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VIA OVERNIGHT DELIVERY

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PUBLIC SERVICE
COMMISSION

March 29, 2019

Ms. Gwen R. Pinson
Executive Director
Kentucky Public Service Commission
211 Sower Blvd
Frankfort, KY 40602-0615

RE: Administrative Case No. 387 – Annual Load/Demand Forecast Report

Dear Ms. Pinson:

Enclosed please find the 2018 redacted responses to the Commission data requests filed annually, as ordered in Administrative Case No. 387, paragraph 2, dated October 7, 2005. These updated responses are being filed separately from the Annual Reporting of Duke Energy Kentucky upon request.

We have included the unredacted and highlighted responses in a separate envelope to be filed under seal. Also enclosed is a Petition for Confidential Treatment for your consideration in the above referenced matter.

Please date-stamp the two copies of this letter and return to me in the enclosed return-addressed envelope. Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Rocco D'Ascenzo
Deputy General Counsel

Enclosures

Kentucky's maintenance schedules. Duke Energy Kentucky submits that the following information, if openly disclosed, could present antitrust issues by giving its competitors access to competitively sensitive, confidential information, which in turn could cause energy prices to consumers to be above competitive rates, and would permit competitors of Duke Energy Kentucky to gain an unfair competitive advantage in the marketplace:

- a. Scheduled outages or retirements of generating capacity during the current year and the following four years.
4. The 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, to 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.



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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing filing was served on the following via overnight mail, this 29th day of March 2019.



Rocco D'Ascenzo

Rebecca W. Goodman
The Office of the Attorney General
Utility Intervention and Rate Division
700 Capital Avenue, Suite 20
Frankfort, Kentucky 40601

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Administrative Case No. 387
TABLE OF CONTENTS

<u>DATA REQUEST</u>	<u>WITNESS</u>	<u>TAB NO.</u>
STAFF-DR-01-003	Benjamin Passty	3
STAFF-DR-01-004	Benjamin Passty	4
STAFF-DR-01-006	Benjamin Passty	6
STAFF-DR-01-007	Scott Park	7
STAFF-DR-01-008	Scott Park	8
STAFF-DR-01-011 CONF	John Swez	11
STAFF-DR-01-012	Scott Park	12
STAFF-DR-01-013	Tim Abbott/Ed Kirschner	13
STAFF-DR-01-014	Ed Kirschner	14

**Duke Energy Kentucky
Administrative Case No. 387
March 31, 2019**

STAFF-DR-01-003

REQUEST:

Actual and weather-normalized monthly coincident peak demands for the just completed calendar year. Demands should be disaggregated into (a) native load demand (firm and non-firm) and (b) off-system demand (firm and non-firm).

RESPONSE:

Duke Energy Kentucky Electric Energy Demands - MW						
	1	2	3 = 1 + 2	4	5	6 = 3 + 5
	Native Peak	Demand Response ¹	Internal Peak	Weather Normal Internal Peak	Off-System Non-Firm	Total
Jan-18	797		797	725		725
Feb-18	657		657	721		721
Mar-18	653		653	650		650
Apr-18	628		628	593		593
May-18	761		761	673		673
Jun-18	847	10	857	823		823
Jul-18	837		837	830		830
Aug-18	816	10	826	804		804
Sep-18	830		830	780		780
Oct-18	765		765	626		626
Nov-18	656		656	630		630
Dec-18	655		655	724		724

