VERIFICATION

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

The undersigned, Bruce Sailers, Director Jurisdictional Rate Administration, 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.

Bruce L. Sailers
Bruce Sailers Affiant

Subscribed and sworn to before me by Bruce Sailers on this 5th day of March, 2024.

NOTARY PUBLIC

Brian Pokrywka, Attorney At Law
NOTARY PUBLIC - STATE OF OHIO
My commission has no expiration date
Sec. 147.03 R.C.

My Commission Expires:

VERIFICATION

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

The undersigned, Jacob Colley, Director Customer Services 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.

Jacob S. Colley

Jacob Colley Affiant

Subscribed and sworn to before me by Jacob Colley on this 28th day of February, 2024.

TIFFANY ROBINSON NOTARY PUBLIC MECKLENBURG COUNTY, NC

Tiffany Robinson

NOTARY PUBLIC

My Commission Expires:

February 4, 2026

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 26TH day of FEBRUARY 2024.

NOTARY PUBLIC

My Commission Expires: 1/26/2031

VERIFICATION

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

The undersigned, Dominic Melillo, Director Asset Management, 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.

Dominic Melillo Affiant

Subscribed and sworn to before me by Dominic Melillo on this 5th day of March, 2024.

NOTARY PUBLIC

Brian Pokrywka, Attorney At Law
NOTARY PUBLIC - STATE OF OHIO
My commission has no expiration date
Sec. 147.03 R.C.

My Commission Expires:

VERIFICATION

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

The undersigned, Matt Kalemba, Managing Director IRP and 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.

Matt Kalemba Affiant

Subscribed and sworn to before me by Matt Kalemba on this 28 day of February 2024.

BRANDI REAKES
Notary Public
Lincoln
County
NORTH CAROLINA

NOTARY PUBLIC

My Commission Expires: 2/1/2028

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 5th day of March, 2024.

NOTARY PUBLIC

Brian Pokrywka, Attorney At Law
NOTARY PUBLIC - STATE OF OHIO
My commission has no expiration date
Sec. 147.03 R.C.

My Commission Expires:

VERIFICATION

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

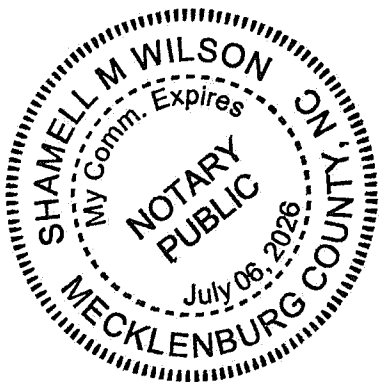
The undersigned, John D. Swez, Managing Director, Trading and Dispatch, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

John D. Swez, Affiant

Subscribed and sworn to before me by John D. Swez on this 27th day of February, 2024.

NOTARY PUBLIC

My Commission Expires:



VERIFICATION

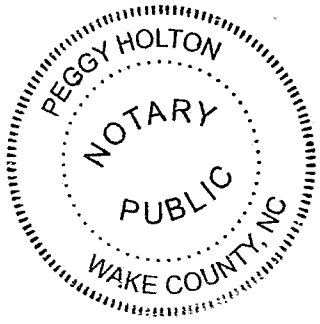
STATE OF NORTH CAROLINA)
) **SS:**
COUNTY OF WAKE)

The undersigned, Melissa Adams, Director Analytics, 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.

Melissa Adams
Melissa Adams, Affiant

Subscribed and sworn to before me by Melissa Adams on this 27th day of February, 2024.

Peggy Holton
NOTARY PUBLIC



My Commission Expires: 12/22/2026

KyPSC Case No. 2023-0413
TABLE OF CONTENTS

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-001

REQUEST:

Please refer to numerical paragraph 20 of the Company's Application in this case and explain what "minimum bill provisions of the standard rate schedule" are referred to.

RESPONSE:

The minimum bill provision can be found in the Company's tariff sheets. For example, for Rate RS, Residential Service, KYPSC Electric No. 2 Sheet No. 30 page 1, the tariff sheet contains the following, "The minimum charge shall be the Customer Charge as shown above."

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-002

REQUEST:

Please refer to numerical paragraph 9 of the Company's Application and the Direct Testimony of direct testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc. at page 4 (PDF 6), lines 2-6, and answer the following questions:

a. How many customers have applied for but are not yet receiving service under the current Rider NM ("Rider NM I" in the application")?

b. What is the average time between application for and receipt of service under Rider NM? Please provide any supporting data in Excel spreadsheet format with all formulas and cell references intact.

c. What is the average time for processing applications for service under tariff NM?

d. Will customers who have applied for service under current Rider NM prior to the Commission-approved effective date of Rider NM II be grandfathered into Rider NM I?

RESPONSE:

a. See the Company's response to STAFF-DR-01-001.

b. See the Company's response to KYSEIA-DR-01-009 and KYSEIA-DR-01-010(g).

c. See the Company's response to KYSEIA-DR-01-009.

d. They will be grandfathered in Rider NM I if their system is in service prior to the effective date of Rider NM II. If it is not in service prior to the effective date of Rider NM II, net metering service will be provided under Rider NM II.

PERSON RESPONSIBLE: Jacob Colley (a-c); Bruce L. Sailers (d)

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-003

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc. at page 6, line 9 to page 7, line 8; and the Company's response to Joint Intervenors initial request for information number 1-13.c., and answer the following questions:

a. How did "The Company consider[ ] forum participant inputs"? Specifically, did the Company consider:

   i. Retaining "monthly kWh netting since it smooths out variations in net metering benefits among customers with different load profiles"?

   ii. Did the Company "consider the impacts of new technology such as smart inverters and battery storage, along with ways to improve the interconnection process"?

   iii. Did the Company consider ways to simplify rules, "considering the need to educate prospective customer-generators"?

   iv. Did the Company consider the impact of "[t]ransition periods and grandfathering [as] important considerations for significant program changes"?

   v. Did the Company consider "the future potential for rooftop solar to be complemented or augmented with energy efficiency, demand response,

rate design, thermostats, and/or battery storage in an expandable, sustainable program"?

b. Were any changes made to this application as a result of the input received?

RESPONSE:

a. See the Company's response to KSES-DR-01-013.

i. See response above.

ii. See response above.

iii. See response above.

iv. See response above.

v. See response above.

b. Objection, to the extent that this Interrogatory calls for the disclosure of privileged legal advice or that include or reference efforts to provide information needed to facilitate the rendition of legal advice, it impermissibly seeks information that, on the basis of attorney-client privilege is not subject to disclosure. Objecting further, to the extent that this Interrogatory calls for the disclosure of information prepared in anticipation of litigation, any such information was prepared with the expectation of confidentiality and is not subject to disclosure based on work-product doctrine. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, see the Company's response to KSES-DR-01-013.

