February 12, 2024

TO: Illinois Power Agency

FR: J-Power USA

RE: Comments on ipa -2024-draft-policy-study-22-jan-2024

Please direct questions and comments to:

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About J-Power USA:
J-POWER USA was established in 2005 and is headquartered in Schaumburg, Illinois. The company has an ownership interest in 10 operating facilities. J-Power is currently working on the development of several solar projects. Our energy plants are located around the country with a total of 7,000 MW (Over 2,500 MW in IL) of power generation capacity and participate in several of the most competitive power markets in the country.

J-Power USA Comments:
J-Power endeavors in this communication to provide comments in response to the IPA's 2024 draft policy study published on January 22, 2024. The goal of J-Power was to review the document, examine the study's view on the policy/proposal, and further to determine how the IPA might be advised or directed to address content in HB3445 that directs IPA to review impact of the policy/proposal around recently published RTO and NERC concerns on reliability and capacity planning as a result of imminent forced retirements in the ComEd region.

Page 2 It is understood that IPA is to conduct the study called for in HB3445 that directs IPA to execute a study of the impact of the decarbonization policies (CEJA) around items such as grid reliability, resource adequacy, and long-term short-term electric rates. J-Power USA believes there should be a mention in the executive summary of the scope of the study to include, "Where applicable, the study shall address the impact of a proposal with respect to reports by MISO, PJM, and NERC." All three are entities that are primarily responsible for ensuring the reliable operation of the electric power grid across the State of Illinois and adjacent states by overseeing the coordination and movement of electricity and its transmission and dispatch. Additionally, J-Power USA would suggest referencing these studies in the footnotes or appendices, as the studies will be informative to readers of the study.

Page 9 discussion of interest is where a first mandated study scheduled for 2025 called out in the CEJA policy must be executed by IEPA and ICC. Many generators are currently evaluating the financial impact and viability of continued operation or potential retirement of their thermal facilities ahead of December 31, 2029, It seems this study should be expedited.

Page 70 begins discussion on Barriers to the implementation of generation resources that are needed to replace the large number of retirements that have recently begun and will peak ahead of December

31, 2029. J-Power USA believes that the public will benefit from a deeper discussion and explanation of the likelihood that the project resources in the interconnection queue are projects that will certainly be implemented ahead of the 2030 date. There is a risk that some of the projects currently in the queue will not be completed by 2030 or will not be deemed viable. For example, some discussion on what % of the 10 GW of projects in the PJM queue are likely to come online by December 31, 2029 might help the reader understand the rate of renewable capacity brought online vs. the rate of retirements and a summary of the degree of any imbalance.

Page 75 discusses the technology limitations of renewable resources, and J-Power USA did not see a consideration of performance around emergency NERC and RTO-required generation resources such as Black Start resources or the ability of renewable technology to address these system requirements. Can battery storage or solar resources address performance requirements under these standards? Can these technologies, as they exist today, reliably carry out all tasks per the requirements? These limitations are safety issues that perhaps the study can consider and elaborate on.

Page 90 discusses generation reliability and resource adequacy and further confirms that the 7.5GW of storage would not be fully deployed but would positively contribute to reliability. However, J. Power USA believes this study should elaborate more on the confirmed risk of reliability. Does 7.5GW mean that reliability is sufficient or not? J-Power USA believes that the study should elaborate more on the potential consequences for the region due to the noted failure to meet reliability requirements. PJM, NERC, and MISO forecasts might be helpful in answering this question.

Page 180 begins a summary of modeling summaries. J-Power USA would like to confirm that the models that calculate ELCC and LOLE for the various technologies include early retirements due to gas generation going offline ahead of 2030? Does it only consider coal retirements? As the PJM studies suggest, there have recently been several gas retirements in the PJM RTO. J-Power USA believes that there is a high likelihood of more gas retirements post-PJM's 2025/2026 BRA process to be completed in June of 2024.

Page 201 drafter discusses 2025/2026 BRA pricing. J. Power believes consideration of the recent creation of a new CONE area only for ComEd LDA and how it might impact pricing is essential to understanding the cost. If the model has factored in the new ComEd CONE area when considering PJM pricing, please confirm.