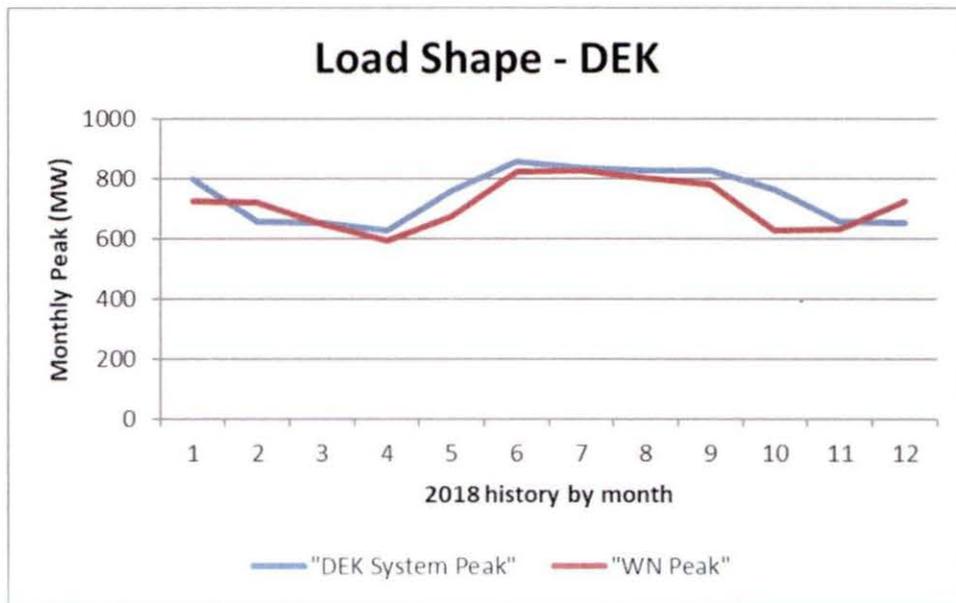
Note: DR data not available to load forecasting group as of this date

PERSON RESPONSIBLE: Benjamin Passty

REQUEST:

Load shape curves that show actual peak demands and weather-normalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

RESPONSE:



PERSON RESPONSIBLE: Benjamin Passty

**Duke Energy Kentucky
Administrative Case No. 387
March 31, 2019**

STAFF-DR-01-006

REQUEST:

Based on the most recent demand forecast, the base case demand and energy forecasts and high case demand and energy forecasts and high case demand and energy forecasts for the current year and the following four years. The information should be disaggregated into (a) native load (firm and non-firm demand) and (b) off-system load (both firm and non-firm demand).

RESPONSE:

Duke Energy Kentucky – Native Load Forecast				
	Demand – MW		Energy - GWH	
	Base	High	Base	High
2019	846	931	4,001	4,367
2020	849	935	4,025	4,402
2021	858	944	4,115	4,508
2022	886	976	4,289	4,698
2023	893	983	4,323	4,735

Duke Energy Kentucky – Non-Firm Electric Forecast				
	Demand – MW		Energy - MWH	
	Base	High	Base	High
2018	n/a	n/a	n/a	n/a
2019	n/a	n/a	n/a	n/a
2020	n/a	n/a	n/a	n/a
2021	n/a	n/a	n/a	n/a
2022	n/a	n/a	n/a	n/a

PERSON RESPONSIBLE: Benjamin Passty

REQUEST:

The target reserve margin currently used for planning purposes, stated as a percentage of demand. If changed from what was in use in 2001, include a detailed explanation for the change.

RESPONSE:

As was used in 2018 IRP, Duke Energy Kentucky will use a planning reserve margin of 13.7%. Duke Energy Kentucky plans for a prudent long-term target reserve margin (typically in the 13%-17% range). But as a participant in PJM, Duke Energy Kentucky must also satisfy a separate PJM prescribed reserve margin requirement as part of its near-term RTO wide capacity planning. These two requirements while similar in name and concept are not precisely the same metric nor are they calculated the same way.

PERSON RESPONSIBLE: Scott Park

REQUEST:

Projected reserve margins stated in megawatts and as a percentage of demand for the current year and the following 4 years. Identify projected deficits and current plans for addressing these. For each year identify the level of firm capacity purchases projected to meet native load demand.

