COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC TARIFF FILINGS OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY TO REVISE PURCHASE RATES FOR SMALL CAPACITY AND LARGE CAPACITY COGENERATION AND POWER PRODUCTION QUALIFYING FACILITIES AND NET METERING SERVICE-2 CREDIT RATES	))))))))	CASE NO. 2023-00404

MEMORANDUM BRIEF

Respectfully submitted,

/s/ David E. Spenard

Randal A. Strobo
David E. Spenard
STROBO BARKLEY PLLC
730 West Main Street, Suite 202
Louisville, Kentucky 40202
Phone: 502-290-9751
Facsimile: 502-378-5395
Email: rstrobo@strobobarkley.com
Email: dspenard@strobobarkley.com

Counsel for KYSEIA

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Comes now the Kentucky Solar Industries Association, Inc. (“KYSEIA”), by and through counsel, and for its Memorandum Brief in Commission Case No, 2023-00404, states as follows.

SECTION 1. INTRODUCTION

On October 31, 2023, Louisville Gas and Electric Company (“LG&E”) and Kentucky Utilities Company (“KU” and collectively “Companies”) electronically filed tariffs for revising purchase rates for small capacity and large capacity cogeneration and power production qualifying facilities (“QFs” and singularly “QF”) and NMS-2 credit rates. January 1, 2024, was the effective date for service rendered under the revised tariffs.

Through an Order of the Kentucky Public Service Commission (“PSC” or “Commission”) entered on December 13, 2023, and upon a finding that an investigation is necessary to determine the reasonableness of the proposed tariffs and that such investigation could not be completed by December 31, 2023, the Commission suspended the effective date of the proposed tariff for five (5) months, up to and including May 31, 2024. Kentucky Solar Industries Association, Inc. (“KYSEIA”), the Kentucky Office of the Attorney General (“OAG”) and Kentucky Solar Energy Society and Mountain Association (“Joint Intervenors” consequent to a joint motion for the latter two (2) identified parties) were all granted intervention into the proceeding.

Through its December 13, 2023 Order, the Commission established a procedural schedule for the investigation, and the Commission established a briefing schedule through an Order entered on April 30, 2024. In accordance and through the authority of the Commission April 30, 2024 Order, KYSEIA tenders its Memorandum Brief.

Through sections of this Memorandum Brief, KYSEIA address specific issues related to the Company's proposed methodology for calculating avoided energy and capacity costs in general and within the context of the Commission's Order entered on September 24, 2021 in Case Numbers 2020-00349[1] and 2020-00350.[2] The Memorandum Brief also provides a broader perspective on opportunities to refine and expand the Commission-defined methodology for calculating avoided energy and capacity costs in future avoided cost proceedings. The Memorandum Brief also offers comments upon the connection and interrelationships between avoided cost proceeding and other proceedings such as integrated resource planning and applications for adjustments in rates. The avoided energy and capacity analysis also bears upon the reasonableness of the proposed NEM tariff values as well as the QF tariff.

SECTION 2

2.1 Off-system sales should be considered in production cost modeling.

According to their October 2023 Generation Planning & Analysis Report (filed in support with the revised tariffs and hereinafter "Generation Planning & Analysis Report"), the Companies forecast avoided energy costs using all assumptions from the Companies'

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[1] *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*, (application tendered Nov. 25, 2020) hereinafter referenced "Case No. 2020-00349."

[2] *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 of a One-Year Surcredit*, (application tendered Nov. 25, 2020) hereinafter referenced "Case No. 2020-00350."

2024 Business Plan with the exception that off-system sales are not permitted in the model used to determine avoided energy costs.[3] When the off-system sales "option is activated, the model meets native load obligations and sells incremental energy when economic, i.e., when the generation cost is below the market price of energy net of the additional costs to make the sale."[4]

The generating units used to support off-system sales are also used to provide electricity for native load.[5] The fixed costs of generating units used to support off-system sales are not assigned to off-system sales, but instead remain allocated to the Companies' native load customers, and, in exchange, native load customers benefit from off-system sales by being credited 75% of the margin generated by off-system sales.[6]

As the Companies acknowledge in the Generation Planning & Analysis Report, 807 KAR 5:054 Section 1(1) defines avoided costs to be "incremental costs to an electric utility of electric energy or capacity or both which, if not for the purchase from the qualifying facility, the utility would generate itself or purchase from another source."[7] As described in the Generation Planning & Analysis, QF generation added to the system

[3] 2024-2024 Qualifying Facilities Rates & Net Metering Service-2 Bill Credit - Generation Planning & Analysis Report, page 3 ("Generation Planning & Analysis Report").

