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GridLiance West Comments on Comments on Draft Integrated Energy Policy Report

Additional submitted attachment is included below.



December 1, 2023

RE: Comments on Draft Integrated Energy Policy Report

TO: California Energy Commission, Docket No. CEC-100-2023-001-CMD

GridLiance West LLC (GLW) is a Participating Transmission Owner in the California Independent System Operator (CAISO) region that owns and operates approximately 165 miles of 230-kilovolt (kV) high-voltage transmission lines and related substation infrastructure located in rural southern Nevada. The southern Nevada GLW region offers extensive solar, storage, and geothermal resource potentials, and in its previous transmission planning cycle, the CAISO selected significant upgrades to the GLW transmission system to deliver more renewable resource capacity to California. GLW is currently developing these 230/500 kV transmission facilities. Since joining the CAISO in 2013, the GLW system has increased the deliverable throughput of high-quality renewable resource deliveries from approximately 1 GW to approximately 4 GW, and an expansion of the recently approved upgrades can further increase the throughput by an additional 3 GW (a total of 7 GW) in a cost-effective manner.

GLW applauds the California Energy Commission's (CEC) ongoing Integrated Energy Policy Report (IEPR) work and supports the agency's following goals/recommendations stated within the IEPR:

- Expanding the ability to interconnect high-quality renewable and storage resources;¹
- Enabling further exchanges across the Western Electricity Coordinating Council (WECC) region;²
- Further expanding the ability to interconnect resources by leveraging existing rights of way for approved projects;³
- Rapidly developing transmission upgrades to further clean energy deliveries; 4 and
- Solving multiple infrastructure bottlenecks through proposed transmission solutions.⁵

¹ Draft IEPR at 1-2.

² Draft IEPR at 41-42 with respect to the Enhanced Day-Ahead Market.

³ Draft IEPR at 8.

⁴ Draft IEPR at 6-7.

⁵ Draft IEPR at 48.

GLW has two project proposals currently available for consideration by the CAISO, the benefits of which directly contribute to these objectives:

- 1. Beatty Upgrade Expansion Project This project proposal consists of increasing a CAISO-approved 230 kV double-circuit path from GLW's Trout Canyon to Beatty substations (an upgrade project approved by the CAISO in its 2022-2023 Transmission Planning Process (TPP))⁶ to a 500 kV double-circuit-capable transmission facility (Figure 1). GLW is already in the process of developing and permitting the Trout Canyon-Beatty transmission project and expects that project to be in service by 2027. Upsizing the voltage of this upgrade from 230 kV to 500 kV would significantly increase the amount of low-cost renewable generation resources that can be delivered to California load centers, allowing up to an additional 3 GW of generation deliverability (from 1 GW to 4 GWs) at a relatively low incremental cost (estimated \$300 million). Increasing the voltage of this upgrade to 500 kV now also can be implemented relatively quickly, since GLW is already developing and permitting the Trout Canyon-Beatty project, which will provide increased interconnection capability much sooner than building new transmission resources in this area.
- 2. Trout Canyon-Lugo 500 kV Project The CAISO first studied this project in the 2022-23 TPP cycle but put it on hold for subsequent approval (Figure 2). This project will provide a highly needed solution to constraints into southern California from the high-value renewable area near GLW's system in southern Nevada, including the longstanding Lugo-Victorville bottleneck. Moreover, the Trout Canyon-Lugo Project will address policy and reliability needs in the southern Nevada renewable rich area. Additionally, the line will enhance interchanges with the greater WECC region, while mitigating other constraints on the GLW 230 kV system. Finally, the Trout Canyon-Lugo Project will provide access to geothermal resources in southern Nevada and provide opportunities for future transmission expansion in this area. 8

In summary, GLW strongly encourages the CEC's collaboration with the CAISO and CPUC to ensure these projects move forward in a timely manner. The cost of the Beatty Upgrade Expansion Project would be most cost-effective if approved as an amendment to the 2022-23 TPP prior to GLW's procurement of the 230 kV equipment, which is currently planned to occur by March 2024. Approval of any further

⁶ CAISO 2022-23 Transmission Plan at 80-81.

⁷ The Trout Canyon-Lugo 500 kV project was held back by the CAISO pending additional analysis of stakeholder input. The CAISO indicated that it would bring a recommendation regarding this project to its Board either as an extension to the 2022-23 TPP cycle or as part of the 2023-24 TPP cycle. CAISO 2022-23 Transmission Plan, May 2023, p. 3.

⁸ CAISO Draft Transmission Plan, April 2023, p. 80.

upgrades in the 2022-23 TPP would allow GLW to maintain the current Trout Canyon-Beatty 230 kV project's schedule, which has an in-service date of 2027. Otherwise, the opportunity to conduct the very cost-efficient upgrade to 500 kV will be lost.

The Trout Canyon-Lugo 500 kV project is also time-critical. The constraints it addresses will significantly limit the most cost-effective resource types in the southern Nevada area, which are constrained by the Lugo-Victorville bottleneck. Accordingly, it is critical that the CAISO bring the Trout Canyon-Lugo project back to its Board as a follow-on 2022-23 TPP activity.

GLW appreciates the opportunity to bring these projects to the CEC's attention in recognition of the benefits these projects would bring to meeting the CEC's IEPR goals.

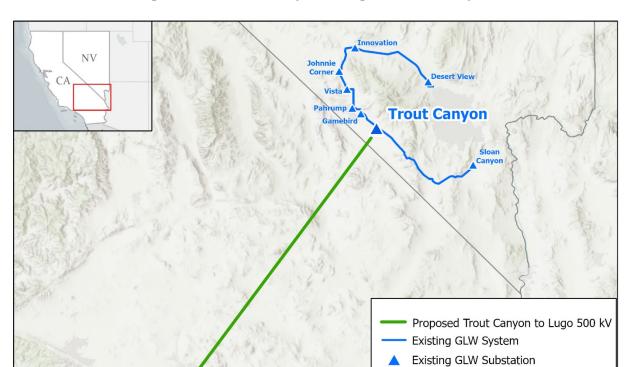
Sincerely,

/s/ Jaime Hoffman

Jaime Hoffman Director, GridLiance West LLC

Deally LINCOLN Countrel Innovation Valley Switch Johnnie Corner Descrit View Vista Northwest (NV) Pahrump A Gameblid A Trout Canyon Sloan Canyon EDED (SEES) **GLW Substation** GridLiance West 500kV ▲ External Substation **GridLiance Upsize Opportunity** GLW Approved System Trout Canyon-Beatty 500kV Opportunity November 2023 A NEXTERA ENERGY TRANSMISSION COMPANY

Figure 1: Beatty Upgrade Expansion Project



Lugo

SCE Substation

Figure 2: Trout Canyon- Lugo 500kV Project