PERSON RESPONSIBLE: As to response: Bruce L. Sailers
As to objections: Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-004

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., Tables 1 and 2, and the Company's response to Joint Intervenors initial request for information number 1-1.d., and answer the following questions:

a. Please explain the difference between the number of "participants" listed in Table 1, and the number of "Residential Customer- generators" listed in Table 2 and the totals listed in the Company's response to 1-1.d.

b. Please confirm if the difference means that more than 500 participants/residential customer-generators were added between 2021 ("current residential customer-generators for 15 the year 2022 who had twelve full months of interval data") and 2023. If not confirmed, please explain.

RESPONSE:

a. Table 1 contains net metering participation as of October 23, 2023. Table 2 is the number of customer-generators who have 12 full months of interval data available for the calendar year 2022. Company's response to KSES-DR-01-001.d is a breakdown by rate class of the number of participants from Table 1.

b. Not confirmed. The difference indicates that the Company only has interval data for the full 2022 calendar year for 225 customer generators.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-005

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 19, lines 18-20, and page 20, lines 16-20, and the Company's response to Joint Intervenors initial request for information numbers 1-16.a. and 1-17.a. and answer the following questions:

a. What "transmission planning principles" are being referred to?

b. What "distribution planning principles" are being referred to?

c. Please refer also to the Company's response to Joint Intervenors initial request for information number 1.1.a. and attachments thereto.

   i. Explain how rooftop solar exports are "random."

   ii. Does the Company also consider customer demand as represented by "delivered to" values "random"?

RESPONSE:

a. As a member of PJM, Duke Energy Kentucky transmission planning assessment practices and principles are consistent with Attachment D of the PJM Manual 14B Regional Transmission Planning Process. PJM Transmission Owners are required to follow NERC and Regional Planning Standards and criteria as well as the Transmission Owner FERC filed Form 715 criteria. Appropriate N-1 and/or N-1-1 contingency analysis is performed, with corresponding results used to identify

and confirm the need for system upgrades needed to maintain a safe and reliable Transmission System.

b. Distribution Planning consists of a process of study and analysis through which Duke Energy Kentucky assures that it will provide a safe, economical, and reliable system to meet its present and future delivery obligations at the end-user level. Capacity constraints are identified by comparing substation and circuit peak loading to the equipment ratings. Any future identified large customer load addition is also considered. Intermittent, non-dispatchable rooftop solar exports are not considered because they may not be available during the peak load day/time, and the distribution system is sized to ensure sufficient capacity is reliably and consistently available on the peak day/time.

c. See the Company's response to KYSEIA-DR-02-002.

PERSON RESPONSIBLE:

a. Timothy J. Hohenstatt
b. Dominic Melillo
c. Bruce L. Sailers

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Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-006

REQUEST:

Please refer to the Company's response to Joint Intervenors initial request for information number 1-4.a. and explain how the Company's review of customer-generators as a utility system or supply side resource was "appropriately adjusted for the Company's system."

RESPONSE:

The Company incorporates Company-specific information into its review, including but not limited to the LMP for the Company's PJM node and the Company's status as a Fixed Resource Requirements PJM participant. The Company also uses interval meter data from the Company's net metering customers.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-007

REQUEST:

Please refer to the Company's response to Joint Intervenors initial request for information number 1-4.c. What is the Company's plan to include compliance with future environmental regulations that are not finalized? In other words, on what timeline does the Company anticipate updating NMS-II compensation rates after significant new regulations affecting avoided costs are finalized?

RESPONSE:

Objection. This request is overly broad and unduly burdensome, given that it seeks information that is unlimited as to time and that it is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Objecting further, this request is improper to the extent it may seek information that, on the basis of attorney-client privilege is not subject to disclosure. Objecting further, the request improperly requires speculation regarding possible future regulations. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, see the Company response to KYSEIA-DR-01-006.

PERSON RESPONSIBLE: As to response: Matthew Kalemba
As to objections: Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-008

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 4 and table 4.

a. Please confirm that under Rider NM II, the cost to serve residential customer-generators will be reduced by more than the billed amount will be reduced. If other than confirmed, please explain.

b. Please provide the average billed amount reduction for customers under current Rider NM.

c. Please confirm the change in cost to serve is the same for current Rider NM customers as shown in table 4. If other than confirmed, please explain.

RESPONSE:

a. Without a full cost of service study, the Company has proposed not to separate customer-generators into a separate rate class. However, using the simplified unit cost approach provided in Table 4, the cost to serve value for the average residential customer is greater than the billed value.

b. Valuing the solar excess generation at the tariffed rate used in this filing, Rate RS, the Company estimates the average billed amount reduction is $1,073.

c. The Company has not prepared different cost of service unit cost analysis for the current net metering program, Rider NM I, as compared to Rider NM II.

In Table 4, the Company calculates a cost of service impact for an average residential customer.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-009

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 15 lines 3-7.

a. Please provide a redlined version of any proposed changes to Rider FAC.

b. How does the company currently collect for the excess generation provided to the Company under Rider NM?

RESPONSE:

a. There are no proposed changes to the Rider FAC tariff sheet.

b. The current net metering program tracks excess generation in a kWh bank for customer-generators. Any positive balance in the customer's kWh bank is eligible for use in future months. The Company does not recover for kWh credits.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-010

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 17, lines 9-14; and the Direct Testimony of direct testimony of Matthew Kalemba at page 5, lines 12-18. How are avoided capital costs of pollution controls included in the avoided cost calculations? If they are not, why not?

RESPONSE:

The capital cost of the Combustion Turbine (CT) used in the calculation of avoided capacity includes the cost of a Selective Catalytic Reduction (SCR) unit which removes nitrogen oxides (NOx) from the flue gas emitted through the CT boiler.

PERSON RESPONSIBLE: Matthew Kalemba

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-011

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 18, lines 8-12 and page 19, lines 3-14; the Direct Testimony of direct testimony of Matthew Kalemba at page 7, lines 5- 14; and the Company's response to Commission Staff's First Request for Information number 6.

a. Did the Company consider or evaluate any other methodology for calculating avoided capacity? Please provide any alternative evaluations and supporting documentation and calculations.

b. Does the statement regarding PJM's Net CONE that "[t]hese items are not consistent with the Company's view of the marginal unit to be built by the Company for capacity need" reflect a change in the Company's position in its most recent IRP that the Company intends to potentially replace the East Bend generating facility with a natural gas combined cycle (NGCC) unit?1[1] If the answer is anything but yes, please explain.