[4] LG&E and KU Response to Commission Staff First Request for Information, Item 2 a ("Response to Staff 1-___").

[5] LG&E and KU Response to KYSEIA First Request for Information, Item 13 b. ("Response to KYSEIA 1-___").

[6] Response to KYSEIA 2-2 b-c.

[7] Generation Planning & Analysis Report, page 3.

displaces the highest-cost energy on the system.[8] Generation used to support the Companies' off-system sales is "electric energy or capacity or both which, if not for the purchase from the qualifying facility, the utility would generate itself" and therefore should not be excluded from calculations of the avoided energy cost.

Furthermore, additional QF energy that displaces the highest-cost energy on the system reduces the marginal energy cost in that hour and increases the likelihood that the economic threshold for off-system sales will be met in that hour, thereby allowing additional benefits to accrue to ratepayers. The Companies' proposed methodology excludes the off-system sale portion of electric energy the utility would generate itself if not for the purchase from the qualifying facility, and, by doing so, unreasonably reduces both the potential value to ratepayers from off-system sales and the value of avoided energy costs offered to QFs.

Section 2.2 The Commission should adopt a methodology for calculating the avoided energy cost based on the difference in cost with and without QF generation.

The Companies calculated avoided energy costs with the assumption that QFs will not impact the way other resources are committed.[9] The tables provided by the Companies in response to PSC DR 3-5 show avoided energy costs of several cents per kWh higher than the avoided energy costs originally proposed by the Companies.

The Companies offer the following explanation for the difference:

> The primary difference between the requested methodology and the Companies' methodology is the requested methodology allows QFs to impact unit commitment. This is

[8] Generation Planning & Analysis Report, page 4.

[9] Response to Staff 3-5; LG&E KU Response to OAG First Request for Information, Item 3 b ("Response to OAG 3-___").

> not a reasonable assumption given the small size of QFs and the uncertainty in forecasting their output.[10]

The Companies base their proposed avoided energy costs on a generation profile for a technology-specific QF with an assumed nameplate capacity of 80 MW.[11] The Companies supply evidence showing sixteen (16) combustion turbine units with a minimum summer net MW capacity of 80 MW or less.[12]

A single 80 MW QF as used to calculate avoided energy costs has a nameplate capacity equal to or larger than the minimum net summer capacity of well over a dozen of the Companies' existing generating units, and it is therefore not only inconceivable that a QF of the modeled capacity would have no impact on unit commitment but also unreasonable for the value of avoided energy costs to be reduced as if an 80 MW QF would have no impact on unit commitment.

The cost-differential approach used in the Companies' response to a Commission Staff request for information[13] to calculate avoided energy costs provides a more accurate representation of the actual value of QF generation on the Companies' system than the

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[10] Response to Staff 3-5; also see Response to OAG 1-3 b.

[11] Generation Planning & Analysis Report, page 4.

[12] LG&E KU Response to Joint Intervenors First Request for Information, Item 3 ("Response to Joint Intervenors 1-___") attachment 4: 18_-_JI_DR1_LGE_KU_Attach_to_Q03_-_Att_4_PUBLIC_Other_Model_Inputs_Workpapers.zip; File Folder "OtherModelInputs"; File Folder "HeatRates"; (Excel file) 20230622_ASM_2024BP_HeatRate_IO_MasterTemplate; (Tab) Master Input, Column L, lines 15 – 33.

[13] Response to Staff 3-5.

Companies' proposed approach. Therefore, the cost-differential approach is more appropriate because it is more reliable.

Section 2.3 The Companies should use the inflation rate provided in NREL's ATB to escalate the costs of a combustion turbine.

