DATA REQUEST

AG 2_1 Discuss Liberty's net-zero target for Scope 1 and Scope 2 emissions by 2050.

RESPONSE

Liberty has set a target to achieve net-zero across its business operations for scope 1 and scope 2 emissions by 2050. We feel well positioned to meet our net-zero target because of our strong decarbonization track record of transitioning to greener solutions, extensive experience in regulated utility management, and deep expertise in renewables development. Some net-zero emissions reduction opportunities include, but are not limited to: transitioning to renewable generation; heating with green fuels (such as introducing renewable natural gas and green hydrogen to our gas distribution networks); fugitive emissions capture; pipe leak reduction; transmission and distribution loss avoidance; and enhancing behind-the-meter solutions.

DATA REQUEST

AG 2_2 Please acknowledge that the Kentucky Commission, "has long recognized that the principle of least cost is one of the fundamental foundations utilized when setting rates that are fair, just, and reasonable and that principle is embedded in KRS 278.020(1)." See Case No. 2012-00578 at 16.

a. Given Liberty's commitment and corporate policies in favor of "greening the fleet" and its private emission goal of net-zero emissions by 2050, confirm that, if the proposed transaction is approved, Liberty through Kentucky Power will continue to utilize natural gas and/or other fossil fuels where those fuel selections are of the least cost to the ratepayer.

RESPONSE

Liberty acknowledges least cost as one of the fundamental foundations for setting rates and intends to abide by practices in place. If the proposed transaction is approved, Liberty intends to utilize the sources seen as most appropriate in the context of the IRP process.

DATA REQUEST

AG 2_3 Provide the date when KPCo anticipates it will seek recovery of the storm damages expenses at issue in Case Nos. 2021-00129 and 2021-00135. Provide also the amounts KPCo will seeking to recover in those regulatory assets, in each docket.

RESPONSE

The Joint Applicants object to this request on the basis that it seeks information that is outside the scope of this proceeding and that is neither relevant to this proceeding nor calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, the Joint Applicants state:

In its January 13, 2021 Order in Case No. 2020-00174, at page 32, the Commission ordered that Kentucky Power should file a general base rate adjustment application for rates effective January 1, 2024. Kentucky Power therefore expects to file its next general base rate adjustment application no later than the end of June 2023. The amount of each storm damage expense-related regulatory asset for which Kentucky Power will seek recovery in its next general base rate adjustment application is listed below by case number.

Case No. 2020-00368: \$9,465,952.00 Case No. 2021-00129: \$45,169,507.92 Case No. 2021-00135: \$1,043,892.00 Case No. 2021-00402: \$826,495.00

Witness: Brian K. West

DATA REQUEST

- Reference the response to AG-DR-1-25, which states: "The attached file, JA_R_AG_1_25_ConfidentialAttachment1.xlsx, provides a preliminary scenario of what Liberty believes should be explored for Kentucky Power's service territory from the perspective of augmenting and/or replacing the winding down fossil generation with renewable sources. Should the transaction be approved, Liberty will ensure that any such scenario of future integration of renewables or any other form of generation is studied in the Integrated Resource Planning process and will follow the requisite approvals processes. Overall, Liberty will look to bring benefits to Kentucky Power customers by utilizing similar experiences, such as replacing fossil generation with renewable generation following our successful Customer Savings Plan project within our Empire Electric utility where the company replaced 200 MW of uneconomic fossil generation with 600 MW of wind, while generating a
 - a. Provide references for all dockets in which the Empire project and associated customer savings were discussed and/or approved by the Commission of the relevant jurisdiction.
 - b. Regarding all Liberty electric utilities, provide the residential, commercial and industrial rates;
 - (1) one year before Liberty acquired each such utility.
 - (2) one year after the acquisition was approved, and
 - (3) three years after the acquisition was approved.

RESPONSE

- a. Please see Missouri Public Service Commission Files Nos. EO-2018-0092 and EA 2019-0010 and Arkansas Public Service Commission Dockets 18-029-U and 19-066-U.
- b. Please refer to the confidential attachment JA R AG 2 4 Attachment.xlsx.

long-term cost savings for Empire's customers."

DATA REQUEST

AG 2_5 Reference the response to AG-DR-1-83, and to any other sources Joint Applicants wish to reference. Provide all plans Liberty has regarding KPCo's Big Sandy gas-fired generating station.

a. Explain the meaning of the phrase on p. 3 of the Seller's Disclosure Agreement, "Assignment or amendment as applicable of existing Generation Interconnection Agreements for Big Sandy and Mitchell."

b. Provide Liberty's projected retirement date for the Big Sandy gas plant.

RESPONSE

a. This part of the Seller's Disclosure Agreement captures instances where certain approvals may need to be sought in connection with carrying out the acquisition, in this case certain FERC approvals. This particular phrase is meant to capture the possibility that if the change from Kentucky Power to Wheeling Power as operator of Mitchell or the change in indirect ownership of Big Sandy, resulting from the acquisition transaction, requires certain amendments or assignments of the Generational Interconnection Agreements for those plants, they would require FERC approval, thus ensuring the representation given by AEP to that effect in the stock purchase agreement is correct. This section does not require or permit any particular changes to be made to those agreements.

b. Please see Kentucky Power's most recent IRP (Case No. 2019-00443) which provides a projected retirement date of 2030.

Witness: Kevin Melnyk

DATA REQUEST

AG 2_6 Reference the North American Electric Reliability Corporation (NERC)'s "2021 Long-Term Reliability Assessment," dated December 2021, accessible at the link in the footnote below. Confirm the following statements in the Executive Summary, pp. 5-6:

"Prioritizing reliability during the grid's transformation and as governmental policies are developed will support a transition that assures electric reliability in an efficient, effective, and environmentally sensitive manner. However, recognition of the challenges that the system faces during this transition requires action on key matters. Natural gas is the reliability "fuel that keeps the lights on," and natural gas policy must reflect this reality. . . . The shift to more and more inverter-based resources (IBR) brings unique opportunities but also integration challenges that can and must be addressed to assure continued reliability. This is not an argument against the transition but a recognition that, without a collective focus, system reliability faces risk that is inconsistent with electric power's essentiality to the continent's economy as well as the health and safety of its population. . . . Energy risks emerge when variable energy resources (VER) like wind and solar are not supported by flexible resources that include sufficient dispatchable, fuel-assured, and weatherized generation. . . . Sufficient flexible resources are needed to support increasing levels of variable generation uncertainty. . . natural-gas-fired generation will remain a necessary balancing resource to provide increasing flexibility needs. Resource planning and policy decisions must ensure that sufficient balancing resources are developed and maintained for reliability." a. Explain whether Liberty agrees or disagrees with NERC's conclusions.

