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.

ce Z. Sailers

Bruce Sailers Affiant

Subscribed and sworn to before me by Bruce Sailers on this 30^{H} day of \leq ANUARY, 2024.



M. Fusch

My Commission Expires: 1/5/2029

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

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.

Jule

Matt Kalemba Affiant

Subscribed and sworn to before me by Matt Kalemba on this <u>1</u> day of <u>February</u> 2024.



Lemoine

My Commission Expires: July 21, 2024

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 30° day of JANUAN, 2024.

TARY PUBLIC

My Commission Expires:



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

The undersigned, Scott Burnside, Director - Unit Commitment and Post Analysis, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing data requests are true and correct to the best of his knowledge, information and belief.

Scott Burnside, Affiant

Subscribed and sworn to before me by Scott Burnside on this $\frac{2^{h}}{day}$ of $\frac{1}{2}$, 2024.



NOTARY PUBLIC

My Commission Expires: March 20 2027

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.

Donie Melilly

Dominic Melillo Affiant

Subscribed and sworn to before me by Dominic Melillo on this 23_{rd} day of \underline{J}_{anvary} , 2024.

NOTARY PUBLIC

My Commission Expires: July 8,2027



EMILIE SUNDERMAN Notary Public State of Ohio My Comm. Expires July 8, 2027

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 26^{-4} day of ANVMY 2024.

NOTARY PUBLIC

My Commission Expires: $\frac{0}{26}$

JOHN W LONGSHORE, JR. Notary Public - Seal Marion County - State of Indiana Commission Number NP0737063 My Commission Expires Oct 26, 2029

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DATA REQUEST

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KSES-DR-01-001

REQUEST:

Please provide the following information regarding the Company's current NMS customergenerators, for each year from 2018 through 2023. For all requests below that result in a data response, please provide the data in Excel spreadsheet format with formulas intact and cells unlocked.

- a. For each month and year, how many kWh were supplied back to the Company from all Net Metering Service ("NMS") customers? Provide the aggregate amount for each month and year of total received kWh by rate class.
- b. For each month and year, how many kWh of energy produced by the Companies were used by all NMS customers? Provide the aggregate amount for each month and year of total delivered kWh by rate class.
- c. Please explain whether the Company defines "excess generation" on an hourly, daily, or billing period basis, or if none of these, explain how the companies define and measure "excess generation?"
- d. List the number of residential and commercial customers taking NMS service. List the number by each tariff.
- e. List the total installed generation capacity (AC and DC) for customers receiving NMS by each specific tariff.
- f. For each NMS customer, without divulging customer identity of geographic location, please list the capacity (system size in KW) of their Distributed

Generation System, the technology type of that system (e.g., PV, wind, hydro, biomass), the date of interconnected operation, and the rate class. List the total amount of kWh delivered to the grid from each NMS customer in each month.

- g. What was the total combined capacity by rate class of all NMS customers, all residential NMS customers, and all commercial NMS customers for each year?
- h. What percentage of the Company's single hour peak load for the previous year did the aggregate NMS customer generation represent for each year?
- i. Please provide any additional data concerning net metering or generation from NMS customers for the years 2018 through 2023 which the Company has reported to the US Energy Information Administration, FERC, the Kentucky Energy and Environment Cabinet, or any other regulatory agency. This includes but is not limited to data filed on Form EIA-861 for each of those years.
- j. For each NMS customer, please provide the monthly and annual energy consumption data for the year prior to the interconnected operation of the customer generation system. If this data is not available, please explain why not.
- k. For each new NMS account in the years 2021, 2022, and 2023, provide the name of the installation contractor(s) identified on the customer's net metering application.

RESPONSE:

a. Objection. This request is overbroad, unduly burdensome insofar as it is seeking data over an unreasonable time period. Additionally, this request is unreasonable insofar as it seeks information that is of public record and thus is equally accessible to the requestor. Notwithstanding the objection and in the spirit of discovery, please see KSES-DR-01-001(a) Attachment 1 and KSES-DR-01-001(a) Attachment 2.

KSES-DR-01-001(a) Attachment 2 contains data for January 2022 through March 2022 from the Company's legacy billing system. The legacy system did not contain "delivered to" and "received from" data. It only contained the net of those 2 values. Previous data is publicly available in Company's annual net metering filings associated with Case No. 2004-00393. KSES-DR-01-001(a) Attachment 1 contains data for April 2022 through December 2023 from the Company's recently implemented billing system. The new system contains data for both "delivered to" and "received from."

- b. Objection. This request is overbroad, unduly burdensome insofar as it is seeking data over an unreasonable time period. Additionally, this request is unreasonable insofar as it seeks information that is of public record and thus is equally accessible to the requestor. Notwithstanding the objection and in the spirit of discovery, see the attachments to 1(a) referenced above.
- c. For the current net metering program, proposed Rider NM I, excess generation is calculated on a billing cycle basis. The amount of energy consumed from the grid by the customer-generator over the billing period is compared to the amount of energy exported to the grid by the customer-generator over the billing period. If the export amount is greater than the consumed from the grid amount, the difference is the excess generation amount. If the consumed amount is greater than the export amount is greater than the consumed amount is greater than the export amount is greater than the consumed amount is greater than the export amount, then excess generation is zero.
- d. Using the Company's data from the Application, the total number of participants is
 776 broken down as follows by rate class: 760 Rate RS, 13 Rate DS, 2 Rate EH, 1
 Rate DT.

- e. Using the Company's data from the Application, the total number of participants is 776 with Total kW-AC = 5,919. The kW-AC is broken down as follows by rate class: 5,181 Rate RS, 446 Rate DS, 288 Rate EH, 4 Rate DT.
- f. Objection. This request is overbroad and unduly burdensome in that it is designed to elicit customer-specific information that is both irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Furthermore, the request seeks information in a form in which it is not kept in the ordinary course of business by the Company. Notwithstanding the objection and in the spirit of discovery, Using the Company's data from the Application, see KSES-DR-01-001(f) Attachment for a list of customer related data. See KSES-DR-01-001(a) Attachments 1 and 2 for kWh data.
- g. See response to (f) above.
- h. Objection. This request is overbroad, unduly burdensome insofar as it is seeking data over an unreasonable time period. Notwithstanding the objection and in the spirit of discovery, for 2023, one-percent of the prior year system peak (2022) = 8.31 MW. Using kW-AC from 1.f above, the percent of the cap at the end of 2023 = 5.9 MW-AC / 8.3 MW = 71%.

For 2024, one-percent of the prior year system peak (2023) = 8.34 MW. Using kW-AC from current enrollment as of January 10, 2024 = 6.1 MW-AC / 8.3 MW = 73%.

i. Objection. This request is seeking information that is overly broad, vague, ambiguous and would require speculation and guesswork to answer. Moreover, to the extent this request seeks information that is contained in publicly available filings made before the Kentucky Public Service Commission and EIA. As such the information requested is equally accessible to KSES.

- j. Objection. This request is overbroad, unduly burdensome, seeks information that does not exist or is not tracked in the manner requested. Moreover, this request seeks information that is not relevant to these proceedings and is not likely to lead to the discovery of any relevant or admissible evidence.
- k. Objection. This request is overbroad and unduly burdensome as it seeks information that is not relevant to these proceedings and is not likely to lead to the discovery of any relevant or admissible evidence. The installation contractors used by individual customers have no bearing on the reasonableness of the tariffs proposed in this proceeding.

PERSON RESPONSIBLE:

As to objections, Legal As to responses, Bruce L. Sailers

Row Labels	202204	202205	202206	202207	202208	202209	202210	202211	202212	202301	202302	202303	202304	202305	202306	202307	202308	202309	202310	202311	202312	Grand Total
KY - Electric Commercial																						
KYEC_DS																						
Sum of KWH To Customer	169,482	152,974	193,720	193,659	213,581	203,217	168,320	183,118	187,565	187,940	173,142	160,705	159,791	158,422	176,728	176,794	196,640	182,192	167,705	151,236	149,408	3,706,339
Sum of Excess KWH to Duke	20,944	25,185	29,981	29,461	21,309	17,621	18,029	9,388	5,279	3,640	8,855	18,154	22,622	24,926	27,593	21,134	20,992	18,868	13,340	8,268	4,962	370,551
KYEC_DT																						
Sum of KWH To Customer	123,263	111,913	104,122	120,457	124,909	116,977	99,710	96,058	122,436	152,018	136,075	126,259	100,271	92,343	91,685	92,296	106,595	106,619	97,609	92,729	107,965	2,322,310
Sum of Excess KWH to Duke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KYEC_EH																						
Sum of KWH To Customer	45,586	46,551	34,970	31,763	52,962	67,270	42,227	59,216	142,215	165,133	152,793	121,619	114,234	92,067	36,612	33,305	54,653	64,439	61,238	124,419	123,167	1,666,440
Sum of Excess KWH to Duke	90,092	58,384	378	182	36	3	15,512	53,731	322	73	208	2,288	5,150	6,656	114	78	17	11	956	788	648	235,626
KY - Electric Commercial Sum of KWH To Customer	338,331	311,439	332,812	345,879	391,452	387,465	310,256	338,391	452,216	505,091	462,010	408,584	374,296	342,833	305,025	302,396	357,888	353,250	326,551	368,385	380,539	7,695,089
KY - Electric Commercial Sum of Excess KWH to Duke	111,036	83,569	30,360	29,643	21,344	17,624	33,541	63,119	5,601	3,714	9,063	20,442	27,772	31,583	27,707	21,211	21,008	18,879	14,296	9,056	5,610	606,177
KY - Electric Residential																						
KYER_RS																						
Sum of KWH To Customer	741,103	613,519	839,447	1,021,379	987,114	875,674	545,394	569,479	812,462	962,279	806,825	631,078	564,882	450,309	555,430	665,908	775,106	741,661	529,688	555,592	726,068	14,970,397
Sum of Excess KWH to Duke	127,346	163,333	183,500	185,637	157,172	201,040	266,060	194,477	136,385	88,040	162,337	296,917	365,679	426,332	504,555	331,684	334,798	360,355	325,624	272,752	174,508	5,258,531
KY - Electric Residential Sum of KWH To Customer	741,103	613,519	839,447	1,021,379	987,114	875,674	545,394	569,479	812,462	962,279	806,825	631,078	564,882	450,309	555,430	665,908	775,106	741,661	529,688	555,592	726,068	14,970,397
KY - Electric Residential Sum of Excess KWH to Duke	127,346	163,333	183,500	185,637	157,172	201,040	266,060	194,477	136,385	88,040	162,337	296,917	365,679	426,332	504,555	331,684	334,798	360,355	325,624	272,752	174,508	5,258,531
Total Sum of KWH To Customer	1,079,434	924,958	1,172,259	1,367,258	1,378,566	1,263,139	855,650	907,870	1,264,678	1,467,370	1,268,835	1,039,662	939,178	793,142	860,455	968,304	1,132,994	1,094,911	856,239	923,977	1,106,607	22,665,486
Total Sum of Excess KWH to Duke	238,382	246,902	213,860	215,280	178,516	218,664	299,601	257,596	141,986	91,754	171,400	317,359	393,451	457,915	532,262	352,895	355,806	379,234	339,920	281,808	180,118	5,864,708

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Sum of KWH			
	1/1/2022	2/1/2022	3/1/2022
DS	108,610	99,300	73,317
Consume	108,837	99,673	74,419
Export	(227)	(373)	(1,102)
DT	912,384	869,690	827,468
Consume	912,384	869,690	827,468
Export			
EH	118,800	128,400	82,196
Consume	118,800	128,400	82,196
Export			
RS	244,622	227,879	114,825
Consume	244,737	228,650	120,453
Export	(115)	(771)	(5,628)
Grand Total	1,384,416	1,325,269	1,097,806

NEM INDICATOR	CA_ID	Rate Category Key	KWA
Solar	253	KYER_RS	9.0
Solar	518	KYER_RS	3.8
Solar	482	KYER_RS	10.0
Solar	215	KYER_RS	9.6
Solar	412	KYER_RS	25.5
Solar	410	KYER_RS	10.0
Solar	189	KYER_RS	7.6
Solar	640	KYER_RS	7.3
Solar	393	KYER_RS	10.0
Solar	793	KYER_RS	3.6
Solar	698	KYER_RS	5.9
Solar	728	KYER_RS	7.6
Solar	318	KYEC_DS	16.0
Solar	524	KYEC_DT	3.9
Solar	363	KYEC_DS	20.0
Solar	627	KYER_RS	11.4
Solar	124	KYER_RS	10.5
Solar	256	KYER_RS	5.6
Solar	383	KYER_RS	7.5
Solar	643	KYER_RS	11.4
Solar	320	KYER_RS	8.4
Solar	59	KYER_RS	3.0
Solar	157	KYER_RS	9.6
Solar	185	KYER_RS	11.4
Solar	476	KYER_RS	9.9
Solar	625	KYER_RS	11.1
Solar	295	KYER_RS	14.0
Solar	267	KYER_RS	4.5
Solar	734	KYER_RS	6.0
Solar	613	KYER_RS	8.7
Solar	565	KYER_RS	10.0
Solar	777	KYER_RS	12.0
Solar	720	KYER_RS	12.8
Solar	677	KYER_RS	3.6
Solar	757	KYER_RS	7.6
Solar	66	KYER_RS	8.2
Solar	685	KYER_RS	6.0
Solar	160	KYER_RS	2.3
Solar	304	KYER_RS	5.0
Solar	431	KYER_RS	7.5
Solar	254	KYER_RS	5.0
Solar	608	KYER_RS	7.6
Solar	356	KYER_RS	1.4
Solar	483		6.3
Solar	181	KYER_RS	3.4