"The Commission adopts the use of a simple cycle CT as the proxy for avoided generation capacity."[14] The Companies' source of cost data for a CT is data from the National Renewable Energy Laboratory's (NREL's) 2023 Advanced Technology Baseline (ATB).[15] However, the Companies' assumptions deviate from the actual cost forecasts in the NREL ATB in a manner that understates NREL's actual CT cost forecast by "convert[ing] NREL's cost forecasts in real dollars to nominal dollars using a 2 percent inflation rate"[16] instead of the 2.5% inflation rate[17] that is the NREL ATB's "Assumed average inflation rate over project lifetime based on historical data."

The Companies' justification for the use of a 2% inflation rate is based on "the Federal Reserve's long-term objective inflation rate of 2 percent."[18] The Federal Reserve does not set the inflation rate, but instead, through its Federal Open Market Committee attempts to maintain stable prices, among other objectives, primarily by adjusting federal

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[14] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021) at page 32.

[15] Generation Planning & Analysis Report, page 8.

[16] Response to KYSEIA 1-11.

[17] See 2023-ATB-Data_Master_v9.0.xls, worksheet "Natural Gas_FE", row 56 and worksheet "Financial Definitions", row 78 at https://data.openei.org/files/5865/2023-ATB-Data_Master_v9.0.xlsx

[18] Response to KYSEIA 1-11.

funds rate.[19] In fact, inflation as referred to in this Federal Reserve report uses the "price index for personal consumption expenditures,"[20] which is defined by the federal agency that actually calculates this measure (i.e., U.S. Bureau of Labor Statistics) as "a measure of consumer spending on goods and services among households in the U.S."[21]

A measure of inflation based on consumer spending that includes goods and services is inconsistent with the Companies' use case of estimating the future nominal price of an industrial utility-scale CT, and even more so inappropriate given the availability of inflation estimates in the underlying source data from NREL.

Additionally, the actual Federal Reserve projections show near-term inflation projections considerably higher than the 2% long-term target inflation rate. Table 2: Average Historical Projection Error Ranges of the Federal Reserve publication cited[22] by the Companies indicates an error range of between +/- 1% to +/- 1.7% for consumer price projections between 2023 and 2025,[23] which, as described in that same table, indicates a 70% probability that actual outcomes for consumer prices (i.e., inflation) will fall within that range. Actual inflation projections from the Federal Reserve report cited by the

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[19] "*Monetary Policy Report*," Board of Governors of the Federal Reserve System, June 16, 2023. At page 4. *See* https://www.federalreserve.gov/monetarypolicy/files/20230616_mprfullreport.pdf.

[20] *Ibid*., at page 4

[21] *See* https://www.bls.gov/cex/cecomparison/pce_profile.htm

[22] In footnote 4 of Response to KYSEIA 1-11, the Companies cite "*Monetary Policy Report*," Board of Governors of the Federal Reserve System, June 16, 2023. *See* https://www.federalreserve.gov/monetarypolicy/files/20230616_mprfullreport.pdf.

[23] *Ibid*., at page 61

Companies for 2023-2025 range from 2% to about 4%[24] with 2% at the bottom of the error range in 2025.

The Companies' use of an inflation projection based on consumer spending on goods and services, misrepresenting the actual reported error range of that measure, and ignoring the inflation estimate provided by the source of their CT cost estimate underestimates the future cost of a CT and is not consistent with the actual future cost projections from NREL's ATB. The result is an unreasonably low basis for calculating the avoided capacity cost.

Section 2.4 The Companies' recommendation to limit overall QF capacity should be rejected.

As indicated in the Generation Planning & Analysis Report, "the Companies continue to recommend limiting QF capacity to the lower of the actual need or 1,000 MW."[25] 807 KAR 5:054 Section 6 (Electric Utility Obligations) (1) states:

> Each electric utility shall purchase any energy and capacity which is made available from a qualifying facility except as provided in subsections (2) and (3) of this section.

A review of subsections (2) and (3) of the administrative regulation does not reveal a foundation for the Companies' "lower of the actual need or 1,000 MW" recommendation. The Companies' recommended limitation is contrary to the plain language 807 KAR 5:054 and the intent of the Public Utility Regulatory Policies Act of 1978 as it does not encourage cogeneration and small power production facilities.

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[24] *Ibid*., at page 48

[25] Generation Planning & Analysis Report, page 6.

