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LS Power Comments on SB 100 Joint Agency Workshop on Resource Build â€“ Transmission

Additional submitted attachment is included below.

August 11, 2021

Re: LS Power Comments on SB 100 Joint Agency Workshop on Resource Build – Transmission

To: California Energy Commission, California Public Utilities Commission, California Independent System Operator

LS Power commends the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Independent System Operator (CAISO) for hosting the workshop on July 22 to discuss existing and proposed transmission projects that can potentially support the delivery of resources required to achieve the goals of Senate Bill 100 (SB 100). California must bring online a significant amount of new clean energy resources to meet its SB 100 and greenhouse gas reduction goals, and it is critical that the appropriate transmission infrastructure is in place to deliver these resources. Given the long lead-time needed to plan, permit, and construct transmission infrastructure, it is important for the state's agencies to start looking beyond the typical planning cycles to evaluate infrastructure needs. LS Power looks forward to working with the agencies and stakeholders in this initiative.

SWIP-North can provide policy, reliability, and economic benefits to California, enable access to diverse out-of-state (OOS) renewables and can be online in 2024 in time for Diablo Canyon retirement.

LS Power appreciated the opportunity to present its project, SWIP-North, as a project that could help California meet its clean energy goals while also providing significant reliability and economic benefits to ratepayers. SWIP-North is the final link of a transmission project that would create ~1,100 MW of firm transmission rights from Idaho to California for CAISO. The project is construction ready, and with timely approval by CAISO could be in service in 2024 (when Diablo Canyon Nuclear Power Plant is set to retire).

SWIP-North provides benefits to California, including:

- Allows California to access diverse renewable resources from the Pacific Northwest renewables including wind, pumped storage, geothermal, and hydro. These OOS renewables will provide higher energy and capacity values and GHG reduction benefits. According to a recent Brattle Group study, net public policy-related costs of Idaho wind to CA customers are $20/MWh lower than CA solar due to higher energy and capacity value, and GHG reduction benefits.[1]
- Offers resiliency benefits during wildfire or extreme heat-related events as a parallel transmission path to the California Oregon Intertie and Pacific DC Intertie. For example, SWIP-N would help alleviate congestion at the CA-OR border that limited CA's ability to import critical energy resources during the August 2020 extreme heat event and July 2021 Bootleg fire.

[1] "SWIP-North Benefits Analysis." February 2021. Michael Hagerty, Johannes Pfeifenberger, and Evan Bennett. The Brattle Group. https://brattlefiles.blob.core.windows.net/files/21438_swip-north_benefits_analysis.pdf

- Relieves economic congestion by offering a parallel path to Northern California interties, thereby enabling increases in low-cost imports from the northwest and providing CAISO ratepayers savings of up to $105 Million/year.[2] For example, SWIP-North would help alleviate economic congestion at the CA-OR border that limited CA's ability to import critical energy resources during the August 2020 extreme heat event.
- Provides a pathway to export excess Southern California solar to the North, reducing renewable curtailments, and capturing Energy Imbalance Market benefits.

More details on the SWIP-North project are available in the workshop presentation, and LS Power is available to answer any questions.

Transmission alternatives should be compared against common criteria

In the SB 100 analysis, agencies should compare transmission projects against a common set of criteria to identify projects in the near-, mid-, and long-term that provide benefits to California ratepayers. LS Power suggests that criteria should include, at a minimum:

- project readiness and expected in-service date, and the associated economic benefits that come with advanced development projects that can move forward quickly,
- transmission project cost including interconnection facility costs and network upgrades,
- unit cost of delivery of OOS wind ($/MW) to existing CAISO 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),
- economic benefits from PCM and additional benefits from the TEAM methodology,
- greenhouse gas (GHG) emission reduction benefits, including access to OOS wind and other renewable energy and storage projects,
- economic, resiliency and reliability benefits of the transmission project for CAISO ratepayers, and
- potential downstream upgrades (within CAISO) required to facilitate delivery of OOS wind.

California should align analysis to prioritize mid-term reliability and access to resources

While it is important to start planning for long-lead time resources now, California also needs to prioritize mid-term reliability and resource needs. The CPUC recently authorized procurement of 11.5 GW of new resources by mid-decade and OOS resources can be online to serve this need. In recent IRP comments on mid-term reliability, CAISO emphasized the need for resource diversity to meet net demand peak and procuring at least 10,000 MW of capacity to be online by 2026.[3] The CPUC just issued a proposal with an even higher amount of 11,500 MW of new capacity by 2026. Additionally, as recently announced, CAISO's interconnection process will be significantly delayed for Cluster 14 and CAISO plans to skip the next year's new project cluster. Given the need for more capacity and in-state delays on infrastructure to connect new resources, it is more critical than ever to consider OOS transmission that can deliver diverse resources over a firm transmission path in time for Diablo Canyon replacement. If the

[2] Ibid

[3] CAISO comments on ALJ Ruling in R.20-05-003, March 26, 2021
https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M374/K638/374638000.PDF

state wants to limit reliance on gas-fired resources to meet net demand peak needs, improving access to diverse OOS resources is crucial given the significant capacity required to maintain mid-term reliability.

Offshore wind needs coordinated transmission planning

LS Power suggests that CAISO consider the transmission planning approach recently adopted by the New Jersey Board of Public Utilities (BPU) related to transmission for offshore wind development.[4] New Jersey has an offshore wind goal of 7500 MW and is working to coordinate shared on- and offshore transmission facilities for projects, rather than individual generation interconnection lines for each project. This approach of coordinating transmission from multiple projects is expected to result in considerable ratepayer savings, minimize environmental impact, better grid stability, and significantly reduce permitting risk. A key component of New Jersey's process is conducting a competitive bid process to solicit innovative, low cost solutions for ratepayers.

The Center for Energy Efficiency and Renewable Technologies presented a similar approach in the July 22 workshop, with a high voltage backbone transmission line that could connect multiple projects. This type of coordinated transmission planning, paired with a competitive transmission development process, could unlock the potential for offshore wind in California.

LS Power appreciates the opportunity to submit comments on the SB 100 study and looks forward to continuing discussions with agencies and stakeholders.

Sincerely,

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[4] New Jersey BPU Order 11-18-20-8D, Docket No. QO20100630, https://publicaccess.bpu.state.nj.us/CaseSummary.aspx?case_id=2109468