

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2019 INTEGRATED	)	
RESOURCE PLANNING REPORT OF	)	CASE No.
KENTUCKY POWER COMPANY	)	2019-00443

**ATTORNEY GENERAL’S INITIAL DATA REQUESTS**

Comes now the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention, and submits these Initial Data Requests to Kentucky Power Company [hereinafter referred to as “KPCo” or “the Company”] to be answered by the date specified in the Commission’s Orders of Procedure, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate request item will be deemed a satisfactory response.
- (2) Identify the witness who will be prepared to answer questions concerning each request.
- (3) Repeat the question to which each response is intended to refer. The Office of the Attorney General can provide counsel for KPCo with an electronic version of these questions, upon request.
- (4) 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.
- (5) Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person’s knowledge, information, and belief formed after a reasonable inquiry.

(6) If you believe any request appears confusing, request clarification directly from Counsel for the Office of Attorney General.

(7) To the extent that the specific document, workpaper or information as requested does not exist, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.

(8) To the extent that any request may be answered by way of a computer printout, identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.

(9) If the company has objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify the Office of the Attorney General as soon as possible.

(10) As used herein, the words “document” or “documents” are to be construed broadly and shall mean the original of the same (and all non-identical copies or drafts thereof) and if the original is not available, the best copy available. These terms shall include all information recorded in any written, graphic or other tangible form and shall include, without limiting the generality of the foregoing, all reports; memoranda; books or notebooks; written or recorded statements, interviews, affidavits and depositions; all letters or correspondence; telegrams, cables and telex messages; contracts, leases, insurance policies or other agreements; warnings and caution/hazard notices or labels; mechanical and electronic recordings and all information so stored, or transcripts of such recordings; calendars, appointment books, schedules, agendas and diary entries; notes or memoranda of conversations (telephonic or otherwise), meetings or conferences; legal pleadings and transcripts of legal proceedings; maps, models, charts, diagrams, graphs and other demonstrative materials; financial

statements, annual reports, balance sheets and other accounting records; quotations or offers; bulletins, newsletters, pamphlets, brochures and all other similar publications; summaries or compilations of data; deeds, titles, or other instruments of ownership; blueprints and specifications; manuals, guidelines, regulations, procedures, policies and instructional materials of any type; photographs or pictures, film, microfilm and microfiche; videotapes; articles; announcements and notices of any type; surveys, studies, evaluations, tests and all research and development (R&D) materials; newspaper clippings and press releases; time cards, employee schedules or rosters, and other payroll records; cancelled checks, invoices, bills and receipts; and writings of any kind and all other tangible things upon which any handwriting, typing, printing, drawings, representations, graphic matter, magnetic or electrical impulses, or other forms of communication are recorded or produced, including audio and video recordings, computer stored information (whether or not in printout form), computer-readable media or other electronically maintained or transmitted information regardless of the media or format in which they are stored, and all other rough drafts, revised drafts (including all handwritten notes or other marks on the same) and copies of documents as hereinbefore defined by whatever means made.

(11) For any document withheld on the basis of privilege, state the following: date; author; addressee; indicated or blind copies; all persons to whom distributed, shown, or explained; and, the nature and legal basis for the privilege asserted.

(12) In the event any document called for has been destroyed or transferred beyond the control of the company, state: the identity of the person by whom it was destroyed or transferred, and the person authorizing the destruction or transfer; the time, place, and

method of destruction or transfer; and, the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy, state the retention policy.

(13) Provide written responses, together with any and all exhibits pertaining thereto, in one or more bound volumes, separately indexed and tabbed by each response, in compliance with Kentucky Public Service Commission Regulations.

(14) “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.

(15) “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.

Respectfully submitted,  
DANIEL CAMERON  
ATTORNEY GENERAL



---

LAWRENCE W. COOK  
J. MICHAEL WEST  
ASSISTANT ATTORNEYS GENERAL  
700 CAPITAL AVE., STE. 20  
FRANKFORT KY 40601-8204  
(502) 696-5453  
[Larry.Cook@ky.gov](mailto:Larry.Cook@ky.gov)  
[Michael.West@ky.gov](mailto:Michael.West@ky.gov)

**Certificate of Service and Filing**

Pursuant to the Commission's Orders dated March 17, 2020 and March 24, 2020 in Case No. 2020-00085, and in accord with all other applicable law, Counsel certifies that an electronic copy of the forgoing was served and filed by e-mail to the following. Further, the Attorney General will submit the paper originals of the foregoing to the Commission within 30 days after the Governor lifts the current state of emergency.

