

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

The Electronic Application of Duke)
Energy Kentucky, Inc. for: 1) An)
Adjustment of the Electric Rates; 2)) Case No. 2022-00372
Approval of New Tariffs; 3) Approval of)
Accounting Practices to Establish)
Regulatory Assets and Liabilities; and 4))
All Other Required Approvals and Relief.)

**DUKE ENERGY KENTUCKY, INC.’S FIRST SET OF
INTERROGATORIES AND REQUESTS FOR PRODUCTION OF
DOCUMENTS PROPOUNDED UPON THE SIERRA CLUB**

Comes now Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the Company), and addresses the following First Set of Interrogatories and Requests for Production of Documents to the Sierra Club. to be answered by the date specified in the Commission’s Order of Procedure, and in accordance with the following instructions:

I. DEFINITIONS AND INSTRUCTIONS

1. With respect to each discovery request, all information is to be divulged that is within the knowledge, possession or control of the parties to whom it is addressed, including their agents, employees, attorneys and/or investigators.

2. Please identify the witness(es) who will be prepared to answer questions concerning each request.

3. These requests shall be deemed continuing so as to require further and supplemental responses if the Company receives or generates additional information within the scope of these requests between the time of the response and the time of any hearing

conducted hereon.

4. All answers must be separately and fully stated in writing under oath.

5. Where an interrogatory calls for an answer in more than one part, each part should be separated in the answer so that the answer is clearly understandable.

6. For purpose of these discovery requests, the following terms shall have meanings set forth below:

(a) As used herein, “document,” “documentation” and/or “record,” whether stated as the singular or the plural, means any course of binders, book, pamphlet, periodical, letter, correspondence, memoranda, including but not limited to, any memorandum or report of a meeting or telephone or other conversation, invoice, account, credit memo, debit memo, financial statement, general ledger, ledger, journal, work papers, account work papers, report, diary, telegram, record, contract, agreement, study, draft, telex, handwritten or other note, sketch, picture, photograph, plan, chart, paper, graph, index, tape, data processing card, data processing disc, data cells or sheet, check acceptance draft, e-mail, studies, analyses, contracts, estimates, summaries, statistical statements, analytical records, reports and/or summaries of investigations, opinions or reports of consultants, opinions or reports of accountants, trade letters, comparisons, brochures, pamphlets, circulars, bulletins, notices, forecasts, electronic communication, printouts, all other data compilations from which information can be obtained (translated if necessary by

defendants into usable form), any preliminary versions, drafts or revisions of any of the foregoing, and/or any other written, recorded, transcribed, punched, taped, filmed or graphic matter, however produced or reproduced and regardless of origin or location, in the possession, custody and/or control of the defendant and/or their agents, accountants, employees, representatives and/or attorneys. "Document" and "record" also mean all copies of documents by whatever means made, if the copy bears any other markings or notations not found on the original.

- (b) The terms "relating to," "referring to," "referred to," "pertaining to," "pertained to" and "relates to" means referring to, reporting, embodying, establishing, evidencing, comprising, connected with, commenting on, responding to, showing, describing, analyzing, reflecting, presenting and/or constituting and/or in any way involving.
- (c) The terms "and," "or," and "and/or" within the meaning of this document shall include each other and shall be both inclusive and disjunctive and shall be construed to require production of all documents, as above-described, in the broadest possible fashion and manner.
- (d) The term "Sierra Club" shall mean the Sierra Club, and shall include, but is not limited to, each and every agent, employee, servant, insurer and/or attorney of Sierra Club. The term "you" shall be deemed to refer to Sierra Club.

