Administrative Case No. 387
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VERIFICATION

STATE OF South Carolina)
) **SS:**
COUNTY OF Richland)

The undersigned, Nes Arnette, Lead Load Forecast 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.

G N Arnette, III
Nes Arnette, Affiant

Subscribed and sworn to before me by Nes Arnette on this 25th day of March 2025.

Brandy N Wright
NOTARY PUBLIC

My Commission Expires:
Nov 5th 2034

VERIFICATION

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

The undersigned, Nathan Gagnon, Managing Director IRP & 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.

Nathan Gagnon, Affiant

Subscribed and sworn to before me by Nathan Gagnon on this 20 day of MARCH, 2025.

SHEILA LEMOINE
Notary Public, North Carolina
Lincoln County
My Commission Expires
July 21, 2029

NOTARY PUBLIC

My Commission Expires:

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG)

SS:

The undersigned, John D. Swez, Managing Director, Trading and 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 D. Swez, Affiant

Subscribed and sworn to before me by John D. Swez on this 27 day of March, 2025.

NOTARY PUBLIC

SHEILA LEMOINE
Notary Public, North Carolina
Lincoln County
My Commission Expires
July 21, 2029

My Commission Expires:

VERIFICATION

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

The undersigned, Mark Richard Thieman, GM System Operations, 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.

Mark Richard Thieman, Affiant

Subscribed and sworn to before me by Mark Richard Thieman on this 24TH day of March, 2025.

NOTARY PUBLIC

My Commission Expires: 1/5/2029

VERIFICATION

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

The undersigned, Timothy J. Hohenstatt, Director Transmission 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.

Timothy J. Hohenstatt, Affiant

Subscribed and sworn to before me by Timothy J. Hohenstatt on this 20th day of March 2025.

TAMMY SUE ROBERTS
Hendricks County
NOTARY PUBLIC
Commission Number
NP0559013
NOTARY SEAL
My Commission Expires
OCTOBER 7, 2030
STATE OF INDIANA

NOTARY PUBLIC

My Commission Expires: 10/7/2030

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

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 Native Demands - MW						
	Actual Native Demand			Weather Normal Native Demand		
	Firm	Non-Firm	Total	Firm	Non-Firm	Total
Jan-24	748	0	748	756	0	756
Feb-24	572	0	572	646	0	646
Mar-24	548	0	548	567	0	567
Apr-24	565	0	565	562	0	562
May-24	718	0	718	729	0	729
Jun-24	824	0	824	833	0	833
Jul-24	823	0	823	828	0	828
Aug-24	877	0	877	879	0	879
Sep-24	774	0	774	851	0	851
Oct-24	624	0	624	732	0	732
Nov-24	579	0	579	722	0	722
Dec-24	681	0	681	702	0	702

Duke Energy Kentucky Electric Off-System Demands - MW						
	Actual Off-System Demand			Weather Normal Off-System Demand		
	Firm	Non-Firm	Total	Firm	Non-Firm	Total
Jan-24	0	0	0	0	0	0
Feb-24	0	0	0	0	0	0
Mar-24	0	0	0	0	0	0
Apr-24	0	0	0	0	0	0
May-24	0	0	0	0	0	0
Jun-24	0	0	0	0	0	0
Jul-24	0	0	0	0	0	0
Aug-24	0	0	0	0	0	0
Sep-24	0	0	0	0	0	0
Oct-24	0	0	0	0	0	0
Nov-24	0	0	0	0	0	0
Dec-24	0	0	0	0	0	0