Hon. Mark R. Overstreet  
Hon. John W. Pollom  
[MOVERSTREET@stites.com](mailto:MOVERSTREET@stites.com)  
[jpollom@stites.com](mailto:jpollom@stites.com)

Hon. Michael L. Kurtz, Esq.  
Hon. Kurt J. Boehm, Esq.  
Hon. Jody Kyler Cohn, Esq.  
Counsel for KIUC  
[mkurtz@bkllawfirm.com](mailto:mkurtz@bkllawfirm.com)  
[KBoehm@bkllawfirm.com](mailto:KBoehm@bkllawfirm.com)  
[jkylercohn@bkllawfirm.com](mailto:jkylercohn@bkllawfirm.com)

This 9<sup>th</sup> day of April, 2020.



---

Assistant Attorney General

1. According to the articles at the link below,<sup>1</sup> several major insurance companies have issued new directives stating they will cease: (i) issuing new insurance policies to companies that derive more than 30% of their revenues from thermal coal mining; and (ii) making new investments in companies that have a large exposure to thermal coal mining or coal-based energy production. According to the second article (“Energy Transition Prompts More Insurers to Back Away From Coal”), insurance policy premiums and the cost of capital will increase for utilities having significant coal-fired generation resources.
  - a. Provide a discussion of whether these new directives on behalf of major insurance companies will have any effect on the Company, its production facilities, and fuel sources, and if so, how.
  - b. State whether these new directives have entered into the Company’s planning and decision making regarding the instant IRP. If not, state whether they will or may enter into the Company’s planning and decision making regarding future IRP filings.
2. Explain whether the Company’s IRP modelling takes into consideration the escalating number of coal mining company bankruptcy filings. If not, why not?
  - a. If the modeling does not take this factor into consideration, explain what would have to be done to do so.
  - b. If the Company believes the increasing incidence of coal mining company bankruptcies is of little or no concern, explain fully why not.
  - c. Provide the most current forecast of KPCo’s retail power sales to the mining industry.
  - d. Provide any coal price estimates for the next ten (10) years that may have conducted.
  - e. Is KPCo aware of any Moody’s Investors Service analyses regarding the stability of coal mining companies over the next one (1) to five (5) years? If so, provide copies.
3. In the event the Company decides to pursue more detailed analysis regarding PPAs, including any additional filings with the Commission, explain to what extent transmission costs, including uplift and congestion, enter into the Company’s decision making process.

---

<sup>1</sup> <https://www.latimes.com/business/la-fi-chubb-bans-coal-coverage-20190701-story.html> ;  
<https://www.axios.com/energy-transition-prompts-more-insurers-back-away-from-coal-1e85a50f-ef35-4ce7-b57b-0bec745a376e.html>

4. In the event the Company should decide at some future point in time to construct a new gas-fired combined cycle plant, provide an estimate for the time required from the plan's inception until the date such a plant can become commercially operable.
5. Provide a discussion regarding the extent to which the Company has examined the potential for both: (i) building and owning its own renewable generation sources within its service territory; and/or (ii) entering into PPAs for renewable generation from other sources, whether located inside or outside its service territory. With regard to resources outside its territory, explain how congestion or the risk of congestion could affect the cost and benefits in determining resource decisions.
  - a. Has the Company, or any entity acting on its behalf, conducted any studies or analyses of the cost impact of congestion with regard to entering into any external PPAs for renewable energy or other resources? If so, provide copies of all such studies.
6. With regard to the cost-effectiveness of continuing to use existing coal-fired generation assets as opposed to switching to renewable sources of generation, state whether the IRP modeling examines both a coal plant's marginal cost of energy, and a renewable source's lower, levelized cost of energy.
7. Explain whether fixed O&M and capital costs are: (i) factored into the calculation of revenue requirements for any of the scenarios modelled in the IRP, and if not, why not; (ii) impacted by the scenarios evaluated; and (iii) considered when assessing whether to retire existing units.
  - a. If fixed O&M and capital costs are not taken into consideration, explain whether this is consistent with the Commission's requirement to take into consideration the impact of existing and future environmental regulations.
8. For purposes of comparing noncombustible renewable energy generation to fossil fuel generation sources, and costs attendant with both forms of generation, explain whether KPCo's modelling compares energy consumption based on the fossil fuel equivalence approach, or the captured energy approach as discussed in more detail in the EIA publication accessible at the below-referenced link.<sup>2</sup>
9. Explain how the Company's IRP modeling takes into consideration the continuing costs of complying with state and federal environmental regulations for coal-fired

---

<sup>2</sup> <https://www.pressreleasepoint.com/eia-offers-two-approaches-compare-renewable-electricity-generation-other-sources>

generating plants, including but not limited to ash storage and ash pond remediation/reclamation.