- (e) The term “Commission” shall mean the Kentucky Public Service Commission.
- (f) The terms “Duke Energy Kentucky” or the “Company” shall mean Duke Energy Kentucky, Inc., its employees, agents, officers, directors and representatives.
- (g) To “identify” shall mean:
 - (1) With respect to a document, to state its date, its author, its type (for example, letter, memorandum, chart, photograph, sound reproduction, etc.), its subject matter, its present location, and the name of its present custodian. The document may be produced in lieu of supplying the foregoing information. For each document which contains information as privileged or otherwise excludable from discovery, there shall be included a statement as to the basis for such claim of privilege or other grounds for exclusion.
 - (2) With regard to a natural person, to state his or her full name, last known employer or business affiliation, title and last known home address.
 - (3) With regard to a person other than a natural person, state the title of that person, any trade name, or corporate name or partnership name used by that person, and the principal business address of that person.
- (h) To “produce” or to “identify and produce,” shall mean that the Sierra

Club shall produce each document or other requested tangible thing. For each tangible thing which Sierra Club contends is privileged or otherwise excludable from discovery, there shall be included a statement as to the basis for such claim of privilege or other grounds for exclusion.

(i) The terms “Party or Parties” shall mean any organization, person, corporation, entity, etc., which intervened in the above-captioned proceeding and shall further include the Kentucky Public Service Commission Staff.

(j) The terms “Agreement or Agreements” shall mean written or oral terms agreed upon by the participants and include, but are not limited to, protective agreements, confidentiality agreements, joint defense agreements, agreements to support or oppose any item or position, and any other commitments made among the Sierra Club and any Intervening Party.

II. REQUESTS FOR INFORMATION

1. Other than Ms. Shenstone-Harris, please identify any persons, including experts, whom Sierra Club has consulted or retained with regard to evaluating Duke Energy Kentucky’s Application in this proceeding.

2. For each person identified in response to Interrogatory No. 1 above, please state:

- a. the subject matter of the discussions/consultations/evaluations;
- b. the written opinions of such persons regarding Duke Energy Kentucky’s Application;
- c. the facts to which each person relied upon; and

d. a summary of the person's qualifications to render such discussions/consultations/evaluations.

3. For each person identified in response to Interrogatory No. 1 above, please identify all proceedings in all jurisdictions in which the witness/person has offered evidence, including but not limited to, pre-filed testimony, sworn statements, and live testimony or analysis. For each response, please provide the following:

- a. the jurisdiction in which the testimony, statement, or analysis was pre-filed, offered, given, or admitted into the record;
- b. the administrative agency and/or court in which the testimony, statement, or analysis was pre-filed, offered, admitted, or given;
- c. the date(s) the testimony, statement, or analysis was pre-filed, offered, admitted, or given;
- d. the identifying number for the case or proceeding in which the testimony, statement, or analysis was pre-filed, offered, admitted, or given; and
- e. whether the person was cross-examined.

4. Identify and provide all documents or other evidence that Sierra Club may seek to introduce as exhibits or for purposes of witness examination in the above-captioned matter.

5. Please identify all proceedings in all jurisdictions in the last three years in which Ms. Shenstone-Harris has offered evidence, including but not limited to, pre-filed testimony, sworn statements, and live testimony or analysis. For each response, please provide the following:

- a. the jurisdiction in which the testimony, statement, or analysis was prefiled, offered, given, or admitted into the record;
- b. the administrative agency and/or court in which the testimony, statement, or analysis was pre-filed, offered, admitted, or given;
- c. the date(s) the testimony, statement, or analysis was pre-filed, offered, admitted, or given;
- d. the identifying number for the case or proceeding in which the testimony, statement, or analysis was pre-filed, offered, admitted, or given;
- e. whether the witness was cross-examined;
- f. the custodian of the transcripts and pre-filed testimony, statements, or analysis for each proceeding; and
- g. copies of all such testimony, statements, or analysis.

6. Please provide copies of any and all documents, analysis, summaries, white papers, work papers, spreadsheets (electronic versions with cells intact), including drafts thereof, as well as any underlying supporting materials created by Ms. Shenstone-Harris as part of her evaluation of Duke Energy Kentucky's Application or used in the creation of Ms. Shenstone-Harris's testimony.

7. Please provide copies of any and all documents not created by Ms. Shenstone-Harris, including but not limited to, analysis, articles, books, summaries, cases, reports, and evaluations, that Ms. Shenstone-Harris relied upon, referred to, or used in the development of her testimony.