[1] In the Matter of: *Electronic 2021 Integrated Resource Plan Of Duke Energy Kentucky, Inc.*, Case No. 2021-00245, Duke Energy Kentucky 2021 Integrated Resource Plan - Public Version, at page 4 ("The 2021 IRP reflects replacement of East Bend capacity with a Firm Dispatchable Resource (FDR) that would be capable of flexible operations over long periods of time to ensure reliable capacity performance and emit significantly less carbon dioxide (CO2) and other emissions relative to East Bend. The FDR was modeled with operational characteristics and costs of a natural gas combined cycle as a placeholder, recognizing the opportunity to revisit technology selection prior to the Certificate of Public Convenience and Necessity (CPCN) process when the most recent information would be available regarding technology advancements and federal regulations or expansion of clean energy incentives.")

RESPONSE:

a. No. The Company has historically used the Peaker Method as the marginal unit to be built for a capacity need. The Company did review PJM information on Net CONE which is publicly available on the PJM website.

b. No. As explained in the Company's response to STAFF-DR-01-006, because the Company is using the Peaker Methodology, a CT Unit is the appropriate resource for estimating the utility's avoided cost even if the utility's next planned unit is not a simple cycle peaker.

PERSON RESPONSIBLE: Matthew Kalemba

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-012

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 9, lines 17-19, and provide the electronic workpapers in Excel or other native format supporting the cost-of-service study developed from and consistent with the Company's October 12, 2023, electric rate case order in Case No. 2022-00372.

RESPONSE:

See the Company's response to KSES-DR-01-010.

PERSON RESPONSIBLE: James E. Ziolkowski

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-013

REQUEST:

Please refer to Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 11, lines 10-20, what would be total change in annual revenues from adopting Rider NM II?

a. How much will this change the monthly bills for DEK's other customers on a total dollar basis and a percentage basis?

RESPONSE:

Objection. This request is vague and ambiguous insofar as the Company must engage in speculation and guesswork to determine what is meant by "total change in annual revenues." Without waiving this objection, to the extent discoverable and in the spirit of discovery, see Direct Testimony of Bruce L. Sailers, Attachment BLS-2. On the Summary Calc tab, the Company shows an annual bill reduction from energy for the customer-generator of $1,341.53 - $841.15 = $500.38. The export of excess generation credit is proposed to be collected in Rider FAC and therefore the Company expects a net zero impact to revenues from the export of excess generation credit.

a. Objection. This request is vague and ambiguous insofar as the Company must engage in speculation and guesswork to determine what is meant by "change the monthly bills." Without waiving this objection, to the extent discoverable and in the spirit of discovery, the impact of Rider NM II participation on non-net-metering customers has not been calculated.

PERSON RESPONSIBLE:	As to responses:	Bruce L. Sailers
	As to objections:	Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

PUBLIC KSES-DR-02-014

REQUEST:

Please refer to Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 19, line 13, please describe in narrative detail, DEK' "FRR, Fixed Resource Requirements, participation status in PJM."

a. Please provide the total FRR for the past 10 years or the length of time the FRR has been in force, whichever is shorter.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET

Enclosed is the total available generation, load, and load plus reserve margin for the Company's final (1-year) FRR plan. Generation amount includes sales or purchases made in the PJM BRA or incremental auctions. Additionally, generation also includes any short-term bi-lateral purchases or sales.

Delivery Year	Total Available Generation (MW)	Load (MW)	Load + Reserve Margin (MW)
2014/2015	[redacted]		
2015/2016			
2016/2017			
2017/2018			
2018/2019			
2019/2020			
2020/2021			
2021/2022			
2022/2023			
2023/2024			

PERSON RESPONSIBLE: John Swez

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

PUBLIC KSES-DR-02-015
(As to Attachment only)

REQUEST:

Please refer to Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 20, and provide the workpapers used in calculating the DSM avoided cost in footnote 4, "In the Matter of the Electronic Application of Duke Energy Kentucky, Inc. to Amend its Demand Side Management Programs, Case No. 2022-00251, Duke Energy Kentucky's Response to Staff's First Set of Post-Hearing Data Requests, CONFIDENTIAL STAFF-PHDR-01-003 (April 14, 2023)."

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET
(As to Attachment only)

Refer to attachment KYSES-DR-02-015 CONF Attachment.

PERSON RESPONSIBLE: Melissa Adams

CONFIDENTIAL PROPRIETARY TRADE SECRET

KSES-DR-02-015
CONFIDENTIAL ATTACHMENT

FILED UNDER SEAL

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-016

REQUEST:

Please describe in detail how the energy savings from rooftop solar differ from the intermittent use of energy appliances, devices, heating, ventilation, and air conditioning (HVAC) targeted in DSM programs?

RESPONSE:

There are a few ways in which the energy impacts of DSM programs differ from energy generated from rooftop solar. First, the energy savings from DSM programs cannot exceed a customer's total energy consumption from the grid, while solar generation can not only reduce a customer's consumption from the grid, but also can export excess energy back to the grid. Second, the energy saving impacts from DSM programs are considered either dispatchable or always dispatched. In this reference, "always dispatched" refers to the DSM being "on" whenever the appliance is on. DSM programs that are based on installing more efficient equipment reduce usage indefinitely (for the life of the measure at least and likely longer as customers tend to replace with at least the same efficiency), and can be considered always dispatched, where solar reduces consumption from the grid only while generating. DSM programs that are based on intermittent use (whether via behavior or controls) are able to be activated for specific grid events and are considered dispatchable for emergency and/or economic events. Solar cannot be dispatched without the addition of a battery or related add on. Third, solar energy savings would be produced at different

times of the day than savings from certain DSM programs (like heating, ventilation, and air conditioning), impacting peak differently.

PERSON RESPONSIBLE: Melissa Adams

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-017

REQUEST:

When building transmission, is the capacity sized to deliver power from a specific generator or a collection of generators to a specific substation?

a. What portion in dollars of invested capital of DEK's transmission is built for delivering power from generators to substations compared to the portion built for interconnection to other service territories?

RESPONSE:

No. The Duke Energy Kentucky transmission system is designed to reliably serve load under a range of possible n-1 and n-1-1 contingencies.

PERSON RESPONSIBLE: Timothy J. Hohenstatt

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-018

REQUEST:

Please refer to Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc., at page 21, is the Company aware of the National Renewable Energy Laboratory's JEDI model (https://www.nrel.gov/analysis/jedi/) which estimates the economic consequences and job creation from different generation resources including rooftop solar? If not, why not?

RESPONSE:

The Company did not use the referenced model for the Rider NM II proposal. The Company's Rider NM II proposal is intended to comply with Kentucky statutes.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-019

REQUEST:

Please refer to Direct Testimony of Matthew Kalemba on Behalf of Duke Energy Kentucky, Inc., at page 3, what is the modeling assumption about the creation of scarcity prices above the direct fuel costs for the market price setting generator at each LMP?.

