

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF)
KENTUCKY UTILITIES COMPANY FOR AN) CASE NO. 2018-00294
ADJUSTMENT OF ITS ELECTRIC RATES)


RESPONSE OF
KENTUCKY UTILITIES COMPANY
TO
SIERRA CLUB'S SUPPLEMENTAL DATA REQUESTS
DATED DECEMBER 13, 2018

FILED: JANUARY 2, 2019

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Chief Operating Officer for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.



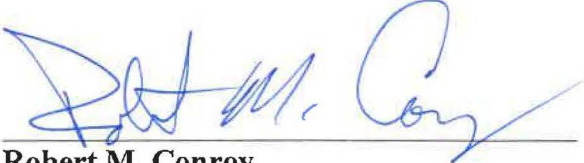
Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

**COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)**

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.


_____ **Robert M. Conroy**

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.


_____ Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Christopher M. Garrett**, being duly sworn, deposes and says that he is Controller for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.


Christopher M. Garrett

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.


Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **Elizabeth J. McFarland**, being duly sworn, deposes and says that she is Vice President, Customer Services for Louisville Gas and Electric Company and Kentucky Utilities Company and an employee of LG&E and KU Services Company, and that she has personal knowledge of the matters set forth in the responses for which she is identified as the witness, and the answers contained therein are true and correct to the best of her information, knowledge and belief.


Elizabeth J. McFarland

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.


Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

STATE OF NORTH CAROLINA

COUNTY OF BUNCOMBE

)
)

The undersigned, **William Steven Seelye**, being duly sworn, deposes and states that he is a Principal of The Prime Group, LLC, that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



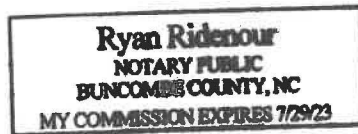
William Steven Seelye

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21 day of December 2018.

 (SEAL)
Notary Public

My Commission Expires:


7-29-23



VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **David S. Sinclair**, being duly sworn, deposes and says that he is Vice President, Energy Supply and Analysis for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



David S. Sinclair

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.



Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

VERIFICATION

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF JEFFERSON)

The undersigned, **John K. Wolfe**, being duly sworn, deposes and says that he is Vice President, Electric Distribution for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



John K. Wolfe

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 28th day of December 2018.



Notary Public

My Commission Expires:
Judy Schooler
Notary Public, ID No. 603967
State at Large, Kentucky
Commission Expires 7/11/2022

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

Response to Sierra Club's Supplemental Data Requests

Dated December 13, 2018

Question No. 1

Responding Witness: David S. Sinclair

Q-1. Reference Company Response to SC 1-2, including its incorporation of Company Response to AG 1-4(c):

- a) Whereas the Companies stated (in response to AG 1-4(c)) that “[i]t is economic for the Companies to continue purchasing energy from OVEC, given the Companies’ obligation to participate through 2040 in the Inter-Company Power Agreement, which was amended in 2010 and approved by the Kentucky Public Service Commission in Case Nos. 2011-00099 and 2011-00100”—
 - i) explain the meaning of “economic” as the Companies mean it there—i.e., “economic” for whom (the Companies’ retail customers?); by what measure(s); relative to what alternatives; etc.
 - ii) explain the basis for that assertion that it is “economic” (e.g., based solely on the record and decision in Case Nos. 2011-00099 and 2011-00100? other?).
- b) Explain whether it is the Companies’ contention that, if the Companies were not obligated to purchase energy from OVEC, the Companies’ customers’ retail rates would still be lowest if the Companies chose to continue purchasing energy from OVEC in the same way they do now, relative to other options.
- c) Confirm or deny that, at least since Case Nos. 2011-00099 and 2011-00100, the Companies have not (re)assessed the relative net impacts on their customers of continuing to purchase energy from the OVEC units as required under the ICPA.
 - i) If denied, explain and provide such assessment(s).
- d) Other than the Company’s contractual obligation under the ICPA or reliance on the approval in Case Nos. 2011-00099 and 2011-00100, identify and explain any Company “need” for taking power from OVEC.

- e) Whereas the Companies stated (in response to AG 1-4(c)) that “OVEC’s continued operation is determined by its board,” identify the factors that the OVEC board considers in making that determination.
- f) Whereas the Companies have two representatives on the OVEC board (see Company Response to SC 1-3(b)), explain whether the Companies’ representatives and/or other OVEC board members regularly consider, as a consideration in discussions regarding whether to continue operations, the question of the relative net impact on OVEC members’ customers’ retail rates of continuing OVEC’s operations.

A-1.

