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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Electric Integrated Resource Planning and Related Procurement Processes.	Rulemaking 20-05-003 *(Filed May 7, 2020)*

REPLY COMMENTS OF LS POWER DEVELOPMENT, LLC ON THE PROPOSED DECISION ADOPTING 2021 PREFERRED SYSTEM PLAN

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I. Introduction

Pursuant to Administrative Law Judge Julie A. Fitch's Proposed Decision Adopting 2021 Preferred System Plan ("PD") in the Integrated Resource Plan (IRP) proceeding, dated December 22, 2021, LS Power Development, LLC ("LS Power") respectfully submits these reply comments to the California Public Utilities Commission ("Commission" or "CPUC").

LS Power's reply comments on the Commission's 2021 Preferred System Plan (PSP) portfolio are focused on out-of-state (OOS) wind on new transmission, reiterating as in previous comments that they are valuable resources that provide diversity, reliability, and cost-effective clean energy to California. LS Power's reply comments are summarized as follows:

- Out-of-state wind on new transmission is cost effective. The RESOLVE model and the CAISO production cost models both arrive at the same conclusion. For example, the RESOLVE model, with updated inputs and assumptions for Idaho wind showed a system cost savings of $360 million (net present value 2022-2045, in 2020 U.S. dollars). Results from the California Independent System Operator's (CAISO) production cost model show that **SWIP-North and Idaho wind yields an annual benefit of $121 Million compared to a portfolio with no additional OOS wind, providing net economic benefits to California ratepayers with a Benefit-to-Cost ratio of 1.78**, well above the 1.0 metric required threshold for a project to be economic;
- The Commission and the CAISO should consider tradeoffs before limiting options and preferring a merchant transmission project over a CAISO project (seeking

Transmission Access Charge cost recovery) to deliver OOS wind. CAISO projects can provide economic and reliability benefits in addition to policy benefits, and CAISO will have control over the in-service date, operations, and capacity of the transmission line. If CAISO conducts a complete analysis of costs and all benefits of a CAISO controlled line versus a merchant line, it is certain that mapping OOS wind only to a node that requires merchant transmission will be deemed imprudent.

- The PD should be revised to reflect the evidence in the record that much more regional OOS wind resources are available well before 2030. Failing to acknowledge this fact could delay analysis and action needed to timely start deliverability upgrades to accommodate regional wind deliveries.

II. Comments

A. OOS Wind is Cost Effective and the RESOLVE Model does take Transmission Cost into Account

LS Power disagrees with the Public Advocates Office (Cal Advocates)[1] and Bay Area Municipal Transmission Group (BAMx)[2] on the concerns raised regarding the cost effectiveness of OOS wind. The RESOLVE model does take into account the cost of new transmission associated with OOS wind and the CAISO transmission analysis takes into account CAISO upgrades needed within California. As LS Power has demonstrated previously, the RESOLVE model, when updated with realistic inputs and assumptions for Idaho wind and the cost for required new OOS transmission, not only selected Idaho wind starting 2025 at a significantly higher level, but also showed a system cost savings of $360 million (net present value 2022-2045, in 2020 U.S. dollars) compared to the Core Scenario.[3] These model results reinforce the RESOLVE model results that OOS wind over new transmission is cost effective and can benefit California ratepayers. Additionally, as explained in LS Power's opening comments, an analysis using CAISO's production cost model shows that **SWIP-North and Idaho wind yields an annual benefit of $121 Million compared to a portfolio with no additional OOS wind, providing net economic benefits to California ratepayers with a**

[1] Public Advocates Office Opening Comments, pages 9-14
[2] BAMx Opening Comments, pages 2-4
[3] LS Power Opening Comments on ALJ Ruling Seeking Comments on the Proposed PSP, September 27, 2021, pages 10-12.

Benefit-to-Cost ratio of 1.78, well above the 1.0 metric required threshold for a project to be economic.[4]

OOS wind is an important component of California's clean energy resource portfolio, being able to deliver energy during the net peak hours to complement in-state solar, supplement in-state battery projects, provide diverse production profiles to in-state wind and enable more fossil fuel generation retirement resulting in a greater reduction in GHG emissions.

