service Program – Weatherization. For the period 2010 to 2013, based on the number of participants by year and local economic conditions, explain whether the interest in, or demand for, this program was greater than the program funds could meet.

RESPONSE:

During the period of 2010-2013, the Low Income Weatherization program saw an increase in participation in 2010, 2012 and 2013, from that of previous years. While demand was significant, it did not warrant additional funding. Our current funding levels were able to sustain the demand and meet the needs of all participants. Our tier approach to weatherization services allow us to better service the needs of customers based on their home's individual assessment, thereby distributing funds appropriately.

PERSON RESPONSIBLE: Robin Avant

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-023

REQUEST:

Refer to last paragraph on page 131 regarding the Residential Direct Load Control – Power Manager Program. The first sentence reads, "Through June 30, 2013, nearly 6,000 new devices had been installed since the inception of the replacement project, less than 90 of the older devices remained." Refer also to page 132, the second paragraph, which reads, "There were a total of 8,956 air conditioners on the program as of the end of June, 2013; a net decline of 275 during the fiscal year. Despite improved operability driven by the replacement project, overall load reduction decreased by 0.2 MW (after losses) during this period."

a. Explain whether there are more air conditioners on the program than load control devices.
b. Based on the net decline of 275 devices during the June 30, 2013 fiscal year, explain whether Duke Kentucky is concerned about program saturation or a decline in participants going forward.
c. The table at the bottom of page 132 indicates that on 08/28/2013, there was a test by PJM Interconnection L.L.C. ("PJM") at 1600 (4:00 p.m.). Describe the test and provide its duration.

RESPONSE:

a. There is one load control device per air conditioner. The "nearly 6,000 new devices" refers to new load control devices that were installed as part of a project to replace older, poorly performing devices in Kentucky. That number represents a subset of the devices on the program.

The "total of 8,956 air conditioners" refers to both the air conditioners that received a replacement switch, as well as air conditioners that were originally installed with the newer device.

b. Market saturation is a possibility in the coming years. However in the past year, Duke Energy had success in marketing Power Manager in Kentucky. At the end of June, 2014 there were 10,453 air conditioners on the program, an increase of 1,497 from the previous year. This was a sizable increase and we realize that we cannot sustain this level of growth. Our expectations are that we will grow the program at a lower rate over the next few years, followed by a period of maintaining a relatively flat level of participation.

c. Duke Energy Kentucky operates within the PJM Interconnection. All Duke Energy Kentucky Demand Response programs that are registered with PJM are required to meet the requirements established by PJM. PJM requires all Demand Response resources to participate in an annual test event in order to demonstrate MW capability. This only is required if the resources has not been previously dispatched by PJM in the delivery year. During the test event, PowerShare customers are required to achieve their contracted load response level. If this load response is not achieved, customers may retest, and may be subject to PJM penalties for non-compliance. The 2013 PJM test event took place on 08/28/13 from 16:00-17:00, a one hour event.

PERSON RESPONSIBLE: Darcy Pach

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-024

REQUEST:

Refer to the second bulleted paragraph on page 140 of the IRP which reads, "For the 2012/13 and 2013/14 PowerShare programs associated with the fiscal year of this filing, there were three different enrollment choices for customers so select among. All three choices require curtailment availability for up to ten emergency events per PJM requirements for capacity participation. Economic events vary among the choices. Customers can select exposures of zero, five, or ten economic events." Explain, by number of exposures a customer may select, the incentive a customer might receive for each.

RESPONSE:

2013/14 PowerShare customer incentive amounts:

Zero Economic Events -- $15/kW-year

Max of 5 Economic Events -- $21/kW-year

Max of 10 Economic Events -- $28/kW-year

PERSON RESPONSIBLE: Darcy Pach

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-025

REQUEST:

Refer to page 141 of the IRP, Table C-2. Explain whether any customers have enrolled in the QuoteOption product of the PowerShare program since the end of 2013.

RESPONSE:

No customers have enrolled in only QuoteOption product since the end of 2013. However, all customers enrolled in CallOption are also enrolled in QuoteOption—which gives the opportunity to get curtailment from these customers in the event of high market prices outside of the contracted CallOption parameters.