- a)
 - i) See the response to AG 2-25(b).
 - ii) See the response to AG 2-25(b). The Companies take at least their share of OVEC’s minimum output or pay their share of OVEC’s costs related to commitment/decommitment. The Companies always attempt to economically commit and decommit its generation fleet, including OVEC.
- b) See the response to AG 2-25(b).
- c) See the response to AG 2-25(b).
- d) The Companies’ 2018 Integrated Resource Plan (Case No. 2018-00348) demonstrated that with the Companies’ share of OVEC capacity, the Companies’ reserve margin falls within the target reserve margin range.
- e) These factors have not been specified by the OVEC board.
- f) The Companies are not aware of such discussions. See the response to SC 1-13.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 2

Responding Witness: David S. Sinclair

Q-2. Reference Company Response to SC 1-8.

- a) Discuss the reason(s) why the Companies, as they have indicated, “do not have OVEC’s decommissioning and demolition studies, to which the attached letter refers, or any other responsive documents.”
- b) Indicate whether the Companies could obtain such studies and other responsive documents.
 - i) If the Companies are not able to obtain such studies and other responsive documents, indicate who all has access to such documents, and explain why the Companies cannot successfully obtain the documents from such individuals.
 - ii) Conversely, if the Companies could obtain such documents, explain why the Companies have not done so.

A-2.

- a) OVEC has not provided such documents to the Companies.
- b) Because the Companies do not have a business purpose for such documents, the Companies have not requested them. It is unknown if the Companies could obtain them.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 3

Responding Witness: David S. Sinclair

- Q-3. Reference Company Response to SC 1-11(a) and Attachments 1 & 2.
- a) Identify the preparer/author/source of each Attachment's charts (e.g., OVEC? the Companies?).
- A-3. Attachment 1 was prepared by the Companies, from information provided by OVEC for its board meeting held on December 8, 2017.

Attachment 2 was prepared by OVEC. The Companies do not have any information regarding the preparation of this document beyond what is shown in the attachment.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 4