RESPONSE:

For purposes of being clear, projected reserve margins will be calculated as follows:

$$\text{Reserve Margin (MW)} = \text{Generating Capacity} - \text{Peak Demand} - \text{Demand Response}$$

$$\text{Reserve Margin (\%)} = (\text{Generating Capacity} / (\text{Peak Demand} - \text{Demand Response})) - 1$$

Year	Projected Reserves (MW)	Projected Reserve Margin (%)
2019	233	28%
2020	230	27%
2021	229	27%
2022	227	27%
2023	225	26%

This data reflects the Fall 2018 Load Forecast and addition of 7 MW of solar to the DEK generating fleet. The current fleet consists of the 600 MW East Bend 2 and 476 MW Woodsdale generating stations plus 7 MW solar.

PERSON RESPONSIBLE: Scott Park

REQUEST:

Identify all planned base load or peaking capacity additions to meet native load requirements over the next 10 years. Show the expected in-service date, size and site for all planned additions. Include additions planned by the utility, as well as those by affiliates, if constructed in Kentucky or intended to meet load in Kentucky.

RESPONSE:

There are currently no planned base load capacity additions forecasted for the next 10 years. Duke Energy Kentucky continually evaluates its needs for additional base or peaking capacity based upon annual load projections. Duke Energy Kentucky filed its most recent integrated resource plan with the Kentucky Public Service Commission in Case No. 2018-00195 that identifies anticipated capacity needs at the time that filing.

PERSON RESPONSIBLE: Scott Park

REQUEST:

The following transmission energy data for the just completed calendar year and the forecast for the current year and the following four years:

- a. Total energy received from all interconnections and generation sources connected to the transmission system.
- b. Total energy delivered to all interconnections on the transmission system.
- c. Peak load capacity of the transmission system.
- d. Peak demand for summer and winter seasons on the transmission system.

RESPONSE:

a.

Year	Month	Total Energy Received
2018	January	427,212
	February	332,007
	March	373,651
	April	338,058
	May	388,506
	June	409,903
	July	432,321
	August	431,370
	September	378,357
	October	368,715
	November	349,243
	December	362,531
2017 Total		4,591,874

- b. There were 230,132 MWh delivered to the transmission system from DEK.
- c. Neither Duke Energy Kentucky nor the electric utility industry has defined a term “peak load capacity of the transmission system.” There is no single

number that defines the capacity of a transmission system due to the interconnected nature of the electric grid. Duke Energy Kentucky does perform assessments of its transmission system to ensure all firm loads can be served in a reliable manner. This ensures that the transmission system has the capacity required to reliably serve the load.

d. **SUMMER PEAK**

Date	Hour	MW's
June 19, 2018	17	847

WINTER PEAK

Date	Hour	MW's
January 5, 2018	8	797

PERSON RESPONSIBLE: Tim Abbott – a, b, d
Ed Kirschner – c

REQUEST:

Identify all planned transmission capacity additions for the next 10 years. Include the expected in-service date, size and site for all planned additions and identify the transmission need each addition is intended to address.

RESPONSE:

The following transmission capacity additions are planned with tentative in-service dates indicated:

Woodspoint substation – install a 138 kV switching station to interconnect with the Duke Energy Ohio 138 kV transmission system – 12/31/2020

Aero Substation – install 138 kV switching facilities to terminate two 138 kV lines and serve four 138-12.47 kV distribution supply transformers – 12/31/2020

Oakbrook Substation – Expand the existing Oakbrook Substation, install a 138-69 kV, 150 MVA transformer – 12/31/2020

Woodspoint to Aero 138 kV line – erect a single circuit 138 kV line from Woodspoint Substation to Aero Substation, approximately 1.5 miles in length – 12/31/2020

Aero to Oakbrook 138 kV line – erect a single circuit 138 kV line from Woodspoint Substation to Aero Substation, approximately 1.1 miles in length – 12/31/2020

The purpose of the above planned projects is to provide service to the Duke Energy Kentucky distribution system to serve load growth in the vicinity of the Cincinnati/Northern Kentucky International Airport, primarily the Amazon Air Hub facility to be installed at the airport.

PERSON RESPONSIBLE: Ed Kirschner