RESPONSE

Liberty agrees with the general discussion, while noting that resource planning considerations will necessarily vary depending on the specific context.

Witness: Drew Landoll

¹ https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2021.pdf (Last accessed February 2, 2022).

DATA REQUEST

- **AG 2_7** Reference Joint Applicants' responses to AG-DR-1-25 and AG-DR-1-26.
 - a. Confirm that AG-DR-1-25 inquired regarding any plans Joint Applicants may have to expand use of renewable fuels in KPCo's generation portfolio.
 - b. Confirm that AG-DR-1-26 inquired regarding any plans Joint Applicants may have to enhance and / or expand their procurement of gas as an electric generation fuel.
 - c. Explain in complete detail how it is possible to speculate in the response to AG DR-1-25 when it comes to use of renewable fuels, but it is not possible to speculate in response to AG-DR-1-26 when it comes to use of natural gas.

RESPONSE

- a. Confirmed.
- b. Confirmed.
- c. Liberty sees renewables as a near-term low-cost proven solution to augment Kentucky Power's current generation mix to continue to meet the customer's needs. The decision on whether incremental natural gas generation is needed will be made considering the impact on energy supply of adding new renewables (including storage) and the retirement or disposition of Mitchell effective January 1, 2029. Liberty does not see the need to speculate on the future of natural gas use as the decision is sufficiently in the future and new technologies could be developed to impact the discussion around incremental natural gas generation (i.e., advancement in energy storage technologies).

Witness: Kevin Melnyk

DATA REQUEST

AG 2_8 Reference the response to AG-DR-1-8, Attachment_Fitch-APUC-LUCo_RAC_KPCo Acquisition_2021-10-28, p. 4, wherein the following statement appears:

"Despite these opportunities, LUCo would face some potential challenges in improving Kentucky Power's operations. Fitch considers Kentucky Power's service territory to be economically depressed due to a historical reliance on coal mining. Kentucky Power's credit metrics have weakened significantly over the past couple years due to a large capex plan, a rate freeze through January 2022 and effects of the coronavirus, all of which contributed to a low earned ROE. Fitch expects Kentucky Power's financial metrics to improve in 2023 following the expiration in 2022 of the Rockport power purchase agreement and other financial and operational changes LUCo may implement."

- a. Has Liberty's management toured the length of KPCo's service territory by motor vehicle?
- b. Does Liberty agree with Fitch that KPCo's service territory is economically depressed? If not, why not?
- c. Does Liberty agree with Fitch that KPCo's credit metrics have weakened significantly due to a large capex plan? If Liberty does not agree, explain fully why not.
- d. Does Liberty admit or deny that it intends to impose yet another large capex plan on KPCo ratepayers? Explain fully. e. What steps will Liberty take to improve KPCo's financial metrics?

RESPONSE

- a. Yes. Members of Liberty's management team from a variety of departments have toured Kentucky Power's service territory by motor vehicle - both in the course of due diligence work and since the proposed transaction has been announced. Different stakeholders have visited different locales and facilities, consistent with their mandates and/or specific purposes of their visits.
- b. While Liberty is unaware of the specific criteria that Fitch relies on in its assessment, Liberty's pre-filed testimony includes information that conveys the company's understanding of the relative economic hardship in Kentucky Power's service territory, such as p. 22 of Witness Eichler's pre-filed testimony.

- c. The referenced report does not contain a sufficient amount of information for Liberty to opine on the causal relationship suggested by Fitch.
- d. In the course of its regular operational and planning activities, Liberty intends to identify the need for, explore alternatives, and where required and relevant, seek approval for the construction and/or recovery of the costs of capital projects and programs that it believes are necessary to deliver safe, reliable and affordable electricity in its service territory.
- e. As with its other utilities, Liberty intends to adopt a holistic approach to managing Kentucky Power, whereby potential managerial courses of action are evaluated comprehensively in terms of their relative merits and expected outcomes from a variety of perspectives, including financial, operational, compliance, customer satisfaction, and others. Liberty believes that the combination of these activities will result in financial metrics that are consistent with expectations for a utility of the size of Kentucky Power.

Witness: David Swain

DATA REQUEST

AG 2_9 Reference the response to AG-DR-1-8, Attachment_Fitch-APUC-LUCo_RAC_KPCo Acquisition_2021-10-28, pp. 4-5, wherein the following statement appears:

"LUCo was built from several acquisitions, most significantly of The Empire District Electric Company on Jan. 1, 2017. Empire District accounts for roughly half of LUCo's EBITDA. Fitch expects LUCo to remain acquisitive, primarily looking for smaller utility systems that could benefit from operational efficiencies." a. Explain whether the proposed acquisition of KPCo fits Liberty's model of acquiring primarily smaller utilities. If not, explain whether Liberty believes it is prepared to acquire and manage a larger utility system such as KPCo, which has approximately 166,000 customers, and is spread across approximately 3800 square miles located within 20 counties.

- b. Confirm that based on Liberty's responses to AG-DR-1-8 (d), AG-DR-1-9, and AG-DR-1-10, Liberty was not seeking synergies, and does not believe synergies will arise as a result of the proposed transaction.
 - (i) If subpart (b) immediately above is confirmed, confirm further that Liberty does not believe that KPCo "could benefit from operational efficiencies," which as Fitch notes is what Liberty "primarily look[s][] for."
- c. Provide the average level of synergies Liberty achieved in its prior acquisitions of electric utilities.