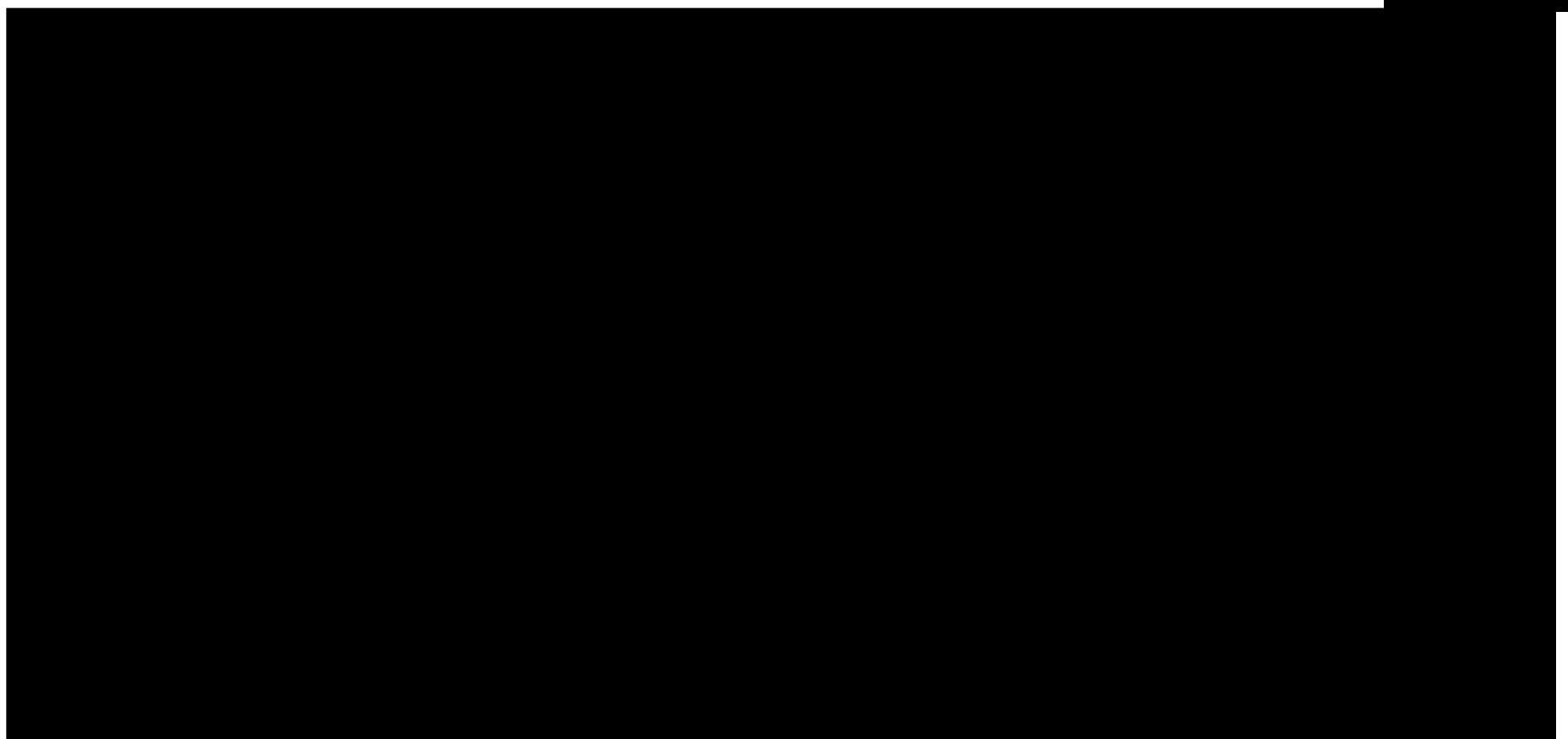
Responding Witness: David S. Sinclair

- Q-4. Reference Company Response to SC 1-13 and Attachment.
- a) Discuss the “merchant plant analysis” referred to at pp. 3 and 9 of the Attachment, explaining (without limitation)—
- i) who prompted it and why.
 - ii) when was it commenced and completed.
 - iii) what point in time, or timeframe, did it purport to address.
 - iv) who performed it.
 - v) was it is a regular, periodic analysis or a one-off analysis.
 - vi) any other pertinent details.
- b) Provide a copy of that merchant plant analysis (or analyses), along with (if distinct therefrom) the corresponding “handout” (or handouts) that were “provided to the Board,” as referenced in the Attachment.
- A-4.
- a) These analyses were provided by OVEC to the board to compare OVEC’s projected cost components to a projection of market energy and capacity prices. The two analyses in question were performed and completed once per year in late 2015 and late 2016 by OVEC staff with input from an OVEC sponsor as noted in the attachment to part (b).
- b) See attached. Certain information requested is confidential and proprietary and is being provided under seal pursuant to a petition for confidential protection.

**OHIO VALLEY ELECTRIC CORPORATION (OVEC)
INDIANA-KENTUCKY ELECTRIC CORPORATION (IKEC)
Agenda
Boards of Directors' Meeting
December 1, 2015**

OVEC Merchant Analysis – Mid (Expected) Case

Comparison of **Mid** Case Annual Market Prices for Energy and Capacity
Vs
OVEC COE



2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034

Fuel & Chemicals Capital and Debt A Less Trans Fixed Costs B-F Less Trans Peak 5x16 Nights 7x8 Rev Wgt w Cap

Generation based on [REDACTED] dispatch and forecasted variable costs against [REDACTED] projected energy and capacity prices, (PJM, AD Hub). Case No. 2018-00294

Attachment to Response to SC-2 Question No. 4(b)

**OHIO VALLEY ELECTRIC CORPORATION (OVEC)
INDIANA-KENTUCKY ELECTRIC CORPORATION (IKEC)**

Agenda

Boards of Directors' Meeting

December 1, 2016



OVEC Merchant Analysis Mid Case (Prior Year Capacity Assumptions)

Comparison of **Mid** Case Annual Market Prices for Energy and Capacity
Vs
OVEC COE

