COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2022 INTEGRATED RESOURCE)	CASE NO.
PLANNING REPORT OF KENTUCKY POWER)	2023-00092
COMPANY)	

COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO KENTUCKY POWER COMPANY

Kentucky Power Company (Kentucky Power), pursuant to 807 KAR 5:001E, shall file with the Commission an electronic version of the following information. The information requested is due on June 23, 2023. The Commission directs Kentucky Power to the Commission's July 22, 2021 Order in Case No. 2020-00085¹ regarding filings with the Commission. Electronic documents shall be in portable document format (PDF), shall be searchable, and shall be appropriately bookmarked.

Each response shall include the question to which the response is made and shall include the name of the witness responsible for responding to the questions related to the information provided. Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or the person supervising the preparation of the response on behalf of the entity that the

¹ Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID- 19* (Ky. PSC July 22, 2021), Order (in which the Commission ordered that for case filings made on and after March 16, 2020, filers are NOT required to file the original physical copies of the filings required by 807 KAR 5:001, Section 8).

response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

Kentucky Power shall make timely amendment to any prior response if Kentucky Power obtains information that indicates the response was incorrect or incomplete when made or, though correct or complete when made, is now incorrect or incomplete in any material respect.

For any request to which Kentucky Power fails or refuses to furnish all or part of the requested information, Kentucky Power shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention shall be given to copied and scanned material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations. When filing a paper containing personal information, Kentucky Power shall, in accordance with 807 KAR 5:001E, Section 4(10), encrypt or redact the paper so that personal information cannot be read.

1. Refer to the Integrated Resource Plan (IRP), Volume A, Section 2. Explain whether the energy or demand forecast modeling took into account the potential effects of incentives relating to energy usage in the Inflation Reduction Act (IRA). If not, provide a discussion of how the various incentives provided in the IRA could affect energy usage and load forecasts.

- 2. Refer to the IRP, Volume A, Section 2.1, page 27. Kentucky Power stated that over the next 15-year period, Kentucky Power's service territory population is projected to decline by 0.6 percent. Explain the reasons for the projected decline and, if possible, provide supporting evidence.
- 3. Refer to the IRP, Volume A, Section 2.5.3, page 39. Explain how the basis for weather normalization is derived.
- 4. Refer to the IRP, Volume A, Section 2.6.1, page 39 and Figure 6, page 40. Describe the industries comprising the large commercial customer additions.
- 5. Refer to the IRP, Volume A, Section 2.6.2, page 42. With the expiration of the Rockport Unit Power Agreement in 2022 and the divestiture of the Mitchell generation units in 2028, Kentucky Power is currently capacity short and will be further short in 2028.
- a. Explain whether Kentucky Power has any demand side management/energy efficiency (DSM/EE) programs under consideration or in the development stage.
- b. Explain why no new DSM/EE programs are being presented in this case.
 - 6. Refer to the IRP, Volume A, Section 2.6.3, page 42.
- a. Explain whether Kentucky Power's special contracts with companies engaged in cryptocurrency mining include interruptible provisions, and if so, explain whether those provisions were taken into account when estimating future interruptible load.
- b. Provide the number of MWs of interruptible load Kentucky Power currently has and interruptible load it is forecasted to have by 2037.

- 7. Refer to the IRP, Volume A, Section 2.7, page 45. Refer also to the IRP, Volume A, Exhibit C-10, page 204.
- a. Provide a copy of the Purdue University climate study referenced and explain how the results differ from U.S. Energy Information Administration's extended weather/climate forecasts.
- b. Explain what each of the colored lines represent in Exhibit C-10.
 Also explain how the forecast scenarios were created from the information in the Purdue University study.
 - 8. Refer to the IRP, Volume A, Section 3.2, Figure 12, page 55.
- a. Explain whether the Kentucky Power Capacity Obligation is based on Kentucky Power's summer peak demand.
- b. Provide an update to Figure 12 with Kentucky Power's winter peak demand and the resulting capacity shortfalls.
 - c. Provide Figure 12 in tabular form.
- d. Provide Figure 12 in tabular form using Kentucky Power's winter peak demand as the capacity obligation.
- 9. Refer to the IRP, Volume A, Section 3.5, page 64. Explain why the market potential study was not discussed in this filing given the plan to add DSM/EE programs in the future.
- 10. Refer to the IRP, Volume A, Section 3.6.1, page 67. Provide a list of needed and planned distribution enhancements for Kentucky Power's service territory. Include in the response the issues that each project will address.