RESPONSE

a. While Liberty cannot speculate on Fitch's exact meaning, given that Kentucky Power will be approximately equivalent in size to Empire Electric, Liberty's largest holding, Liberty assumes Fitch is referencing "smaller utility systems" in the context of the overall utility industry, in which case Fitch's description of Kentucky Power would be more appropriate.

² Emphasis added.

- b. Confirmed. However, since Liberty typically does not pursue acquisitions with the premise of synergy savings, the inference to benefiting from operational efficiencies more likely refers to bringing Liberty's local management philosophy to bear and seeking ways to optimize operations and create efficiencies within the operations themselves.
 - (i) Please see responses to parts (a) and (b).
- c. As noted in part (b), Liberty has not pursued acquisitions with the premise of synergies and therefore does not have a quantification responsive to this question.

DATA REQUEST

AG 2_10 Reference the response to AG-DR-1-34. Confirm that after the closing of the proposed transaction, KPCo will seek rate recovery of sums paid to certain individuals under the identified retention agreements.

RESPONSE

Kentucky Power will not seek rate recovery of the sums paid under the retention agreements in question.

Witness: David Swain

DATA REQUEST

AG 2_11 Reference the response to AG-DR-1-40 (d). Explain the experience that Liberty Utilities (Canada) Corp. ("LUCC") has regarding energy procurement within U.S. RTOs, including MISO and PJM.

RESPONSE

Liberty Utilities (Canada) Corp. ("LUCC") is a service company that employs all but a limited number of employees at Algonquin Power & Utilities Corp.'s Oakville, Ontario headquarters. LUCC employees have been significantly involved in the development, acquisition and ongoing operation of 557.5 MW of electric generation assets in PJM including the 109.5 MW Shady Oaks wind farm, the 50 MW Sandy Ridge wind farm, the 200 MW Minonk wind farm, the 118 MW Great Bay Solar project and the 80 MW Altavista solar project. Similarly, LUCC employees have been significantly involved in the development, acquisition and ongoing operation of 551 MW of electric generation assets in MISO including the 202 MW Sugar Creek Wind wind farm, the 149 MW Deerfield wind farm and the 200 MW Odell wind farm. Please also see the response to AG 1-21 for a recap of Liberty's experience with the Southwest Power Pool (SPP).

Witness: Peter Eichler

Witness: Aaron Doll

DATA REQUEST

AG 2_12 Reference the response to AG-DR-1-55. Provide the list of all known "Long Lived Transition Costs" (LLTCs) including: (i) all known or estimated cost projections; and (ii) all cost benefit analyses that may have been conducted regarding purchasing / licensing agreements for the existing items that are the subject of the LLTC as opposed to purchasing new replacement technology systems.

a. Explain whether a new customer information system (CIS) is one of the LLTCs. If so: (i) provide the remaining depreciable life on the existing system; and (ii) explain whether AEP would consider licensing its existing CIS to Liberty / KPCo. If not, why not? b. For each electric utility Liberty acquired, explain to what extent, if any, LLTCs drove the need for future base rate increases.

RESPONSE

Please refer to response to KPSC 1-4 for the list and description of the systems comprising the LLTC investments anticipated to be required.

- a. The new CIS is one of the contemplated LLTCs.
 - (i) Liberty understands that the core CIS has been fully depreciated for some time and is in the process of planning to replace the system.
 - (ii) AEP and Liberty are not considering the long-term licensing of AEP's CIS system to Kentucky Power.
 - To assure a seamless transition for Kentucky Power customers, AEP is working with Liberty to provide meter-to-cash services, including use of AEP's CIS system, under a transition services agreement (TSA). Liberty has indicated an intent to transition to an SAP platform for long-term future CIS functions. The TSA will facilitate Liberty's transition of Kentucky Power's accounts to the SAP platform.
- b. Typically, LLTC's do not drive the need for rate cases as they are required to replace assets or systems that do not come with the transaction. Liberty has prepared a preliminary estimate which demonstrates that the systems it intends to

utilize are of approximately the same costs as the current book value and estimated IT investment by AEP through 2026 as follows:

	Current AEP IT Program		Liberty Preliminary Estimate
Book Value at end of 2021	\$33,594,587.38	-	\$3,000,000.00
Budget 2022	\$14,505,021.00		
Budget 2023	\$14,972,403.67	Customer First Platform - Liberty	\$77,000,000.00
Budget 2024	\$15,000,000.00	Revised Forecast - 2024	\$10,000,000.00
Budget 2025	\$16,000,000.00	Revised Forecast - 2025	\$10,000,000.00
Budget 2026	\$18,000,000.00	Revised Forecast - 2026	\$10,000,000.00
Total IT Infrastructure to be replaced by		_	
Liberty	\$112,072,012.05		\$110,000,000.00

Witness: Stephan T. Haynes

Witness: John Lowson

DATA REQUEST

AG 2_13 Reference the response to AG-DR-1-67, the first sentence which reads: "In the Seller's Disclosure Letter please see page 3 bottom half (under the bullet "The following new agreements....") and on page 57 the first, third and fifth bullets." There is no page 57 to the Seller's Disclosure Letter. Identify precisely where the cited information can be found.

RESPONSE

The cited information can be found in Section 4.17 on page 57 of the Seller's Disclosure Letter under the heading "Business Separation Matters". Also, please reference page 920 of 933 of Exhibit 5 of the Joint Applicants' Application. On that page, please reference the first, third, and fifth bullets.

Witness: Stephan T. Haynes

³ Emphasis added.

DATA REQUEST

AG 2_14 Provide all assessments of potential KPCo customer benefits that Liberty management presented to the Liberty board of directors.

RESPONSE

The board of directors of Liberty Utilities Co. did not receive any management presentations regarding assessments of potential Kentucky Power customer benefits. Individual board members did receive copies of the Stock Purchase Agreement and documents related to the transaction that had been provided to the board of APUC and produced in response to KPSC 1-68. The Liberty Utilities Co. board of directors also were advised that the APUC board of directors had reviewed and approved the transaction as required by Company policy.

DATA REQUEST

- AG 2_15 Provide the average solar capacity factor for the Commonwealth of Kentucky.
 - a. Explain whether Liberty's cost projections regarding 'greening the fleet' include the need for additional capacity of various types to address the highly intermittent nature of solar generation in the Commonwealth.
 - b. Provide KPCo's current reserve margin. Provide KPCo's projected reserve margin for 2030.