RESPONSE:

Fundamental fuel forecasts of LMP received from 3rd party suppliers are based on future assumptions of supply and demand and thus, are already considering the possibility of scarcity pricing. To convert this LMP data to LMP's applicable within the DEOK zone, a basis differential is utilized.

PERSON RESPONSIBLE: Matthew Kalemba

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-020

REQUEST:

Please refer to Direct Testimony of Matthew Kalemba on Behalf of Duke Energy Kentucky, Inc., does the Company meet its incremental peak capacity requirements solely with Company-owned generation assets or does it acquire at least a portion of those resources through power purchase agreements?

RESPONSE:

Objection. This request is vague, and ambiguous as to what is intended by the terms "meet its incremental peak capacity requirements" and thus would require speculation and guesswork. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, the Company interprets this request to be asking how the Company manages its capacity position with respect to meeting its Fixed Resource Requirement (FRR) obligation as a member of PJM. The Company primarily utilizes Company owned generating resources and demand response programs to meet its Fixed Resource Requirement (FRR) obligation as a member of PJM. In addition, depending on the given year, a short term bi-lateral capacity purchase may be utilized. Finally, currently Duke Energy Kentucky has no Power Purchase Agreements.

PERSON RESPONSIBLE:

Legal – As to Objection
John Swez – As to response

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-021

REQUEST:

Please refer to Direct Testimony of Matthew Kalemba on Behalf of Duke Energy Kentucky, Inc., how many years into the future was the Company's system modeled for developing the avoided costs used in this filing.

a. Given that the length of the tariff term is 25 years for each customer location, was the model run out for 25 years to reflect the long-term certainty for acquired rooftop solar resource? If not, why not?

RESPONSE:

a. Yes, the model was run through 2050.

PERSON RESPONSIBLE: Matthew Kalemba

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-022

REQUEST:

Please refer to the Company's response to Joint Intervenors initial request for information number, number 1-4.d., and answer the following questions:

a. Is the Company aware of the cap-and-trade programs that include the electricity sector in California, Washington, and the Regional Greenhouse Gas Initiative that covers 12 eastern states?

b. Would the Company consider a cap-and-trade program to operate in a similar manner to a carbon tax by adding a cost component to fuel use based on the carbon-equivalent content of that fuel?

c. Does the Company consider those cap-and-trade programs to be purely duplicative to the IRA and therefore ineffective and of no incremental value to reducing GHG emissions? If so, please provide the empirical studies and evidence to support that assertion.

d. Did the Company evaluate the impact of a CO2 tax on avoided costs? If so, please provide the results and underlying analysis of any such evaluation.

e. Please refer to the Company's most recent IRP filed in Commission Case No. 2021-0245 at page 15. Does the Company still "believe[ ] that a constraint or price on carbon is likely to be imposed at some future date" and "continue to escalate to provide a greater incentive to build resources that reduce carbon emissions"?

f. How do the locational marginal prices (LMPs) developed by Mr. Kalemba incorporating the anticipated impacts of the IRA compare to the impacts of constraints or prices on carbon emissions in the different scenarios modeled in the Company's most recent IRP at page 13?

RESPONSE:

a. Objection. This request improperly seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, yes, the Company is generally aware of cap-and-trade programs.

b. Objection. This request improperly seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Objecting further, his request improperly requires speculation regarding a hypothetical. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, the Company has not studied the impacts of a cap-and-trade program in Duke Energy Kentucky vis-à-vis a CO2 tax and cannot comment on the similarities or differences of the two hypotheticals presented.

c. Objection. This request improperly seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Objecting further, his request improperly requires speculation regarding a hypothetical. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, the Company has not studied the impacts of a cap-and-trade program in Duke Energy Kentucky vis-à-vis the IRA and cannot comment on the impact to GHG emissions.

d. No, the Company did not evaluate the impact of a CO2 tax on the avoided cost rates.

e. Objection. This request improperly seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Objecting further, this request would require the Company to speculate as to future events. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, the Company is constantly assessing new developments, and the Company's next IRP will take into account interim events.

f. The Company has not conducted an analysis comparing the LMPs developed as part of this proceeding to the multiple sets of LMPs prepared for use in the 2021 IRP filing.

PERSON RESPONSIBLE: As to responses: Matthew Kalemba
As to objections: Legal

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KSES-DR-02-023

REQUEST:

Please refer to the Company's response to Joint Intervenors initial request for information number, number 1-5., the correct links for the NSPM-DER is now: https://www.nationalenergyscreeningproject.org/national-standard-practicemanual/, and the supporting *Methods, Tools and Resource: A Handbook for Quantifying Distributed Energy Resource Impacts for Benefit-Cost Analysis* is at: https://www.nationalenergyscreeningproject.org/methods-tools-andresources/. Did the Company review the updated NSPM-DER and supporting documentation in developing its proposal for a new net metering tariff?

RESPONSE:

The Company is aware of the referenced materials. For additional information, see the Company's response to KSES-DR-01-005. Further, the Company notes that the Commission established guiding principles for the review of net metering compensation cases. See the Commission's May 14, 2021, Order in Case No. 2020-00174 at page 21.

PERSON RESPONSIBLE: Bruce L. Sailers

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Date Received: February 21, 2024

PUBLIC KSES-DR-02-024
(As to Attachment only)

REQUEST:

Please refer to the Company's response to the Office of the Attorney General First Request for Information number 3, and provide a the full workpapers in native electronic or Excel spreadsheet form for how transmission and distribution avoided capacity costs are developed for its DSM tariffs.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET
(As to Attachment only)

See KSES-DR-02-024 CONFIDENTIAL Attachment.

PERSON RESPONSIBLE: Melissa Adams

CONFIDENTIAL PROPRIETARY TRADE SECRET

KSES-DR-02-024
CONFIDENTIAL ATTACHMENT

FILED UNDER SEAL

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-025

REQUEST:

Please refer to the Company's response to the Initial Requests for Information by Kentucky Solar Industries Association, number 12, and provide for each Duke Energy affiliate (e.g., Duke Energy Ohio, Duke Energy Indiana, Duke Energy Midwest, Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida), the following information:

a. The current net energy metering tariff with the provisions for energy use billing and crediting, net exports crediting and the term of tariff eligibility including grandfathering.

b. The regulatory commission decision setting the terms for these net energy metering tariffs.

c. The supporting testimony by the Duke Energy affiliate and any intervenors referenced in each of those decisions.