Rate	kW-AC
KYER_RS	5,181
KYEC_DS	446
KYEC_EH	288
KYEC_DT	4
Total	5,919

Solar	372 KYER_RS	5.4
Solar	327 KYER_RS	7.8
Solar	525 KYER_RS	9.0
Solar	397 KYER_RS	6.0
Solar	471 KYER_RS	8.4
Solar	456 KYER_RS	9.0
Solar	440 KYER_RS	5.7
Solar	663 KYER_RS	4.5
Solar	731 KYER_RS	4.5
Solar	737 KYER_RS	11.7
Solar	736 KYER_RS	7.6
Solar	741 KYER_RS	6.9
Solar	22 KYER_RS	7.6
Solar	278 KYER_RS	4.1
Solar	142 KYER_RS	7.6
Solar	638 KYER_RS	6.0
Solar	211 KYER_RS	2.9
Solar	353 KYER_RS	6.9
Solar	316 KYER_RS	9.6
Solar	691 KYER_RS	2.6
Solar	494 KYER_RS	4.0
Solar	1000 KYER_RS	4.9
Solar	472 KYER_RS	7.6
Solar	301 KYER_RS	5.1
Solar	408 KYER_RS	6.0
Solar	527 KYER_RS	7.6
Solar	401 KYER_RS	8.7
Solar	497 KYER_RS	7.6
Solar	183 KYER_RS	8.0
Solar	118 KYER_RS	2.5
Solar	106 KYER_RS	5.0
Solar	462 KYER_RS	11.3
Solar	532 KYER_RS	5.5
Solar	360 KYER_RS	2.2
Solar	548 KYER_RS	2.2
Solar	196 KYER_RS	19.1
Solar	350 KYER_RS	7.6
Solar	282 KYER_RS	6.0
Solar	216 KYER_RS	15.7
Solar	436 KYER_RS	10.0
Solar	50 KYER_RS	9.9
Solar	382 KYER_RS	8.7
Solar	336 KYER_RS	4.5
Solar	324 KYER_RS	-
Solar	623 KYER_RS	11.4
Solar	526 KYER_RS	8.1

Solar	221 KYER_RS	9.9
Solar	700 KYER_RS	3.9
Solar	317 KYER_RS	9.9
Solar	596 KYER_RS	6.3
Solar	651 KYER_RS	6.9
Solar	695 KYER_RS	4.2
Solar	435 KYEC_DS	9.2
Solar	446 KYEC_DS	20.0
Solar	272 KYER_RS	9.6
Solar	415 KYER_RS	10.0
Solar	502 KYER_RS	7.6
Solar	672 KYER_RS	8.7
Solar	648 KYER_RS	6.5
Solar	137 KYER_RS	12.8
Solar	140 KYER_RS	5.0
Solar	251 KYER_RS	4.0
Solar	83 KYER_RS	3.9
Solar	441 KYER_RS	13.2
Solar	542 KYER_RS	5.8
Solar	531 KYER_RS	4.8
Solar	481 KYER_RS	8.0
Solar	175 KYER_RS	1.5
Solar	484 KYER_RS	7.6
Solar	555 KYER_RS	3.8
Solar	87 KYER_RS	8.0
Solar	262 KYER_RS	7.5
Solar	714 KYER_RS	5.4
Solar	505 KYER_RS	3.8
Solar	173 KYEC_DS	40.0
Solar	328 KYEC_DS	40.0
Solar	423 KYEC_DS	40.0
Solar	416 KYER_RS	7.5
Solar	702 KYEC_EH	264.0
Solar	379 KYER_RS	5.1
Solar	110 KYER_RS	7.6
Solar	131 KYER_RS	7.5
Solar	293 KYER_RS	3.3
Solar	32 KYER_RS	4.3
Solar	357 KYER_RS	7.6
Solar	270 KYER_RS	7.6
Solar	33 KYER_RS	11.0
Solar	280 KYER_RS	6.9
Solar	43 KYER_RS	11.6
Solar	7 KYER_RS	7.5
Solar	690 KYER_RS	5.4
Solar	744 KYER_RS	4.5

Solar	71 KYER_RS	3.6
Solar	3 KYER_RS	6.0
Solar	231 KYER_RS	0.9
Solar	452 KYER_RS	17.6
Solar	186 KYER_RS	5.5
Solar	633 KYER_RS	4.2
Solar	352 KYER_RS	6.3
Solar	347 KYER_RS	5.5
Solar	105 KYER_RS	6.6
Solar	188 KYER_RS	4.3
Solar	392 KYER_RS	7.1
Solar	550 KYER_RS	6.0
Solar	390 KYER_RS	3.5
Solar	716 KYER_RS	9.0
Solar	470 KYER_RS	7.2
Solar	218 KYER_RS	4.5
Solar	533 KYER_RS	9.0
Solar	771 KYER_RS	2.2
Solar	578 KYER_RS	5.0
Solar	767 KYER RS	7.6
Solar	712 KYER_RS	4.5
Solar	689 KYER_RS	6.0
Solar	259 KYER_RS	11.3
Solar	530 KYER_RS	11.4
Solar	230 KYER RS	7.6
Solar	374 KYER_RS	3.8
Solar	563 KYER RS	2.5
Solar	579 KYER_RS	5.2
Solar	98 KYER_RS	1.5
Solar	639 KYER_RS	7.6
Solar	444 KYER_RS	5.0
Solar	474 KYER_RS	11.4
Solar	552 KYER_RS	6.0
Solar	80 KYER_RS	6.1
Solar	308 KYER_RS	6.9
Solar	730 KYER_RS	6.0
Solar	55 KYER_RS	3.3
Solar	738 KYER_RS	9.6
Solar	628 KYEC_DS	168.0
Solar	21 KYER RS	5.0
Solar	37 KYER_RS	7.5
Solar		3.0
Solar	457 KYER_RS	3.8
Solar		5.0
Solar	460 KYER_RS	12.6
Solar	27 KYER_RS	12.0

Solar	39 KY	ER_RS	8.0
Solar	459 KY	ER_RS	3.5
Solar	135 KY	ER_RS	13.1
Solar	194 KY	ER_RS	20.0
Solar	145 KY	ER_RS	20.0
Solar	273 KY	ER_RS	5.0
Solar	76 KY	ER_RS	5.8
Solar	539 KY	ER_RS	5.7
Solar	655 KY	ER_RS	7.6
Solar	48 KY	ER_RS	10.0
Solar	65 KY	ER_RS	5.7
Solar	760 KY	ER_RS	10.0
Solar	729 KY	ER_RS	3.2
Solar	54 KY	ER_RS	7.6
Solar	788 KY	ER_RS	7.0
Solar	797 KY	ER_RS	9.3
Solar	659 KY	ER_RS	20.3
Solar	243 KY	ER_RS	3.9
Solar	645 KY	ER_RS	7.6
Solar	252 KY	ER_RS	10.5
Solar	134 KY	ER_RS	12.6
Solar	104 KY	ER_RS	13.1
Solar	602 KY	ER_RS	5.7
Solar	335 KY	ER_RS	6.6
Solar	85 KY	ER RS	15.7
Solar	62 KY	ER_RS	2.9
Solar	538 KY	ER_RS	4.5
Solar	754 KY	ER_RS	5.7
Solar	721 KY	ER_RS	7.6
Solar	673 KY	ER_RS	6.5
Solar	796 KY	ER_RS	10.7
Solar	1 KY	EC_DS	15.8
Solar	404 KY	EC_DS	34.6
Solar	205 KY	ER_RS	2.6
Solar	234 KY	ER_RS	5.8
Solar	637 KY	ER_RS	3.6
Solar	434 KY	ER_RS	4.8
Solar	10 KY	ER_RS	4.1
Solar	179 KY	ER_RS	5.0
Solar	102 KY	ER_RS	10.2
Solar	396 KY	ER_RS	5.1
Solar	405 KY	ER_RS	10.0
Solar	184 KY	ER_RS	6.7
Solar	93 KY	ER_RS	4.5
Solar	229 KY	ER_RS	11.4
Solar	722 KY	ER_RS	7.6

Solar 40	KYER_RS	5.7
Solar 764	KYER_RS	4.5
Solar 359	KYEC_EH	24.0
Solar 500	KYER_RS	4.2
Solar 213	KYER_RS	10.5
Solar 108	KYER_RS	7.6
Solar 540	KYER_RS	2.9
Solar 572	KYER_RS	11.8
Solar 208	KYER_RS	13.8
Solar 197	KYER_RS	4.8
Solar 299	KYER_RS	4.2
Solar 597	KYER_RS	5.0
Solar 537	KYER_RS	3.6
Solar 570	KYER_RS	6.0
Solar 414	KYER_RS	5.3
Solar 279	KYER_RS	3.9
Solar 346	KYER_RS	4.0
Solar 670	KYER_RS	13.5
Solar 774	KYER_RS	11.4
Solar 275	KYER_RS	5.8
Solar 785	KYER_RS	7.5
Solar 535	KYER_RS	8.4
Solar 473	KYER_RS	13.7
Solar 70	KYER_RS	5.4
Solar 334	KYER_RS	6.0
Solar 94	KYER_RS	7.6
Solar 426	KYER_RS	9.6
Solar 250	KYER_RS	7.0
Solar 248	KYER_RS	2.7
Solar 551	KYER_RS	6.4
Solar 422	KYER_RS	11.4
Solar 29	KYER_RS	3.8
Solar 343	KYER_RS	4.2
Solar 224	KYER_RS	5.0
Solar 153	KYER_RS	16.0
Solar 344	KYER_RS	8.7
Solar 442	KYER_RS	10.0
Solar 198	KYER_RS	5.0
Solar 367	KYER_RS	5.3
Solar 566	KYER_RS	4.3
Solar 630	KYER_RS	5.3
Solar 220	KYER_RS	10.0
Solar 541	KYER_RS	6.1
Solar 740	KYER_RS	6.1
Solar 52	KYER_RS	3.8
Solar 567	KYER_RS	6.0

Solar 86	KYER_RS	7.6
Solar 172	KYER_RS	3.0
Solar 4	KYER_RS	11.4
Solar 303	KYER_RS	5.8
Solar 590	KYER_RS	8.4
Solar 266	KYER_RS	15.2
Solar 44	KYER_RS	2.0
Solar 406	KYER_RS	5.8
Solar 407	KYER_RS	6.0
Solar 591	KYER_RS	3.0
Solar 791	KYER_RS	7.6
Solar 680	KYER_RS	15.2
Solar 783	KYER_RS	6.0
Solar 789	KYER_RS	3.0
Solar 58	KYEC_DS	7.1
Solar 515	KYEC_DS	2.0
Solar 801	KYER_RS	5.0
Solar 355	KYER_RS	5.7
Solar 604	KYER_RS	10.0
Solar 332	KYER_RS	6.4
Solar 752	KYER_RS	4.6
Solar 264	KYER_RS	4.5
Solar 79	KYER_RS	11.3
Solar 490	KYER_RS	5.1
Solar 309	KYER_RS	5.0
Solar 171	KYER_RS	11.6
Solar 803	KYER_RS	2.5
Solar 36	KYER_RS	4.7
Solar 223	KYER_RS	8.1
Solar 82	KYER_RS	7.6
Solar 117	KYER_RS	10.0
Solar 493	KYER_RS	7.3
Solar 274	KYER_RS	5.8
Solar 114	KYER_RS	6.9
Solar 743	KYER_RS	7.6
Solar 23	KYER_RS	13.3
Solar 661	KYER_RS	3.2
Solar 232	KYER_RS	9.0
Solar 488	KYER_RS	7.6
Solar 733	KYER_RS	7.6
Solar 601	KYER_RS	9.6
Solar 450	KYER_RS	7.8
Solar 61	KYEC_DS	33.3
Solar 146	KYER_RS	11.0
Solar 549	KYER_RS	6.0
Solar 583	KYER_RS	7.0