RESPONSE

The average annual capacity factor for single-axis solar in Kentucky (Lexington) is 23%.

The average net solar capacity factor assumed in Liberty's modeling was 21.8%, this is meant to be a conservative estimate as part of our initial modelling. When Liberty begins to evaluate specific sites for renewable projects, detailed modeling will be performed to evaluate site-specific capacity factors.

- a. Through 2028, Liberty has assumed a mix of renewable projects and purchasing capacity through short-term contracts to satisfy the capacity requirements. Once Kentucky Power's interest in Mitchell ceases, Liberty recognizes the need for 'firm' generation in addition to renewables, Liberty will look to evaluate this as we work through the integrated resource plan for Kentucky Power in the coming years.
- b. PJM's current installed reserve margin for Kentucky Power is 14.9%. Kentucky Power's 2030 forecasted installed reserve margin is 19.4%. *See* Case No. 2019-00443, Kentucky Power Company Integrated Resource Plan at Table 20 (Dec. 20, 2019).

Witness: Kevin Melnyk

DATA REQUEST

- AG 2_16 Explain whether Liberty's self-stated goal of 'greening the fleet' (i.e., decarbonize KPCo's electric generation fleet) is a higher ranking priority than to provide safe, adequate and reliable service at the least possible cost.
 - a. Explain whether Liberty has identified any legal requirements to 'green the fleet.'
 - b. Confirm that if the proposed transaction is fully approved in all jurisdictions, Liberty / KPCo would be under a legal obligation to provide safe, adequate and reliable service at the least possible cost.

RESPONSE

Liberty has never made such an assertion and objects to the characterization of "greening the fleet" as a goal to "decarbonize KPCo's electric generation fleet." Given the KPSC's order which effectively seeks to dispose of or retire Mitchell for ratemaking purposes by 2028, Liberty has identified opportunities to provide customer savings while making investments in Kentucky Power. However, investment in generation is not a "higher ranking priority" than Liberty's commitment to providing safe, adequate and reliable service.

- a. Liberty is not aware of any statutes or regulations that require it to "green the fleet."
- b. Liberty recognizes that Kentucky Power has a duty to provide safe, adequate, and reliable service to its customers, consistent with its franchise and all applicable statutes and regulations. Any investments in generation will seek to balance customer affordability and provide benefits to customers, and Liberty understands that such investment will be the subject of scrutiny and discussion by affected stakeholders and will be subject to the approval of the KPSC.

DATA REQUEST

AG 2_17 Provide a discussion of the measures Liberty is prepared to take to enhance economic development within the KPCo service territory.

- a. Provide all plans for economic development, including grants such as those AEP made over the past ten (10) years for this purpose. Include in your discussion all measures Liberty will take to maximize federal grants and loans within the economically depressed parts of KPCo's service territory.
- b. Discuss all actions in furtherance of economic development Liberty has taken related to its other electric utilities.

RESPONSE

a. Consistent with its response to data request KPSC 1-3, Liberty's economic development activities in Kentucky Power's service territory are planned to remain at the current levels for two years following the close of the transaction. As such, the specific initiatives are expected to be largely consistent with those pursued in recent years, subject to the emergence of new opportunities identified through discussions with economic development partners in the Commonwealth to recruit new jobs and business to eastern Kentucky; work with existing and potential industrial and commercial customers on business retention and expansion, monitor state and federal legislative processes and participate in site visits and electrical load/rate discussions with business prospects. It is anticipated that Kentucky's economic growth grant program and the economic development rider will continue to be important vehicles for attracting new industry and jobs to the area.

In addition to maintaining the existing activities in the initial years, Liberty notes that its ownership and operating approach will result in significant incremental additions of economic value. Among others, this includes direct jobs being brought into the local communities, and indirect opportunities such as those associated with planned modifications of the facilities to house new staff and set up customer walk-in centers. All told, Liberty expects the total value of economic

- benefits provided by the proposed transaction to exceed that of the status quo starting in the first year after the closing.
- b. Information provided in responses KPSC 1-35 and AG 1-125 contains recent examples of material economic development projects in Liberty's electric service territories. Given that economic development can be furthered through a variety of events and actions on the part of utilities and their staff, the requested list of all actions is infeasible to generate. Liberty does, however, note that consistent with its proposed approach to Kentucky Power, it has previously contributed to local economic development in multiple service territories by repatriating the jobs that had previously left local communities. Liberty staff and management also maintain constant contact with local government officials, chambers of commerce and industry associations, while also participating in the legislative projects that the company sees as being beneficial to the communities it serves. Staff also monitor the availability of potential infrastructure funding that could benefit the local communities. For example, in 2021 Empire installed a direct current fast charging station for electric vehicles in Joplin, Missouri funded by a \$181,000 grant administered by the Missouri Department of Natural Resources on behalf of the Volkswagen Trust.

Witness: David Swain

DATA REQUEST

- AG 2_18 Explain whether any of Liberty's other electric utilities have winter-peaking service territories. Provide a discussion of the measures Liberty is prepared to employ to insure that its service is adequate during KPCo's winter peaks.
 - a. Given Liberty's self-stated goal of 'greening the fleet,' explain in detail how Liberty will insure adequate power supply during winter peaks when generation from renewable resources is virtually unavailable within the Commonwealth.
 - b. Explain whether industrial customers in KPCo's service territory have expressed any concerns regarding reliability in light of Liberty's self-stated goal to 'green the fleet.' If Liberty has not discussed this issue with industrial customers, explain fully why not.
 - c. If Liberty intends to rely on market power purchases when renewable resources are unavailable due to their inherent intermittency, does Liberty acknowledge that KPCo customers will experience significant increases in their monthly fuel adjustment charge? If Liberty is not willing to so acknowledge, explain fully why not.