Section 2.5 The timing of the Companies' next capacity need used to determine avoided capacity rates should be consistent with the Companies' planning and RFP issuances.

The Companies assert that their first capacity need is in 2032.[26] Nonetheless; the Companies issued a Letter dated May 1, 2024 on their website[27] announcing their Request for Proposals for their procurement of renewable energy to be delivered no earlier than 2026.[28]

The inconsistency between the Companies' claim in the instant proceeding regarding their next capacity need and the Companies' actual procurement actions at present is remarkably and disturbingly reflective of a similar discrepancy that was addressed in the Commission's September 24, 2021 Order[29] in Case Nos. 2020-00349 and 2020-00350. As stated in that Order, "The Commission finds LG&E/KU's two positions in contradiction, and when presented with such a circumstance, places greater weight on LG&E/KU's actions rather than their words."[30]

First, based on the Companies' recent procurement activities, the avoided capacity cost in this proceeding should be based on a 2026 capacity need. Second, there is a fundamental problem with the lack of consistency and the failure to match representations to the Commission in a proceeding with activities outside of the proceeding. Otherwise

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[26] Generation Planning & Analysis Report, pages 6 and 7; Response to Staff 3-1.

[27] See https://lge-ku.com/rfp2024

[28] See RFP Letter dated May 1, 2024 at https://lge-ku.com/sites/default/files/media/files/downloads/LGEKU-RFP-2024-Renewables.pdf

[29] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021) at pages 36 and 37

[30] *Ibid*., at page 37.

stated: The evidence submitted and supplied in support of a request by the Companies in any given docket should be readily reconcilable with and indicative of (in harmony) of the Companies' actual practices and actions.

Section 2.6 There are legitimate concerns regarding satisfaction of prior Commission directives.

The Companies' proposal and description of methods and assumptions in the Generation Planning & Analysis Report raise questions about the extent to which the Companies are meeting the Commission's instructions in from Case Numbers 2020-00349 and 2020-00350.

Foremost, the Commission's Order in those dockets included the finding that "LG&E/KU should implement an ELCC method for valuing resource's capacity contribution."[31] Instead of implementing an ELCC method as ordered, the Companies applied a minimally documented method to adjust the capacity value of QFs based on "availability factors" for peak hours.[32] In response to the Attorney General's initial discovery request seeking copies of the Companies' most recent ELSS studies, the Companies stated that "The Companies have not developed such studies[,]" and offered no explanation for why the Companies declined to follow the Commission's explicit instruction to implement an ELCC method.[33] The Companies did, however, provide some ELCC results from PJM which indicate that in PJM a "Gas Combustion Turbine" is

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[31] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021) at page 35.

[32] Generation Planning & Analysis Report, pages 8 to 10.

[33] Response to OAG 1-6.

assigned a “Preliminary 2025/26 BRA Class Rating” of 74%.[34] Such information raises additional questions regarding the availability of CTs and the manner in or extent to which, if any, CT costs were derated based on availability in the Companies’ proposal.

Second; the Companies assert the claim that their first capacity need is in 2032. However, they have issued an RFP for new resources several years in advance of the stated capacity need. The Commission’s Order in 2021 clearly addresses this situation, finding those positions in contradiction and placing “greater weight on LG&E/KU’s actions rather than their words.”[35] Yet, as previously described, in this proceeding the Companies again have issued an RFP (see footnote 10) for delivery of resources as early as 2026 while claiming a first future capacity need in 2032.[36]

Another instance in the current proposal that raises questions regarding the Companies’ willingness to conduct their business in accordance with the Commission’s directives and intent is the Companies’ use of levelized costs calculated over a 20-year term to set avoided cost rates for a 7-year contract term. The Commission, in its Order, found that a 20-year QF contract term was not just and reasonable because such a lengthy contract term increased the likelihood that actual avoided costs would deviate from avoided costs estimated at the beginning of the contract term.[37]

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[34] Response to OAG 1-6.

[35] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021) at page 37.

[36] Generation Planning & Analysis Report, pages 6 and 7.

[37] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021) at pages 27 and 28.