- a. Provide any year-over-year inflation factors and discount rates used in estimating costs for environmental compliance with regard to coal-fired generation, including ash storage and ash pond remediation/reclamation.
  - b. Provide a discussion of how the year-over-year inflation factors and discount rates for environmental compliance with regard to coal-fired generation, including ash storage and ash pond remediation/reclamation are taken into consideration in considering the costs and benefits of continued operation of coal-fired plants, as opposed to obtaining other power sources.
10. Produce the most recent estimate that the Company has prepared or caused to be prepared of the capital and O&M costs to comply with the following regulations:
- a. Mercury and Air Toxics Standards;
  - b. Coal Combustion Residuals rule;
  - c. Effluent Limitations Guidelines;
  - d. 316(b) cooling water intake rule;
  - e. NAAQS, including any new ozone standard, including any standards still in the draft stages or which are still open to public comment;
  - f. Cross State Air Pollution Rule;
  - g. Carbon regulations, including the Clean Power Plan and the Affordable Clean Energy Plan;
  - h. Any applicable state environmental regulations;
  - i. Any other federal environmental regulation; and
  - j. Pending enforcement actions by citizen groups or regulatory agencies of any state and/or federal environmental requirements.
11. State whether the IRP modelling takes into consideration estimates for gas transportation, and if so, whether estimates are prepared for both firm and interruptible transportation.
12. Demonstrate where in the IRP filing the Company addressed affordability of electricity rates, and if so, how.
13. Identify any counties in KPCo's service territory which are projected to lose population, and provide the projected losses over the next ten (10) years.
14. Explain whether any of the Company's generating and/or transmission facilities are required to meet any North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection standards. If so:



- a. explain whether the Company's generating facilities have been designated as low, medium or high impact;
  - b. provide the costs of meeting such standards (both initial and on-going costs), and how they are calculated into the overall costs of these facilities; and
  - c. explain whether those costs are significant enough for them to be taken into consideration in the IRP modeling, and if so, how.
15. Provide the projected peak load forecast for each year since the date of the Company's last IRP filing. Provide also the actual peak load for each of the last three (3) years.
16. Provide the following historical annual data by generating unit, from 2010 to present:
- a. Fixed O&M cost;
  - b. Variable O&M cost (without fuel);
  - c. Fuel costs;
  - d. Capital costs;
  - e. Capacity factor; and
  - f. Generation in kWh.
17. Provide the Company's off-system sales for each of the past three (3) years.
18. Provide the Company' current order of economic dispatch, and the dispatch rate for each generating unit.
19. Provide a description of all on-going supplemental transmission expansion plans<sup>3</sup> the Company has, as well as those for the next three (3) years, together with cost projections for each project.
- a. Provide a description of all supplemental transmission expansion projects the Company has had for the last three (3) years, together with: (i) costs for each project; and (ii) any cost performance studies.
  - b. Provide an asset management plan that includes a forecast of the expected costs for each supplemental transmission project over the next five (5) years.
  - c. Provide an estimate of the transmission capital investment over the next five (5) years.

---

<sup>3</sup> For purposes of this question, the term "supplemental transmission project" is defined as a transmission expansion or enhancement that is not required for compliance with PJM criteria for system reliability, operational performance, or economic criteria, and is not a state public policy project according to the PJM Operating Agreement.