RESPONSE

Liberty disagrees with the characterization in this request that it views "greening the fleet" as a greater priority than insuring adequate power supply, reliability and safety. The Empire District Electric Company ("Empire Electric") is a winter peaking investorowned utility providing electric service to approximately 180,000 customers in Missouri, Kansas, Oklahoma, and Arkansas. Empire Electric successfully completed its the Customer Savings Plan initiative after it was acquired by Liberty Utilities in January of 2017 which included retiring ~200MWs of coal capacity and replacing it with 600 MWs of wind.

a. There are two primary mechanisms that ensure Kentucky Power customers will have an adequate and reliable supply of electricity. The first is Liberty will perform an Integrated Resource Plan ("IRP") as outlined in KRS 278.040(3) to ensure that a resource plan is developed. Additionally PJM, as the regional transmission organization (RTO), is responsible for the reliability of the bulk electric system within its territory which includes Kentucky Power, and through

- administration of the capacity and energy markets, ensures adequate supply in aggregate for all Load Serving Entities.
- b. Liberty is not aware of any specific concerns of this nature raised by industrial customers. Should a concern arise in the future Liberty is happy to have a dialogue with customers on the reliability of their service and the impact of renewable generation resources. Liberty has not initiated discussions with customers on this topic as it does not anticipate a detrimental impact on customer reliability.
- c. PJM, through the Day Ahead and Real Time markets, will commit and dispatch all available generation resources to optimize reliability and economics. Liberty does not wish to presuppose the specifics of Kentucky Power's future generation portfolio so it cannot directly address the AG's concerns about fuel adjustment charges without speculation. In general terms the intermittency of a generation resource is one of many variables that can both positively and negatively impact the economics of the resource. For some market intervals Kentucky Power may rely on market purchases for a variety of reasons including intermittency. For other market intervals Kentucky Power may be a net seller of renewable power with a \$0 variable fuel cost. Liberty seeks to deploy renewable generation for its utilities that results in a net benefit to customer fuel expense.

Witness: Drew Landoll

DATA REQUEST

AG 2_19 Discuss whether the supply-chain crises are affecting KPCo or have the potential to do so. Discuss the measures Liberty is taking to address any supply chain issues in its regulated utilities.

RESPONSE

Although supply chain constraints are creating some challenges for both Kentucky Power and Liberty, the Joint Applicants are taking several actions to mitigate as many of those challenges as possible, and to ensure that necessary materials and labor are available to support its operations and customers. In both organizations, Operations is increasing the frequency of communications with Procurement and Supply Chain to improve demand forecasts, which can then be shared with suppliers to increase the likelihood of obtaining needed materials and labor. Procurement is adding suppliers to the existing resource base, where possible, to mitigate the risks of being reliant on one or two suppliers. Supply Chain is increasing inventory levels of critical material in storerooms to create an additional buffer in case of disruptions.

Witness: Brian K. West

DATA REQUEST

AG 2_20 Reference the response to AG-DR-1-116. For each reference to a "seasonal" generation resource identify the precise type of generation and fuel source (i.e. solar, wind, etc.).

RESPONSE

The "seasonal" descriptor used was to further define the capability of the unit instead of listing the nameplate capacity of the generator; all units are offered into the market in all seasons. Please see response to AG 2-23 for further clarification.

Witness: Drew Landoll

DATA REQUEST

AG 2_21 Reference the response to KIUC-DR-1-18. Explain whether Liberty is willing to commit to continue KPCo's current practice of factoring accounts receivable. If not, explain why not.

RESPONSE

Liberty is not willing to commit to continuing Kentucky Power's current practice of factoring accounts receivable. Please see Liberty's response to KPSC 2-6. Liberty will continue to evaluate whether benefits of factoring become available in the future and is amenable to revisiting this commitment in the future.

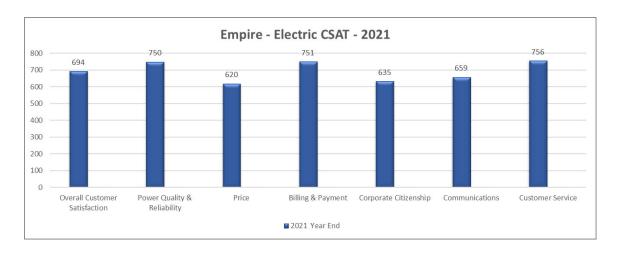
DATA REQUEST

AG 2_22 Reference the response to AG-DR-1-112. Provide copies of the actual JD Power Customer Satisfaction Ratings, together with explanations of what the ratings mean with reference to other utilities throughout the nation.

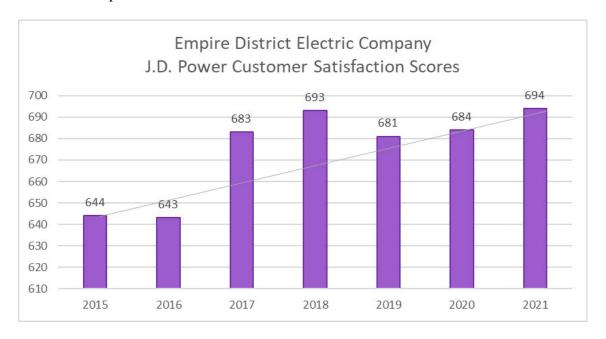
RESPONSE

JD Power Customer Satisfaction Ratings measure overall satisfaction based upon the six factors represented below. Liberty values all feedback, and the Company recognizes JD Power as one of several forms of customer communication delivering insights on expectations and perception. Through benchmarking studies, Liberty is focused on digital communications to enhance electronic alerts regarding outages, billing and payments, usage, service orders, and account status. While Empire Electric has seen slightly lower JD Power ratings on some key metrics when compared to other midsize comparable utilities, recent trends in Liberty's performance have been positive, and Liberty continues to make investments in programs to improve overall satisfaction.

2021 JD Power Factor Breakdown:



2015-2021 Improvement Trend:



Witness: David Swain

DATA REQUEST

AG 2_23 Reference the response to PSC-DR-1-59. Identify the fuel sources for each of the generating resources listed.