RESPONSE:

a. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The current net energy metering tariffs of electric utilities in other jurisdictions has no bearing on the outcome of this case. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor, insofar as tariffs are typically publicly available. Notwithstanding

these objections, see KSES-DR-02-025 Attachment for Duke Energy Kentucky's current net energy metering tariff.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The regulatory commission decisions of electric utilities in other jurisdictions have no bearing on the outcome of this case. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor, insofar as regulatory commission decisions are typically publicly available. Notwithstanding these objections, terms for the Company's net metering tariff are guided by the Kentucky statutes, regulations, and precedent. As indicated on the tariff sheet in KSES-DR-02-025 Attachment, the prior Commission Order approving the net metering tariff sheet is the order dated April 27, 2020, in Case No. 2019-00271.

c. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The supporting testimony in proceedings pertaining to electric utilities and any intervenors in other jurisdictions has no bearing on the outcome of this case. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor, insofar as supporting testimony of electric utilities and any intervenors are typically publicly available. Notwithstanding these objections, see response to part b. The records of

Commission proceedings are typically publicly available on the Commission's website, https://psc.ky.gov/Case/SearchCases// .

PERSON RESPONSIBLE: As to responses: Bruce L. Sailers
As to objections: Legal

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RIDER NM

NET METERING RIDER

AVAILABILITY

Net Metering is available to eligible customer-generators in the Company's service territory, upon request, and on a first-come, first-served basis up to a cumulative capacity of 1% of the Company's single hour peak load in Kentucky during the previous year. If the cumulative generating capacity of net metering systems reaches one percent (1%) of the Company's single hour peak load during the previous year, upon Commission approval, the Company's obligation to offer net metering to a new customer-generator may be limited. An eligible customer-generator shall mean a retail electric customer of the Company with a generating facility that:

(1) Generates electricity using solar energy, wind energy, biomass or biogas energy, or hydro energy;
(2) Has a rated capacity of not greater than fortyfive (45) kilowatts;
(3) Is located on the customer's premises;
(4) Is owned and operated by the customer;
(5) Is connected in parallel with the Company's electric distribution system; and
(6) Has the primary purpose of supplying all or part of the customer's own electricity requirements.

At its sole discretion, the Company may provide Net Metering to other customer-generators not meeting all the conditions listed above on a case-by-case basis.

The term "Customer" hereinafter shall refer to any customer requesting or receiving Net Metering services under this tariff.

METERING

The Company shall provide net metering services, without any cost to the Customer for metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. This provision does not relieve Customer of his or her responsibility to pay metering costs embedded in the utility's Commission-approved base rates.

The standard kilo-watt-hour metering system shall use one of the following methods, as determined solely by the Company:

(1) A single standard kilowatt-hour meter capable of measuring the flow of electricity in two (2) directions and registering the net amount in one register.

Issued by authority of an Order of the Kentucky Public Service
Commission dated April 27, 2020 in Case No. 2019-00271.
Issued: May 1, 2020
Effective: May 1, 2020
Issued by Amy B. Spiller, President /s/ Amy B. Spiller

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METERING (Contd.)

(2) A single standard kilowatt-hour meter capable of measuring the flow of electricity in two (2) directions and registering the amount of flow in each direction in two separate registers, one measuring the flow of electricity from the Company to the Customer and the other measuring the flow of electricity from the Customer to the Company.

(3) If method (1) or (2) is not feasible, two standard kilowatt-hour meters may be used, one measuring the flow of electricity from the Company to the Customer and the other measuring the flow of electricity from the Customer to the Company.

In method (2) or (3), subtracting one register or meter reading from the other register or meter reading will yield the same result as if method (1) were used.

Any additional meter, meters, or distribution upgrades needed to monitor the flow in each direction shall be installed at the Customer's expense.

BILLING

The measurement of net electricity supplied by the Company and delivered to the Company shall be calculated in the following manner. The Company shall measure the difference between the amount of electricity delivered by the Company to the Customer and the amount of electricity generated by the Customer and delivered to the Company during the billing period, in accordance with one of the methods listed under "METERING". If the kWh delivered by the Company to the Customer exceeds the kWh delivered by the Customer to the Company during the billing period, the Customer shall be billed for the kWh difference. If the kWh generated by the Customer and delivered to the Company exceeds the kWh supplied by the Company to the Customer during the billing period, the Customer shall be credited in the next billing cycle for the kWh difference. Any unused credit when the Customer closes his account will be granted to the Company.

Bill charges and credits will be in accordance with the same standard tariff that would apply if the Customer were not a customer-generator. If time-of-use metering is used, the electricity fed back to the electric grid by the Customer shall be net-metered and accounted for at the specific time it is fed back to the electric grid in accordance with the time-of-use billing agreement currently in place.

Net metering credits are not transferable between customers or locations.

APPLICATION AND APPROVAL PROCESS

The Customer shall submit an Application for Interconnection and Net Metering ("Application") and receive approval from the Company prior to connecting the generator facility to the Company's system.

Applications will be submitted by the Customer and reviewed and processed by the Company according to either Level 1 or Level 2 processes defined below.

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APPLICATION AND APPROVAL PROCESS (Contd.)

The Company may reject an Application for violations of any code, standard, or regulation related to reliability or safety; however, the Company will work with the Customer to resolve those issues to the extent practicable.

Customers may contact the Company to check on status of an Application or with questions prior to submitting an Application. Company contact information can be found on the Application form.

Application forms along with instructions on how to submit an application are available on the Company's website.

LEVEL 1

A Level 1 Application shall be used if the generating facility is inverter based and is certified by a nationally recognized testing laboratory to meet the requirements of Underwriters Laboratories Standard 1741 "Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources" (UL 1741).

The Company will approve the Level 1 Application if the generating facility also meets all of the following conditions:

(1) For interconnection to a radial distribution circuit, the aggregated generation on the circuit, including the proposed generating facility, will not exceed 15% of the Line Section's most recent annual one hour peak load. A line section is the smallest part of the primary distribution system the generating facility could remain connected to after operation of any sectionalizing devices.

(2) If the proposed generating facility is to be interconnected on a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed generating facility, will not exceed the smaller of 20 kVA or the nameplate rating of the transformer.

(3) If the proposed generating facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

(4) If the generating facility is to be connected to three-phase, three wire primary utility distribution lines, the generator shall appear as a phase-to-phase connection at the primary utility distribution line.

(5) If the generating facility is to be connected to three-phase, four wire primary utility distribution lines, the generator shall appear to the primary utility distribution line as an effectively grounded source.

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LEVEL 1 (Contd.)

(6) The interconnection will not be on an area or spot network[1].

(7) The Company does not identify any violations of any applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems".