Solar 90	KYER_RS	7.6
Solar 147	KYER_RS	6.2
Solar 626	KYER_RS	7.3
Solar 620	KYER_RS	4.9
Solar 694	KYER_RS	5.1
Solar 97	KYER_RS	6.0
Solar 589	KYER_RS	7.3
Solar 745	KYER_RS	7.0
Solar 277	KYER_RS	7.6
Solar 773	KYER_RS	9.0
Solar 654	KYER_RS	6.4
Solar 290	KYER_RS	7.2
Solar 688	KYER_RS	8.7
Solar 123	KYER_RS	6.5
Solar 136	KYER_RS	7.6
Solar 133	KYER_RS	4.8
Solar 592	KYER_RS	7.6
Solar 409	KYER_RS	3.0
Solar 560	KYER_RS	5.2
Solar 323	KYER_RS	9.0
Solar 313	KYER_RS	9.3
Solar 341	KYER_RS	6.0
Solar 528	KYER_RS	2.3
Solar 395	KYER_RS	6.5
Solar 296	KYER_RS	8.7
Solar 192	KYER_RS	7.6
Solar 247	KYER_RS	4.9
Solar 739	KYER_RS	5.1
Solar 519	KYER_RS	7.8
Solar 149	KYER_RS	6.7
Solar 742	KYER_RS	9.9
Solar 75	KYER_RS	4.9
Solar 16	KYER_RS	5.0
Solar 466	KYER_RS	7.6
Solar 35	KYER_RS	9.0
Solar 42	KYER_RS	7.5
Solar 255	KYER_RS	4.4
Solar 69	KYER_RS	6.3
Solar 298	KYER_RS	5.8
Solar 584	KYER_RS	3.3
Solar 769	KYER_RS	2.3
Solar 632	KYER_RS	7.6
Solar 38	KYER_RS	7.6
Solar 377	KYER_RS	8.0
Solar 319	KYER_RS	11.5
Solar 562	KYER_RS	7.6

Solar	682 KYER_RS	3.0
Solar	325 KYER_RS	2.9
Solar	156 KYER_RS	7.6
Solar	417 KYER_RS	3.8
Solar	662 KYER_RS	8.0
Solar	614 KYER_RS	4.1
Solar	636 KYER_RS	3.0
Solar	782 KYER_RS	6.0
Solar	806 KYER_RS	10.0
Solar	333 KYER_RS	5.8
Solar	388 KYER_RS	7.6
Solar	294 KYER_RS	9.1
Solar	287 KYER_RS	3.5
Solar	207 KYER_RS	3.8
Solar	403 KYER_RS	5.0
Solar	292 KYER_RS	10.0
Solar	679 KYER_RS	9.6
Solar	513 KYER_RS	7.5
Solar	376 KYER_RS	2.3
Solar	246 KYER_RS	10.0
Solar	214 KYER_RS	8.4
Solar	95 KYER_RS	6.1
Solar	768 KYER RS	4.9
Solar	756 KYER_RS	5.2
Solar	586 KYER RS	5.0
Solar	217 KYER_RS	5.0
Solar	199 KYER_RS	6.7
Solar	245 KYER_RS	3.2
Solar	368 KYER RS	2.9
Solar	190 KYER_RS	4.6
Solar	330 KYER_RS	7.0
Solar	373 KYER_RS	7.5
Solar	41 KYER RS	4.1
Solar	302 KYER_RS	6.7
Solar	103 KYER_RS	6.0
Solar	338 KYER_RS	6.9
Solar	12 KYER RS	7.6
Solar	664 KYER_RS	9.6
Solar	718 KYER_RS	10.2
Solar	618 KYER_RS	4.9
Solar	380 KYER_RS	7.3
Solar	437 KYER_RS	6.0
Solar	506 KYER_RS	7.6
Solar	180 KYER_RS	7.6
Solar	67 KYER_RS	5.6
Solar	228 KYER_RS	2.0
	—	

Solar	516 KYER_RS	10.4
Solar	838 KYER_RS	4.1
Solar	63 KYER_RS	8.3
Solar	57 KYER_RS	6.0
Solar	165 KYER_RS	10.0
Solar	656 KYER_RS	4.7
Solar	193 KYER_RS	6.7
Solar	779 KYER_RS	4.1
Solar	469 KYER_RS	3.5
Solar	748 KYER_RS	5.0
Solar	348 KYER_RS	6.4
Solar	322 KYER_RS	3.0
Solar	119 KYER_RS	4.6
Solar	790 KYER_RS	3.8
Solar	707 KYER_RS	7.1
Solar	5 KYER_RS	6.1
Solar	64 KYER_RS	5.9
Solar	268 KYER_RS	9.1
Solar	271 KYER_RS	7.5
Solar	585 KYER_RS	5.3
Solar	125 KYER_RS	10.2
Solar	784 KYER_RS	5.0
Solar	501 KYER_RS	3.2
Solar	34 KYER_RS	5.0
Solar	236 KYER_RS	6.0
Solar	30 KYER_RS	6.0
Solar	683 KYER_RS	3.0
Solar	660 KYER_RS	6.3
Solar	421 KYER_RS	7.3
Solar	468 KYER_RS	10.0
Solar	765 KYER_RS	8.3
Solar	46 KYER_RS	8.9
Solar	384 KYER_RS	5.6
Solar	573 KYER_RS	10.0
Solar	182 KYER_RS	6.9
Solar	127 KYER_RS	7.0
Solar	430 KYER_RS	5.0
Solar	307 KYER_RS	7.6
Solar	226 KYER_RS	7.6
Solar	99 KYER_RS	4.6
Solar	616 KYER_RS	11.4
Solar	202 KYER_RS	10.0
Solar	420 KYER_RS	5.3
Solar	711 KYER_RS	6.7
Solar	151 KYER_RS	9.6
Solar	242 KYER_RS	6.0

Solar	166 KYER_RS	7.0
Solar	115 KYER_RS	6.4
Solar	326 KYER_RS	4.9
Solar	534 KYER_RS	16.4
Solar	657 KYER_RS	3.5
Solar	201 KYER_RS	5.2
Solar	479 KYER_RS	4.1
Solar	820 KYER_RS	5.8
Solar	239 KYER_RS	7.6
Solar	569 KYER_RS	6.4
Solar	60 KYER_RS	4.9
Solar	751 KYER_RS	7.6
Solar	520 KYER_RS	8.1
Solar	631 KYER_RS	11.1
Solar	758 KYER_RS	7.0
Solar	263 KYER_RS	6.0
Solar	641 KYER_RS	12.9
Solar	222 KYER_RS	4.1
Solar	517 KYER_RS	4.2
Solar	574 KYER_RS	7.5
Solar	285 KYER_RS	6.0
Solar	709 KYER_RS	8.1
Solar	375 KYER_RS	4.7
Solar	617 KYER_RS	6.8
Solar	19 KYER_RS	7.6
Solar	329 KYER_RS	7.6
Solar	342 KYER_RS	3.5
Solar	735 KYER_RS	3.5
Solar	609 KYER_RS	5.0
Solar	176 KYER_RS	5.5
Solar	674 KYER_RS	8.1
Solar	831 KYER_RS	29.0
Solar	629 KYER_RS	16.0
Solar	13 KYER_RS	5.7
Solar	593 KYER_RS	10.9
Solar	261 KYER_RS	6.9
Solar	225 KYER_RS	3.2
Solar	647 KYER_RS	7.6
Solar	121 KYER_RS	5.8
Solar	276 KYER_RS	13.9
Solar	283 KYER_RS	2.4
Solar	411 KYER_RS	4.1
Solar	545 KYER_RS	3.5
Solar	438 KYER_RS	5.0
Solar	705 KYER_RS	4.5
Solar	81 KYER_RS	7.6

Solar	370 KYER_RS	7.3
Solar	496 KYER_RS	3.0
Solar	509 KYER_RS	7.6
Solar	203 KYER_RS	11.6
Solar	815 KYER_RS	5.0
Solar	606 KYER_RS	5.8
Solar	624 KYER_RS	8.1
Solar	701 KYER_RS	3.5
Solar	669 KYER_RS	7.6
Solar	556 KYER_RS	2.6
Solar	73 KYER_RS	5.8
Solar	129 KYER_RS	7.3
Solar	178 KYER_RS	2.3
Solar	571 KYER_RS	3.3
Solar	311 KYER_RS	8.4
Solar	144 KYER_RS	5.8
Solar	170 KYER_RS	7.6
Solar	249 KYER_RS	10.0
Solar	708 KYER_RS	7.6
Solar	480 KYER_RS	5.2
Solar	558 KYER_RS	7.5
Solar	746 KYER_RS	6.3
Solar	725 KYER_RS	3.0
Solar	163 KYER_RS	9.3
Solar	544 KYER_RS	5.0
Solar	808 KYER_RS	10.0
Solar	818 KYER_RS	5.8
Solar	723 KYER_RS	11.6
Solar	821 KYER_RS	5.1
Solar	77 KYER_RS	9.0
Solar	212 KYER_RS	6.3
Solar	536 KYER_RS	10.4
Solar	418 KYER_RS	5.5
Solar	580 KYER_RS	5.0
Solar	464 KYER_RS	8.1
Solar	260 KYER_RS	6.0
Solar	498 KYER_RS	4.4
Solar	45 KYER_RS	6.7
Solar	340 KYER_RS	4.6
Solar	684 KYER_RS	5.2
Solar	398 KYER_RS	4.6
Solar	244 KYER_RS	4.4
Solar	28 KYER_RS	4.1
Solar	314 KYER_RS	3.8
Solar	439 KYER_RS	3.5
Solar	652 KYER_RS	11.4

Solar	827 KYER_RS	6.7
Solar	747 KYER_RS	4.2
Solar	14 KYER_RS	7.0
Solar	451 KYER_RS	7.2
Solar	257 KYER_RS	10.0
Solar	358 KYER_RS	7.2
Solar	511 KYER_RS	6.3
Solar	491 KYER_RS	3.0
Solar	805 KYER_RS	6.6
Solar	603 KYER_RS	7.5
Solar	499 KYER_RS	6.3
Solar	726 KYER_RS	3.0
Solar	128 KYER_RS	8.1
Solar	17 KYER_RS	3.3
Solar	161 KYER_RS	5.7
Solar	600 KYER_RS	7.0
Solar	564 KYER_RS	5.7
Solar	507 KYER_RS	6.7
Solar	825 KYER_RS	6.9
Solar	6 KYER_RS	3.3
Solar	514 KYER_RS	11.6
Solar	553 KYER_RS	9.0
Solar	454 KYER_RS	8.0
Solar	780 KYER_RS	11.3
Solar	812 KYER_RS	9.6
Solar	113 KYER_RS	2.3
Solar	595 KYER_RS	3.6
Solar	475 KYER_RS	3.9
Solar	432 KYER_RS	7.6
Solar	486 KYER_RS	5.4
Solar	489 KYER_RS	5.1
Solar	715 KYER_RS	7.6
Solar	492 KYER_RS	10.0
Solar	56 KYER_RS	3.6
Solar	96 KYER_RS	4.8
Solar	559 KYER_RS	4.4
Solar	177 KYER_RS	8.7
Solar	219 KYER_RS	6.0
Solar	51 KYER_RS	10.0
Solar	667 KYER_RS	9.0
Solar	666 KYER_RS	6.4
Solar	169 KYER_RS	5.2
Solar	778 KYER_RS	3.8
Solar	522 KYER_RS	5.2
Solar	9 KYER_RS	8.1
Solar	167 KYER_RS	13.3

Solar	802 KYER_RS	7.0
Solar	792 KYER_RS	4.8
Solar	681 KYER_RS	7.6
Solar	635 KYER_RS	10.7
Solar	366 KYER_RS	4.8
Solar	611 KYER_RS	5.8
Solar	445 KYER_RS	9.0
Solar	794 KYER_RS	10.8
Solar	53 KYER_RS	7.2
Solar	378 KYER_RS	3.8
Solar	394 KYER_RS	15.0
Solar	817 KYER_RS	6.4
Solar	546 KYER_RS	10.8
Solar	521 KYER_RS	5.7
Solar	576 KYER_RS	7.6
Solar	587 KYER_RS	10.2
Solar	428 KYER_RS	10.0
Solar	78 KYER_RS	4.5
Solar	787 KYER_RS	7.0
Solar	150 KYER_RS	7.0
Solar	646 KYER_RS	7.2
Solar	312 KYER_RS	7.8
Solar	772 KYER_RS	3.9
Solar	148 KYER_RS	7.0
Solar	650 KYER_RS	4.8
Solar	158 KYER_RS	4.1
Solar	424 KYER_RS	6.4
Solar	800 KYER_RS	6.0
Solar	300 KYER_RS	2.6
Solar	704 KYER_RS	4.8
Solar	155 KYER_RS	5.1
Solar	692 KYER_RS	6.0
Solar	141 KYER_RS	4.9
Solar	732 KYER_RS	9.9
Solar	755 KYER_RS	7.0
Solar	811 KYER_RS	6.1
Solar	813 KYER_RS	6.7
Solar	26 KYER_RS	4.2
Solar	238 KYER_RS	5.7
Solar	775 KYER_RS	11.4
Solar	575 KYER_RS	4.9
Solar	15 KYER_RS	3.6
Solar	776 KYER_RS	3.8
Solar	568 KYER_RS	8.7
Solar	786 KYER_RS	11.4
Solar	364 KYER_RS	7.8