RESPONSE

- State Line Combined Cycle Natural Gas
- State Line Unit 1 Natural Gas/Fuel Oil
- Riverton Unit 12 Combined Cycle Natural Gas
- Riverton Unit 10 and 11 Natural Gas/Fuel Oil
- Energy Center Units 1, 2, 3, and 4 Natural Gas/Fuel Oil
- Ozark Beach Units 5, 6, 7, and 8 Hydro
- North Fork Ridge, Kings Point, and Neosho Ridge Wind Farms Wind
- Prosperity Solar Facility Solar
- Plum Point Generation Station Coal
- Iatan Units 1 and 2 Coal
- Luning and Turquoise Solar Projects Solar
- North Power Station Fuel Oil

Witness: Drew Landoll

DATA REQUEST

AG 2_24 Reference the response to KIUC-DR-1-20. Explain how Joint Applicants arrived at the \$50.8 million figure. Provide all calculations in Excel format, with all cells and formulae fully intact and accessible

RESPONSE

Please see JA_R_AG_2_24_Attachment1.xlsx for the requested information.

Witness: Brian K. West

DATA REQUEST

AG 2_25 Reference the response to KIUC-DR-1-76 1(a)(i). Explain in full how the "significant upfront investments" will be paid for.

RESPONSE

In the context of investments for generation plants, these assets typically form a part of the utility's rate base, and ultimately will be paid for through the revenue requirements. That said, the revenue requirements that are generated on account of these investments displace fuel costs related to fossil generation and therefore, it has been Liberty's experience that over the life of the asset the cost of renewable generation offers significant opportunities to reduce fuel costs. This analysis is typically done in the context of the IRP and/or when evaluating specific projects. It is Liberty's expectation that such analysis would be required to substantiate any project prior to approval from the Kentucky Public Service Commission.

DATA REQUEST

AG 2_26 Reference the response to KIUC-DR-1-77 1(c). Identify the other utility companies that have paid amounts above the book value of the acquired companies in recent history. Include the amounts above book value paid for each.

RESPONSE

Please see JA_R_AG_2_26_ Attachment.xlsx.

DATA REQUEST

- AG 2_27 Explain whether Liberty believes that increased adoption of electric vehicles ("EVs"), and the increasing electrification of homes/buildings for space heating ("electrification") will increase electricity demand in KPCo's service territory, and if so, to what extent.
 - a. Discuss whether Liberty / KPCo believe that electrification poses any significant new load potential in the KPCo service territory, given the relative scarcity of gas service.
 - b. Explain the measures Liberty / KPCo are prepared to take to monitor the pace of EV and electrification adoption.

RESPONSE

- a. Liberty's understanding is that a significant portion of Kentucky Power's residential customers already rely on electric heating. Incremental electrification by way of heating conversions / upgrades and proliferation of EV technology can be expected to have positive impact on demand relative to the current levels. However, Liberty does not expect electrification alone to offset the amount of industrial and commercial load lost in Kentucky Power's service territory over the past decade. Liberty looks forward to partnering with the KPSC and the Commonwealth of Kentucky more broadly based on their shared abilities to identify and implement electrification and other economic development opportunities.
- b. Liberty has been a leader in other states in the proliferation of electric vehicle charging infrastructure with the support of its regulators and legislators. For example, in Missouri, Liberty has just secured an approval of a comprehensive EV pilot program that includes at-home, commercial, public "pay at pump" and school bus charger deployment programs, along with subsidies for "non-road" electrification (e.g. warehouse machinery, mobile refrigeration units, truck stop electrification). The pilot is generally premised on a variation of an "on bill financing" arrangement for participating customers. Along with the charging equipment and associated maintenance, participating customers are eligible for special Time of Use rates for the consumption recorded through the EV charger, which include a significant price differential between on- and off-peak tranches. Aside from this arrangement, the pilot is also set up for Liberty to empirically explore a number of other key issues associated with EV charging, including:

- Measuring the degree of accelerated degradation (if any) sustained by adjacent assets due to DC fast charging (through Dielectric Frequency Response / Dissolved Gas Analysis testing of transformer oil or harmonics analysis on underground cables).
- Testing the accuracy and overall suitability of the consumption measurement equipment embedded into EV chargers for the purposes of consumer billing.
- Tracking most common utility- and customer-side issues (electrical and civil) that drive the overall cost of charger installation or requisite upstream upgrades.
- Exploring the value / technical rationale for developing a dedicated EV Connection Assessment protocol and modelling tools.
- Using collected data for exploratory simulations of Critical Peak Pricing and Vehicle to Grid events.
- Exploring the customer journey to EV ownership through participant surveys.
- Exploring the impact of various marketing tools on TOU adherence

For the purposes of ongoing jurisdictional monitoring Liberty typically relies on the combination of publicly available statistical data and industry-specific publications to monitor the pace of EV adoption and forecast the pace of its proliferation within its other service territories. Where Liberty has installed publicly accessible chargers in its service territory, it also monitors the changes in consumption levels and patterns over time, including number of unique charging transactions, time of day, mean charging time and others. At this juncture, Liberty expects to adopt a similar approach in Kentucky Power's service territory, while exploring opportunities for program development. Looking ahead, and provided that Kentucky Power's service territory may eventually feature AMI infrastructure, Liberty would also be able to monitor the pace and magnitude of electrification through its analysis of AMI consumption data.

Witness: Drew Landoll

DATA REQUEST

AG 2_28 Reference the response to PSC-DR-1-24. Provide a copy of the filing Joint Applicants will submit in the proceeding pending before the U.S. District Court for the Southern District of Ohio.

RESPONSE

The Joint Applicants have not prepared the requested filing at the time of this data request response. Modifications to the NSR Consent Decree must be agreed to by all of the plaintiffs that are parties to the Consent Decree before any such filing can be made.