8. Please provide any and all studies, analysis, and presentations that Ms. Shenstone-Harris has created or publicly made within the last three years that involve utility regulation, ratemaking, depreciation, securitization, fossil-fueled electric generation retirements, electric vehicle (EV) incentives, or use of riders that are discussed in Ms. Shenstone-Harris's testimony.

9. Please state whether there are any agreements between Sierra Club and any Intervening Party to the above-captioned proceeding, or any member or affiliate of an Intervening Party to the proceeding, that concern said proceeding. For purposes of this Interrogatory, "intervening party" includes any party to have filed a motion to intervene in the above-captioned proceeding. To the extent that Sierra Club contends that any such documents are privileged, please provide a privilege log for the same.

10. Please state whether there are any agreements between the Sierra Club and any entity exhibiting interest in the above-captioned proceeding, or any member or affiliate of an entity exhibiting interest to the proceeding, that concern said proceeding. For purposes of this Interrogatory, "entity exhibiting interest" includes any party that has not filed a motion to intervene in the above-captioned proceeding. To the extent that the Sierra Club contends that any such documents are privileged, please provide a privilege log for the same.

11. Please provide the law or regulation that requires Duke Energy Kentucky, in this case, to perform updated modeling of its 2021 IRP related to the retirement date of the East Bend.

12. Referencing Footnote 20 of Ms. Shenstone-Harris's Direct Testimony, please provide detailed calculations for East Bend's utilization rates from 2018 to 2022, as shown in Figure 1 on page 17 of Ms. Shenstone-Harris's Direct Testimony.

13. Referencing Figure 1 on page 17 of Ms. Shenstone-Harris's Direct Testimony, please provide the reference to the specific Duke Energy Kentucky data used to create this figure and provide the underlying source data.

14. Referencing page 19 of Ms. Shenstone-Harris's Direct Testimony, please describe, and provide accompanying calculations, as applicable, how Ms. Shenstone-Harris "estimated East Bend's historical capacity value based on its unforced capacity (UCAP) and the capacity value in PJM's Base Residual Auction (BRA) for each planning year."

15. Please provide all documents and reports relied on to support Ms. Shenstone-Harris's statement on page 42 of her Direct Testimony that "[f]or wind and solar, O&M and sustaining capital costs are relatively low."

16. Referencing Ms. Shenstone-Harris's Direct Testimony at page 51, please provide a citation to any legislation that is currently pending in Kentucky related to securitization and the status of that legislation.

17. Referencing Ms. Shenstone-Harris's statement on page 57 of her Direct Testimony that she has "reviewed EV [time-of-use] tariffs and enrollment levels in multiple other jurisdictions," please provide the names of the utilities, their relevant tariffs, and the monthly savings achieved by relevant customers for all such tariffs that Ms. Shenstone-Harris has reviewed.

18. Please provide the communication referenced on page 57, footnote 106 of Ms. Shenstone-Harris's Direct Testimony.

19. Is it Ms. Shenstone-Harris's contention that time-of-use (TOU) rates are the only way to manage EV charging load?

20. Is Ms. Shenstone-Harris familiar with the DSM programs that manage EV charging load?

21. What is the comparative \$/kW rate for Duquesne Light Company's standard residential rates? Please provide supporting documentation for Duquesne Light Company's standard residential rates.

22. What is the comparative \$/kW rate for Duquesne Light Company's EV rates? Please provide supporting documentation for Duquesne Light Company's EV rates.

23. What is the comparative \$/kW rate for Baltimore Gas and Electric Company's standard residential rates? Please provide supporting documentation for Baltimore Gas and Electric Company's standard residential rates.

24. What is the comparative \$/kW rate for Baltimore Gas and Electric Company's EV rates? Please provide supporting documentation for Baltimore Gas and Electric Company's EV rates.

25. Does Ms. Shenstone-Harris agree that distribution system costs are local in nature? If no, please explain in detail why Ms. Shenstone-Harris disagrees.