PERSON RESPONSIBLE: Darcy Pach

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-026

REQUEST:

In Case No. 2012-00085,[1] Duke Kentucky received Commission approval to implement a new portfolio of DSM programs that would synchronize its DSM programs with those offered by its corporate affiliate, Duke Energy Ohio, Inc.

a. Identify and describe the impacts that synchronization of programs between the companies has had in terms of cost savings, customer participation, and contractor participation.

b. Identify and describe what has been learned in terms of best practices as a result of the synchronization of the programs.

c. Identify and describe the negative impacts, if any, the companies have experienced as a result of the synchronization of the programs.

RESPONSE:

a. By synchronizing the program offerings between Duke Energy Ohio and Duke Energy Kentucky the Company has been able to capitalize on a number of synergies. For example, Marketing strategies across the common media market that considers both Ohio and Kentucky together improves awareness, messaging consistency and reduces customer outreach costs.

[1] Case No. 2012-00085, Application of Duke Kentucky Energy Kentucky, Inc. for an Energy Efficiency Cost Recovery Mechanism and for Approval of Additional Programs for inclusion in its Existing Portfolio (Ky. PSC June 29, 2012).

Additionally, Duke Energy serves many non-residential customers that have locations in both states. The availability of similar programs in both states, makes it easier for customers to factor energy efficiency into building retrofits and new construction. For example, in 2011, the Custom Incentives program (then limited only to schools), was not a contributor to any customer energy efficiency projects. In 2012 and 2013, the Custom program contributed to nine customer projects each year.

It is difficult to determine program participation attributed strictly to offering synchronized programs, but the increase in customer adoption and installed measures has increased substantially since the portfolios have been aligned.

Contractor enrollment has not significantly increased since synchronizing the programs, because most contractors already served and OH and KY customers, but their sales outreach for incented products/services was limited by jurisdictional boundaries. Duke Energy has received many positive comments from market partners for aligning the OH and KY programs which simplified sales and improved customer satisfaction.

b. Programs benefitted in the following ways from having synchronized programs.

- Volume pricing from program vendors because the same resources can be spread across a larger territory
- Minimal program start up fees and quicker program launches because the startup fees are either already incurred or are spread out over a larger territory
- Less customer confusion around program eligibility, better customer experience/interaction
- Simplified program management for Duke personnel, some processes and protocols

- Less inquiries concerning program eligibility, calls and emails from customers and trade allies
- Less applications submitted from ineligible customers, submitted by customers or market partners for a jurisdiction that didn't offer the program
- More opportunities for broad based program advertising without having the spell out jurisdictional differences. Newspaper, radio and TV could be used for Duke Energy customers.
- More efficient program recruitment and resource utilization (personnel, systems and equipment) because vendor personnel could approach market partners with the same information without regard to location or service area coverage. Routing and scheduling for programs that required onsite visits can be made more efficiently to reduce time and expenses. Engagement and tracking systems could be used in both jurisdictions with minimal changes or expenses.

The Duke Energy Smart $aver trade ally network plays a large part in the promotion of the non-residential and residential programs. Program synchronization reduces sales complexities, simplifies inventory management and reduces training requirements for sales personnel. Marketing efforts are more effective when a single program can be promoted in both states.

c. Duke Energy has not observed/experienced any negative effects of program synchronization.

PERSON RESPONSIBLE: Timothy Duff

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-027

REQUEST:

Refer to pages 174 and 175 of the IRP regarding the response to Staff's recommendation in the 2011 IRP Report that Duke Kentucky identify and explain all impacts to DSM resulting from changing its independent transmission operator from the Midcontinent Independent System Operator, Inc. to PJM.

a. On page 175 of the IRP, paragraph 3 states, "However, their process can be significantly different such as the registration process for participants, the capacity participation process, and operational information processes." Discuss in detail, each of these differences.

b. Discuss what research, analysis, or actions Duke Kentucky has undertaken to evaluate participation in the demand response market.

c. Describe how the May 2014 decision by the U.S. Court of Appeals for the District of Columbia's decision vacating Federal Energy Regulatory Commission ("FERC") Order 745 impacts PJM's demand response market.[1]

RESPONSE:

a. Since moving from the Midcontinent Independent System Operator (MISO) to PJM Interconnection, Inc. (PJM), Duke Energy Kentucky's Demand Response programs have had few substantive changes to the programs themselves other than the three areas addressed in the

[1] *Electric Power Supply Ass'n v. FERC,* 11-1486 et al. (D.C. Cir. May 23, 2014); *Demand Response Compensation in Organized Wholesale Energy Markets,* Order No. 745, 134 FERC ¶ 61,187 (Mar. 15, 2011).