Witness: Stephan T. Haynes

DATA REQUEST

AG 2_29

Reference the article, "Overwhelmed by Solar Projects, the Nation's Largest Grid Operator Seeks a Two-Year Pause on Approvals," accessible at the link in the footnote below. Provide a discussion regarding the impact that PJM's recent decision to impose a two-year delay on approving pending interconnection requests will have in Liberty's self-stated plans to 'green KPCo's fleet.' Include in your discussion, at a minimum, the following:

- a. Confirm that according to the article, PJM is cautioning that interconnection requests not yet filed may take even longer than the 2-year wait being imposed on projects that have already been filed. b. Explain whether Liberty / KPCo would file a Certificate for Public Convenience and Necessity (CPCN) with the Commission for new generation before obtaining the requisite PJM interconnection approvals, or whether the CPCN would be filed subsequent to obtaining the PJM interconnection approval. c. Provide the projected start dates for each renewable energy project KPCo is currently planning. For each such project, explain the status of the PJM interconnection request, and if the interconnection request has not already been approved, provide the projected dates for PJM approval of each such project. d. Explain what plans Liberty / KPCo have to meet KPCo's generation needs in its service territory, and supply source requirements that KPCo is obligated to supply as a PJM FRR entity, in the event that the interconnection approval process creates any unanticipated delays in the development of the new generation sources which Liberty cites in this docket.
- e. Explain whether any delays in obtaining the requisite PJM interconnection approvals would: (i) cause Liberty / KPCo to rely upon either market power, or bilateral purchases until such time as PJM approves the interconnection requests for the projects referenced in the instant docket; and/or (ii) increase costs to customers in any other manner, and if so, how.

⁴ https://insideclimatenews.org/news/02022022/pjm-solar-backlog-eastern-powergrid/?utm_source=Energy+News+Network+daily+email+digests&utm_campaign=61787f76f4-EMAIL_CAMPAIGN_2020_05_11_11_46_COPY_01&utm_medium=email&utm_term=0_724b1f01f5-61787f76f4-89280531 (last accessed February 2, 2022).

- f. Explain whether PJM's delay in approving new interconnection requests will influence Liberty / KPCo's analysis regarding whether to remain as a PJM member. Include in your response a discussion of whether PJM's delay will in any manner influence, bias or otherwise affect Liberty / KPCo's analyses regarding whether remaining as a PJM member provides more savings to ratepayers than it does costs.
- g. Explain whether Liberty / KPCo believe they should submit supplemental testimony in this docket to address the ramifications to Liberty / KPCo of PJM's delay in approving new interconnection requests.

RESPONSE

- a. Liberty has followed the recent discussions at PJM to impose a two-year delay on approving pending interconnection requests, and believes that if Kentucky Power ultimately receives approval from the Kentucky PSC to own renewable generation, it will need to do so through a combination of development, acquisition of projects already in the queue, purchase power agreements or partnerships. According to the latest PJM proposal all interconnection requests filed between October 2021 and October 2025 (PJM queues AH2 and beyond) will form part of the same study group and be subject to the same delays. The current schedule proposes that this group of projects will reach final approval by mid to end 2027. However, this schedule is subject to further changes or delays that PJM may impose.
- b. As a practical matter, the CPCN application will require approval prior to commencement of construction. The filing timing will be specific to each project so a generalization cannot be made.
- c. A draft schedule for projected start dates for each renewable project is highlighted in the table below. No PJM interconnection requests have been submitted yet as the Kentucky Power acquisition has not yet received all required approvals. Any project approvals in the future will be subject to regulatory approval. In addition to the projects outlined below, following the signing of this transaction, Kentucky Power filed a 100MW interconnection queue position for the development of a solar project.

Nameplate Renewable MW							
Additions	EY2022	EY2023	EY2024	EY2025	EY2026	EY2027	EY2028
Wind	-	-	-	-	-	-	400
Solar	-	-	-	250	250	-	200
Total	-	-	-	250	250	-	600

- d. Liberty is currently in discussions with AEP on a Bridge Power Coordination Agreement (Bridge PCA) which will support Kentucky Power's capacity through the 2023/2024 PJM planning period. See response to KPSC-02-17. Once the Bridge PCA has ended, Liberty will look to contract capacity as needed if there are delays in the development of new generation sources.
- e. Liberty currently anticipates sufficient supply in the current PJM queue within its service area and the broader PJM footprint to acquire a renewable project in case of delays in new PJM interconnection queue requests. However, if there are unanticipated delays, Liberty/Kentucky Power will look to leverage market power/bilateral purchases until the development of new generation sources. Liberty/Kentucky Power will look to evaluate bill impacts to customers on a holistic basis as part of the overall utility operations.
- f. Please see response to KPSC 2-14.
- g. Liberty does not believe supplemental testimony in this docket is required to address the ramifications to Liberty / Kentucky Power of PJM's delay in approving new interconnection requests as those matters are best addressed in the context of the upcoming IRP process.

Witness: Peter Eichler

DATA REQUEST

AG 2_30 Explain whether Joint Applicants believe they have duties to be transparent regarding information requested in this proceeding, and to be candid with this Commission. If Joint Applicants disagree, explain fully why not.

- a. Confirm the following regarding Joint Applicants' responses to initial discovery requests in this matter:
 - (i) Of the 134 questions the Attorney General posed, Joint Applicants refused to provide a substantive response to four (4) questions;
 - (ii) Of the 80 questions KIUC posed, Joint Applicants refused to provide a substantive response to 13 questions.

RESPONSE

a. (i)-(ii). The Joint Applicants believe in open, straightforward, and transparent communication with regulators, as well as stakeholders in regulatory proceedings. Further, the Joint Applicants sought to provide candid and fulsome responses to all questions posed during this proceeding. In this regard, the Joint Applicants produced over 840 pages in response to questions from the Attorney General and over 1570 pages of responses to questions from KIUC. The Joint Applicants disagree that it refused to provide substantive responses to non-objectionable questions where the information was known or available. The Joint Applicants will discuss any specific responses if necessary to provide additional non-objectionable and responsive information where possible.