- 11. Refer to the IRP, Volume A, Section 3.6.4, page 70. Provide a copy of PJM Interconnection LLC's (PJM) Load Deliverability Assessment.
 - 12. Refer to the IRP, Volume A, Section 3.6.8, pages 73–80.
- a. Explain which projects will require a Certificate of Public Convenience and Necessity (CPCN) and the anticipated time that the applications for CPCNs will be filed with the Commission.
- b. Provide a transmission system map showing where these projects are located including the proposed additions or retirements of facilities.
- 13. Refer to the IRP, Volume A, Section 4.2.2, page 84. Provide the methodology and supporting rationale for Kentucky Power's avoided capacity and energy costs.
- 14. Refer to the IRP, Volume A, Section 5, pages 86-90. Refer also to the IRP, Volume A, Section 3.2, Figure 12, page 55. Also refer to the IRP, Volume A, Section 5, Table 6, page 90. Provide an update to Table 6 by including the start cost of \$79/MW in the calculation of Variable Operation and Maintenance (VOM) costs. Compare that amount the VOM for natural gas combined cycle (NGCC) in Table 5 on page 88.
- 15. Refer to the IRP, Volume A, Section 5.21, pages 87–88, Section 5.31, pages 89–90, and Section 5.4, pages 93–96. Provide a comparison of the operational performance of the NGCC, natural gas combustion turbine (NGCT), wind, and solar resources during seasonal peak days.
- 16. Refer to the IRP, Volume A, Section 5 and Exhibit D. Explain why all the resources listed in Exhibit D are not discussed in Section 5.
 - 17. Refer to the IRP, Volume A, Section 5.2.1, page 87, footnote 15.

- a. Explain whether the partial ownership option of a NGCC unit was explicitly made available to the AURORA model as a resource option.
- b. Explain whether any of American Electric Power's (AEP) other subsidiaries are in need of additional generation such that possible partial ownership of a NGCC unit with Kentucky Power is being considered
 - 18. Refer to the IRP, Volume A, Section 5.3, page 88.
- a. Explain which generation technologies can also provide ancillary services and whether the ability to provide ancillary services was explicitly included in the AURORA modeling. If not, explain why not.
- b. Explain whether lithium-ion batteries were modeled as generation resources.
 - 19. Refer to the IRP, Volume A, Section 5 and Exhibit D, page 218.
- a. Confirm that each resource in Exhibit D was made available to the AURORA model.
- b. Explain whether Big Sandy Unit 2 was made available to the AURORA model as a resource option based on the assumption it will be in use until 2040.
- c. If Big Sandy Unit 2 were made available to the AURORA model as a resource option, provide the anticipated scheduled maintenance that would be performed and the ongoing costs.
- 20. Refer to the IRP, Volume A, Section 5.3.1, page 89, Section 5.3.2, page 90, and Exhibit D, page 218.
- a. Explain how the F Class 240 MW NGCT, including operating characteristics modeled in AURORA, compares to the GE 9E series NGCT.

- b. Provide an update to Exhibit D to include Big Sandy Unit 1 under the assumption that it would not retire till 2040.
- c. Provide an update to Exhibit D, including Big Sandy Unit 1, that contains each resource's winter capacity, the estimated summer and winter unforced capacity, the modeled retirement dates, and the effective load carrying capability.
- 21. Refer to the IRP, Volume A, Section 5.3.4, page 90; Section 5.6, pages 105–110; and Exhibit D, page 218.
- a. Explain how the model can properly evaluate these resources when costs are incurred to charge these resources.
- b. To the extent that energy is required to charge the battery, explain why the emissions from that generation are not attributed to the overall characteristics or the cost of the battery.
- c. Explain why not attributing those emissions and the resulting costs to the battery within the AURORA and PLEXOS models does not lead to underestimating true battery costs relative to other potential resource options.
- 22. Refer to the IRP, Volume A, Section 5.4.1, page 94 and Exhibit D, page 218.
- a. Explain whether Kentucky Power anticipates locating the wind resources referenced in its service territory. If not, explain where Kentucky Power expects the wind resources will be located.
- b. Provide and explain wind speed and elevation charts that demonstrate that there is sufficient wind resources available in Kentucky Power's service territory sufficient to support utility scale wind turbine generation.