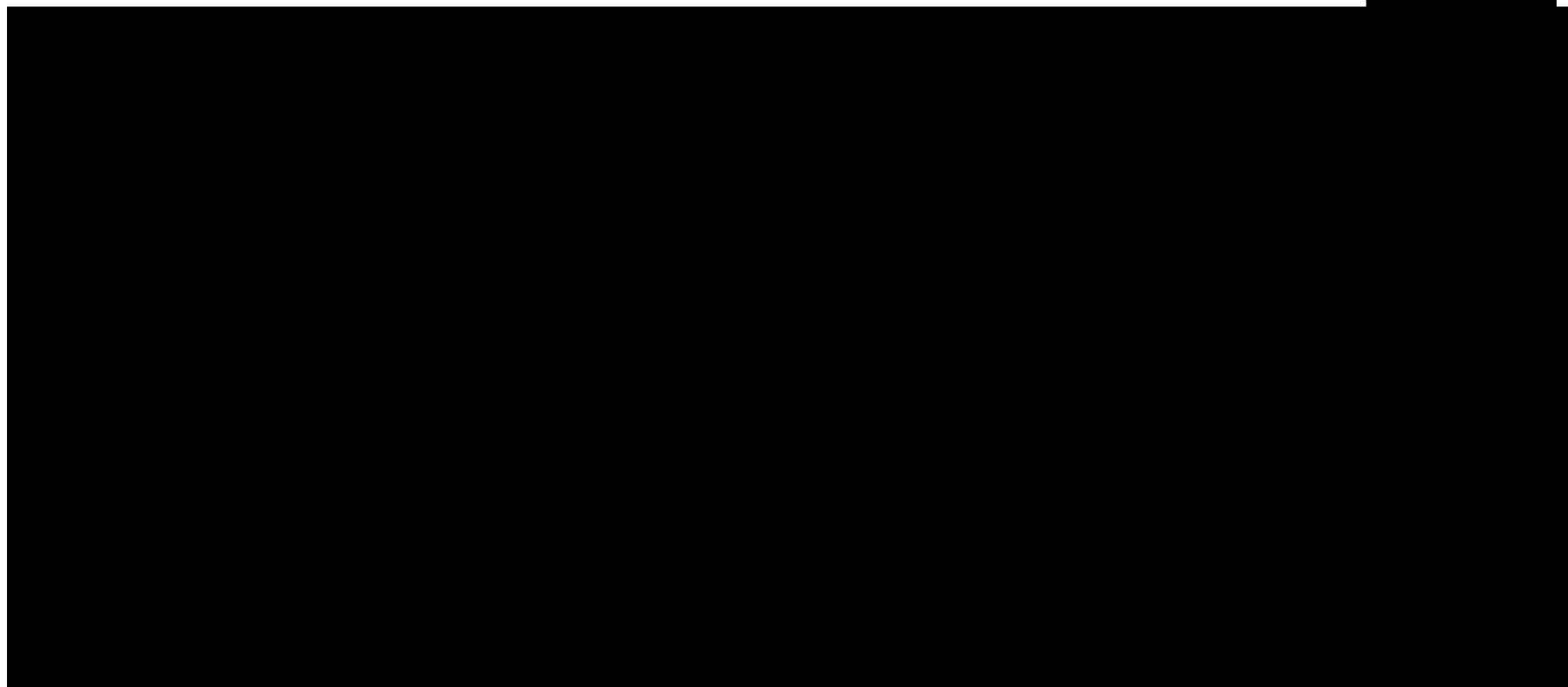


Generation based on [REDACTED] dispatch and forecasted variable costs against [REDACTED] projected energy and capacity prices, (PJM).
Case No. 2018-00294
Attachment to Response to SC-2 Question No. 4(b)



OVEC Merchant Analysis Mid Case (Current Capacity Assumptions)

Comparison of **Mid** Case Annual Market Prices for Energy and Capacity
Vs
OVEC COE



2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035

Fuel & Chemicals Cap A + Fixed Costs B-F Less Trans Debt A Less Trans Peak 5x16 Nights 7x8 Rev Wgt w Cap

Generation based on [REDACTED] dispatch and forecasted variable costs against [REDACTED] projected energy and capacity prices, (PJM).

Case No. 2018-00294

Attachment to Response to SC-2 Question No. 4(b)

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 5

Responding Witness: David S. Sinclair

Q-5. Reference Company Response to SC 1-14 and Attachment.

a) Confirm or deny that, as of today, no actual construction has commenced of any capital projects needed at the OVEC Units to achieve compliance with the ELG Rule or CCR Rule (see, e.g., Attachment at p.2).

i) If confirmed, explain whether any definitive, committed decisions have been made at this time regarding whether and when to commence construction of such capital projects.

(1) If so, identify such decided-upon, committed-to project(s), including (without limitation) the plant at which construction has commenced, when construction began and when it is projected to be completed, and compliance with which rule(s) it is intended to achieve.

ii) If denied, identify and discuss such project(s), including (without limitation) the plant at which construction has commenced, when construction began and when it is projected to be completed, and compliance with which rule(s) it is intended to achieve.

A-5.

a) Other than the preparatory spending noted in the Attachment 2 to SC 1-14, it is the Companies' understanding that no actual construction has commenced. However, the Companies do not have access to OVEC's detailed corporate, accounting, or operating information.

i) No committed investment decisions have been made at this time.

(1) Not applicable.

ii) Not applicable.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 6

Responding Witness: Christopher M. Garrett

- Q-6. Reference Company Response to SC 1-18.
- a) Confirm or deny that it is the Company as a corporate entity which owns the referenced amount of OVEC common stock. If denied, explain who/what else instead "owns" that stock.
- A-6. The Company confirms ownership of the referenced OVEC common stock.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 7

Responding Witness: David S. Sinclair

- Q-7. Reference Company Response to SC 1-19.
- a) Identify and provide which “reliability guidelines,” specifically, the Company was referring to subpart (a).
 - b) Whereas the Companies have stated that they “will target a reserve margin range of 17 to 25 percent for resource planning,” explain why the Companies’ forecasted reserve margin—which, namely, falls no lower than 23.5 percent from in 2019 through 2033 (see SC 1-19 and references therein)—hews so close to the upper bound of its preferred range, rather than the middle or lower bound?
 - c) Indicate the percentage by which the Companies’ reserve margin would diminish if one were to subtract the OVEC Units’ capacity from the Companies’ portfolio.
 - d) Explain whether or not the Company has a specific required minimum reserve margin (as opposed to what the Company may intend to “target” for its own preferential reasons). If there is such a required reserve margin—
 - i) identify the source(s) of such requirement.
 - ii) identify that required reserve margin for each year now through 2025.
 - iii) discuss why the Companies believe their ‘targeted’ reserve margin range should be the degree it is in excess of the required margin.
 - e) Discuss whether the Companies would contend that the capacity with which the OVEC Units provide them under the ICPA is either necessary or vital to achieving (a) the Companies’ ‘targeted’ reserve margin range and/or (b) any required reserve margin.