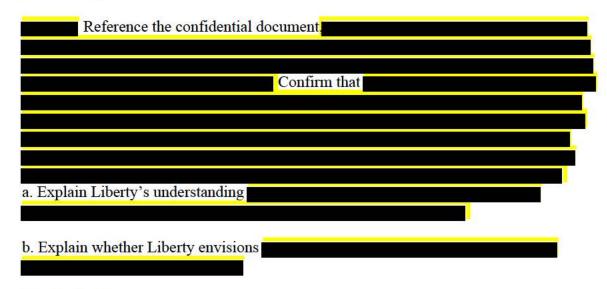
Witness: Peter Eichler

Witness: Stephan T. Haynes

Witness: David Swain

Witness: Brian K. West

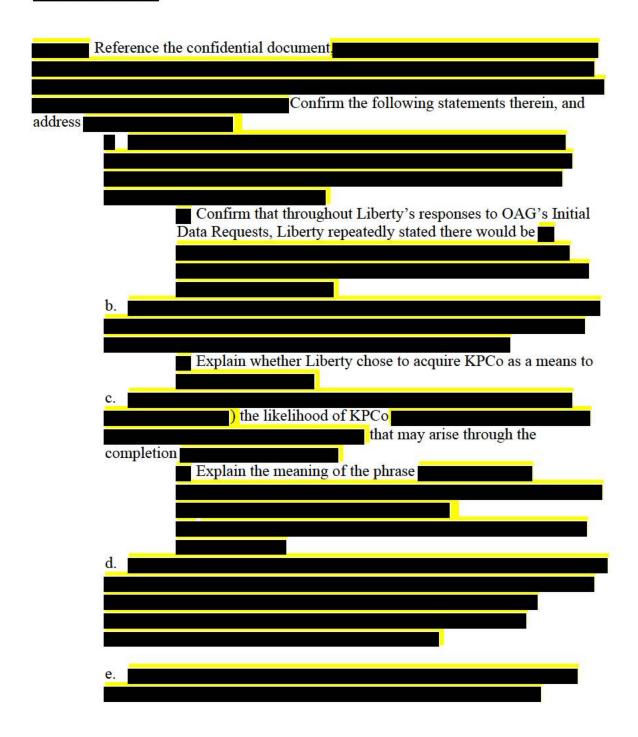
DATA REQUEST



RESPONSE:

Please see the attached confidential document, JA_R_AG_2_31_ConfidentialAttachment.pdf.

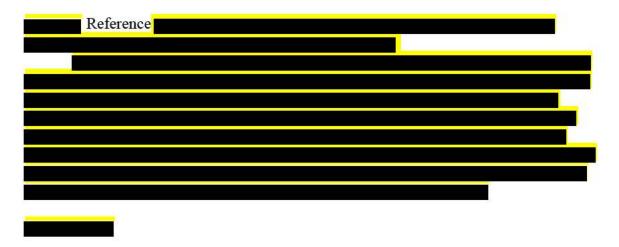
DATA REQUEST



RESPONSE:

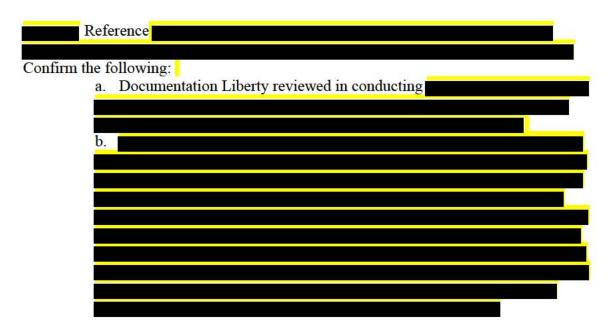
Please see the attached confidential documents: JA_R_AG_2_32_ConfidentialAttachment.pdf.

DATA REQUEST



Please see the attached confidential document, JA_R_AG_2_33_ConfidentialAttachment.pdf.

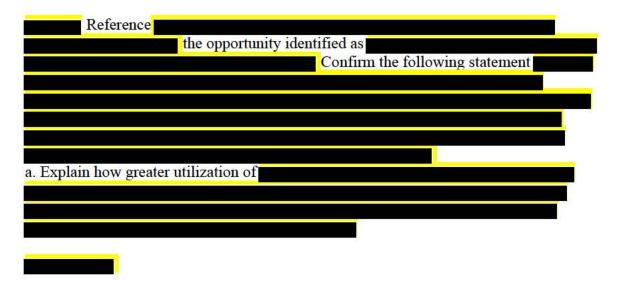
DATA REQUEST



RESPONSE:

Please see attached confidential document, JA_R_AG_2_34_ConfidentialAttachment.pdf.

DATA REQUEST



Please see attached confidential document, JA_R_AG_2_35_ConfidentialAttachment.pdf.

DATA REQUEST



Please see attached confidential document, JA_R_AG_2_36_ConfidentialAttachment.pdf.

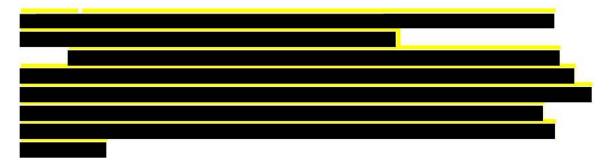
DATA REQUEST



RESPONSE:

Please see attached confidential document, JA_R_AG_2_37_ConfidentialAttachment.pdf.

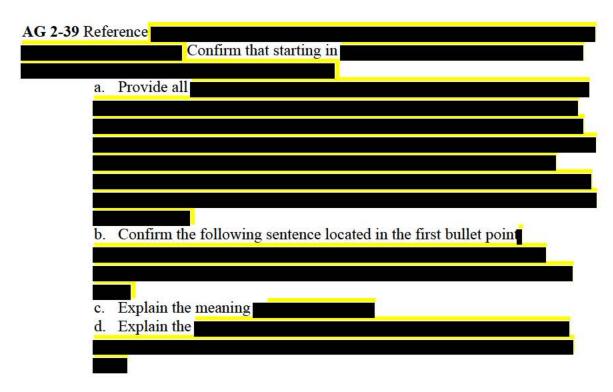
DATA REQUEST



RESPONSE:

Please see attached confidential document, JA_R_AG_2_38_ConfidentialAttachment.pdf.

DATA REQUEST



RESPONSE:

Please see attached confidential document, JA_R_AG_2_39_ConfidentialAttachment.pdf.

DATA REQUEST



RESPONSE:

Please see attached confidential document, JA_R_AG_2_40_ConfidentialAttachment.pdf.

DATA REQUEST

AG 2-41 Reference

RESPONSE:

Please see attached confidential document, JA R AG 2 41 Confidential Attachment.pdf.