- d. For each supplemental transmission project scheduled for the next five (5) years, provide a description of whether the investment is for new infrastructure, or for maintenance of existing facilities.
  - e. Provide cost-benefit analyses for each supplemental transmission project scheduled for the next five (5) years.
  - f. For each supplemental transmission project scheduled for the next five (5) years, identify the quantifiable benefits expected to be achieved.
  - g. Explain whether each supplemental transmission project scheduled for the next five (5) years will be competitively bid. If not, explain fully why not.
20. Provide the Company's total congestion charges incurred for the last complete calendar or fiscal year such charges are available. Also provide congestion cost projections for the next five (5) years.
21. Explain whether KPCo utilizes, or has considered utilizing, dynamic transmission line ratings as opposed to static transmission line ratings.
22. With regard to any supply side renewable resources, provide a detailed explanation of whether the Company took hydro power into consideration, and if so, how. If not, explain fully why not. Include in your explanation whether Canadian hydro power resources were examined.
23. Reference the executive summary at p. ES-2. Confirm that over the instant IRP's 15-year forecast period:
- a. KPCo is projected to lose 6% of its customer count;
  - b. Retail sales to residential class customers are projected to decline by a total of 7.5%.
24. Reference the executive summary at p. ES-2, the sentence that reads: "Finally, Kentucky Power's internal energy is projected to show little growth and peak demand is expected to decline at an average rate of 0.2% through 2034."
- a. Explain whether the projected decline in peak demand is for an average of 0.2% for each year through and including 2034.
25. Reference the executive summary at p. ES-2. Explain how the Company determined Big Sandy 1 (BS-1) 's projected termination date to be 2030.
- a. Has the Company conducted any studies, including but not limited to depreciation studies, regarding BS-1's useful lifespan after it was converted to

natural gas firing? If so, provide copies or web links to where those documents can be fully accessed.

26. Reference the executive summary at p. ES-4, and IRP § 1.5. Confirm that the Preferred Plan calls for a new 122 MW “aeroderivative” natural gas unit to be constructed in 2031.

- a. Explain the meaning of the term “aeroderivative.” Explain also how this type of gas plant would differ from a standard combined cycle natural gas plant.
- b. If there are differences between the two types of gas plants, explain whether the IRP’s modelling took standard combined cycle natural gas units into consideration.

27. Reference Table ES-1.

- a. Confirm that in 2020 and 2021, the Company will have reserves of 236 MW and 232 MW, respectively.
- b. Confirm that in 2022 and 2023, the Company’s reserves will drop to 11 MW and 15 MW, respectively.
- c. Provide the reserve margin PJM will require the Company for each year from 2020 through and including 2024.
- d. Explain whether the Company could face PJM fines or penalties if it fails to maintain reserves in accordance within PJM requirements.
- e. Explain whether the significantly lower reserve margins beginning in 2022 exposes the Company to greater risk of having to rely upon market purchases. If so, provide any studies or analyses the Company may have conducted regarding this risk, and any monetary quantifications thereof.
- f. Explain whether the Company is aware of any other LSEs within the PJM footprint that do or will maintain reserves as low as KPCo’s projected reserve margins beginning in 2022.

28. Reference p. ES-5, wherein it is stated that the Preferred Plan selects Short-Term Market Purchases (STMP) for capacity obligations following the expiration of the Rockport UPA in December 2022.

- a. Explain whether the STMPs would be at fixed prices. If not, explain whether the Company considered hedging the prices for STMPs. With regard to any such hedging, provide all relevant studies and analyses.
- b. Identify all other alternatives to STMPs that were examined.
- c. Explain whether the IRP modelling took into consideration the possibility of procuring (whether through the AEP Power Coordination Agreement,

or otherwise) any excess capacity that might be available at any one or more plants in which any AEP affiliates have an ownership interest, or in which they otherwise have energy purchase rights.

29. Reference p. ES-5, wherein it is stated that the Preferred Plan adds 101 MW of utility scale solar (nameplate) in 2023, increasing to a total of 455 MW (nameplate) by 2034.

- a. Explain whether the solar power procurements would be self-built or through PPAs.
- b. Following the initial deployment of 101 MW of solar in 2023, explain in what size increments the remaining 454 MW of solar power would be built.
- c. Reference IRP § 4.7 (4), wherein it is stated that KPCo is in discussions to add approximately 20 MW of solar resources by the end of 2021. Explain whether this 20 MW facility(ies) is part of the initial 101 MW of solar generation referenced at p. ES-5.
- d. Explain whether the solar units would be located inside or outside of Kentucky.
- e. Explain whether the Preferred Plan took into consideration all transmission costs (including but not limited to congestion charges) associated with renewable energy in any form, including but not limited to congestion charges.
- f. Given the intermittent nature of most renewable resources, explain how the Preferred Plan analyzes the need for reliable resources available at each hour, for every day of the year.
  - (i) Identify any and all supply side resources the Company intends to utilize to back up renewable resources when they are unavailable due to their intermittent nature.
  - (ii) Explain whether the Preferred Plan's reliance on additional renewable resources would result in increased throttling (backing off the generation output) of the Mitchell and/or BS-1 units. If so, explain whether this would increase O&M costs on those units. If not, why not?