Solar	413 KYER_RS	4.8
Solar	594 KYER_RS	5.4
Solar	386 KYER_RS	16.4
Solar	781 KYER_RS	4.9
Solar	823 KYER_RS	4.1
Solar	227 KYER_RS	3.4
Solar	20 KYER_RS	6.9
Solar	455 KYER_RS	3.0
Solar	164 KYER_RS	3.3
Solar	429 KYER_RS	4.4
Solar	233 KYER_RS	7.2
Solar	47 KYER_RS	10.0
Solar	449 KYER_RS	6.1
Solar	467 KYER_RS	7.2
Solar	826 KYER_RS	1.0
Solar	235 KYER_RS	8.1
Solar	653 KYER_RS	3.8
Solar	425 KYER_RS	5.0
Solar	100 KYER_RS	4.6
Solar	159 KYER_RS	6.1
Solar	621 KYER_RS	4.5
Solar	607 KYER_RS	7.6
Solar	830 KYER_RS	6.6
Solar	834 KYER_RS	11.4
Solar	139 KYER_RS	6.9
Solar	644 KYER_RS	11.4
Solar	615 KYER_RS	7.2
Solar	588 KYER_RS	15.0
Solar	599 KYER_RS	5.2
Solar	761 KYER_RS	4.5
Solar	649 KYER_RS	3.5
Solar	699 KYER_RS	6.0
Solar	829 KYER_RS	3.9
Solar	387 KYER_RS	4.8
Solar	321 KYER_RS	11.4
Solar	814 KYER_RS	7.6
Solar	120 KYER_RS	7.2
Solar	74 KYER_RS	7.6
Solar	804 KYER_RS	4.4
Solar	759 KYER_RS	2.3
Solar	389 KYER_RS	8.7
Solar	762 KYER_RS	4.1
Solar	717 KYER_RS	5.2
Solar	101 KYER_RS	7.5
Solar	770 KYER_RS	11.0
Solar	510 KYER_RS	3.0

Solar	529 K	YER_RS	5.8
Solar	122 K	YER_RS	5.0
Solar	658 K	YER_RS	5.0
Solar	622 K	YER_RS	5.0
Solar	504 K	YER_RS	4.5
Solar	816 K	YER_RS	10.0
Solar	833 K	YER_RS	7.6
Solar	289 K	YER_RS	9.3
Solar	126 K	YER_RS	3.8
Solar	237 K	YER_RS	10.7
Solar	315 K	YER_RS	6.1
Solar	828 K	YER_RS	3.0
Solar	676 K	YER_RS	5.2
Solar	619 K	YER_RS	7.6
Solar	753 K	YER_RS	3.2
Solar	824 K	YER_RS	5.7
Solar	487 K	YER_RS	3.0
Solar	306 K	YER_RS	7.5
Solar	349 K	YER_RS	7.6
Solar	92 K	YER_RS	3.0
Solar	49 K	YER_RS	7.6
Solar	836 K	YER_RS	9.6
Solar	433 K	YER_RS	3.5
Solar	727 K	YER_RS	5.0
Solar	269 K	YER_RS	3.0
Solar	8 K	YER_RS	10.2
Solar	810 K	YER_RS	4.5
Solar	835 K	YER_RS	8.1
Solar	111 K	YER_RS	3.8
Solar	18 K	YER_RS	7.2
Solar	581 K	YER_RS	4.9
Solar	463 K	YER_RS	3.0
Solar	337 K	YER_RS	8.4
Solar	399 K	YER_RS	7.8
Solar	116 K	YER_RS	13.9
Solar	832 K	YER_RS	2.9
Solar	138 K	YER_RS	8.7
Solar	844 K	YER_RS	5.2
Solar	91 K	YER_RS	5.0
Solar	400 K	YER_RS	8.7
Solar	697 K	YER_RS	7.6
Solar	88 K	YER_RS	7.0
Solar	749 K	YER_RS	7.8
Solar	402 K	YER_RS	10.0
Solar	371 K	YER_RS	10.0
Solar	265 K	YER_RS	8.1

Solar	503 KYER_RS	9.4
Solar	112 KYER_RS	5.1
Solar	24 KYER_RS	8.4
Solar	822 KYER_RS	9.6
Solar	448 KYER_RS	4.9
Solar	819 KYER_RS	8.7
Solar	605 KYER_RS	6.0
Solar	837 KYER_RS	4.5
Solar	843 KYER_RS	5.7
Solar	671 KYER_RS	4.4
Solar	191 KYER_RS	7.6
Solar	766 KYER_RS	4.1
Solar	706 KYER_RS	4.1
Solar	839 KYER_RS	3.5
Solar	543 KYER_RS	4.4
Solar	485 KYER_RS	9.9
Solar	2 KYER_RS	5.5
Solar	807 KYER_RS	3.3
Solar	168 KYER_RS	3.2
Solar	710 KYER_RS	10.0
Solar	713 KYER_RS	4.6
Solar	610 KYER_RS	7.3
Solar	840 KYER_RS	5.4
Solar	842 KYER_RS	6.3
Solar	200 KYER_RS	3.8
Solar	369 KYER_RS	5.4
Solar	291 KYER_RS	6.4
Solar	465 KYER_RS	5.1
Solar	719 KYER_RS	7.2
Solar	687 KYER_RS	5.1
Solar	557 KYER_RS	4.4
Solar	477 KYER_RS	3.2
Solar	310 KYER_RS	8.4
Solar	703 KYER_RS	2.6
Solar	841 KYER_RS	3.5
Solar	478 KYER_RS	5.0
Solar	241 KYER_RS	5.2
Solar	845 KYER_RS	6.0
Solar	89 KYER_RS	5.7
Solar	642 KYER_RS	13.1
Solar	809 KYER_RS	4.8

KSES-DR-01-002

REQUEST:

Explain how each surcharge will be handled for NMS-II customers? Will those surcharges that are based on kWh usage be treated as they are with NMS-I now (i.e. based on the net kWh in a billing cycle)? With NMS-II, will monthly net excess kWh carry forward to offset future billing cycle surcharges as is done under NMS-I now?

RESPONSE:

Objection. This question is vague, ambiguous as to what is intended by the terms "surcharge" and "surcharges," and thus would require speculation and guesswork. Without waiving said objection, to the extent discoverable, and in the spirit of discovery, for Rider NM II, Excess Generation is the amount of solar generation exported by the customer to the distribution grid. Such excess generation is converted into a dollar value and compensated via a credit to the customer in the form of a dollar value, as required by statute. For examples of how bills will be calculated in specified hypothetical scenarios, please see responses to AG-DR-01-001, AG-DR-01-002.

PERSON RESPONSIBLE: Bruce L. Sailers

KSES-DR-01-003

REQUEST:

Do you agree that there are two independent elements to a crediting method for "excess energy" fed by customer generators to the grid:

- a. Whether or not the credit for "excess energy" is calculated in KWh or a dollar value; and
- b. Whether or not excess energy is defined as energy exported to the grid at any moment, or the difference between the amount of energy consumed from the grid over the billing period and the amount of energy exported to the grid over the billing period?
- c. How does the Company define what is "excess energy?" Specifically, does the Company propose to aggregate over the billing period all energy generated by the NMS-II customer that is fed into the grid and to net that against the energy used by that customer, and then apply the tariffed retail rate to any usage over generation, or the proposed compensatory credit rate to any generation over usage over that billing period? Or does the Company propose to apply the compensatory credit rate to all electricity fed into the grid instantaneously?

RESPONSE:

a. The Company agrees that one of the elements of determining how a customer is compensated for excess generation involves the dollar value of excess energy. KRS

278.466(4) states that the compensation should be in the form of a dollardenominated bill credit.

- b. The Company's proposal is based on KRS 278.466. Subsection (3) states that all electricity that flows to the Company should be compensated by the rate set by the Commission. In addition, KRS 278.465(4) states that "net metering" is the difference between the dollar value of all electricity generated and fed back to the Company and the dollar value of all electricity consumed by the customer from the Company.
- c. See responses to KSES-DR-01-002 and KYSEIA-DR-01-005, Item (a)i. The Company will compensate all kWh fed into the grid at the approved ACEGC.

PERSON RESPONSIBLE: Bruce L. Sailers

CONFIDENTIAL KSES-DR-01-004 (As to Certain Attachments only)

REQUEST:

Please refer to the Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc. at p. 16, line 8. Is the Company aware of the Commissions Orders in Case Nos. 2020-00174,¹ in addition to those in 2020-00349 & 2020-00350?²

- a. In the present application, please explain how each of the guiding principles developed by the Commission in those cases were addressed and incorporated into the formulation of each the proposed tariffs. *See* Case No. 2020-00174, May 14, 2021 Order at 21-24; and Case Nos. 2020- 00349 and 2020-003509, Sept. 24, 2021 Order at 41-42.
- b. Please explain how the components of the Commission's Avoided Cost Rate Calculations in those cases were considered and calculated in this filing, and the basis and formulae for how each was calculated. Provide all supporting workpapers

¹ In the Matter of: *ELECTRONIC APPLICATION OF KENTUCKY POWER COMPANY FOR (1) A GENERAL ADJUSTMENT OF ITS RATES FOR ELECTRIC SERVICE; (2) APPROVAL OF TARIFFS AND RIDERS; (3) APPROVAL OF ACCOUNTING PRACTICES TO ESTABLISH REGULATORY ASSETS AND LIABILITIES; (4) APPROVAL OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY; AND (5) ALL OTHER REQUIRED APPROVALS AND RELIEF,* CASE NO. 2020-00174, Order, May 14, 2014. ² ELECTRONIC APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES, A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO DEPLOY *ADVANCED METERING INFRASTRUCTURE, APPROVAL OF CERTAIN REGULATORY AND ACCOUNTING TREATMENTS, AND ESTABLISHMENT OF A ONE-YEAR SURCREDIT;* CASE NO. 2020-00349 and ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN *ADJUSTMENT OF ITS ELECTRIC AND GAS RATES, A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO DEPLOY ADVANCED METERING INFRASTRUCTURE, APPROVAL OF CERTAIN REGULATORY AND ACCOUNTING TREATMENTS, AND ESTABLISHMENT, AND ESTABLISHMENT OF A ONE-YEAR SURCREDIC SURCREDIT, CASE NO. 2020-00350, Order, Sept. 24, 2021.*
in native format with formulas intact and cells unlocked for the calculation and formulation of:

- 1. avoided energy cost,
- 2. avoided generation capacity cost,
- 3. avoided transmission capacity cost,
- 4. avoided distribution capacity cost,
- 5. avoided ancillary services cost,
- 6. avoided carbon cost,
- 7. avoided environmental compliance cost, and
- 8. jobs benefits.
- c. Please explain how the Company considered compliance with future environmental requirements such as EPA's proposed 111(d) rule,³ Good Neighbor Plan for the 2015 ozone standard,⁴ updated National Ambient Air Quality Standards for Particulate Matter,⁵ and other possible future requirements such as a further reduction in the ozone NAAQS or water effluent limitation guidelines?
- d. On p.5 of his testimony, Mr. Kalemba states, "The Company did not include a Carbon Tax in the development of the LMPs because the IRA is already achieving the same outcomes that a Carbon Tax would promote." Is it Mr. Kalemba's view that the IRA is achieving the maximum possible reduction in carbon emissions in

³ US EPA, New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, 88 Fed. Reg. 33,240 (May 23, 2023).

⁴ US EPA, *Federal 'Good Neighbor Plan' for the 2015 Ozone National Ambient Air Quality Standards*, 88 Fed. Reg. 36,654 (June 5, 2023).

⁵ US EPA, *Reconsideration of the National Ambient Air Quality Standards for Particulate Matter*, 88 Fed. Reg. 5,558 (Jan. 27, 2023).

the US energy system and that a carbon tax, in addition to the existing IRA policies, would have no impact on energy pricing, fuel or technology choices?

RESPONSE:

<u>CONFIDENTIAL PROPRIETARY TRADE SECRET</u> (As to Certain Attachments only)

- a. Objection. This request is improper insofar as it calls for legal conclusions or arguments. Notwithstanding this objection and in the spirit of discovery, the cited orders speak for themselves as does the Company's Application. The Company has incorporated the Commission's guiding principles as follows:
 - 1. Evaluate eligible generating facilities as a utility system or supply side resource.
 - a. The Company has reviewed customer-generator resources similarly, appropriately adjusted for the Company's system, to prior Commission orders.
 - 2. Treat benefits and costs symmetrically.
 - The Company has reviewed and commented on the Commission's list of avoided costs.
 - 3. Conduct forward-looking, long-term, and incremental analysis.
 - a. The Company uses a 25-year, forward looking analysis to establish the ACEGC value.
 - 4. Avoid double counting.
 - a. The Company has clearly defined and carefully quantified impacts to the system. The Company has also proposed to avoid double counting as it relates to PJM implementation of FERC Order 2222.
 - 5. Ensure transparency.

- a. The Company has attempted to be transparent through stakeholder engagement discussions and where appropriate, uses publicly available information.
- b. All components are discussed in the testimony of Mr. Sailers. See also KSES-DR-01-004 Confidential Attachment. This confidential attachment is the same as Confidential Attachment BLS-3 to the Direct Testimony of Mr. Sailers, but with all formulas intact.