A-7.

- a) The reliability guideline referenced is the 1-in-10 loss-of-load event physical reliability guideline. Systems that adhere to this guideline are designed such that the probability of a loss-of-load event is one event in ten years.
- b) The results of the Companies' 2018 IRP reserve margin analysis demonstrated that the Companies' existing resources are economically optimal for meeting system reliability needs. The forecasted reserve margin through 2033 reflects the fact that the Companies' load forecast is mostly flat. See the testimony of Mr. Sinclair at pages 27 through 29.
- c) Based on current peak load projections, the Companies' actual reserve margin would be reduced by 2.4% if OVEC were removed from the Companies' portfolio. The Companies have not evaluated the impact its removal would have on the Companies' targeted reserve margin range.
- d) The Companies do not have this metric.
- e) With the OVEC units, the Companies' forecasted reserve margin is within the target reserve margin range and the Companies' generation portfolio is economically optimal for meeting system reliability needs. The Companies have not evaluated the impact its removal would have on the Companies' targeted reserve margin range.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 8

Responding Witness: David S. Sinclair

- Q-8. Reference Company Response to SC 1-20.
- a. Whereas the Company indicated that it “has not issued any proposals for new or substitute generation capacity to serve all customers” (emphasis added), please confirm whether or not the Companies have issued any requests for proposals for new or substitute generation to serve any customers.
 - i) If any, identify and produce all such request(s) issued, as well as all proposal(s) received, by the Companies.
- A-8. The Company has not issued any requests for proposals for new or substitute capacity or generation per se. The Companies have issued requests for solar construction proposals for their Solar Share program and for one Business Solar customer, but these were not included as they are not requests for generation or capacity.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 9

Responding Witness: Lonnie E. Bellar

- Q-9. Reference the Commission's October 5, 2018, Order in Case No. 2017-00441, Electronic Joint Application Of Louisville Gas And Electric Company And Kentucky Utilities Company For Review, Modification, And Continuation Of Certain Existing Demand-Side Management And Energy Efficiency Programs.
- a) Provide a copy of the RTO analysis referenced at pp. 26-27 of the Commission's Order, if it has been completed (see, e.g., p. 26: "LG&E/KU have indicated that they are studying the issue of RTO membership and will advise the Commission of their analysis by the end of this year. The Commission looks forward to reviewing the RTO analysis upon completion.").
 - i) If the RTO analysis is not yet completed, indicate when the Companies anticipate finishing the analysis, and provide a copy as soon as it is completed.
- A-9. The referenced RTO Analysis is discussed in the testimony of Mr. Bellar and is attached as Exhibit LEB-2 to that testimony filed on September 28, 2018.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

Response to Sierra Club's Supplemental Data Requests

Dated December 13, 2018

Question No. 10

Responding Witness: Robert M. Conroy / William Steven Seelye

Q-10. Reference Company Response to SC 1-21.

- a) In response to a request to “[i]dentify and explain the cause(s) of the change from the residential customer-related cost indicated by the Company’s electric cost of service study presented in its 2016 rate case application, \$23.93 per customer per month, to the corresponding figure presented in this case, \$20.89 per customer per month,” the Company indicated it “has not performed an analysis of differences of all cost drivers for the customer charge between the two cost of service studies, but the primary reason that the Company has identified for the decrease is the reduction in income tax rates.” Would the Company agree, if one considered only that reduction income tax rates, that singular change across two otherwise comparable records would never tend to increase the residential Basic Service Charge, under any colorable calculation methodology? (If not, explain how a tax reduction could ever possibly serve to increase the customer costs properly collected under the Basic Service Charge.)
- i) For example, would the Company agree that the income tax reduction would not tend to increase the customer-related cost assessed by Sierra Club rate design witness Jonathan Wallach pursuant to the method explained in his Direct Testimony, filed March 3, 2017, in Case No. 2016-00370, in which he estimated a minimum connection cost of \$10.60 per customer per month? (If not, explain how the tax reduction could possibly increase that figure.)

A-10.

- a) Yes, but because the Company’s proposed Basic Service Charge is nowhere near reflecting actual cost of service, the level of the Basic Service Charge would still need to be increased significantly, even if only the effect of the reduction in income taxes rates were considered. Moreover, income taxes are not the only cost incurred by the Company. Therefore, the effect of the change in income taxes should not and cannot be considered in isolation from all

other costs. There is no legitimate reason to limit the consideration of rate changes in this proceeding to just changes in income taxes.