PERSON RESPONSIBLE: Nes Arnette

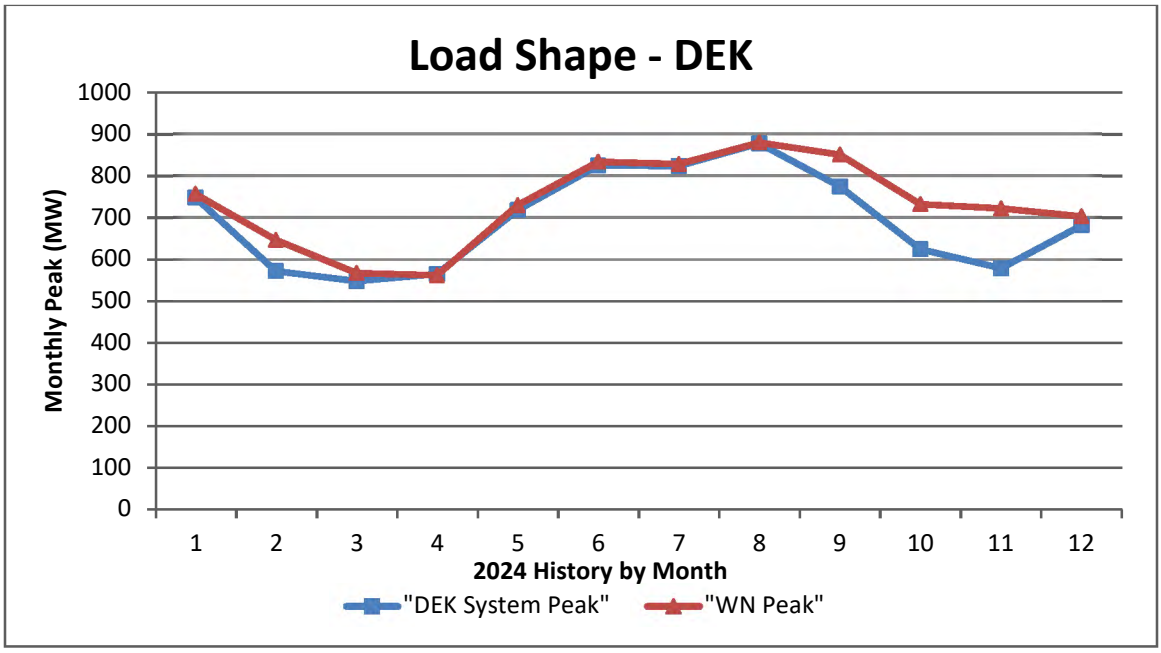
Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-004

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: Nes Arnette

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

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 Electric Load Forecast				
	Demand – MW		**Energy - GWH**	
	Base	**High**	**Base**	**High**
2025	818	907	3,941	4,370
2026	819	908	3,941	4,370
2027	822	911	3,950	4,378
2028	820	909	3,939	4,367
2029	818	907	3,938	4,366

Duke Energy Kentucky – Non-Firm Electric Forecast				
	Demand – MW		Energy - MWH	
	Base	High	Base	High
2025	n/a	n/a	n/a	n/a
2026	n/a	n/a	n/a	n/a
2027	n/a	n/a	n/a	n/a
2028	n/a	n/a	n/a	n/a
2029	n/a	n/a	n/a	n/a

Duke Energy Kentucky – Off-System Electric Forecast				
	Demand – MW		Energy - MWH	
	Base	High	Base	High
2025	n/a	n/a	n/a	n/a
2026	n/a	n/a	n/a	n/a
2027	n/a	n/a	n/a	n/a
2028	n/a	n/a	n/a	n/a
2029	n/a	n/a	n/a	n/a

PERSON RESPONSIBLE: Nes Arnette

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-007

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:

In order to better align our internal planning process with that of PJM, we used the UCAP methodology for the Duke Energy Kentucky IRP. This will reflect the capacity accreditation that PJM uses for different types of resources.

Duke Energy Kentucky recognizes that the PJM Planning Reserve Margin varies with every capacity action and assumed an 8.71% Planning Reserve Margin for the duration of the IRP. Last year, the Planning Reserve Margin was updated to -6.13% (or 93.87% of peak load). However, PJM recently updated their planning reserve margins, and the new Reserve Margin is -6.20% (or 93.80% of peak load) for modeling purposes based on the FPR (Forecast Pool Requirement) from the most recent PJM update on 1/23/2025. This is a slight decrease from the -6.13% (93.87%) previously used by PJM and reflects a minor decrease in Pool Wide Average Accredited UCAP (down from 79.69% to 79.63% in most recent update).

PERSON RESPONSIBLE: Nathan Gagnon

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-008

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:

Projected reserve margins are calculated as follows:

Projected Reserve Margin (MW) = Estimated Firm Capacity – (Annual Peak Demand * (1+ Required Reserve Margin))

Projected Reserve Margin (%) = (Estimated Firm Capacity – (Annual Peak Demand * (1+ Required Reserve Margin))) / (Annual Peak Load * (1 + Planning Reserve Margin)

Year	Annual Peak Load (MW)	Est Firm Cap (MW)	Required Reserve Margin (%)	Projected Reserve Margin (MW)	Projected Reserve Margin (%)
2025	818	864	-6.20%	96	12.5%
2026	819	864	-6.20%	95	12.4%
2027	822	864	-6.20%	93	12.1%
2028	820	864	-6.20%	95	12.3%
2029	818	869	-6.20%	101	13.2%

This data reflects the Spring 2025 Load Forecast. The current fleet consists of, based on summer rating, 600 MW East Bend 2 and 476 MW Woodsdale generating stations plus 9 MW solar (nameplate) and 3 MW of DR. In 2029, 50 MW of new solar capacity is projected to be added to the generation fleet, consistent with the preferred portfolio of the

2024 Duke Energy Kentucky Integrated Resource Plan (IRP). The Company estimated firm capacity of resources using the 2025/26 3IA Final ELCC Class Ratings and the planning reserve margin of -6.20% is based on the 2025/26 3IA Forecast Pool Requirement (FPR) of 0.9380 that was published by PJM on 01/23/2025.