For (b)1, also see KSES-DR-01-004(b) Attachment 1, PVWatts data export for hourly weights calculation, and KSES-DR-01-004(b) Attachment 2, calculation of residential excess generation hourly weights.

For (b)2 through (b)4, also see the confidential attachment in response to AG-DR-01-004. The Company calculated the 2022 values for the avoided distribution and transmission capacity costs using cells C10 and C16, respectively, on the Results tab and multiplying by the escalator value in cell E56 on the T&D Escalator tab. For (b)5, see KSES-DR-01-004(b) Confidential Attachment 3.

c. Objection. This request improperly requires speculation regarding possible future regulations. Additionally, insofar as it might seek information that, on the basis of attorney-client privilege is not subject to disclosure. Furthermore, the request improperly seeks information that is neither relevant to this proceeding nor likely to lead to the discovery of admissible evidence in this proceeding. Notwithstanding these objections, the impacts of the Good Neighbor Plan are reflected in the NOx/SO2 allowance prices input into the Encompass dispatch model that is used for calculating the avoided energy price included in this filing. The Company did

not include compliance with future environmental regulations that are not finalized such as EPA proposed 111(d) rule, updated NAAQS for PM, further reduction in ozone NAAQS, or updated water effluent limitation guidelines.

d. That is not Mr. Kalemba's view. Mr. Kalemba is simply stating that, on their own, the IRA and a CO2 tax both lead to similar outcomes which are an increase in non-CO2 emitting resources and an overall reduction in CO2 emissions.

PERSON RESPONSIBLE:

As to objections, Legal As to responses, a., b. – Bruce L. Sailers As to responses, c., d. – Matthew Kalemba

CONFIDENTIAL PROPRIETARY TRADE SECRET

KSES-DR-01-004 CONFIDENTIAL ATTACHMENT

FILED UNDER SEAL

KSES-DR-01-004(b) ATTACHMENT 1 UPLOADED ELECTRONICALLY ONLY

DUE TO SIZE

KSES-DR-01-004(b) ATTACHMENT 2 UPLOADED ELECTRONICALLY ONLY

DUE TO SIZE

CONFIDENTIAL PROPRIETARY TRADE SECRET

KSES-DR-01-004(b) CONFIDENTIAL ATTACHMENT 3

FILED UNDER SEAL

REQUEST:

The National Standard Practice Manual for Benefit-Cost Analysis ("BCA") of Distributed Energy Resources ("DER"), (hereinafter "NSPM-DER") available at <u>https://www.nationalenergyscreeningproject.org/national-standardpracticemanual/</u>, provides a comprehensive framework for cost-effectiveness assessment of distributed

energy resources including distributed generation, distributed storage, demand response, and energy efficiency. The NSPM-DER also provides guidance on addressing multiple DERs and rate impacts and cost shifts.

- a. Is the Company aware of and familiar with the NSPM-DER?
- b. Did the Company review or rely upon the NSPM-DER in developing its proposal for a new net metering tariff? Please explain why or why not, and if so, how the NSPM-DER influenced development of the NMS-2 tariff.

RESPONSE:

- a. The Company is aware of the manual and is generally familiar that it discusses the items referenced.
- b. No. The Company relied upon the directly applicable guidance and direction via precedent set by the Commission in recent orders for other Kentucky investorowned utilities as well as items that might be uniquely available to the Company such as interval meter data for net metering participants.

PERSON RESPONSIBLE: Bruce L. Sailers

REQUEST:

Explain how customer-generators who are grandfathered under NMS-1 would be served under the following situations after NMS-2 takes effect:

- a. If the customer-generator decides to increase the capacity of their generator after NMS-2 takes effect, will the compensatory rate for excess generation from the customer-generator be changed, and if so, will that change affect all existing capacity or only that fraction attributable to the expanded capacity?
- b. If a grandfathered customer-generator taking service under NMS-1 replaces a failed solar module with a newer solar module of the same capacity, would they remain grandfathered under NMS1? If not, why not? What if the new solar module has a larger capacity than the older module being replaced?
- c. Please identify proposed changes to tariff language intended to reflect the changes described in responses to 1-5.a. and 1-4.b.
- d. If an NMS-1 customer installs a battery onto their system, would they remain grandfathered under NMS-1? What if the battery installation includes a new inverter capable of integrating with the battery?
- e. If an NMS-1 customer replaces their inverter with a new inverter with a higher AC capacity rating, but no changes are made to the PV array, would they remain grandfathered under NMS-1?

f. Please refer to numerical paragraph 11 of the application and detail what future developments the Company anticipates under FERC Order 2222, or any other FERC orders which may impact NMS customers.

RESPONSE:

- a. Please see responses to KYSEIA-DR-01-001 and KYSEIA-DR-01-002. If the customer-generator increases the capacity of their inverter, all capacity will be transitioned to Rider NM II as available.
- b. Yes. Please see response to KYSEIA-DR-01-002 and (a) above.
- c. The customer is obligated to notify the Company of changes to their interconnection agreement. See Exhibit 4 of the Application, Terms & Conditions Item 10 on page 13 of 14.
- d. Yes. If the inverter capacity is increased, the customer will require a new interconnection agreement and would be transitioned to Rider NM II as available upon approval.
- e. Please see response to (a) above.
- f. Please see response to KYSEIA-DR-01-003.

PERSON RESPONSIBLE: Bruce L. Sailers

REQUEST:

What was the Company's load profile for each of the last two years, expressed in 15-minute intervals?

- a. Provide a breakdown of how the Company's cost of power changes over the course of each day for each month of the year.
- b. What is the Company's cost of power during peak demand times for each month (including all energy, demand, and transmission charges)?
- c. Identify what resources the Company uses to meet demand during times of peak demand.
- d. Identify the Company's costs for power and energy during on peak and off-peak times each month.
- e. For each month of 2023, please provide the Company's hourly peak demand, date, and time; and the generation mix and capacity contribution of each resource at the peak time.
- f. Provide the annual generation from all sources (MWh) supplied to serve customer loads, broken down by source.
- g. Does the Company forecast a need for new capacity within the next 15 years? Does the Company have any plans to file a CPCN with the Kentucky PSC for new generation capacity or transmission infrastructure?

RESPONSE:

a. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. However, notwithstanding this objection and in the spirit of discovery, the Company responds by providing an overview of how the Company's cost of energy changes for each day for each month of the year. The Company's actual cost of energy changes based on many factors, including the amount of Customer demand, the generation amount and availability of Company generation, the cost of purchase power (if any) from the PJM market, the commodity cost of the fuels used to determine the offer of Company generators to the PJM energy market (replacement cost of coal, natural gas, oil, limestone, and other reagents), and finally the actual accounting cost of the Company's generation. Some of these variables can change second to second, like the amount of generation being produced, others change every 5-minutes, like the Real-Time PJM LMP, others change hourly, like the PJM Day-Ahead LMP, and finally others change less frequently such as accounting cost of the Company generation where the consumed fuel expense is calculated monthly.

An example of this volatility can be shown by taking an hour in which East Bend is on-line and producing 600 MW (its full load capability), Woodsdale is offline, and the Customer demand was 600 MW. In this hour, the energy cost to serve the Duke Energy Kentucky customer will be equal to the cost of East Bend generation. However, in another hour in which East Bend is off-line, Woodsdale is producing 300 MW, and the Customer demand was 600 MW, the energy cost to serve the Duke Energy Kentucky customer will be equally comprised of the cost to operate Woodsdale as well as the purchase of 300 MW of energy in the PJM market. Finally, note that PJM LMP data is public and can be found thru the PJM Data Miner application:

Data Miner 2 - Day-Ahead Hourly LMPs (pjm.com)

- b. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. However, notwithstanding this objection and in the spirit of discovery, the Company responds that it does not calculate actual costs on an hourly basis.
- c. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. Further, "peak demand" is a vague term and undefined. However, notwithstanding this objection and in the spirit of discovery, the Company responds that uses Company generation, PJM purchase energy, or a mixture of both Company generation and PJM purchase energy in an hour to serve Customer demand. See also, response to 7(a) and (d).
- d. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. However, notwithstanding this objection and in the spirit of discovery, the Company responds that it does not calculate actual costs on an hourly basis.

e. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. Further, "capacity contribution" is a vague term and undefined. However, notwithstanding this objection and in the spirit of discovery:

Please see Table A below, which contains the requested hourly peak load, date, and time for each month of 2023.

	IA	BLE A	
	DEK Hourly Peak Demand (MWh)	Date	Time (Hour Beginning)
Jan-23	611	1/27/2023	8:00
Feb-23	629	2/1/2023	7:00
Mar-23	603	3/15/2023	6:00
Apr-23	524	4/20/2023	16:00
May-23	672	5/31/2023	16:00
Jun-23	704	6/30/2023	16:00
Jul-23	791	7/27/2023	15:00
Aug-23	826	8/23/2023	16:00
Sep-23	767	9/5/2023	14:00
Oct-23	645	10/3/2023	16:00
Nov-23	607	11/29/2023	7:00
Dec-23	589	12/19/2023	8:00

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Please see Table B below, which contains the requested generation mix for each month of 2023.

MWh % of Na	ative Load			
Month	Combustion Turbine Generation	Energy Purchased from PJM	Steam Generation	Total
1/1/2023	1%	27%	72%	100%
2/1/2023	1%	77%	21%	100%
3/1/2023	1%	57%	42%	100%
4/1/2023	12%	54%	34%	100%
5/1/2023	6%	47%	48%	100%
6/1/2023	1%	18%	81%	100%
7/1/2023	2%	18%	79%	100%
8/1/2023	2%	30%	68%	100%
9/1/2023	1%	55%	44%	100%
10/1/2023	10%	90%	0%	100%
11/1/2023	5%	40%	55%	100%
12/1/2023	2%	13%	85%	100%
Total	4%	42%	54%	100%

Note: Any behind the meter generation is reflected in the data as a reduction in native load.

f. Objection. This question is overbroad, unduly burdensome, and seeks information

that is not likely to lead to the discovery of any relevant or admissible evidence to

the case at issue. Further, "customer loads" is a vague term and undefined.

Please see table below:

Year 2023	
MWh	
Combustion Turbine Generation	142,704
Energy Purchased from PJM	1,717,237
Steam Generation	2,185,382
Total	4,045,323

Note: Any behind the meter generation is reflected in the data as a reduction in native load.

g. Objection. This request seeks information that calls for legal conclusions and is otherwise protected by attorney client privilege. Moreover, this request is further objectionable insofar as it seeks the Company's resource planning information that is publicly available and accessible to KSES. Without waiving said objection, and to the extent discoverable, see the Company's most recent IRP filed in Case No. 2021-00245 available at: <u>https://psc.ky.gov/Case/ViewCaseFilings/2021-00245</u>. See also KRS 278.020.

PERSON RESPONSIBLE:

As to objections, Legal As to responses, a. thru d. – John Swez As to responses, e., f. – Scott Burnside

REQUEST:

Please provide a comprehensive tabulation of all costs and allocation of costs associated with the following activities, for each of the years 2021-2023:

- a. Trade association dues to and staff time spent on activities conducted by any organization developing or taking any position on net metering rate design, rate design in general, or conducting studies or issuing reports on net metering rate design and rate design in general.
- b. Lobbying and regulatory affairs advocacy and communications relating to net metering rate design, non-utility generation, and related topics; and other utilityrelated topics.
- c. Economic development rates and incentives.
- d. Storm and extreme-weather damage prevention and response.

RESPONSE:

Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. Moreover, this request seeks information that does not exist in the form requested and is otherwise vague, ambiguous as to what is intended by the terms "related topics, other utility related topics, incentives," and thus would require speculation and guesswork.

PERSON RESPONSIBLE: Legal

Duke Energy Kentucky Case No. 2023-00413 KSES's First Set Data Requests Date Received: January 19, 2024

KSES-DR-01-009

REQUEST:

Please refer to Mr. Sailers's testimony at p. 5, line 9, and explain what is meant by a "kWh bank."

RESPONSE:

For Rider NM I, if the amount of energy, kWh, exported to the grid in a billing period is greater than the amount of energy, kWh, a customer consumes from the grid, then there is excess generation that is added to a running excess generation balance, or bank, for the customer-generator for use, as needed, in a future month.

PERSON RESPONSIBLE: Bruce L. Sailers

REQUEST:

Please refer to Mr. Sailers' testimony at p. 9, lines 13-20.

- a. Please provide the referenced cost-of-service study, along with any supporting workpapers.
- b. Is this the only cost-of-service analysis performed by the Company related to netmetering customers? Please provide any additional studies or analyses, along with supporting documentation.

RESPONSE:

a. Please see KSES-DR-01-010(a) Attachment 1 which includes the Company's most recent COSS that was updated consistent with the revenue requirement authorized in the Commission's October 12, 2023 Order in Case No. 2022-00372. The docket is available at https://psc.ky.gov/Case/ViewCaseFilings/2022-00372. Please refer to the Company's Application filed December 1, 2022, Volume 9 for the complete Cost of Service Study (COSS) filed pursuant to 807 KAR 5:001, Section 16(7)(v). In addition, see the Direct Testimony of James E. Ziolkowski, Volume 15, beginning page 717 of the Company's Application in Case No. 2022-00372, filed on December 1, 2022. Further, please refer to the Company's responses to STAFF-DR-01-056 filed on December 15, 2022 for the Company's COSS in xlsx format. The Commission "accepted" the Company's COSS by Order dated October 12, 2023.