Instead, the Commission found that a 7-year QF contract term reasonably balanced the associated risk for ratepayers, developers, and the utility, and was sufficient to achieve the desired policy goals while also ensuring ratepayer protection.[38] Although the Companies' proposed a 7-year QF contract term as directed by the Commission, as described in their October 2023 Report,[39] the Companies continue to use prices forecast over a 20-year period to calculate the avoided cost rate for a 7-year QF contract term.[40] Not only is such an approach inconsistent with the definition of "avoided costs" in 807 KAR 5:054 Section 1 (1) and 18 CFR Part 292 as the incremental costs an electric utility would incur but for the purchase from a QF, such an approach also fails to acknowledge the Commission's intent in requiring a 7-year term to balance the risks of ratepayer exposure to longer future pricing periods with supporting the financing needs of developers. "The utility does not avoid costs in years 8-20."[41]

Section 2.7 Concerns with transparency and documentation.

Citing the lack of transparency as likely becoming "increasing problematic" in its 2021 Order the Commission stated: "For this reason, the Commission finds that, in future cases, including those updating LG&E/KU's IRP and QF rates, LG&E/KU should improve the transparency of their avoided energy and any other costs that are calculated using

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[38]Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021), at page 28.

[39] See, for example, Generation Planning & Analysis Report, page 5, footnote 9.

[40] Generation Planning & Analysis Report, page 4.

[41] Response to KYSEIA 1-4 b.

proprietary software by increasing access to the software, inputs, and assumptions relied upon."[42]

The Companies' proposal in the instant case and evidence offered in support through the initial filing misses the mark in terms of transparency and documentation of the assumptions and the foundation for these assumptions. For examples:

- The modeled 80 MW QF will not impact unit commitment – the Companies' production cost model for its planning purposes optimizes unit commitment,[43] but only incidentally through the discovery process did the Companies reveal that "The Companies compute avoided energy costs with the assumption that QFs will not impact the way other resources are committed."[44]

- Avoided energy costs were substantially increased when calculated using the methodology requested in the Commission Staff's third discovery request, for which the Companies explained "The primary difference between the requested methodology and the Companies' methodology is the requested methodology allows QFs to impact unit commitment."[45] As previously discussed, the Companies' proposal, Analysis Report, and other supporting information offer no reasonable explanation for (1) why this key assumption was not even mentioned to begin with, or (2) how the hourly changes in the output of a modeled 80 MW solar QF would not impact unit commitment.

- The Companies' Generation Planning & Analysis Report did mention the assumption to exclude off-system sales in the development of their avoided cost proposal and that off-system sales are included in their 2024 Business Plan.[46] However, there is scant explanation or justification offered in support of this decision to exclude off-system sales. As previously discussed, off-system sales benefit native load customers, are supported with the same generating units used to serve native load customers, are not allocated fixed costs of generating units

[42] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021), at page 29.

[43] Generation Forecast Process - Generation Planning & Analysis October 2023, page 1 ("Generation Forecast Process Report").

[44] Response to OAG 1-3 b.

[45] Response to Staff 3-5.

[46] Generation Planning & Analysis Report, page 3.

separately, and also result in actual costs to the Companies that could be avoided by QF-provided generation.[47]

- The Companies identified capacity cost components sourced from NREL's ATB included in their avoided capacity cost proposal, such as "overnight capital and fixed operating and maintenance."[48] The Companies also noted, in footnote 11 of the Analysis Report, that "The Companies inflated NREL's cost forecasts, which were provided in real 2021 dollars, to nominal dollars at 2% annually."[49] Regarding the extent of the Companies' discussion or elaboration on these assumptions, these foregoing simplistic statements fall far short of satisfying a reasonable level of transparency. NREL's ATB identifies, and any electric utility should be aware of, other capacity cost components (e.g., construction financing costs, interconnection costs, land acquisition costs, etc.) whose exclusion is not mentioned much less supported by the Companies' documentation. Likewise, and even less transparent, NREL's ATB includes a historical average inflation rate to determine the future cost of generating units such as CTs. Instead of using the inflation rate provided by NREL to estimate the future price of a CT, the Companies opt to use the Federal Reserve's target rate for a measure of consumer price levels for expenditures on goods and services.[50] The Companies did not acknowledge NREL ATB's included rate of inflation for electric generating units or even mention the source of the Companies' assumed inflation rate, much less offer support for their decisions to apply a different inflation rate in estimating the future cost of a CT or their choice to use an inflation target that is based on the price changes for consumer goods and services.