30. Reference p. ES-5, wherein it is stated that the Preferred Plan adds 100 MW (nameplate) of new wind resources in 2028 and an additional 100 MW (nameplate) in 2030.

- a. Explain where the wind resources would be located (i.e., whether in Kentucky or in another state).
- b. Explain whether the Preferred Plan took into consideration the additional transmission costs (including but not limited to congestion charges) that would be incurred via importing that energy into KPCo's service territory.

31. Reference p. ES-5, wherein it is stated that the Preferred Plan adds Volt-Var Optimization. Explain the types and amounts of costs necessary to implement Volt-Var.
  - a. Explain whether it would be necessary to implement a smart meter program in order to implement significant amounts of Volt-Var.
  
32. Reference p. ES-5, wherein it is stated that the Preferred Plan assumes KPCo's customers add 9 MW of distributed generation by 2034. Provide copies of any studies KPCo or any other entity on KPCo's behalf may have conducted regarding the potential for customer-owned DG penetration.
  - a. Explain how the changes to KRS 278.466 could affect customers' ability to procure distributed generation resources.
  
33. Reference p. ES-5, wherein it is stated that over the 15-year planning period, KPCo's nameplate capacity mix attributable to coal-fired assets would decline from 81% to 49%. Explain whether this means that KPCo will be reducing its ownership interest in the Mitchell units. If so, explain when this is expected to occur, and how.
  - a. Provide the latest studies, including but not limited to depreciation studies, regarding the Mitchell Units' useful lifespan.
  - b. Explain whether the IRP considered the option of re-firing the Mitchell units from coal to gas, and if so, whether this was a cost-effective option.
  - c. Explain whether the IRP took into consideration the costs of ash pond remediation at the Mitchell units. If not, explain why not.
  
34. Reference Figure ES-6. Confirm that under the Preferred Plan, 21% of KPCo's 2034 energy mix would be based on market power.
  
35. Reference Figure ES-8. In light of the fact that KPCo's customer count, and its retail residential sales will be decreasing throughout the 15-year planning period, explain why the load obligation remains relatively unchanged.
  
36. Reference IRP § 1.5, Table 2. Explain whether the prices identified under the column for PRB coal include transportation costs.
  
37. Reference IRP § 1.5, the discussion regarding CHP referenced in the 2016 IRP. Explain why CHP is not included in the instant IRP.

38. Reference IRP § 1.5. Explain why battery storage was excluded in the instant IRP.
39. Explain whether the load forecast takes into consideration possible new load from Braidy Industries. If so, explain further whether the potential Braidy Industries plant is reflected as one of the 23 potential economic development projects discussed in IRP § 2.12.5 (4).
40. Explain whether the Company is aware of any potential changes to the load forecast as a result of the Coronavirus outbreak. Include in your discussion whether KPCo's service company affiliate, and/or PJM have provided any guidance in this regard. If so, explain.
41. Reference IRP § 3.2. Provide a discussion on what portions of the Big Sandy 1 unit were placed into service in 2016, and what portions were placed into service at an earlier date.
42. Reference IRP § 3.2, wherein it is stated that KPCo is currently negotiating the addition of 20 MW of solar generation. Explain whether:
  - a. this facility would be company-owned, or through a PPA; and
  - b. whether the proposed facility would be located inside or outside of Kentucky.
43. Reference IRP § 3.2. Confirm that the anticipated cancellation of the Rockport UPA includes KPCo's share of power from both Rockport units.
44. Explain whether KPCo's anticipated non-renewal of the Rockport UPA will terminate KPCo's share of environmental and all other costs arising from the operation of the Rockport units. If not, explain why not.
45. Explain whether KPCo's anticipated non-renewal of the Rockport UPA will result in KPCo accruing any additional air pollution credits. If so, explain whether those credits could be used at the Mitchell plant.
46. Provide a discussion on the projected costs KPCo could incur in complying with the CCR and ELG rules at the Rockport and Mitchell stations.
47. Reference IRP § 4.4.3.3, which discusses a bring your own thermostat program. Explain whether customers participating in such a program would be required to have a smart meter in order for their devices to communicate with the Company.