KSES-DR-01-010(a) Attachment 1 includes the relevant portions of the COSS results for Rate RS and Rate DS used by Mr. Sailers in calculating the unit costs found in KSES-DR-01-010(a) Attachment 2.

b. See response to (a). The above represents the most recent COSS performed by the Company and accepted by the Kentucky Public Service Commission.

PERSON RESPONSIBLE: Bruce L. Sailers

KyPSC Case No. 2023-00413 KSES-DR-01-010(a) Attachment 1 Page 1 of 2

FR-16(7)(v)-15 WITNESS RESPONSIBLE: JAMES E. ZIOLKOWSKI PAGE 15 OF 15

DUKE ENERGY KENTUCKY, INC. RESIDENTIAL CLASSIFIED - ELECTRIC COST OF SERVICE CASE NO: 2022-00372 DATA: 12 MONTHS ACTUAL & 0 MONTHS ESTIMATED TYPE OF FILING: "X" ORIGINAL UPDATED REVISED

LINE			TOTAL		CLASSIFIED		TOTAL	ALL
NO.	ROR, TAX RATES & SPEC FACTORS	ALLO	RESIDENTIAL	DEMAND	ENERGY	CUSTOMER	AT ISSUE	OTHER
		Schedule 11		3	4	5		
1	RATE OF RETURN							
2	CAPITALIZATION AMOUNTS			RATIO				
3	LONG TERM DEBT		804,442,968	0.4407				
4	PREFERRED STOCK		0	0.0000				
5	COMMON STOCK		951,750,195	0.5215				
6	SHORT TERM DEBT		68,990,481	0.0378				
7	UNAMORTIZED DISCOUNT		0	0.0000				
8	TOTAL		1,825,183,644	1.0000				
9								
10	COST OF CAPITAL							
11	LONG TERM DEBT		0.04377					
12	PREFERRED STOCK		0.00000					
13	COMMON STOCK		0.09750					
14	SHORT TERM DEBT		0.04739					
15	UNAMORTIZED DISCOUNT		0.00000					
16								
17	WEIGHTED COST OF CAPITAL							
18	LONG TERM DEBT		0.0193					
19	PREFERRED STOCK		0.0000					
20	COMMON STOCK		0.0508					
21	SHORT TERM DEBT		0.0018					
22	UNAMORTIZED DISCOUNT		0.0000					
23	TOT RATE OF RETURN ALLOWABLE		0.0719					
24								
25	TAX RATES AND SPECIAL FACTORS							
26	SHORT TERM DEBT COST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
27	FEDERAL INCOME TAX RATE		0.21000	0.21000	0.21000	0.21000	0.21000	0.21000
28	STATE INCOME TAX RATE		0.04969	0.04969	0.04969	0.04969	0.04969	0.04969
29	REVENUE TAX RATE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

KyPSC Case No. 2023-00413 KSES-DR-01-010(a) Attachment 1 Page 2 of 2

FR-16(7)(v)-16 WITNESS RESPONSIBLE: JAMES E. ZIOLKOWSKI PAGE 15 OF 15

DUKE ENERGY KENTUCKY, INC. DISTR. SEC. CLASSIFIED - ELECTRIC COST OF SERVICE CASE NO: 2022-00372 DATA: 12 MONTHS ACTUAL & 0 MONTHS ESTIMATED TYPE OF FILING: "X" ORIGINAL UPDATED REVISED

LINE			TOTAL		CLASSIFIED		TOTAL	ALL
NO.	ROR, TAX RATES & SPEC FACTORS	ALLO	DISTR. SEC.	DEMAND	ENERGY	CUSTOMER	AT ISSUE	OTHER
	Schee	dule 11		3	4	5		
1	RATE OF RETURN							
2	CAPITALIZATION AMOUNTS			<u>RATIO</u>				
3	LONG TERM DEBT		804,442,968	0.4407				
4	PREFERRED STOCK		0	0.0000				
5	COMMON STOCK		951,750,195	0.5215				
6	SHORT TERM DEBT		68,990,481	0.0378				
7	UNAMORTIZED DISCOUNT		0	0.0000				
8	TOTAL		1,825,183,644	1.0000				
9								
10	COST OF CAPITAL							
11	LONG TERM DEBT		0.04377					
12	PREFERRED STOCK		0.00000					
13	COMMON STOCK		0.09750					
14	SHORT TERM DEBT		0.04739					
15	UNAMORTIZED DISCOUNT		0.00000					
16								
17	WEIGHTED COST OF CAPITAL							
18	LONG TERM DEBT		0.0193					
19	PREFERRED STOCK		0.0000					
20	COMMON STOCK		0.0508					
21	SHORT TERM DEBT		0.0018					
22	UNAMORTIZED DISCOUNT		0.0000					
23	TOT RATE OF RETURN ALLOWABLE		0.0719					
24								
25	TAX RATES AND SPECIAL FACTORS							
26	SHORT TERM DEBT COST		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
27	FEDERAL INCOME TAX RATE		0.21000	0.21000	0.21000	0.21000	0.21000	0.21000
28	STATE INCOME TAX RATE		0.04969	0.04969	0.04969	0.04969	0.04969	0.04969
29	REVENUE TAX RATE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

DEK COSS Unit Costs for Rates RS and DS

Rate RS	a .	_		
	Customer	Energy	Demand	lotal
COSS Revenue Requirement Billing Determinant	\$ 21,058,935	\$ 69,840,717	\$ 102,013,458	\$ 192,913,110
Units (# / kWh / kW) Load Research Period kW - COSS Load Research Period kWh - COSS Load Research Period kW / kWh - COSS	1,620,224	1,492,427,084	9,185,039 9,271,408 1,506,460,706 0.006154431	
\$ per unit	\$ / Mo	\$ / kWh	\$ / kW	
COSS Unit Cost	\$ 12.997545	\$ 0.046797	\$ 11.106481	
Pate DS	Customer	Energy	Demand	Total
Rate DS COSS Revenue Requirement Billing Determinant	Customer \$ 3,047,689	Energy \$ 51,436,761	Demand \$ 54,887,276	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW)	Customer \$ 3,047,689 160,254	Energy \$ 51,436,761 1,175,159,240	Demand \$ 54,887,276 3,928,865	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW	Customer \$ 3,047,689 160,254 86,360	Energy \$ 51,436,761 1,175,159,240	Demand \$ 54,887,276 3,928,865 1,447,562	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW Three Phase / Additional kW	Customer \$ 3,047,689 160,254 86,360 73,894	Energy \$ 51,436,761 1,175,159,240	Demand \$ 54,887,276 3,928,865 1,447,562 2,481,303	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW Three Phase / Additional kW \$ per unit	Customer \$ 3,047,689 160,254 86,360 73,894 \$ / Mo	Energy \$ 51,436,761 1,175,159,240 \$ / kWh	Demand \$ 54,887,276 3,928,865 1,447,562 2,481,303 \$ / kW	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW Three Phase / Additional kW \$ per unit COSS Unit Cost	Customer \$ 3,047,689 160,254 86,360 73,894 \$ / Mo \$ 19.017865	Energy \$ 51,436,761 1,175,159,240 \$ / kWh \$ 0.043770	Demand \$ 54,887,276 3,928,865 1,447,562 2,481,303 \$ / kW \$ 13.970263	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW Three Phase / Additional kW \$ per unit COSS Unit Cost Single Phase	Customer \$ 3,047,689 160,254 86,360 73,894 \$ / Mo \$ 19.017865 \$ 13.016081	Energy \$ 51,436,761 1,175,159,240 \$ / kWh \$ 0.043770	Demand \$ 54,887,276 3,928,865 1,447,562 2,481,303 \$ / kW \$ 13.970263	Total \$ 109,371,726
Rate DS COSS Revenue Requirement Billing Determinant Units (# / kWh / kW) Single Phase / First 15 kW Three Phase / Additional kW \$ per unit COSS Unit Cost Single Phase Three Phase	Customer \$ 3,047,689 160,254 86,360 73,894 \$ / Mo \$ 19.017865 \$ 13.016081 \$ 26.032162	Energy \$ 51,436,761 1,175,159,240 \$ / kWh \$ 0.043770	Demand \$ 54,887,276 3,928,865 1,447,562 2,481,303 \$ / kW \$ 13.970263	Total \$ 109,371,726

Duke Energy Kentucky Case No. 2023-00413 KSES's First Set Data Requests Date Received: January 19, 2024

KSES-DR-01-011

REQUEST:

Has the Company performed any studies or analysis of the impact distributed energy resources could have or has had on their distribution grid, to reduce or defer infrastructure investments, or to improve system reliability or resilience for customers?

- a. Is the Company aware of any such studies performed by other parties in other regions or utility territories?
- b. Please provide copies of any such studies or analysis.

RESPONSE:

- a. Objection. This request seeks information that is overbroad, unduly burdensome, and not likely to lead to the discovery of any relevant or admissible evidence. This request is further objectionable insofar as it is vague and ambiguous as it seeks "any studies or analysis" and seeks information that is unreasonable and undefined in scope by seeking information by "other parties" in "other regions or utility territories." As such, this request would require speculation and guesswork. Moreover, to the extent this request seeks information that is publicly available, it is just as accessible to KSES and thus is interpreted as intending to harass. Without waiving said objection, and to the extent discoverable, the Company is not aware of any such studies on the Duke Energy Kentucky distribution grid.
- b. See response to (a) above.

PERSON RESPONSIBLE:

As to objection, Legal As to response, Nick Melillo

REQUEST:

Please provide the following information with regard to the current application:

- a. The estimated net revenue increase over the status quo if the application had not been filed or is denied, and
- b. The estimated costs associated with filing the application, including the cost of any associated studies, staff time, legal fees, and any other direct or indirect costs to implement the amended tariffs if approved.

RESPONSE:

- a. Objection. This request is overly broad, unduly burdensome, and designed to elicit information that is both irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Furthermore, this request calls for speculation. Without waiving said objections, and to the extent discoverable, the Company has not estimated a net revenue increase or decrease.
- b. Objection. Irrelevant and seeks information that is beyond the scope of this proceeding and not likely to lead to the discovery of any relevant or admissible evidence. Without waiving said objection, and to the extent discoverable, the Company has not sought recovery of any of the items listed in this request as part of this proceeding. Moreover, the Company has not estimated the costs associated with filing the application.

PERSON RESPONSIBLE:

As to objection, Legal As to responses, Bruce L. Sailers

REQUEST:

Please refer to Mr. Sailers' testimony at pp. 5-7.

- a. Please provide any materials from the referenced forums, including any presentations, documents, or recordings.
- b. Were the forums by invite only, or open to the public? If they were open to the public how did the Company notify the public?
- c. How did the Company consider input from stakeholders from these forums? Were any changes made to this application as a result of the input received?
- d. Did the Company conduct any other public or stakeholder outreach associated with this specific application, or updates to net metering conducted by the Company?

RESPONSE:

- a. Please see KSES-DR-01-013(a) Attachment 1, the presentation used for Forum 1.
 Please see KSES-DR-01-013(a) Attachment 2, the presentation used for Forum 2.
- b. The Company sent out emails to potentially interested parties including members of the Company's DSM collaborative, active solar installers in the Company's area, interveners in the Company's prior rate case and other company's recent net metering cases. Invitation recipients were free to invite other interested parties, but the Company did not invite the general public. See Attachment BLS-1 to Mr. Sailers testimony for additional information.

- c. The Company viewed the forums as an open, non-binding exchange of information between interested parties regarding net metering. The Company considered forum participant inputs as well as Commission direction in other net metering orders and the Kentucky statutes on net metering in the development of the Application.
- d. The Company also contacted several active forum participants directly to ensure they were able to provide all comments desired.

PERSON RESPONSIBLE: Bruce L. Sailers



Introductions

Today's Speakers

Bruce Sailers, Director Pricing and Regulatory Solutions OH/KY - Duke Energy



As presented on April 19, 2023 - for discussion purposes only

Meeting Purpose

Purpose:

- Is to engage stakeholders in an open, non-binding, conversation intent on creating a future distributed generation program that is scalable and that balances stakeholder interests.

Brainstorming, ideation and constructive discussion strongly encouraged!