Section 3 Discussion of Overarching Considerations

Section 3.1 Fuel Adjustment Proceedings

Avoided costs, as defined under Section 1(1) of 807 KAR 5:054, "means incremental costs to an electric utility of electric energy or capacity or both which, if not for the purchase from the qualifying facility, the utility would generate itself or purchase from another source." Avoided costs do not exist in their own bubble somehow

[47] Response to KYSEIA 2-2 b-c.

[48] Generation Planning & Analysis Report, page 8.

[49] Generation Planning & Analysis Report, page 8.

[50] Response to KYSEIA 1-11.

determined separately from an electric utility's underlying operations, costs, rates, or planning.

As indicated in this definition, avoided cost rates are intended to be based on the underlying utility's costs so that QFs are compensated at a level on par with compensation the utility receives from its ratepayers. In practice, this definition should yield an avoided cost rate for energy generation based on generation-related costs the utility avoids incurring as a result of QF-supplied energy and an avoided cost rate for capacity also based on capacity-related costs the utility avoids incurring as a result of QF capacity.

If avoided cost rates are to accurately capture and reflect the value of QFs to ratepayers and the utility, then Companies' claims regarding underlying model results, assumptions, and values used to determine avoided costs should be the same as Companies' assertions in proceedings addressing resource planning, cost recovery and rate cases, fuel adjustment clause proceedings, and other proceedings that influence these Companies' costs and rates.

Reviewing the Companies' filings in the recent Fuel Adjustment Clause (FAC) proceedings raises additional questions about the Companies' avoided energy cost proposal in this proceeding.

In the FAC proceedings, the Companies projected their average fuel prices for the years 2024 and 2025 in filings made at the end of September 2023, or about a month before the filings in this proceeding were made. The Commission recently approved a fuel charge of $0.0286/kWh in its May 6, 2024 Order in LG&E's Fuel Adjustment Clause

(FAC) proceeding, Case No. 2023-00011,[51] and a fuel charge of $0.02905/kWh for KU, Case No. 2023-00010,[52] both of which were based on utility projections of average fuel prices for 2024 and 2025 as discussed by the Companies' Witness Fackler in Direct Testimony filed into the records for each docket on September 22, 2023.[53]

In the instant filing and investigation, the Companies proposed avoided energy costs for a 2-year PPA of $0.02805/kWh[54] for the QF category of "Other Technologies" for which the Companies assumed 100% availability during peak hours and which has the assumed highest energy output of all QF categories.[55] The simple average of LG&E's $0.0286 and KU's $0.02905 FACs projected for the upcoming two years is $0.02882/kWh, or about 2.75% above total avoided energy cost projected in the QF proceeding for the same two years.

Projections of fuel costs, the major component of avoided energy costs, in the FAC and the QF proceeding should be different because the FAC is based on the average cost for all energy and in the QF proceeding the Companies describe a methodology for

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[51] *An Electronic Examination of the Application of the Fuel Adjustment Clause of Louisville Gas & Electric Company From November 1, 2020 through October 31, 2022,* Order opening docket (Ky. P.S.C. Sept. 6, 2023) (hereinafter "Case No. 2023-00011"); final Order (Ky. P.S.C. May 6, 2024).

[52] *An Electronic Examination of the Application of the Fuel Adjustment Clause of Kentucky Utilities Company From November 1, 2020 through October 31, 2022,* Order opening docket (Ky. P.S.C. Sept. 6, 2023) (hereinafter "Case No. 2023-00010"); final Order (Ky. P.S.C. May 6, 2024).

[53] Case Numbers 2023-00010 and 2023-00011, Direct testimony of Fackler (filed Sept. 22, 2023), at pages 5 and 6.

[54] Generation Planning & Analysis Report, page 15, Table 14.