Currently, Duke Energy Kentucky is not projected to be in a reserve margin deficit through 2029.

PERSON RESPONSIBLE: Nathan Gagnon

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

PUBLIC STAFF-DR-01-011

REQUEST:

A list that identifies scheduled outages or retirements of generating capacity during the current year and the following four years.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET

Unit Name	Year	Duration (Weeks)
East Bend 2	2025	[redacted]
Woodsdale CT 5	2025	
Woodsdale CT 3	2025	
Woodsdale CT 4	2025	
Woodsdale CT 6	2025	
Woodsdale CT 1	2025	
Woodsdale CT 2	2025	
Woodsdale CT 2	2026	
Woodsdale CT 3	2026	
Woodsdale CT 6	2026	
East Bend 2	2026	
Woodsdale CT 6	2026	
Woodsdale CT 1	2026	
Woodsdale CT 2	2026	
Woodsdale CT 3	2026	
Woodsdale CT 4	2026	
Woodsdale CT 5	2026	
East Bend 2	2027	
Woodsdale CT 5	2027	
Woodsdale CT 6	2027	
Woodsdale CT 2	2027	
Woodsdale CT 1	2027	
Woodsdale CT 3	2027	
Woodsdale CT 4	2027	
East Bend 2	2027	
Woodsdale CT 1	2028	
Woodsdale CT 2	2028	
Woodsdale CT 3	2028	

Woodsdale CT 4	2028		[redacted]	
East Bend 2	2028		[redacted]	
Woodsdale CT 1	2028		[redacted]	
Woodsdale CT 2	2028		[redacted]	
Woodsdale CT 3	2028		[redacted]	
Woodsdale CT 4	2028		[redacted]	
Woodsdale CT 5	2028		[redacted]	
Woodsdale CT 6	2028		[redacted]	
East Bend 2	2029		[redacted]	
Woodsdale CT 1	2029		[redacted]	
Woodsdale CT 2	2029		[redacted]	
Woodsdale CT 3	2029		[redacted]	
Woodsdale CT 4	2029		[redacted]	
Woodsdale CT 5	2029		[redacted]	
Woodsdale CT 6	2029		[redacted]	

PERSON RESPONSIBLE: John Swez

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-012

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. Additionally, as reflected in the Company's recently filed IRP in Case No. 2024-00197, the Company forecasts a need, based upon specific assumptions, for additional renewable generation. Duke Energy Kentucky continually evaluates its needs for additional base load or peaking capacity based upon annual load projections.

PERSON RESPONSIBLE: Nathan Gagnon

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-013

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
2024	January	390,049
	February	314,648
	March	313,119
	April	294,222
	May	346,057
	June	390,202
	July	421,656
	August	435,370
	September	371,815
	October	318,820
	November	313,269
	December	370,173
2024 Total		4,279,400

b. There were 167,272 MWh delivered to the transmission system from Duke Energy Kentucky.

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
August 28, 2024	**15**	877

WINTER PEAK

Date	Hour	MW's
January 17, 2024	**8**	748

PERSON RESPONSIBLE: Mark Thieman – a., b., d.
Tim Hohenstatt – c.

Duke Energy Kentucky
Administrative Case No. 387
March 31, 2025

STAFF-DR-01-014

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 planned in-service dates indicated:

Hebron to Oakbrook 69 kV line – erect a single circuit 69 kV line from Hebron Substation to the vicinity of St. Route 237 and Orchid Drive, approximately two miles in length. Rebuild/upgrade the capacity of a section of an existing 69 kV line from Limaburg Substation south to St. Route 18, approximately 1.4 miles in length. (Both the new line section and the rebuilt/upgraded line section will be constructed to 138 kV standards to allow future capacity upgrade if required due to future load growth.) Planned in-service Date: 11/9/2027.

The purpose of the above planned projects is to provide service to the Duke Energy Kentucky transmission and distribution systems to serve load growth in Boone County, in the vicinity of the Cincinnati/Northern Kentucky International Airport.

PERSON RESPONSIBLE: Tim Hohenstatt