Terms Related to Net Metering Transition:

- NEM 1.0 Current net metering structure
- NEM 1.1 Net metering structure to comply with KRS 278.465
- Post Cap Solar Program Solar program for after the net metering cap

Upcoming Distributed Energy Related Dates/Filings

DEK currently offers net energy metering - NEM 1.0

Proceedings:

- 1) DEK Electric Rate Case currently pending Order anticipated July 2023
- 2) Net Metering Case Filing NEM 1.1 Filing approximately September 2023
 - Order around March 2024
- 3) At current pace, net metering cap could be reached in October 2025
- 4) Post NEM Cap Program Filing around August 2024 to prepare for a post-cap environment

Other Considerations

- 1) FERC Order 2222
 - PJM compliance filing received partial FERC approval; awaiting final compliance filings and orders
 - Possible implementation 2026/2027

Tentative Distributed Energy Related Dates/Filings



Net Energy Metering (NEM) Trend **Duke Energy Kentucky Net Metering Capacity and Customer Count** 2018 - 2022 Capacity kW AC Count Incremental Capacity kW AC Prev Year Connected kW AC Count

NEM participation has exhibited an accelerating participation rate over the last few years

As presented on April 19, 2023 - for discussion purposes only

DEK NEM Participation January 2022 – February 2023



Existing Net Metering Attributes – NEM 1.0

- DEK's NEM 1.0 Attributes Current Program
 - 45 kW installation size limit
 - Cap equals 1% of Annual Peak
 - Monthly netting
 - Net excess generation accumulates in a kWh bank for future use
 - kWh bank does not cash out
The Challenge

We need to:

- 1) Comply with the law carry net metering from NEM 1.0 to NEM 1.1
- 2) NEM 1.1 available until the NEM cap is reached; approximately October, 2025
- 3) Develop a post-cap program that recognizes various stakeholder interests.
 - Ensure non-adopters are treated fairly
 - Respect and address multiple stakeholders' priorities and concerns
 - Create a policy that is scalable and durable

How?

- 1) Constructive and open communication
- 2) Willingness to entertain new ideas
- 3) Recognition that compromise will be necessary

Residential (Rate RS) Example Payback Periods

Scenario	Approximate Payback (Years)
NEM 1.0 (Current State)	12.5
Post NEM Cap – No NEM replacement program	15

DEK Assumptions NEM 1.0:

- Current Net Metering Program and Rate
- \$2.80/Watt Installed Cost
- ITC Captured
- PV Watts Solar Output
- Nominal Payback Period
- 6.9 kW-AC system
- Result based on average of 6 customers
- Energy Value increased by 2.5% annually

DEK Assumptions Post Cap

- Current Rate and Cogeneration Tariff Participation
- \$2.80/Watt Installed Cost
- ITC Captured
- PV Watts Solar Output
- Nominal Payback Period
- 6.9 kW-AC system
- Result based on average of 6 customers
- Energy Value increased by 2.5% annually

Open Discussion

- What attributes of a utility solar program are most desired?
 - Netting Process
 - Purchase Rebates or Other Adoption Incentives
 - Rate Design Features
 - Other Items

DEK Perspective: Recovery of Fixed Costs

Electric service is a capital intensive venture and many of those costs do not go away with the installation of solar.

Cost Categories	Charge Breakdown* in \$ / kWh (Example)	Embedded Costs Avoided / Not Avoided in <u>Short Run</u>
Generation - \$3M plant	\$0.03 / kWh	Not Avoided
Transmission - \$2M lines	\$0.02 / kWh	Not Avoided
Distribution - \$2M equipment	\$0.02 / kWh	Not Avoided
Customer Care - \$15 per home	\$0.02 / kWh	Not Avoided
Energy – variable	\$0.03 / kWh	Avoided
Total	\$0.12 / kWh	

Often, residential customers only see the total of \$0.12 / kWh (i.e., \$0.10 & a customer charge). If the solar generator delivers energy to the grid and receives \$0.12 / kWh, then the utility is not paid for providing Generation, Transmission, Distribution and potentially some customer costs. These prudent costs should be recovered. *Charge amounts are for example only. As presented on April 19, 2023 - for discussion purposes only

National Trends

Many States Have Moved Beyond NEM 1.0

- Nevada
- Kansas
- Connecticut
- Michigan
- Hawaii
- New Hampshire
- Utah

- Louisiana
- Arizona
- California
- New York
- Alabama
- South Carolina
- North Carolina



As presented on April 19, 2023 - for discussion purposes only

NEM Alternatives Tools in the Tool Box

- Standby charges
- Value of solar rate
- Feed-in tariffs
- Grid access charge
- Net billing (RE proxy, avoided cost, step downs, etc.)
- Buy-all, sell-all
- Higher monthly fixed charge

- Minimum Bill
- Demand charges
- Separate rate class
- Time of Use (TOU) rates
- V-DER Tariffs
- Least cost procurement
- Community solar
- Load factor adjuster



A Framework for an Innovative Solution

- 1. Future pricing that reasonably recovers costs that remain after solar is installed
 - The pricing mechanisms chosen would generally promote more certainty

2. Maintain reasonable returns for adopters

• Possibly by unlocking solar's value proposition through demand response



Summary

- The Company will go through a transition to NEM 1.1
- The more significant transition occurs once the NEM cap is reached
- We invite you to comment further on the topics discussed today and ask if you are interested in additional meeting(s) to discuss a post-NEM cap solar program structure that might include:
 - Ideas discussed earlier
 - Rate design options for equitable fixed cost recovery
 - Demand side management integration
 - Upfront "per watt" incentives
 - Netting period

State Legislation Attributes Shaping NEM 1.1

KRS 278.465 to 278.468

- 45 kW installation size limit
- 1% of Annual Peak Cap
- Retail electric suppliers shall be entitled to implement rates to recover all costs necessary to serve its eligible customer-generators
- Excess generation kWh bank replaced with an excess generation dollar credit bank
 - \$/kWh credit for excess generation to be set by KYPSC
- Excess generation \$ bank does not cash out
- NEM 1.0 customers grandfathered under the existing NEM 1.0 structure and Rate RS; NEM 1.1 customers grandfathered as well

As presented on April 19, 2023 - for discussion purposes only

Possible EE/Distributed Generation Program Linkage

- The future calls for more dynamic and holistic energy solutions.
- Cooperation between EE and distributed generation programs will be essential to maximize the value and positive impacts of both.

Possible New EE/DG Programs enabling incentives:

Residential:

- Residential Power Manager for Solar = Solar + Smart Thermostats
- Solar Smart **\$**aver® Residential = Solar + Smart Thermostats + Batteries
- Low Income Solar Neighborhoods = Community solar + Legacy EE Offerings

Non-Residential:

- Solar Power Manager for Business = Solar + Smart Thermostats
- Solar Smart \$aver® Non Residential = Solar + Smart Energy Management Systems + Batteries

On the Radar

- Smart Invertors
- Other distributed generation emerging technologies As presented on April 19, 2023 - for discussion purposes only

KyPSC Case No. 2023-00413 KSES-DR-01-013(a) Attachment 2 Page 1 of 17

Net Metering – Duke Energy Kentucky

Forum 2 - June 29, 2023

Introductions

Today's Speakers

Bruce Sailers, Director Jurisdictional Rate Administration OH/KY - Duke Energy Jonathan Byrd, Managing Director – Pricing and Regulatory Solutions – Duke Energy Wendi Fleener, Director Clean Energy – Duke Energy



Meeting Purpose

Purpose:

- To engage stakeholders in an open, non-binding, conversation regarding KRS 278.465 through 278.468 and Duke Energy Kentucky's intent to file a revised, compliant net metering tariff.
- To engage stakeholders in an open, non-binding, conversation regarding an expandable, sustainable solar program beyond the net metering cap.

- Note:

- NEM 1.1 refers to a revised net metering tariff covering additional solar installations up to the Company's net metering cap.
- NEM 2.0 refers to a solar program after the Company reaches the net metering cap.

Estimated NEM 1.1 & Other Distributed Energy Related Dates



Existing Net Metering Attributes – NEM 1.0

- DEK's NEM 1.0 Attributes Current Program
 - 45 kW installation size limit
 - Cap equals 1% of Annual Peak
 - Full retail netting
 - After monthly netting, net excess generation accumulates in a kWh bank for future use
 - kWh bank does not cash out

Significant KRS 278.465-8 Changes – NEM 1.1

- (Definition) Net metering means the difference between the:
 - Dollar value of all electricity generated by an eligible customer-generator that is fed back to the electric grid over a billing period and priced as prescribed in Section 2 of this Act; and
 - Dollar value of all electricity consumed by the eligible customer-generator over the same billing period and priced using the applicable tariff of the retail electric supplier.
- (Excess Generation Credit) A retail electric supplier serving an eligible customer-generator shall compensate that customer for all electricity produced by the customer's eligible electric generating facility that flows to the retail electric supplier, as measured by the standard kilowatt-hour metering prescribed in subsection (2) of this section. The rate to be used for such compensation shall be set by the commission using the ratemaking processes under this chapter during a proceeding initiated by a retail electric supplier or generation and transmission cooperative on behalf of one (1) or more retail electric suppliers.
- (Credit Bank) Each billing period, compensation provided to an eligible customer-generator shall be in the form of a dollar-denominated bill credit. If an eligible customer-generator's bill credit exceeds the amount to be billed to the customer in a billing period, the amount of the credit in excess of the customer's bill shall carry forward to the customer's next bill. Excess bill credits shall not be transferable between customers or premises. If an eligible customer-generator closes his or her account, no cash refund for accumulated credits shall be paid.

Significant KRS 278.465-8 Changes – NEM 1.1

- (Cost of Service Provision) Using the ratemaking process provided by this chapter, each retail electric supplier shall be entitled to implement rates to recover from its eligible customer-generators all costs necessary to serve its eligible customer-generators, including but not limited to fixed and demand-based costs, without regard for the rate structure for customers who are not eligible customer-generators.
- There are other provisions related to grandfathering of NEM 1.0 customers that are significant but are not necessarily our focus today; NEM 1.1.

NEM 1.1 – Filing Topics

- 1. Net metering participant Cost of Service (COS):
 - The processes we are examining are described below.
 - Leverage the pending rate case's approved COS Study (COSS)
 - Two Different Review Paths to COS Implications of Solar Adoption:
 - A. Review the application of unitized COS values for customer, energy, and demand components on the interval data for the 6-customer set used in the April 19 meeting for pre- and post-solar adoption scenarios
 - B. Utilize interval meter data and solar production profiles to transform all Rate RS and DS customer interval load data into estimated data that includes rooftop solar impacts (i.e., create class level solar adoption data for study)
 - Create a solar COSS scenario for the RS and DS rate classes
 - Use the change in the class COS to investigate COS recovery
 - The COS review changes based on different assumptions such as Monthly vs. Instantaneous netting. The Company continues to examine results; recognizing comments in Forum 1 to keep it simple.
 - The Company recognizes that certain stakeholder groups prefer monthly netting
 - The Company recognizes that the Commission has ordered monthly netting for other utilities

NEM 1.1 – Filing Topics (cont'd.)

- 2. Excess Generation Credit (Commission directed list of avoided costs to consider):
 - A. Energy: Marginal energy price projection consistent with IRP inputs
 - B. Ancillary Services: Embedded in the Energy projection above. Investigating separation.
 - C. Environmental: Embedded in the Energy projection above. Investigating separation.
 - D. Carbon: Carbon tax projections consistent with IRP inputs
 - E. Capacity: Peaker method consistent with assumptions in IRP inputs
 - F. Transmission: Company evaluating appropriate value to include for transmission benefits
 - G. Distribution: Company evaluating appropriate value to include for distribution benefits
 - H. Job Creation: No method of evaluation proposed in other cases

Residential (Rate RS) Example Payback Periods

	So	cenario	Appro	oximate Payback (Years)				
	NE	M 1.0 (Rate Case Proposed Rates)	13.3					
	NE Ne	M 1.1 (\$ Credit Bank, Same Rates, Monthly tting)	13.3					
DEK Assumptions NEM 1.0:			DEK Assumptions NEM 1.1:					
•	Current Net Mete	t Net Metering Program – kWh bank feelaced with \$ credit bank						
 Proposed Rates from Rate Case Application 			 Proposed Rates from Rate Case Application 					
 \$2.98/Watt Installed Cost 			\$2.98/Watt Installed Cost					
ITC Captured		 ITC Captured 						
 PV Watts Solar Output 			 PV Watts Solar Output 					
 Nominal Payback Period 6.9 kW-AC system Result based on average of 6 customers 		 Nominal Payback Period 6.9 kW-AC system Result based on average of 6 customers 						
					 Energy Value increased by 2.5% annually 			 Energy Value increased by 2.5% annually
					Negligible impacts on solar investment financials under NEM 1.1 assuming the solar system is not oversized relative to customer demand/energy.			