- c. Explain whether Kentucky Power anticipates owning the wind generation facilities or signing power purchase agreements (PPAs).
- d. Explain how there can be no variable O&M with a mechanical windmill as shown in Exhibit D.
- 23. Refer to the IRP, Volume A, Section 5.4.2, page 96. Describe and explain the current status of the solar resources Kentucky Power has under development.
- 24. Refer to the IRP, Volume A, Section 5.5.3, page 102 and Exhibit D, page 218.
- a. Explain what the "[s]tart cost of \$79 / MW" in footnote F of Exhibit D represents.
- b. Explain whether there is a utility scale polymer electrolyte membrane (PEM) electrolyzer plus hydrogen powered combustion turbine (CT) or a hydrogen powered CT in the U.S.
- c. Explain the rationale for the conclusion that the levelized cost of energy (LCOE) for both types of hydrogen CTs is not applicable as indicated in Exhibit D when both have fuel costs and variable O&M costs.
- d. Explain whether the LCOE is used as an input into the AURORA or PLEXOS modeling. If so, explain how the model(s) account for zero LCOE on an equal basis with the other potential resources.
- 25. Refer to the IRP, Volume A, Section 5.7, page 111. Explain whether Kentucky Power uses resources, such as the energy information administration (EIA), to determine avoided cost rates.

- 26. Refer to the IRP, Volume A, Section 6.3.2.1, page 118. Explain the drivers for the decline in natural gas prices from current levels through 2026.
- 27. Refer to the IRP, Volume A, Section 6.3.2.2, page 118. Explain the drivers for the decline in the Central Appalachian Basin (CAPP) coal prices from current levels.
- 28. Refer to the IRP, Volume A, Section 6.3.2.3, page 119. Confirm that the CO₂ price is assumed to be applied to both new and existing natural gas and oil fired combustion turbines as well as NGCCs.
- 29. Refer to the IRP, Volume A, Section 6.4, page 124. For the Clean Energy Technology Advancement scenario, explain the drivers of the more aggressive end-use electrification, which end uses are expanding, and how the customer demand patterns have shifted from the reference scenario.
- 30. Refer to the IRP, Volume A, Section 6.4, page 124. In the Enhanced Carbon Regulation scenario, explain whether the higher natural gas prices from the cap and trade system include the effects from increased regulations on emissions emanating from the natural gas drilling and mining operations and from increased controls to reduce leaks from natural gas pipelines.
 - 31. Refer to the IRP, Volume A, Section 6.3.3, Figure 43, page 121.
- a. Identify and describe the resource technologies referenced in Figure43 that comprise long duration storage.
- b. Explain the differences between the 4-hour storage and the long duration storage that account for the differences in effective load carrying capability (ELCC) assumptions.

- 32. Refer to the IRP, Volume A, Section 6.6.2, pages 140–141 and footnote 46, page 141.
- a. Identify the other county for which historical weather data was used in the analysis.
- b. Explain the wind elevation levels and average and sustained wind speeds that were taken in both Morgan County and the second Kentucky county that make these counties suitable as proxies for a utility scale wind farm.
- c. Explain the locations suitable for utility scale solar facilities. Explain whether the fact that eastern Kentucky is mountainous and forested impacts the selection of suitable locations.
 - 33. Refer to the IRP, Volume A, Section 6.6.2, pages 140–141.
- a. Explain the source of the National Renewable Energy Laboratory (NREL) historical weather data.
- b. Explain why weather data from 2008 through 2012 was used in the analysis instead of more recent data. Explain whether the fact that the data is potentially stale impacts the analysis and whether Kentucky Power considered utilizing more recent data.
- c. Explain whether NREL weather data was used in the load forecast analyses, including specifically whether it was used in the statistically adjusted end-use (SAE) models.
 - 34. Refer to the IRP, Volume A, Section 6.6.2, pages 141–142.
- a. Explain whether the Reference scenario, as well as the various other scenarios, are modeling PJM/AEP zone or Kentucky Power service territories.