- i) The Company specifically rejected the flawed methodology used by Mr. Wallach in his Direct Testimony filed in Case No. 2016-00370. See Rebuttal Testimony filed by William Steven Seelye in Case No. 2016-00370. Mr. Wallach's methodology has been rejected by the Commission in numerous rate case orders. Furthermore, the Company did not analyze the effect of income taxes on the flawed methodology used by Mr. Wallach and sees no reason to do so because the Commission has rejected his approach in previous rate case orders.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

Response to Sierra Club's Supplemental Data Requests

Dated December 13, 2018

Question No. 11

Responding Witness: David S. Sinclair / John K. Wolfe

Q-11. Reference Company Response to SC 1-23.

- a) Discuss whether the Company believes there is any value in the locational benefits provided by distributed generation, energy efficiency, or conservation?
 - i) If any, please describe in detail those benefits and how they may be equitably calculated.
- b) Quantify the cost-shift created by current distributed generation customers, and explain in detail how the Company arrives at that calculation.

A-11.

- a) The Companies understand that these activities can have locational impacts but whether the impacts are favorable or unfavorable depends on the system constraint(s) to be addressed and numerous other local circumstances that impact the relative total cost and effectiveness of the activities.
- b) Per the Companies' net metering tariff, energy supplied to the electric grid by distributed generation is banked each month and credited against energy consumed from the grid at the customer's applicable energy charge. This banking benefit requires the use of the electric grid. In addition, because the Companies have an obligation to serve customers, they must maintain generation capacity to serve net metering customers when their distributed generation is not available. Therefore, to the extent a net metering customer's energy charge includes fixed distribution, transmission, and generation costs, the net metering tariff over-compensates customers for energy supplied to the electric grid by including these fixed costs in the energy credit. These unrecovered fixed costs are eventually shifted to other customers through the rate-making process.

The table provided in response to SC 1-23(d) lists the average monthly amount of energy supplied to the grid for net metering customers over the 12-

month period ending October 2018. For each class of customers, the average monthly cost shift per customer can be estimated by multiplying the non-variable portion of the applicable energy charge by the average monthly amount of energy supplied to the grid. The Companies have not estimated the magnitude of this cost shift.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

Response to Sierra Club's Supplemental Data Requests

Dated December 13, 2018

Question No. 12

**Responding Witness: Robert M. Conroy / Elizabeth J. McFarland /
William Steven Seelye**

Q-12. Reference Company Response to SC 1-28 and testimony of William Steven Seelye.

- a) Whereas the Company indicated (in subsection (a)) that “[i]t has been Mr. Seelye’s experience that customers often have difficulty with the mathematical concept of pro-ration” and that “[i]t is his belief that a daily Basic Service Charge is easier for customers to understand than a mathematical ratio,” please provide any and all concrete examples that Mr. Seelye can identify of the relevant aforementioned “experience” and the basis for such “belief” (e.g., specific interactions with certain customers of a particular utility; any studies/literature on the matter; etc.).
- b) Verify that the below list of ratemaking principles are those outlined in Bonbright’s seminal Principles of Public Utility Rates (1961), and explain whether and how Mr. Seelye believes that switching to a per-day Basic Service Charge format from the per-month format with which the Company’s customers are familiar would be advantageous under each ratemaking principle, to the extent applicable:
 - i) The related, “practical” attributes of simplicity, understandability, public acceptability, and feasibility of application.
 - ii) Freedom from controversies as to proper interpretation.
 - iii) Effectiveness in yielding total revenue requirements under the fair-return standard.
 - iv) Revenue stability from year to year.
 - v) Stability of the rates themselves, with a minimum of unexpected changes seriously adverse to existing customers. (Compare “The best tax is an old tax.”)
 - vi) Fairness of the specific rates in the apportionment of total costs of service among the different customers.
 - vii) Avoidance of “undue discrimination” in rate relationships.
 - viii) Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use:

- (a) in the control of the total amounts of service supplied by the company; (b) in the control of the relative uses of alternative types of service (on-peak versus off-peak electricity, Pullman travel versus coach travel, single-party telephone service versus service from a multi-party line, etc.).
- c) Whereas the Company indicated that its “customer service personnel recall having communications with customers who have expressed difficulty understanding the concept of prorating Basic Service Charges,” please provide any and all available details regarding those recollections by customer service personnel, including, without limitation:
- i) What is the basis on which the Company is aware of these recollections of customer difficulty with the concept of proration?
 - 1) Is there a written log or any other documentation of such communications? (If so, provide it.)
 - 2) Conversely, was it never-documented oral relaying of customer input to management (whom specifically?) by customer service personnel?
 - 3) Other?
 - ii) Whatever the basis, how many such recollected communications is the Company referring to, and from how many distinct customers?
 - iii) When did such recollected communications occur?
 - iv) Were the personnel able to explain the concept to the customers’ satisfaction?
- d) Whereas the Company responded that it “does not have any survey data specifically related to the Basic Service Charge,” in response to the question whether the Company “has ever received customer input expressing either a preference for the current per-month charge, or a prediction of confusion regarding the idea of a per-day charge” (emphasis added), please confirm whether or not the Company has ever received any customer input (not limited to “survey data,” but rather including phone calls, letters, emails, input at public meetings, anecdotal input, etc.) either expressing a preference for the per-month format over a per-day format (or, by corollary, expressing disapproval about a move to the per-day format).
- i) If any, discuss and/or provide such input.
- e) Confirm or deny that, to date, the Company has performed no affirmative outreach (e.g., surveys, solicitations, focus groups, etc.) to its residential

customers to ask them whether they would prefer to see their Basic Service Charge expressed as per-day or per-month.