48. Reference IRP § 4.5.6.2, regarding wind power. Explain whether the modeling was based solely on self-build resources, or whether it included PPAs.
- a. Explain whether the wind resources would be located within Kentucky, or outside of its borders.
  - b. Explain whether the modelling took into consideration the costs of new or modified transmission facilities necessary to transmit the power into and through KPCo's service territory. Also, identify any such transmission additions or modifications that would have to be made, together with price projections.
  - c. Confirm the statement that “. . . wind energy's life-cycle cost (\$/MWh), excluding subsidies, is currently higher than the marginal (avoided) cost of energy, in spite of its negligible operating costs.”
  - d. Explain whether the company is aware of any wind resources in the eastern U.S. carrying capacity factors of 37% and 35%, such as those associated with Tranches A and B, respectively. Given that KPCo assumes wind resources to have a PJM capacity value equal to 12.3% of nameplate rating, explain whether it would be more accurate to rely upon the PJM capacity value.
  - e. Reference Figure 31. Explain whether the curve for “build costs” refers to self-build by KPCo (or an AEP affiliate) itself.
  - f. Reference the following statement: “This cap is based on the DOE's Wind Vision Report 18 which suggests from numerous transmission studies that transmission grids should be able to support 20% to 30% of intermittent resources in the 2020 to 2030 timeframe.” Explain whether KPCo's transmission grid would be able to support 20% to 30% of intermittent resources in the 2020-2030 timeframe. Include in your discussion any potential congestion charges.
    - (i) Provide all studies pertaining to the ability of KPCo's grid to provide the cited support.
    - (ii) If KPCo's grid would require modifications and/or new facilities, provide a detailed summary together with cost projections.
49. Reference IRP § 4.5.6.3. Explain whether KPCo's review of potential hydro resources analyzed the potential for PPAs from existing hydro resources. Include in your response whether KPCo considered PPAs with Canadian-based hydro resources.
50. Reference IRP § 5.1. Explain whether Plexos® takes into consideration the following with regard to KPCo's generating units: PJM dispatch rate, number of hours of any self-scheduling, and off-system sales.

51. Reference Figure 32. Explain whether a lower-end combined cycle unit, in the range of 200 – 350 MW output, would compare in terms of cost effectiveness to the selected resources for the base and low-band cases. Include in your discussion the year in which it would become cost-effective.
  - a. Provide the same analysis with regard to a higher-end combined cycle unit, in the range of 1000 – 16000 MW, in which KPCo owns a 25% share. Include in your discussion the year in which it would become cost-effective.
52. Reference IRP § 5.2.2.4, Stakeholder Optimization Scenarios, the following statement: “The analysis did show that utilizing STMP through 2024 was the least costly of the stakeholder scenarios over the 15-year planning period; however, over the 30-year study period, the “Renewable Only” plan is the least costly. Note also, that the CC only and CT only scenarios are similar to Cases 7 and 8 described in the IRP Optimization Scenarios section 5.2.2.3 except that the Stakeholder cases exclude any renewable or DSM resources. The costs for these two stakeholder plans ultimately are driven higher than the IRP Optimization Scenarios including the CC and CT due to the exclusion of renewable and DSM resources.”
  - a. Explain whether KPCo analyzed a scenario of a smaller-sized CC that would also include renewable and DSM resources.
53. Reference Table 17 and Figure 39, regarding the Preferred Plan. Confirm that from 2022-2034, in the row “Capacity Reserves with New Additions,” the capacity surplus would range only from 11-34 MW.
54. Given the Preferred Plan’s heavy reliance on renewables, explain how KPCo plans to address reliability given the inherent intermittency associated with renewables.
55. Reference the “Report of Renewable Power Option Rider Activity in 2019,” filed on March 31, 2020 in the post-case documents to Case No. 2017-00179. Given that no KPCo customers participated in Rider R.P.O. in 2019, explain whether the Company still believes it is realistic to expect that within 10 years, KPCo customers will acquire 9 MW of distributed power (solar) generation.
56. Explain whether KPCo utilizes beneficial reuse of coal ash and coal combustion byproducts.
  - a. If so, explain how this beneficial reuse occurs and the benefits KPCo’s ratepayers receive.



Electronic 2019 Integrated Resource Planning Report of Kentucky Power Company  
Case No. 2019-00443  
Attorney General's Initial Data Requests

- b. In addition to any current reuse, explain if KPCo has pursued any potential reuse opportunities, and if so, provide the details of those opportunities.
- c. If KPCo has not pursued any reuse opportunities, explain why KPCo has not done so.