- b. Explain how wind and solar output from Kentucky Power's service territory could move Kentucky Power's PJM zonal LMP.
- 35. Refer to the Application, Volume A, Section 7.2.3, pages 149–150. Kentucky Power is using locational diversity of resources selected in portfolios as an indicator of reliability. Explain the meaning of locational diversity and how that aids portfolio reliability.
 - 36. Refer to the Application, Volume A, Section 7.2.3.1, page 149–150.
- a. Explain why short term capacity purchases are excluded from the planning reserve indicator.
- b. Provide the winter and summer evaluation results separately for the planning reserve indicator, including all workpapers supporting the results.
 - 37. Refer to the IRP, Volume A, Section 7.3.1, pages 155–161.
 - a. Provide each of the portfolios in tabular form.
- b. Provide an update to each portfolio based on Kentucky Power's winter capacity needs as determined by its load forecast, as opposed to Kentucky Power's PJM summer capacity obligations.
 - c. Explain how Kentucky Power plans to meet its winter capacity deficit.
- 38. Refer to the IRP, Volume A, Section 7.3.1, pages 159. Explain why the CC Portfolio added only 418 MW of NGCC.
 - 39. Refer to the IRP, Volume A, Section 7.3.1, pages 155–161.
- a. Explain why significant amounts of capacity purchases, 450 MW, are required in 2028.

- b. Explain why the NGCC option was never selected in any of the scenarios in which the AURORA model was allowed to select any resource.
 - 40. Refer to the Application, Volume A, Section 7.4.3. page 166.
- a. Provide an update to Table 19 showing the reserves annually for the summer and winter seasons. Include in the response the preferred portfolio.
- b. Provide the work papers supporting Table 19 including updates in Excel spreadsheet format with all formulas, rows, and columns unprotected and fully accessible.
- c. Explain whether the planning reserves measure results change if resources are evaluated based on ELCC.
- 41. Refer to the Application, Volume A, Section 7.4.3.1, page 167. Explain why Kentucky Power is planning to be capacity short during the winter season across all portfolios.
- 42. Refer to the Application, Volume A, Section 6.4.3, page 128 and Section 7.4.4.1, page 169.
- a. Explain whether transmission related costs including congestion for the 25 percent of solar facilities and the 100 percent of wind facilities not located in Kentucky Power's service territory were included in the AURORA modeling in formulating the Reference portfolio, any of the subsequent scenario portfolios, or the preferred portfolio. If so, explain which transmission related cost were included and how the model treated those costs.

- b. Aside from the representative capital costs, explain whether any other costs for those portions of the solar and wind facilities not located in Kentucky Power's service territory were equated with the facilities located in the service territory.
- c. Explain whether those portions of the solar and wind facilities not located in Kentucky Power's service territory are assumed to be located in Kentucky or outside the state.
- d. Explain whether it makes a difference to the modeling costs if the facilities be located in the PJM AEP Zone.
 - 43. Refer to the Application, Volume A, Section 7.4.3.2, page 167.
- a. Provide an update to Table 20 showing the dispatchable capacity annually for each year through the end of the planning period. Include in the response the preferred portfolio and the seasonal capacity measures.
- b. For each portfolio in Table 20, explain and show the annual decline in each dispatchable resource over the forecast period. Include in the response the preferred portfolio.
- c. Explain the operational flexibility of each portfolio, including the preferred plan, when evaluated on a ELCC basis as opposed to an unforced capacity (UCAP) basis.
 - 44. Refer to the Application, Volume A, Section 7.4.4.1, pages 169–170.
- a. Provide an update to Table 21 showing both UCAP and ELCC for each portfolio annually. Include in the response the preferred portfolio.