26. Has Ms. Shenstone-Harris performed any peak demand analysis for EV adopters to determine how that demand impacts whole house peak demand? If so, please provide this analysis.

27. Has Ms. Shenstone-Harris performed an analysis to determine whether DCFC and fleet customers always charge off-peak? If so, please provide this analysis.

28. Does Ms. Shenstone-Harris agree that there are no tariff provisions or physical breaker that prevents DCFC and fleet customers from charging on-peak? If no, please explain in detail why Ms. Shenstone-Harris disagrees.

29. Does Ms. Shenstone-Harris agree that Non-Coincident kW charges have been used as a reasonable method of collecting revenues among class customers based on their maximum use of the distribution system? If no, please explain in detail why Ms. Shenstone-Harris disagrees.

30. Is Ms. Shenstone-Harris suggesting that most customers are peaking in off-peak hours today?

31. If a customer is peaking with existing load during on-peak hours, what would a non-coincident demand charge encourage that customer to do?

32. Why is Ms. Shenstone-Harris's analysis related to Duke Energy Kentucky's Rate DT based only on EV load?

33. What would be the results of Ms. Shenstone-Harris's analysis related to Duke Energy Kentucky's Rate DT assuming a customer's current load?

34. Please provide the loads from LBNL HEVI-PRO utilized in Tables 4 and 5 of the Direct Testimony of Ms. Shenstone-Harris in spreadsheet format with formulas intact.

35. How many MWs of solar, wind, and batteries does Ms. Shenstone-Harris estimate are needed to adequately replace East Bend upon its retirement?

a. What is the estimated cost per MW of such a strategy?

- b. Does Ms. Shenstone-Harris believe all of those solar, wind, and battery resources should be located within Duke Energy Kentucky's service territory? If the response is in the negative, where will such resources be located?
- c. What percentage of the customers' energy needs will come from market purchases assuming replacement of East Bend with 100 percent solar, wind, and battery resources?

36. What percentage of market energy purchases does Sierra Club believe is reasonable for Duke Energy Kentucky to serve customers' load?

37. Please provide an explanation of how renewable plus storage will overcome the following challenges:

- a. extreme weather risks over five consecutive days?
- b. Several consecutive days of cloud cover?
- c. Several consecutive days of light winds?
- d. High market prices?

38. Refer to Figure 1 of Ms. Shenstone-Harris's Direct Testimony. Provide this data through 2035.

39. Refer to page 29 of Ms. Shenstone-Harris's Direct Testimony, lines 5-6, referencing "DEK itself admits, the scenario with a carbon price represents a *far more realistic future...*" (*Emphasis added*). Please provide support for this statement.

40. Referring to page 32, line 11 of Ms. Shenstone-Harris's Direct Testimony, please provide the power prices, including all data, calculations, and analysis that supports

the claims regarding East Bend's performance with "more appropriate fixed costs and capacity factor assumptions."

41. If PJM enacts a seasonal capacity requirement in order to maintain reliability, how many MWs of solar, wind and batteries does Ms. Shenstone-Harris and/or Sierra Club estimate are needed to adequately displace a thermal unit to replace East Bend assuming a seasonal reserve margin of 9%.

42. Referring generally to Ms. Shenstone-Harris's Direct Testimony, please discuss the locational Marginal Pricing (LMPs) for the period from 2028 through 2035 and the relevance of those process to the retirement decision for East Bend.

43. What statistic-backed method does Ms. Shenstone-Harris propose to use to determine residential TOU differentials?

Respectfully submitted,

/s/Rocco D'Ascenzo

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Counsel for Duke Energy Kentucky, Inc.

CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing is a true and accurate copy of the document in paper medium; that the electronic filing was transmitted to the Commission on March 24, 2023; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that submitting the original filing to the Commission in paper medium is no longer required as it has been granted a permanent deviation.¹

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/s/Rocco D'Ascenzo
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¹In the Matter of Electronic Emergency Docket Related to the Novel Coronavirus COVID-19, Order, Case No. 2020-00085 (Ky. P.S.C. July 22, 2021).