IRP filing; including Emergency Event Notice, Annual Testing, and Processing and Administration.

The Processing and Administrative changes mentioned were primarily focused on the learning effort and specific administrative details such as data formats, timing and the software required to complete tasks. Specifically, new websites and applications, documents required for auction participation, settlement calculations, data transfer protocols, and the calling of Demand Response resources had to be learned. This effort included attending training events, conferences, and being involved with specific subcommittees within PJM. Internal processes were put into place to ensure a smooth transition for both program customers and Duke Energy Kentucky, and to ensure compliance with PJM rules.

While these changes did not have a material effect on the programs or events themselves, they did include new ways of reporting and interacting with the PJM RTO. At the time, the transitional learning effort required was the significant difference in the transition from one RTO to another. Today, these differences are not seen as abnormal given the various jurisdiction Duke Energy operates within.

b. Participation in the PJM Capacity and Energy Markets with Demand Response resources is evaluated on an ongoing basis through a combination of efforts. These efforts include internal evaluation of demand response programs through program participation forecasts, operability and impact analysis, process reviews, and annual cost effectiveness evaluations. These evaluations are done in conjunction with the annual IRP and Measurement and Verification efforts and provide valuable insight into customer opinions of program operations, reasons for participation, and perceptions of events.

Duke Energy Kentucky is also an active member of several of PJM's subcommittees, including the Demand Response Subcommittee, which is designed to provide stakeholders an opportunity to shape and develop PJM policy changes and provide feedback on proposed changes to Demand Response operations that may affect our programs.

Because PJM is the balancing authority for the DEOK region, PJM conducts in-depth studies on long-term wholesale supply and demand, including analysis on Demand Response in the Capacity and Energy markets.

c. The impact of the May 2014 decision to vacate FERC order 745 has had no impact on Duke Energy Kentucky's Demand Response programs to date. However, recent developments in the case may cause all Demand Response in PJM to no longer participate in the PJM capacity market. Duke's Demand Response programs currently participate in this market. The recent US Court of Appeals decision to affirm the lower court's vacating of FERC Order 745 has caused considerable concern over the future of Demand Response and how FERC would propose the mechanisms in which individual states could manage Demand Response markets. Until a decision by FERC to appeal or accept the US Court of Appeals decision is made, PJM has indicated that there are no changes to the current market construct.

PERSON RESPONSIBLE: Darcy Pach

Duke Energy Kentucky
Case No. 2014-00273
Staff First Set Data Requests
Date Received: September 11, 2014

STAFF-DR-01-028

REQUEST:

Refer to Appendix F, Section 8, Resource Assessment and Acquisition Plan, on page 183 of the IRP. The second sentence of the first paragraph indicates that loss reduction is a secondary goal to maintaining system reliability. Provide Duke Kentucky's transmission loss levels for the years 2009 through 2013.

RESPONSE:

Total Transmission Demand Losses (kW) at System Peak

kW Demand Losses @ System Peak - 854 kW Jul 18, 2013: 4-5 p.m.	kW Demand Losses @ System Peak - 873 kW Jul 25, 2012: 4-5 p.m.	kW Demand Losses @ System Peak - 893 kW July 21, 2011 : 3-4 p.m.	kW Demand Losses @ System Peak – 886 kW Aug 4, 2010: 4-5 p.m.	kW Demand Losses @ System Peak - 799 kW Aug 10, 2009: 2-3 p.m.
4,279	4,659	5,119	4,589	4,369

PERSON RESPONSIBLE: **Jeffrey E. Gindling**