(8) No construction of facilities by the Company on its own system will be required to accommodate the generating facility

If the generating facility does not meet all of the above listed criteria, the Company, in its sole discretion, may either: 1.) approve the generating facility under the Level 1 Application if the Company determines that the generating facility can be safely and reliably connected to the Company's system; or 2) deny the application as submitted under the Level 1 Application.

The Company shall notify the customer within 20 business days whether the application is approved or denied, based on the criteria provided in this section.

If the application lacks complete information, the Company shall notify the Customer that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the time to process the application.

The Customer shall be notified whether the application is approved in writing. The approval will be conditioned upon successful completion of an initial installation inspection and witness test if required by the Company. The Company's written approval will indicate if an inspection and witness test are required. If an inspection and witness test are required, the Customer shall notify the Company within 3 business days of completion of the generating facility installation and schedule an inspection and witness test with the Company to occur within 10 business days of completion of the generator facility installation or as otherwise agreed to by the Company and the Customer. If an inspection and witness test is required, the Customer may not operate the generating facility (except for operational testing not to exceed two hours) until successful completion of such inspection and witness test. If the installation fails the inspection or witness test due to non-compliance with any provision in the Application and Company approval, the Customer shall not operate the generating facility until any and all non-compliance is corrected and re-inspected by the Company.

[1]Area and spot networks are systems where multiple transformers are interconnected on the secondary side and multiple primary voltage circuits are used to feed the transformers. A spot network is typically used to serve a single building and the transformers are all in one location. An area network typically serves multiple customers with secondary conductors covering multiple city blocks and with transformers at various locations.

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LEVEL 1 (Contd.)
If the Application is denied, the Company will supply the Customer with reasons for denial. The Customer may resubmit under Level 2 if appropriate.

LEVEL 2
A Level 2 Application is required under any of the following:

(1) The generating facility is not inverter based;
(2) The generating facility uses equipment that is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741; or
(3) The generating facility does not meet one or more of the additional conditions under Level 1.

The Company will approve the Level 2 application if the generating facility meets the Company's technical interconnection requirements, which are based on IEEE 1547. The Company's technical interconnection requirements are available on the Company's website or upon request.

The Company will process the Level 2 Application within 30 business days of receipt of a complete application. Within that time the Company will respond in one of the following ways:

1. The application is approved and the Company will provide the Customer with an Interconnection Agreement to sign.

2. If construction or other changes to the Company's distribution system are required, the cost will be the responsibility of the Customer. The Company will give notice to the Customer and offer to meet to discuss estimated costs and construction timeframe. Should Customer agree to pay for costs and proceed, Company will provide the Customer with an Interconnection Agreement to sign within a reasonable time.

3. The application is denied. The Company will supply the Customer with reasons for denial and offer to meet to discuss possible changes that would result in Company approval. Customer may resubmit application with changes.

If application lacks complete information, Company shall notify Customer that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the 30 business day target to process the application.

The Interconnection Agreement will contain all the terms and conditions for interconnection consistent with those specified in this tariff, inspection and witness test requirements, description of and cost of construction or other changes to the Company's distribution system required to accommodate the generating facility, and

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LEVEL 2(Contd.)
detailed documentation of the generating facilities which may include single line diagrams, relay settings, and description of operation.

Customer may not operate the generating facility until an Interconnection Agreement is signed by the Customer and Company and all necessary conditions stipulated in the agreement are met.

APPLICATION, INSPECTION AND PROCESSING FEES
No application fees or other review, study, or inspection fees are charged by the Company for Level 1 or Level 2 applications.

TERMS AND CONDITIONS FOR INTERCONNECTION
To interconnect to the Company's distribution system, the Customer's generating facility shall comply with the following terms and conditions:

1. The Company shall provide Customer net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the Customer requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the Customer's expense.

2. Customer shall install, operate, and maintain, at Customer's sole cost and expense, any control, protective, or other equipment on the Customer's system required by the Company's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the generating facility in parallel with Company's electric system. Customer shall bear full responsibility for the installation, maintenance and safe operation of the generating facility. Upon reasonable request from the Company, Customer shall demonstrate generating facility compliance.

3. The generating facility shall comply with, and Customer shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by IEEE and accredited testing laboratories such as Underwriters Laboratories; (b) the NEC as may be revised from time to time; (c) Company's rules, regulations, and Company's Service Regulations as contained in Company's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, Customer shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.

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TERMS AND CONDITIONS FOR INTERCONNECTION (Contd.)

4. Any changes or additions to the Company's system required to accommodate the generating facility shall be considered excess facilities. Customer shall agree to pay Company for actual costs incurred for all such excess facilities prior to construction.

5. Customer shall operate the generating facility in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Company's electric system. At all times when the generating facility is being operated in parallel with Company's electric system, Customer shall so operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Company to any of its other customers or to any electric system interconnected with Company's electric system. Customer shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Company's ability to meet its primary responsibility of furnishing reasonably adequate service to its customers.

6. Customer shall be responsible for protecting, at Customer's sole cost and expense, the generating facility from any condition or disturbance on Company's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that the Company shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of the Company.

7. After initial installation, Company shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 application and approval process. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to Customer, Company shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance and operation of the generating facility comply with the requirements of this Tariff.

8. For inverter based systems that are certified by a nationally recognized testing laboratory to meet the requirements of UL 1741, the Company does not require a Customer owned external disconnect switch (EDS). For other generating facility types, an isolation device that satisfies the Company's technical interconnection requirements must be included. Where required by the Company, an eligible Customer shall furnish and install on Customer's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the Customer's energy generating equipment from Company's electric service under the full rated conditions of the Customer's generating facility. The EDS shall be located adjacent to Company's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly

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TERMS AND CONDITIONS FOR INTERCONNECTION (Contd.)

adjacent to the meter, the Customer shall be responsible for ensuring the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Company personnel at all times.

9. Company shall have the right and authority at Company's sole discretion to isolate the generating facility or require the Customer to discontinue operation of the generating facility if Company believes that: (a) continued interconnection and parallel operation of the generating facility with Company's electric system creates or contributes (or may create or contribute) to a system emergency on either Company's or Customer's electric system; (b) the generating facility is not in compliance with the requirements of this Tariff, and the non-compliance adversely affects the safety, reliability or power quality of Company's electric system; or (c) the generating facility interferes with the operation of Company's electric system. In non-emergency situations, Company shall give Customer notice of noncompliance including a description of the specific noncompliance condition and allow Customer a reasonable time to cure the noncompliance prior to isolating the Generating Facilities. In emergency situations, where the Company is unable to immediately isolate or cause the Customer to isolate only the generating facility, the Company may isolate the Customer's entire facility.

10. Customer shall agree that, without the prior written permission from Company, no changes shall be made to the generating facility as initially approved. Increases in generating facility capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in generating facility capacity is allowed without approval.