- i) If denied, identify and explain such outreach, and provide any documentation of the outreach and its results.
 - ii) If confirmed, explain why the Company did not do so prior to proposing the change in format.
- f) Explain whether the Company would agree that residential customers' ability to readily perceive the gravity of a proposed increase in the Basic Service Charge will tend to diminish if a proposed increase is expressed as a number of cents per day, rather than a corresponding number of dollars per month.
- g) Explain whether the Company would agree that residential customers would have been more likely to understand both the fact that the Company is seeking to increase their Basic Service Charge, and the degree of that proposed increase to the Basic Service Charge, if the Customer Notice of Rate Adjustment issued by the Company at the outset of this case would have explicitly indicated what the corresponding per-month figure would be under the new, proposed per-day rate (i.e., if the Company would have not only provided the per-day rate, but also expressly translated that figure into a corresponding average monthly rate, such that customers would not themselves have to multiple it by thirty in order to appreciate the fact and degree of the proposed increase in the Basic Service Charge).
- h) Explain whether the Company has ever considered the possibility of expressing the Basic Service Charge in its residential rates and bills as both a per-day and average-per-month figure, such that customers could readily understand each concept and figure.
- i) Discuss the Company's views of the feasibility, pros, and cons that conceivable alternative.

A-12.

- a) Based on Mr. Seelye's work experience, including his experience teaching mathematics and tutoring high school and college students in mathematics, he has observed that some individuals, especially individuals with only basic skills in mathematics, have trouble understanding and applying ratios. For example, Mr. Seelye contends that it is easier for someone with basic skills in mathematics to understand the following billing of a Basic Service for a service period of 13 days during a month:

$$13 \text{ days} \times \$0.53 \text{ per day} = \$6.89$$

than for a customer to understand a pro-rated billing for a month with billing-cycle consisting of 30 days:

$$\frac{13 \text{ days}}{30 \text{ days}} \times \$16.13 \text{ per month} = 0.4333 \times \$16.13 \text{ per month} = \$6.99$$

Another problem with customers understanding a prorated Basic Service Charge is that the number of days in a monthly billing cycle will in some cases differ from the number of days in a calendar month, thus creating the potential for additional confusion on the part of customers. For example, in the pro-rated example shown above, the number of days in the monthly billing cycle is 30 days but the number of days during the calendar month could be 31 days, creating additional reasons for customers not being able to understand the mathematics involved in the pro-ration.

It should also be noted that one of the reasons that the Company is proposing a daily customer charge is that it more accurately reflects the cost of service for the month based on the number of days in the billing month.

- b) Denied. The eight items listed in the question are not referred to as “ratemaking principles” in Bonbright’s treatise. Bonbright explained that the eight items, which are listed on page 291 of his text, are simply a list of “desirable attributes” derived from a variety of sources. Bonbright goes on to state that the items listed “are unqualified to serve as a base on which to build these principles [of optimum pricing] because of their ambiguities.” Thus, the assertion that this list constitutes Bonbright’s ratemaking principles is erroneous.

However, the following response addresses whether a daily Basic Service Charge is either advantageous, dis-advantageous, or neutral with respect to each item listed:

- i) The related, “practical” attributes of simplicity, understandability, public acceptability, and feasibility of application.

Advantageous. As explained in the response to part (a), a daily Basic Service Charge is easier for customers to understand than a pro-rated Basic Service Charge, when a customer changes service location. In addition, a daily Basic Service Charge is easier to apply to pre-paid metering programs should the Company ever decide to implement such a program.

- ii) Freedom from controversies as to proper interpretation.

Advantageous. The simplicity of applying a daily Basic Service Charge will likely avoid controversies as to the proper interpretation and application of a prorated Basic Service Charge.

- iii) Effectiveness in yielding total revenue requirements under the fair-return standard.

Neutral.

- iv) Revenue stability from year to year.

Neutral.

- v) Stability of the rates themselves, with a minimum of unexpected changes seriously adverse to existing customers. (Compare "The best tax is an old tax.")

Neutral.

- vi) Fairness of the specific rates in the apportionment of total costs of service among the different customers.

Advantageous. A daily Basic Service Charge more accurately reflects the actual number of days in a billing month and thus the actual cost of service for the month.

- vii) Avoidance of "undue discrimination" in rate relationships.

Neutral.