[55] Generation Planning & Analysis Report, page 10.

calculating avoided energy costs based on QF generation displacing only the highest-cost energy on the system in the hour it is added.[56] Clearly, the average of the highest-cost 40 MWh generated in a given hour must be a larger number than the average of all MWh generated in a given hour if more than 40 MWh were generated in the given hour, yet the Companies' FAC projections indicate a generation cost of about the same or slightly higher than the most-comparable QF projection, i.e. that of the Other Technologies[57] QF category, in the QF proceeding, and do so without any explanation as to the source of this seemingly impossible result.

The divergences between the Companies' claims and actions for their own rates and planning purposes and the Companies' claims for QF avoided cost rates all trend against QFs and, also, against ratepayers. As a result, the Companies' avoided cost proposals undervalue QF rates.

Further, while the Commission observed that it is reasonable to estimate avoided energy costs from different technologies using forecasted hourly energy costs developed in PROSYM, the proprietary nature of the production cost model limits the Commission's ability to assess its reasonableness.[58] From that prior proceeding: "The Commission finds that, in future cases, including those updating LG&E/KU's IRP and QF rates, LG&E/KU should improve the transparency of their avoided energy and any other costs that are

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[56] See Generation Planning & Analysis Report, page 4; Response to OAG 1-3.

[57] The Other Technologies QF category is assumed by the Companies to be available in all peak hours. Generation Planning & Analysis Report, page 10.

[58] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021), page 29.

calculated using proprietary software by increasing access to the software, inputs, and assumptions relied upon."[59]

Section 4 Recommendations

Section 4.1 Avoided Energy Costs

Require the inclusion of off-system sales for calculation of avoided energy costs and the adoption of the cost-differential approach, including a requirement for Companies to assume that QFs impact unit commitment, in this and future avoided cost proceedings.

Section 4.2 Avoided Capacity Costs

Require the Companies to base avoided capacity rates in this proceeding on the 2026 deliverability year identified in their recent RFP, require adjustment in QF availability factors to reflect the 75% availability factor of a CT identified in the only ELCC-specific information provided by the Companies, and to include full costs of constructing a new CT in avoided capacity costs, such as construction financing costs, land acquisition costs, interconnection costs, etc.

Section 4.3 Transparency and Consistency

Require the Companies to provide testimony on how their use of 20-year price forecasts to calculate avoided cost rates for 7-year contract terms is consistent with the Commission's intent in ordering 7-year QF terms and set that issue for consideration in the Companies' next avoided cost proceeding.

Expressly, again, find and require the Companies to conduct an ELCC study with a specified delivery date, required periodic updates on the Companies' progress with

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[59] Case Numbers 2020-00349 and 2020-00350, Order (Ky. P.S.C. Sept. 24, 2021), page 29.

specified delivery dates for updates, and provide interested stakeholder review and comment on the Companies' methodology and study in advance of the next avoided cost proceeding.

Require the Companies in any future filing or application to provide, as part of the initial filing or application, all underlying workpapers in Excel format and make arrangements for reasonable access to the software, inputs, and assumptions to intervenors upon the grant of intervention and otherwise sufficiently in advance of the deadline for intervenors to submit the first discovery requests.

Require the Companies to identify and explain in testimony any and all differences in modeling, assumptions, results, etc. between methodologies used in future avoided cost proceedings and other proceedings that involve the same topics, including resource planning proceedings, FAC proceedings, rate cases, and other relevant proceedings. There is a need for better linkage between the various proceedings. (The harmony and synchronization of evidence between dockets is critical, and it would certainly reduce and simplify proceedings.)

Section 5 Conclusion

Based on the foregoing, KYSEIA respectfully requests that the Commission adopt KYSEIA's above recommendations in its review of the Companies proposed revised tariffs for small and large capacity QF purchase rates and NMS-2 credit rates.

Notice And Certification For Filing

Undersigned counsel provides notice that the electronic version of the paper has been submitted to the Commission by uploading it using the Commission's E-Filing System on this 24th day of May, 2024, in conformity with the Commission's April 14, 2023 Order of procedure in the instant case. Pursuant to the Commission's Orders in Case No. 2020-00085, *Electronic Emergency Docket Related to Novel Coronavirus Covid-19*, the paper, in paper medium, is not required to be filed.

/s/ David E. Spenard

Notice And Certification Concerning Service

No party has been excused from the electronic filing procedures in the instant proceeding.

/s/ David E. Spenard