KyPSC Case No. 2023-00413 KSES-DR-01-013(a) Attachment 2 Page 11 of 17

NEM 2.0

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NEM 2.0 – Forum 1 Comments

What we heard:

- Solar developers and environmental groups prefer monthly netting
- Embrace new technology
 - Interconnection improvements (solar meter collars)
 - Smart inverter functions
 - Batteries
- Don't reinvent the wheel (look to other states for guidance), keep it simple
- Consider a transition period
- How can rooftop solar add more value to the customer and utility grid?
 - Solar with combined EE/DR such as smart thermostats, peak time rebate, etc.
- Other comments and suggestions?
- Solar + Storage PowerPair[™] (NC pilot)

PowerPair[™] & Battery Control Program

- Residential customers installing solar PV for the first time paired with energy storage
- Participation in net energy metering (NEM)
 - Time-of-use (TOU) rates and maintains complete control of energy storage device (cohort "A")

OR

- Bridge Rate and must give the utility complete control of energy storage (cohort "B")
- Solar PV generation maximum installed capacity 10kW-AC / Duke to recommend similar maximum for energy storage
- One-time incentive of .36 per watt for solar PV installation / Duke to establish similar incentive for energy storage
- 3-year pilot with minimum 10-year participation requirement
- Cost recovery over a 20-year period
- Filing week 6/21/23



Potential Customer Value – Cohort A (NEM with TOU Rate & Customer Control)



✓ Installs 10kW solar PV system + 13.5kWh battery storage

- ✓ Installation Incentive:
 - Solar: 10kW*\$0.36/W = \$3,600 (one-time)
 - Battery: 13.5kWh***\$240**/kWh = **\$3,240** (one-time)
- ✓ TOU Battery Savings
- ✓ System Cost ~\$30k
- ✓ 30% Fed Tax Incentive (IRA) ~\$7k
- ✓ System Cost after Installation incentive and IRA:
 - \$30k (system cost)
 - \$3.6k (solar incentive)
 - \$3.2k (battery incentive)
 - \$7k (IRA tax credit)
 - \$16.1k (\$13.8k savings, before TOU)

Note- This is for illustrative purposes only was developed for NC. Values may differ for KY.

Potential Customer Value – Cohort B (NEM with Bridge Rate & Utility Control)



- ✓ Installs 10kW solar PV system + 13.5kWh battery storage
 ✓ Installation Incentive:
 - Solar: 10kW*\$0.36/W = \$3,600
 - Battery: 13.5kWh*\$240/kWh = \$3,240
- ✓ DR Incentive:
 - Battery Capability Factor = 59.8%
 - \$6.50/kW * 10kW * 59.8% = \$466/year
- ✓ System Cost ~\$30k
- ✓ 30% Fed Tax Incentive (IRA) ~\$7k
- ✓ System Cost after Installation incentive and IRA:
 - \$30k (system cost)
 - \$3.6k (solar incentive)
 - \$3.2k (battery incentive)
 - \$4.7k (DR incentive over 10yrs)
 - <u>- \$7k (IRA tax credit)</u>
 - **\$11.4k** (\$18.5k savings, before NEM Bridge)

Note- This is for illustrative purposes only was developed for NC. Values may differ for KY.

Possible EE/Distributed Generation Program Linkage

- Grid evolution calls for more dynamic and holistic energy solutions.
- Cooperation between EE and distributed generation programs can bolster the value and positive impacts of both.

Possible New EE/DG Programs enabling incentives:

Residential:

- Solar + Smart Thermostats
- Solar + Smart Thermostats + Batteries
- Low Income Solar Neighborhoods = Community solar + Legacy EE Offerings

Non-Residential:

- Solar + Smart Thermostats
- Solar + Smart Energy Management Systems + Batteries

NEM 2.0 Cost of Service (COS) and Rate Design

Cost of Service (COS) and Rate Design – cost to serve solar adopting customers:

- A. Dependent on the results of our cost-of-service analysis review
- B. May also depend on assumptions such as netting frequency
- C. A holistic program incorporating all considerations, including exported energy, is desired so we can identify options that are preferred vs. not preferred
 - Rate Design
 - Demand Charges
 - Customer Charges / Minimum Bills
 - Grid Access Fees
 - TOU / CPP structures
 - Netting Approaches: Instantaneous, 15-minute, 1 hour, Monthly, TOU
 - Non-bypassable rider charges for DSM, ESM, PSM, FAC (current DEK riders)
 - Other

KSES-DR-01-014

REQUEST:

Mr. Sailers states in his testimony that one theme of the stakeholder engagement was: "Some stakeholders prefer monthly kWh netting since it smooths out variations in net metering benefits among customers with different load profiles."¹

- a. Please describe how the proposed netting differs from this stakeholder preference and why a different approach was taken
- b. Please describe how the proposed tariff will affect variability in net metering benefits among customers with different load profiles.
- c. Please describe how the proposed tariff will affect customers' and installer's ability to estimate return on investment for a solar installation.

RESPONSE:

- a. Please see response to KYSEIA-DR-01-005. The proposed netting approach is consistent with Kentucky statutes and with the Commission's November 4, 2021
 Order in Case Nos. 2020-00349 and 2020-00350.
- b. A customer who consumes power on-site will reduce the kWh that is billed on the standard tariff. Energy not consumed on-site and pushed to the distribution system will receive a credit at the value of the ACEGC approved in this proceeding. As selection of system size relative to the Customer's load and/or load profile will impact the extent to which energy is self-consumed or exported, such aspects will

¹ Direct Testimony of Bruce L. Sailers on Behalf of Duke Energy Kentucky, Inc. at 6, lines 17-19

necessarily affect whether the solar generation serves to reduce the kWh billed on the standard tariff vs. receives the value of the ACEGC.

c. Objection. This question is overbroad, unduly burdensome, and seeks information that is not likely to lead to the discovery of any relevant or admissible evidence to the case at issue. Moreover, this request is vague, and ambiguous as to what is intended by and/or included in the phrase "affect customers' and installer's ability to estimate return on investment," and thus would require speculation and guesswork. Without waiving said objection, to the extent discoverable, and in the spirit of discovery, the proposed tariff thoroughly explains to prospective customers, installers, and the public, how a Rider NM II customer will be metered and billed, as well as how the customer will be compensated for exported energy.

PERSON RESPONSIBLE: Bruce L. Sailers

KSES-DR-01-015

REQUEST:

When the Company was conducting outreach to stakeholders prior to filing this application, did any stakeholders recommend that proposals for an NMS-2 tariff would be an unnecessary waste of time and resources for the Company, stakeholders, and the Commission, considering how close the Company is to the 1% threshold and the Company's stated intent to develop a new solar program to replace net metering after reaching the 1% threshold? In light of these facts, why did the Company choose to file the NMS-2 tariff application?

RESPONSE:

Objection. This request is overly broad and unduly burdensome as it is designed to elicit information that is both irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Additionally, the request is argumentative. Without waiving said objections and to the extent admissible, Duke Energy Kentucky is not precluded from seeking to amend any of its tariffs from time to time notwithstanding any third party's desire to the contrary. The Company had previously stated that it would file a net metering tariff revision to comply with Kentucky statutes within 60 days of receiving an order in its last electric base rate case.

PERSON RESPONSIBLE:

As to objection, Legal As to response, Bruce L. Sailers

KSES-DR-01-016

REQUEST:

Mr. Sailers states "[r]ecognizing transmission planning principles associated with intermittent, non- dispatchable rooftop solar exports, the Company does not include a value for avoided transmission capacity".¹

- a. Please explain the planning principles Mr. Sailers is referring to.
- b. If, as Mr. Sailers states, "Customer-generators do ... receive transmission cost reduction ... through self-consumption,"² please explain how the Company does not also receive such a benefit when excess energy from customer-generators is satisfied to meet the demand of other nearby ratepayers?

RESPONSE:

- a. The statement from Mr. Sailers' testimony is specifically referring to "random, intermittent, non-dispatchable rooftop solar *exports*" (emphasis added). In other words, such random, intermittent exports of energy back to the grid are not valued for purposes of transmission capacity.
- b. Mr. Sailers' testimony is simply acknowledging that for self-consumption, customers benefit from lower bills, which includes by definition cost recovery for transmission investments. As such, Mr. Sailers is drawing a distinction between self-consumption benefits that accrue to the bills and how random, intermittent exports are valued for resource planning purposes. In other words, the reduction in

¹ *Id.* at 19, lines 18-20.

² Id. at 19-20, lines 22-3.

consumption provides bill savings to customers by reducing the demands on the grid required to provide that customer with electric service – random, intermittent exports do not reduce the demands on the grid required to provide that customer with electric service.

PERSON RESPONSIBLE:

Tim Hohenstatt -a. Bruce L. Sailers -b.

KSES-DR-01-017

REQUEST:

Mr Sailers states "[r]ecognizing distribution planning principles associated with intermittent, non- dispatchable rooftop solar exports, the Company does not add a value for avoided distribution capacity."¹

- a. Please explain the planning principles Mr. Sailers is referring to.
- b. If, as Mr. Sailers states, "Customer-generators do ... receive distribution cost reduction ... through self-consumption,"² please explain how the Company does not also receive such a benefit when excess energy from customer-generators is satisfied to meet the demand of other nearby ratepayers?

RESPONSE:

- a. The statement from Mr. Sailers' testimony is specifically referring to "random, intermittent, non-dispatchable rooftop solar *exports*" (emphasis added). In other words, such random, intermittent exports of energy back to the grid are not valued for purposes of distribution capacity.
- b. Mr. Sailers' testimony is simply acknowledging that for self-consumption, customers benefit from lower bills, which includes by definition cost recovery for distribution investments. As such, Mr. Sailers is drawing a distinction between self-consumption benefits that accrue to the bills and how random, intermittent exports are valued for resource planning purposes. In other words, the reduction in

¹ *Id.* at 20-21, lines 16-18.

² Id. at 19-20, lines 20-2.

consumption provides bill savings to customers by reducing the demands on the grid required to provide that customer with electric service – random, intermittent exports do not reduce the demands on the grid required to provide that customer with electric service.

PERSON RESPONSIBLE:

Nick Melillo – a. Bruce L. Sailers – b.

KSES-DR-01-018

REQUEST:

Please refer to Mr. Sailers' testimony at p. 21, lines 14-20, and referring to the Order referenced there in Case Nos. 2020-00349 and 2020-00350, what efforts has the company made to evaluate job creation benefits and economic development, as the Commission ordered the companies in that case?

RESPONSE:

The Company has reviewed Commission orders and the size of its net metering program. The Company is not aware of significant job creation and economic development benefits created from its net metering program or how job creation and economic development benefits would be impacted in the absence of a net metering program. Given the size of the Company's service area and net metering program, there is limited evidence available to evaluate such impact.

PERSON RESPONSIBLE: Bruce L. Sailers
KSES-DR-01-019

REQUEST:

Mr. Sailers states that the company intends to "propose a sustainable, expandable solar program for customer-generators" in the future.¹

- a. What are the key elements of a sustainable, expandable solar program?
- b. Does the company intend to propose this program when 1% penetration is reached or before?
- c. Please confirm whether service will continue to be offered under currently-effective tariffs, or any tariffs approved pursuant to this application, until any future changes are approved, or whether the Company intends to close availability to NMS-II once the 1% penetration is reached.
- d. Are the present proposals consistent with such a program? Explain how or how not.
- e. Why is a change in net metering being proposed at this time, given that the company may soon be proposing a new program?

RESPONSE:

a. Objection. This request is vague, ambiguous, and unduly burdensome. The phrase "key elements" is susceptible to different interpretations and Duke Energy Ohio would have to engage in speculation or conjecture to ascertain the intended meaning of this request. Notwithstanding the objection, and in the spirit of discovery, a sustainable, expandable solar program means a program with a durable

¹ *Id.* at 23-24, lines 21-3.

structure that complies with statutory and regulatory requirements and appropriately balances reasonable pricing for participants of the program with fair cost allocation principles, i.e., ensuring that all customers receive a bill for service that reflects cost-of-service.

- 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. Furthermore, this request is improper insofar as it may seek information that, on the basis of attorney-client privilege is not subject to disclosure. Notwithstanding this objection and in the spirit of discovery, see response to KYSEIA-DR-01-004.
- c. See the response to (b) above.
- d. Objection. This request is vague, ambiguous, and unduly burdensome insofar as it requests the Company to assess consistency with a program that does not exist. Furthermore, 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 scope of which is limited to the proposed tariffs.
- e. 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. Furthermore, this request is improper insofar as it may seek information that, on the basis of attorney-client privilege is not subject to disclosure. Additionally, this request is argumentative

and assumes facts not in evidence. Notwithstanding these objections and in the spirit of discovery, see response to KSES-DR-01-015.

PERSON RESPONSIBLE:

As to objections, Legal. As to responses, Bruce L. Sailers

Duke Energy Kentucky Case No. 2023-00413 KSES's First Set Data Requests Date Received: January 19, 2024

KSES-DR-01-020

REQUEST:

Does the Company agree or disagree that NMS-2 rates are not required by statute, and the Company can continue offering rates under its current net metering tariff indefinitely, if it so chooses?

RESPONSE:

Objection. Calls for legal conclusion. Without waiving said objection, and to the extent discoverable, the Company does not agree with the statement. See response to KSES-DR-01-015.

PERSON RESPONSIBLE:

As to objection, Legal As to response, Bruce L. Sailers

Duke Energy Kentucky Case No. 2023-00413 KSES's First Set Data Requests Date Received: January 19, 2024

KSES-DR-01-021

REQUEST:

Please provide all worksheets used to support Mr. Sailer's and Mr. Kalemba's testimonies,

with all formulas intact and cells unlocked.

RESPONSE:

Please see responses to AG-DR-01-004, KSES-DR-01-004, and STAFF-DR-01-009 CONF.

PERSON RESPONSIBLE:

Bruce L. Sailers Nick Melillo