- viii) Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use: (a) in the control of the total amounts of service supplied by the company; (b) in the control of the relative uses of alternative types of service (on-peak versus off-peak electricity, Pullman travel versus coach travel, single-party telephone service versus service from a multi-party line, etc.).

(a) Neutral.

(b) Neutral.

c)

- i) As explained in the response to SC 1-28, the Company's customer service personnel recall having communications with customers who have expressed difficulty understanding the concept of prorating the Basic

Service Charge. The basis of the recollection came from the Manager Residential Service Center through verbal interactions with customer service personnel in the normal course of business.

- 1) No. See response to (i).
 - 2) See response to (i).
 - 3) Not applicable.
- ii) The Company does not track customer inquiries to the level of detail referenced in the question.
- iii) See response to (ii).
- iv) Yes. Customer service representatives are trained to respond to billing inquiries including pro-ration.
- d) The Company is unaware if the concept of a daily Basic Service Charge has ever been discussed with a customer. The response to SC 1-28 concerned difficulties that some customers have had with understanding pro-ration of the Basic Service Charge. The reasons for proposing a daily Basic Service Charge are fully explained in the testimonies of Mr. Conroy and Mr. Seelye.
- e) Confirmed. The proposed Basic Service Charge has been supported with a cost of service study. The reasons for proposing a daily Basic Service Charge are fully explained in the testimonies of Mr. Conroy and Mr. Seelye.
- f) The premise of the question is flawed. The Company disagrees that there is any “gravity” associated with moving the Basic Service Charge in the direction of cost of service. Furthermore, the effect of increasing the Basic Service Charge is the same whether the charge is stated as a daily charge or as a monthly charge.
- g) The Company does not have sufficient data to answer the question. The reasons for proposing a daily Basic Service Charge are fully explained in the testimonies of Mr. Conroy and Mr. Seelye.
- h) The Company’s proposed tariff and customer bills do present the Basic Service Charge both as a per-day charge and a calculated total Basic Service Charge for each month. See the Company’s Proposed Tariffs within the Filing Requirements Tab 03-Sec 16(1)(b)(3) Tariff Sheet No. 104 through 104.3. The Company believes adding an average per-month value to customer bills that the Company will never actually bill would likely lead to more confusion than clarity.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

**Response to Sierra Club's Supplemental Data Requests
Dated December 13, 2018**

Question No. 13

Responding Witness: Counsel

- Q-13. Reference Company Response to SC 1-35.
- a) Identify any Company coal ash ponds or landfills that are “clay-lined” within the meaning of the CCR Rule (see, e.g., 40 C.F.R. § 257.71 (a)(1)(i); Util. Solid Waste Activities Grp. v. Env'tl. Prot. Agency, 901 F.3d 414, 430-31 (D.C. Cir. 2018)).
 - i) If the Company has any such impoundments, discuss such impoundments' current status and prospective trajectory vis-à-vis compliance with the obligations and limitations associated with the CCR Rule and the D.C. Circuit's decision in the aforementioned case.
- A-13. The Company objects to this question because it is not relevant. KU explained in SC 1-35 its decision making regarding the closure of impoundments. The D.C. Circuit decision referenced in the question and its impact, if any, on the CCR Rule have no relevance to any cost sought to be recovered in this case.

KENTUCKY UTILITIES COMPANY

CASE NO. 2018-00294

Response to Sierra Club's Supplemental Data Requests

Dated December 13, 2018

Question No. 14

Responding Witness: Counsel

Q-14. Reference the Notification – Appendix IV Constituents Exceeding Groundwater Protection Standard, posted on November 28, 2018, on the Companies' Groundwater Monitoring and Corrective Action webpage.¹

- a) Whereas the Company has provided the following acknowledgement of groundwater exceedances of lithium and molybdenum at the E.W. Brown Generating Station (reproduced here for convenience)—

Auxiliary Pond (AXP)*

In accordance with the provisions of EPA's Final Coal Combustion Residual (CCR) Rule, as provided in 40 CFR 257.95(g), this document provides notice that the following parameters have been identified during the assessment monitoring program undertaken by the company at a concentration which exceeds, at statistically significant levels, the groundwater protection standard (GPS), as identified in parenthesis for the multi-unit monitoring system.

- Lithium (GPS = 0.04 mg/L)
- Molybdenum (GPS = 0.1 mg/L)

In accordance with the CCR Rule, Kentucky Utilities (KU) will undertake the additional measures prescribed by the CCR Rule.

—please now:

- i) describe specifically the actions that the Company will undertake as part of the “additional measures” to which it referred.
- ii) provide the anticipated timeline and cost of each such action.
- ii) confirm whether such actions and their costs are different from and additional to the environmental compliance measures and costs already identified in the Company's application and previous discovery responses in this rate case.

- A-14. KU objects to this question because it is not relevant to this proceeding. KU is still assessing the measures it will take, but the costs for such measures are not included for recovery in this case.