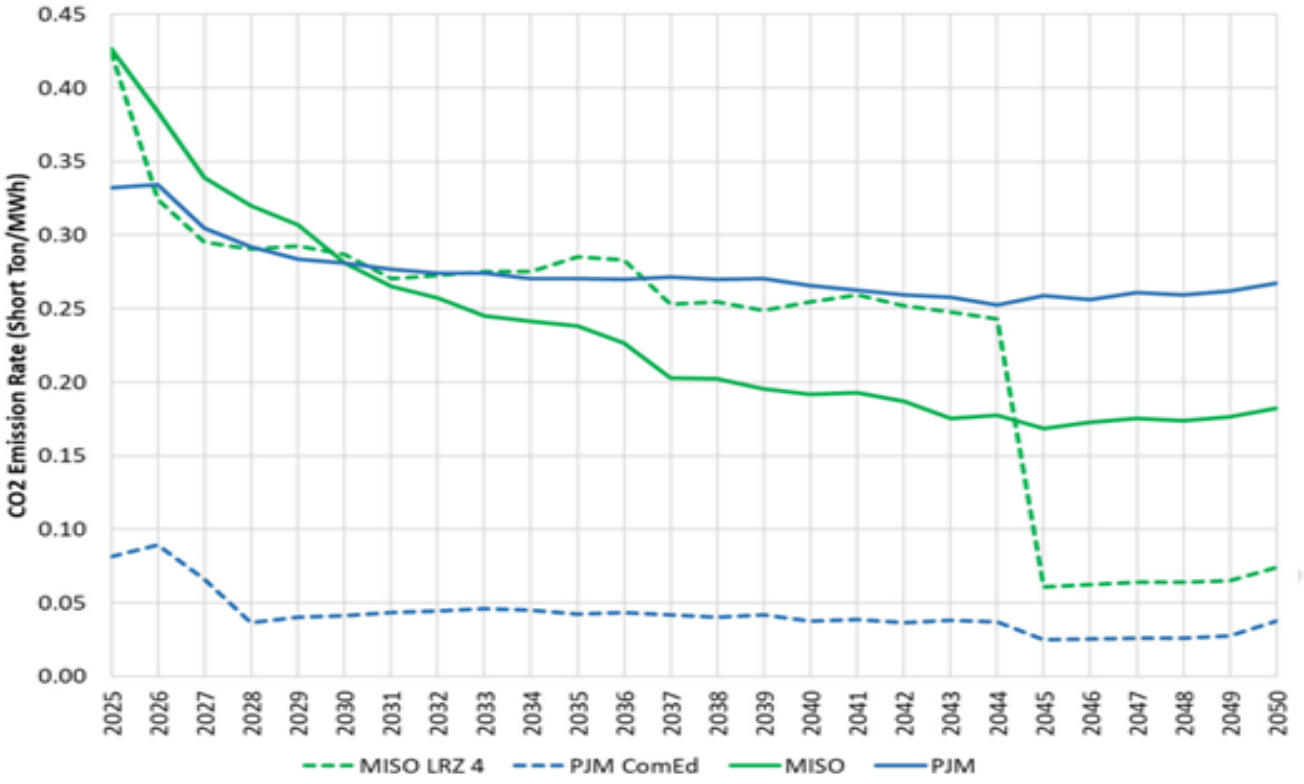
Page 205 drafter acknowledges that fossil plants retired due to CEJA in 2045 resulting in energy adequacy problems in the ComEd zone. The drafter references zero-emission fuel and simple cycle resources to address this concern. J-Power USA would like a clearer definition of what zero-emission simple-cycle fuel resources are or to have the drafter clearly identify what is meant by zero-emission simple-cycle fuels. J-Power USA is aware of the development of alternate fuels under consideration in simple cycle gas turbine technologies, such as hydrogen or co-fired hydrogen. However, these fuel types still generate greenhouse gases in a simple gas turbine. Additionally, there is currently no infrastructure in place to deliver hydrogen gas to existing gas turbines that might be retrofitted to make use of hydrogen or hydrogen/natural gas blends. J-Power believes that once available, hydrogen will be approximately 20 times the current cost of natural gas and would materially impact the cost of electricity for the end user. Finally, J-Power USA would ask the drafter to reference any projects in development that have an active placeholder in the current PJM

Interconnection queue. J-Power USA believes it is critical for the reader to identify and understand where zero-emission fuel resources might come from.

Page 209 drafter indicates that ComEd's CO2 emission rate is already much lower than MISO at 0.1 short ton/MWh, less than 1/3 MISO's. ComEd's emission rate will drop to about 0.05/MWh