11. To the extent permitted by law, the Customer shall protect, indemnify and hold harmless the Company and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys fees, for or on account of any injury or death of persons or damage to property caused by the Customer or the Customer's employees, agents, representatives and contractors in tampering with, repairing, maintaining or operating the Customer's generating facility or any related equipment or any facilities owned by the Company except where such injury, death or damage was caused or contributed to by the fault or negligence of the Company or its employees, agents, representatives or contractors.

    The liability of the Company to the Customer for injury to person and property shall be governed by the tariff(s) for the class of service under which the Customer is taking service.

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TERMS AND CONDITIONS FOR INTERCONNECTION (Contd.)

12. The Customer shall maintain general liability insurance coverage (through a standard homeowner's, commercial or other policy) for both Level 1 and Level 2 generating facilities. Customer shall upon request provide Company with proof of such insurance at the time that application is made for net metering.

13. By entering into an Interconnection Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, Company does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.

14. A Customer's generating facility is transferable to other persons or service locations only after notification to the Company has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, customer or location, the Company will verify that the installation is in compliance with this tariff and provide written notification to the customer(s) within 20 business days. If the installation is no longer in compliance with this tariff, the Company will notify the Customer in writing and list what must be done to place the facility in compliance.

15. The Customer shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-026

REQUEST:

Please provide the current PJM transmission rate paid by the Company.?

RESPONSE:

Objection. This request is vague, ambiguous, and unduly burdensome, as the phrase "PJM transmission rate" is susceptible to different interpretations and Duke Energy Kentucky would have to engage in speculation or conjecture to ascertain the intended meaning of this request. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, the Company interprets this request as requesting the total amount of PJM Billing Line Items (BLIs) that contain the word "transmission." Based on this interpretation, please see the below table summing such BLIs for the month of January 2024, the most recent month available. PJM Billing Line Items (BLI) that start with 1000 are charges and BLI's that start with 2000 are credits.

CHARGES	BILLING LINE ITEM NAME	AMOUNT ($)
1100	Network Integration Transmission Service	$2,895,711.55
1108	Transmission Enhancement	$186,379.72
1115	Transmission Enhancement Settlement (EL05-121-009)	($21,800.99)
1130	Firm Point-to-Point Transmission Service	$0.00
1140	Non-Firm Point-to-Point Transmission Service	$0.00
	Total Charges	$3,060,290.28
CREDITS		
2100	Network Integration Transmission Service	$0.00
2130	Firm Point-to-Point Transmission Service	$0.00
2140	Non-Firm Point-to-Point Transmission Service	$6,463.09
	Total Credits	$6,463.09
Total		$3,053,827.19

PERSON RESPONSIBLE:	As to response:	John Swez
	As to objections:	Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-027

REQUEST:

Please provide the FERC transmission revenue requests and rate requests since 2017 inclusive and separately in PDF format for:

a. The Company; and

b. Any and all Duke utility affiliates within the PJM area; and

c. The FERC decision in each of those transmission revenue requirements cases.

RESPONSE:

a. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor. Objecting further, this request is vague, ambiguous, and unduly burdensome, in that the phrases "transmission revenue requests" and "rate requests" are susceptible to different interpretations and Duke Energy Kentucky would have to engage in speculation or conjecture to ascertain the intended meaning of this request. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, the Company interprets the reference to "transmission revenue request and rate requests" to refer to Federal Power Act Section 205 cases filed at FERC. Please see the dockets below for these filings since 2017. All of the dockets are publicly available at the FERC e-library at this link https://elibrary.ferc.gov/eLibrary/search.

Duke Energy Ohio & Duke Energy Kentucky (DEOK)

Line No.	Accession No.	Document Date \ Filed Date	Docket No.	Description	Formula Rate FERC Rate Schedule Number or Tariff Number
	(a)	(b)	(c)	(d)	(e)
1	20180402-5140	04/02/2018	ER18-1274-000	Section 205	PJM OATT, Attachment H-22A & H-22B
2	20181214-5040	12/14/2018	ER19-555-000	Section 205	PJM OATT, Attachment H-22A
3	20190329-5217	03/29/2019	ER19-1483-000	Section 205	PJM OATT, Attachment H-22A
4	20200515-5123	05/15/2020	ER20-1832-000	Order No. 864 Compliance Filing	PJM OATT, Attachment H-22A

5	20210115-5207	01/15/2021	ER20-1832-001	Order No. 864 Compliance Filing	PJM OATT, Attachment H-22A
6	20210316-5124	03/16/2021	ER21-1450-000	Section 205	PJM OATT, Attachment H-22A
7	20220315-5149	3/15/2022	ER-22-1338-000	Section 205	PJM OATT, Attachment H-22A
8	20220321-5144	3/21/2022	ER20-1832-002	Order No. 864 Compliance Filing	PJM OATT, Attachment H-22A
9	20221121-5093	11/21/2022	ER23-470-000	Section 205	PJM OATT, Attachment H-22A
10	20230321-3075	3/21/2023	ER23-1045-000	Section 205	PJM OATT, Attachment H-22A
11	20240220-3026	1/11/2024	ER24-853-000	Section 205	PJM OATT, Attachment H-22A

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The FERC transmission revenue requests and rate requests since 2017 of electric utilities in other jurisdictions have no bearing on the outcome of this case. Objecting further, this request is vague, ambiguous, and unduly burdensome, in that the phrases "transmission revenue requests" and "rate requests" are susceptible to different interpretations and Duke Energy Kentucky would have to engage in speculation or conjecture to ascertain the intended meaning of this request. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor.

c. See response to part a with regard to Duke Energy Kentucky. Regarding other jurisdictions, the Company objects in that this request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. FERC decisions pertaining to electric utilities in other jurisdictions have no bearing on the outcome of this case. Objecting further, this request is vague, ambiguous, and unduly burdensome, in that the phrases "transmission revenue requests" and "rate requests" are susceptible to different interpretations and Duke Energy Kentucky would have to engage in speculation or conjecture to ascertain the intended meaning of this request. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor.

PERSON RESPONSIBLE: Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-028

REQUEST:

Please provide the FERC Form 1 filing in PDF format for each year since 2017 inclusive for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. Objection. This request is overbroad, unduly burdensome insofar as it is seeking information that is of public record and thus is equally accessible to the requestor. Additionally, it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, the FERC Form 1 for end of 2022 is located at this link: https://elibrary.ferc.gov/eLibrary/filedownload?fileid=1e09b106-166b-ca1d-9344-87814bb00000.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The FERC Form 1 filing of electric utilities in other jurisdictions has no bearing on the outcome of this case. Additionally, this request improperly seeks to elicit information that is of public record and thus is equally accessible to the requestor, insofar as the FERC Form 1

is publicly available. Without waiving these objections, to the extent discoverable, and in the spirit of discovery, see response to part a.