- b. Explain whether the costs to extend Big Sandy to run till 2041 are included in the calculations in the Total CapEx Invested Inside Kentucky Power Territory column. If not, explain why not.
 - 45. Refer to the IRP, Volume A, Section 7.5.1, Figures 80–81, pages 173–175.
- a. Provide a detailed comparison of the Combined Cycle (CC) Portfolio and the Preferred Plan.
- b. Explain in greater detail how the Preferred Plan was obtained by changing the CC Portfolio.
- c. Kentucky Power stated the Preferred Plan is based on an uncertain future that could impact the company's capacity position, including uncertainty around intermittent resource availability and the intermittent resources' contribution to reserve margins. Explain the logic of how a Preferred Plan containing 1,500 MW of new intermittent capacity, a new 480 MW NGCT, and the extended life of the 295 MW Big Sandy unit provides sufficient capacity to meet both summer and winter reserve margin obligations.
 - 46. Refer to the IRP, Volume A, Section 7.5.1, Figures 80–81, pages 173–175.
- a. Explain how the AURORA model accounts for the different operational characteristics of the NGCT and NGCC.
- b. Explain why Kentucky Power is not proposing to build additional gas generation earlier to help obviate the need for large, short term market purchases in 2028.
- c. State when Kentucky Power will file a CPCN for the NGCT to be built and in service by 2029 pursuant to the preferred plan.

- 47. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175. Explain whether Kentucky Power placed any limits on the amount of wind resources the AURORA model could choose in any of the portfolio analyses.
- 48. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175.
 - a. Explain why Kentucky Power is proposing to build 800 MW of solar.
- b. Explain where Kentucky Power plans on building the solar generation in their service area.
- c. Explain why Kentucky Power believes the solar facilities can be built and in use by 2029.
- 49. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175.
- a. Does Kentucky Power believe that solar or wind capacity values should reflect 0 percent of expected contribution to winter peak capacity?
- b. If 0 percent capacity contribution is expected from solar or wind to winter peak capacity, then explain how Kentucky Power anticipates on making up the capacity.
- c. If 0 percent capacity contribution is not expected from solar or wind during winter peak capacity, explain why not.
- 50. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175.
- a. Provide the results of the request for proposals for the wind and solar generation. If not possible, then identify when it could be provided.

- b. Explain if Kentucky Power anticipates any issues with solar developers canceling projects due to interconnection delays and various labor, price, and supply chain issues as reported by other utilities.² Include in the response if Kentucky Power will use renewable resources manufactured in the United States.
- 51. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175.
- a. Explain how the price of capacity was determined in each year that the Preferred Plan calls for capacity purchases.
- b. Explain how purchasing 407 MWs of capacity is economically feasible and does not create grid instability compared to building additional generation before having a capacity shortfall.
- c. Provide the estimated annual cost of capacity purchases in the Preferred Plan.
- 52. Refer to the IRP, Volume A, Section 7.5.1, Figures 80 and 81, pages 173–175.
- a. Identify and describe the DSM programs Kentucky Power intends to propose to the Commission.
- b. Explain whether Kentucky Power will include potential dispatchable DSM as a demand-side resource addition.

² See Case No. 2022-00296, Electronic Application Of Big Rivers Electric Corporation For Approval Of Amendment To Power Purchase Agreement, (filed Sep. 22, 2022), Application, Paragraph 9.

- 53. Refer to the IRP, Volume A, Section 7.5.1, footnote 48, page 175. Explain whether Kentucky Power has issued or is in the process of evaluating the results of the request for proposal (RFP).
- 54. Refer to the IRP, Volume A, Exhibit H, page 338. Explain why there is not a December binary variable in the forecast equation.
- 55. Refer to the IRP, Volume A, Exhibit H, page 338. There appears to be considerable overlap in the aprjun20, janjul20, and maroct20 binary variables and with the d1-d10 variables.
- a. Explain the separate events represented by aprjun20, janjul20, and maroct20 and why a single binary variable covering the January through October 2020 would not suffice.
- b. Explain why the d1-d10 binary variables do not adequately represent the events.
- 56. Refer to the IRP, Volume A, Exhibit H, page 338. Explain the events represented by the feb21 and mar21 binary variables and why the d2 and d3 binary variables do not adequately represent those events.
- 57. Refer to the IRP, Volume A, Exhibit H, page 338. Explain the events represented by the dmar06, dmar05, and the dmay05 binary variables and why the d3 and d5 binary variables to not adequately represent those events.
 - 58. Refer to the IRP, Volume A, Exhibit H, page 381.
- a. Explain the events represented by the d02on, d04on, d07on, d093on, d13on, sep18on, aug19on, feb19on, and mar21on binary variables and why each event is not adequately represented by the other monthly binary variables.