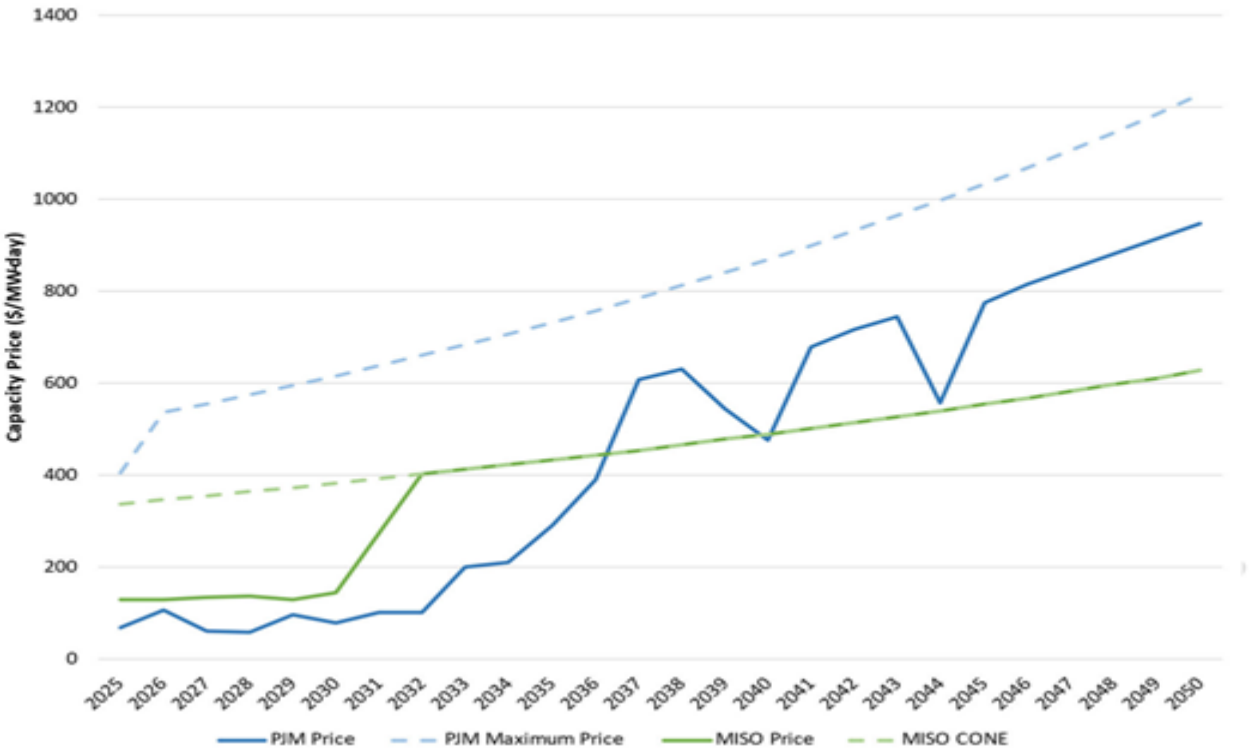
throughout the CEJA period, but the effect is small. J-Power USA believes that it would be more efficient for Illinois to prioritize focus on addressing the MISO region, leaving the ComEd at about the current level given the anticipated ComEd resource adequacy shortfall would be helpful (See drafters Figure 8-9)

Figure 8-9: CO_2 Emission Rate



Page 211 drafter highlights the rapid retirements of thermal power sources that make the capacity price in MISO rise sharply to $400/MW-Day in 2032, and in PJM ComEd $200/MW-day in about 2033. J-Power USA is of the opinion that this will become a very large burden on consumers as the recent change in the ComEd LDA is likely to further escalate pricing for ComEd customers to bring additional generation online. By designing a retirement date for thermal power resources based on the actual introduction of renewable energy, the burden on ComEd region customers should be reduced. (See drafter figure 8-11)

Figure 8-11: Capacity Price Forecast



Page 228 proposes recommendations to the General Assembly based on the final policy study. The recommendations that J-Power USA suggests are as follows:

J-Power USA would request that the drafter include comments on the impact of the proposal with respect to reports by the MISO, PJM, and NERC staff that Illinois has begun to experience resource adequacy issues. At the very least, include these documents in the footnotes or appendices for reader review.

Recommend that the IEPA and ICC-mandated study be executed immediately rather than waiting until 2025 as this will give the General Assembly and other stakeholders additional time to respond to any action items or suggestions from the study. Stakeholders will need time to respond to the study and may not have enough time to implement solutions. For example, some interconnection applicants have had requests in the queue for over 5 years. Generators like J-Power USA will want to respond, evaluate, and, where possible, implement IEPA and ICC items within ComEd, PJM, FERC, and NERC policies and procedures. There are also timelines necessary to comply with the policies and procedures.

J-Power USA acknowledges that there will be more severe adequacy problems beginning in 2030 lasting past 2045 within the ComEd region. J-Power USA recommends that drafters expand on the simple cycle zero-emission fuel solution and perhaps elaborate on where in the PJM RTO these fuels are being developed and what the status of these fuels is, as recent events such as Winter Storm Elliott and Winter Storm Gerri highlight the dangers of a lack of energy adequacy. Future events like the recent weather events could create life-threatening events in the ComEd region, and addressing any adequacy issues is of paramount and urgent concern.