PERSON RESPONSIBLE: Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-029

REQUEST:

Please provide the historic total system loads each year since 2017 inclusive and separately for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. Objection. This request is vague, and ambiguous as to what is intended by the terms "historic total system loads," and thus would require speculation and guesswork. Without waiving the objection, to the extent discoverable, and in the spirit of discovery, the Company assumes the request is asking for peak loads, below are the highest DEK peak loads by year since 2017.

Date	Peak MW	Hour Ending (EST)
January 17, 2024*	714	8
August 23, 2023	803	18
June 22, 2022	810	16
August 12, 2021	814	17
July 20, 2020	778	17
July 10, 2019	809	18
June 19, 2018	819	18
August 17, 2017**	805	15
July 19, 2017**	805	17

*2024 data represents DEK peak load as of 2/27/2024

**There were two DEK peak loads of the same amount on different days in 2017

All data is from the Company's TGIS Energy Accounting system as of 2/27/2024. DEK load reported in Energy Accounting system as "DEK Load." This load is inclusive of Longbranch load, but does not include DEK Transmission Losses, consistent with how DEK performs its demand bid with PJM.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The historic total system loads each year since 2017 of electric utilities in other jurisdictions have no bearing on the outcome of this case.

PERSON RESPONSIBLE:

Part a. Legal as to Objections; John Swez as to response

Part b. Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-030

REQUEST:

Please provide the historic generation additions by asset type (i.e., fuel and motive, e.g., gas and combustion turbine or renewable and solar) and by ownership/contractual type (i.e., utility owned or PPA) for each year since 2017 inclusive for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. Please see the table below for a listing of Duke Energy Kentucky assets and type since 2017. Note that Walton 1, 2, and Crittenden have Commercial Operation Dates of 12-14-2017 and Aero Solar has a Commercial Operation Date of 8-31-2022. There has been no change to other DEK assets since 2017. Finally, DEK has no PPA contracts.

Asset	**Type**
East Bend	Coal-Fired Steam Generating Unit
Woodsdale 1	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Woodsdale 2	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Woodsdale 3	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Woodsdale 4	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Woodsdale 5	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Woodsdale 6	Natural Gas Simple Cycle Combustion Turbine, Oil back-up fuel
Walton 1 Solar Power Plant	Solar
Walton 2 Solar Power Plant	Solar
Crittenden Solar Plant	Solar
Aero Solar Plant	Solar

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The historic generation additions by asset type of electric utilities in other jurisdictions have no bearing on the outcome of this case.

PERSON RESPONSIBLE:

Part a. – John Swez
Part b. - Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-031

REQUEST:

Please provide the current state commission authorized weighted average cost of capital for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. The Company's current weighted average cost of capital approved in Case No. 2022-00372 is 7.192%.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The current state commission authorized weighted average cost of capital of electric utilities in other jurisdictions has no bearing on the outcome of this case.

PERSON RESPONSIBLE:

Part a. – Bruce L. Sailers
Part b. - Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-032

REQUEST:

Please provide the current FERC authorized weighted average cost of capital for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, per the Duke Energy Ohio and Duke Energy Kentucky Formula Rate Annual Update of Attachment H-22A on May 15, 2023, the weighted average cost of capital is 7.82% for Duke Energy Kentucky.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The current FERC authorized weighted average cost of capital of electric utilities in other jurisdictions has no bearing on the outcome of this case.

PERSON RESPONSIBLE:

Part a. – Bruce L. Sailers as to response; Legal as to objection.
Part b. - Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-033

REQUEST:

Please provide the discount rate used by the Company in preparing this analysis supporting this filing.

RESPONSE:

The Company used the weighted average cost of capital referenced in Sailers' testimony Attachment BLS-2. See the Company's response to KSES-DR-02-031.

PERSON RESPONSIBLE: Bruce L. Sailers

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-034

REQUEST:

Please provide the capital recovery factor or fixed charge rate (i.e., annual % of capital invested recovered including equity, preferred equity, debt, depreciation, and taxes) for the investment assets of generation, transmission, and distribution for:

a. The Company, and

b. Any and all Duke utility affiliates within the PJM area.

RESPONSE:

a. Objection. This request seeks publicly available information, which is equally available to the requestor. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, in the Company's recent electric rate case, Case No. 2022-00372, a fixed charge rate of 0.8292% was used for additional distribution facilities investments in the Rate LED lighting tariff sheet, KYPSC Electric No. 2, Sheet No. 64, Terms of Service Item 12, as a payment option for interested customers.

b. Objection. This request is overly broad, and unduly burdensome, given that it seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. The capital recovery factor or fixed charge rate of electric utilities and any intervenors in other jurisdictions has no bearing on the outcome of this case. Also, insofar

as this request seeks information which is publicly available, such information is equally available to the requestor.

PERSON RESPONSIBLE:

Part a. – As to response: Bruce L. Sailers
As to objections: Legal
Part b. - Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-035

REQUEST:

Please provide a list and description of the time of use periods applied to any and all rate schedules offered by the Company.

RESPONSE:

Objection. This request improperly seeks information that is of public record and therefore equally available to the requestor. Without waiving this objection, to the extent discoverable, and in the spirit of discovery, currently, the Company offers Rate DT, Rate TT, and Rider LM which all have the same time of use periods. These tariff sheets can be found on the Commission's website, which contains current tariffs of Kentucky public utilities: https://psc.ky.gov/Home/Library?type=Tariffs. The relevant tariff sheets describe the time-of-use periods.

PERSON RESPONSIBLE: As to response: Bruce L. Sailers
As to objection: Legal

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-036

REQUEST:

Please provide the forecasted energy prices by time of use period for the next 25 years used to either offer to prospective new generation developers, to evaluate offered power purchase agreements, or to evaluate prospective Company generation, energy efficiency or demand response programs.

RESPONSE:

Refer to KSES-DR-02-015 CONFIDENTIAL Attachment. The "Energy" tab includes forecasted hourly prices as used to evaluate energy efficiency programs.

PERSON RESPONSIBLE: Melissa Adams

Duke Energy Kentucky
Case No. 2023-00413
KSES's Second Set Data Requests
Date Received: February 21, 2024

KSES-DR-02-037

REQUEST:

Please provide the derived hedging value used by the Company to evaluate non-fossil-fueled generation, demand management and/or storage resources compared to 1) natural gas fired and 2) coal-fired generation.

RESPONSE:

The Company does not derive a hedging value to evaluate non-fossil-fueled generation, demand management and/or storage resources.

PERSON RESPONSIBLE: Matthew Kalemba