- b. Explain why there is not a December binary variable.
- 59. Refer to the IRP, Volume A, Exhibit H, page 469.
- a. Explain how the SalesPerHH, XHeat, XCool, and XOther variables were derived.
- b. Provide the supporting documentation for the XHeat, XCool, and XOther variables.
- c. Explain the events represented by the 7-Feb, Sep-95, and Nov-95 binary variables and explain why the other monthly binary variables do not adequately represent those events.
 - d. Explain why there is no December binary variable.
- 60. Refer to the IRP, Volume A, Exhibit H, page 986. Provide the supporting material, if any, and explain how each of the four heating degree days (HDD) variables were derived.
- 61. Refer to the IRP, Volume A, Exhibit H, page 986. Explain the meaning of and how the Summer Fuzzy-Summer Days variable and the Winter Fuzzy-Winter Days variable were derived.
- 62. Refer to the IRP, Volume A, Exhibit H, pages 989 and 993. Explain the purpose and customer behavioral significance of including the HLight-Hours of Sunlight and DST-Daylight Savings Time variables in the summer and winter peak demand forecast equations.
 - 63. Refer to the IRP, Volume A, Exhibit H, page 989.

- a. Explain the rationale for including all four cooling degree days (CDD) variables in the Residential Cooling Peak Demand model to forecast summer peak demand.
- b. Explain whether the data contained in the CDD65WkEnd and CDD70WkEnd variables are included in the CDD65 and CDD70 variables.
- c. Explain why there are not multicollinearity problems between the variables.
- 64. Refer to the IRP, Volume A, Exhibit H, page 989. Explain what information is inherent in the WinterFuzzy variable that contributes to forecasting summer peak demand.
 - 65. Refer to the IRP, Volume A, Exhibit H, page 993.
- a. Explain the rationale for including all four HDD variables in the Residential Heating Peak Demand model to forecast winter peak demand.
- b. Explain the meaning of the negative coefficient sign of the HDD 55 and the HDD65WkEnd variables.
- c. Explain why there are not multicollinearity problems between the four HDD variables.
- 66. Refer to the IRP, Volume A, Exhibit H, page 993. Explain the rationale for including both the SummerFuzzy and WinterFuzzy variables in the model and the meaning of the SummerFuzzy negative coefficient.
- 67. Refer to the IRP, Volume A, Exhibit H, page 1004. Explain Other Residential Peak Demand and the rationale for including four CDD and four HDD variables in the forecast equation.

- a. Explain the rationale for including the WinterFuzzy variable in the Commercial Cooling Peak Demand model and the meaning of the coefficient's negative sign.
- b. Explain why there are not multicollinearity issues between the CDD variables.
 - 68. Refer to the IRP, Volume A, Exhibit H, page 1018.
 - a. Explain the meaning of the negative HDD 55 coefficient.
- b. If not answered previously, explain the rationale for including the SummerFuzzy and WinterFuzzy variables in the Commercial Peak Demand Heating model and the meaning of the coefficient's negative sign.
- c. Explain why there are not multicollinearity issues between the HDD variables.
 - 69. Refer to the IRP, Volume A, Exhibit H, page 1032.
- a. Explain the rationale for including four CDD and four HDD variables in the forecast equation.
 - b. Explain the meaning of the negative coefficient signs.
- 70. Refer to the IRP, Volume A, Exhibit H, page 1032. Refer also to IRP, Volume A, Exhibit H, pages 1038-1039. Explain why variables that look to be insignificant are left in the forecast equation.

Jude C. Bridwell DE

Linda C. Bridwell, PE Executive Director

Public Service Commission

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DATED _____MAY 22 2023

cc: Parties of Record

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