B. Limiting Transmission Options for OOS Wind to Merchant Only Projects will Hurt California Ratepayers

LS Power disagrees with the comments from BAMx[5] and Cal Advocates[6] that suggest limiting OOS wind to resources that use merchant transmission. The Commission should not assume that a merchant transmission project is automatically more economic for California ratepayers simply because the line is paid for through a power purchase agreement (PPA) rather than through the Transmission Access Charge. For example, preliminary results from CAISO's 2021-22 Transmission Planning Process (TPP) show that Idaho wind on SWIP-North ranks highest among all scenarios evaluated[7]. Further, LS Power's analysis, using CAISO's preliminary production cost models shows SWIP-N with Idaho wind far exceeds the CAISO benefit to cost ratio metric for a project to be economic while taking into account the "total transmission cost" from resource location to the CAISO system. Given these preliminary results from the CAISO 2021-22 TPP, it would be imprudent to limit OOS wind injection to Palo Verde simply because it uses merchant transmission, as suggested by Cal Advocates. BAMx argues for cost causation principle and that LSEs voluntarily procuring resources requiring new transmission should pay for this transmission. This approach, while favoring the merchant transmission, ignores potential higher cost of the PPA to ratepayers, the potential reliability and economic benefits that could be gained from a CAISO transmission project, and CAISO's

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[4] LS Power comments in CAISO's 2021-2022 TPP, December 6, 2021. https://stakeholdercenter.caiso.com/Comments/AllComments/97a24911-d1e6-4d36-8cfe-a29d9de4e50b#org-1e320a80-f8fd-477e-897a-5a2d280001be
[5] BAMx Opening Comments, page 5
[6] Public Advocates Office Opening Comments, pages 11-14
[7] LS Power comments in CAISO's 2021-2022 TPP, December 6, 2021. https://stakeholdercenter.caiso.com/Comments/AllComments/97a24911-d1e6-4d36-8cfe-a29d9de4e50b#org-1e320a80-f8fd-477e-897a-5a2d280001be

control of the certainty of the operations and capacity of the line.

LS Power encourages CAISO and the Commission to look comprehensively at benefits of transmission projects, including reliability and economic benefits in addition to policy benefits to deliver IRP portfolios. A CAISO project can give California control over timing and use of the transmission project, and use its competitive procurement process to manage transmission costs. LS Power suggests OOS transmission projects should be compared with the following criteria at a minimum:

- Project readiness and expected in-service date, and the associated economic and reliability benefits that come with advanced development projects that can move forward quickly,

- Transmission project cost including interconnection facility costs and network upgrades, and potential downstream upgrades (within CAISO) required to facilitate delivery of OOS wind,

- Unit cost of delivery of OOS wind ($/MW) to existing CAISO Balancing Area Authority (BAA), including cost and availability of long-term firm transmission rights (or transmission upgrades outside CAISO BAA) required to bring the OOS wind into CAISO BAA (from the source to the CAISO boundary station),

- Resource adequacy eligibility and CAISO's long-term access to the OOS resources,

- Economic benefits from production cost modeling and additional benefits from the CAISO TEAM methodology,

- GHG emission reduction benefits, including access to OOS wind and other renewable energy and storage projects, and

- Economic, resiliency and reliability benefits of the transmission project for CAISO ratepayers.

C. The Record Shows that OOS Wind Resources are Available well before 2030

LS Power agrees with Southwestern Power Group II, LLC and Pattern Energy[8] and American Clean Power - California[9] that the PD should be revised reflect the evidence in the record that much more regional OOS wind resources are available well before 2030. As LS Power and other companies have noted in comments, OOS wind can be online sooner than hard-coded in the RESOLVE model, in fact some OOS wind is available now, and new resources such as Idaho wind could be available in 2025 when it is needed to replace Diablo Canyon and once-through cooling plants. By failing to acknowledge this fact in the TPP portfolios sent to CAISO, the Commission could exacerbate the "chicken and the egg" transmission issue as the action needed to start policy upgrades to accommodate regional wind deliveries may be delayed.

Conclusion

LS Power appreciates the Commission's consideration of these comments.

Respectfully submitted January 19, 2022, at Pleasanton, California.

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[8] SWPG and Pattern Energy Opening Comments, pages 3-5
[9] ACP-CA Opening Comments, page 6