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California Western Grid Comments on June 2 Joint Agency Workshop

Additional submitted attachment is included below.

California Energy Commission
California Public Utilities Commission **Docket No. 21-SIT-01**
California Independent System Operator
(Collectively Joint Agencies)

SB 100 Implementation Workshop:
Planning for SB 100 Resource Build

Comments of California Western Grid Development, LLC

Three Rivers Energy Development, LLC (TRED) is an Independent Transmission Developer that is developing the proposed Pacific Transmission Expansion Project ("PTE Project" or "PTEP") on behalf of California Western Grid Development, LLC ("California Western Grid"). The PTE Project is a 2,000 MW controllable HVDC subsea transmission cable that the California Independent System Operator ("CAISO") has found will allow any new or existing supply of renewable power and energy, that is available to the Diablo Canyon 500 kV switchyard, to be delivered to the West Los Angeles Basin and Big Creek Ventura area to reduce local capacity requirements, thereby allowing for the replacement of up to 1,993 MWs of natural gas fired generating capacity. The PTE Project is more fully described in Section 4.8.8 of the 2020-2021 CAISO Transmission Report issued March 24, 2021. The PTE Project is also currently being restudied by the CAISO as part of 2021-2022 CAISO Transmission Planning Process ("TPP").

We are pleased to submit these comments on behalf of California Western Grid regarding the SB 100 Implementation Workshop held by the Joint Agencies on June 2, 2021.

The Joint Agencies have acknowledged that implementing SB 100 will result in adding large amounts of new resources to the system, indeed as much as 172 GW of new resources added to the 80 GWs of capacity that existed in 2019, or a tripling of our electric grid capacity. The *SB 100 Joint Agency Report* released in March envisions massive increases in all forms of renewable resources including utility-scale solar, rooftop solar, battery storage, and onshore and offshore wind. This need is both imminent and urgent. Yet, up until now there has been no planning for delivering this massive amount of new energy to our coastal load centers and no consideration of how to build the significant amount of new transmission in a timely way that is needed to meet SB 100 objectives. The need for transmission is now urgent and the CAISO must act now in the current planning cycle. As a result of the increasing need for power and the lack of adequate transmission into our coastal regions, the CAISO will have to rely increasingly on thousands of MWs of local natural gas fired power plants. The CAISO has been warning for some time that the 10 year or more lead time for new transmission means that

transmission planning needed to start now if we are going to meet the many needs for new transmission.[1] This cannot be postponed any longer.

And, because of a lack of adequate transmission, more and more of the renewable energy that Californian's are paying for is being sold off into neighboring states instead of reducing our dependency on fossil fuels. Consequently, there is a significant economic impact by selling off resources that cannot be utilized by load in California due to lack of transmission capacity.

This problem is even more severe in coastal areas because the major urban load centers on the coast like Los Angeles (LA) have historically been served in large part by local natural gas fired generation located inside the urban load center. For example, the gas-fired capacity that serves LA is in the load pocket where there is no robust transmission available to deliver clean energy to the coast to meet increased demand or to reduce the dependency on natural gas-fired generation. This lack of transmission has resulted in Local Capacity Requirements (LCRs) that require LA to depend on fossil-based local generation in the LA Basin and preclude it from accessing new clean renewable generating capacity outside the LA Basin. In other words, LA cannot benefit from the new clean carbon-free energy that will be developed because that energy cannot be delivered reliably to LA unless new transmission is planned, permitted, and constructed.

Even if new transmission into LA is approved this year as it must be, the disadvantaged communities (DACs) in LA will continue to suffer the air emission impacts of natural gas fired generation for at least 10 more years. Indeed, the story gets worse. Because of electrification of the transportation sectors and other conversions, the demand for electricity will increase dramatically in urban load centers like LA. But as noted, new clean renewable energy resources cannot get to LA to meet the increased demand meaning that the LCRs will require natural gas fired units to run substantially more in LA until transmission is built. Thus, the need for transmission into the coastal urban load centers that are subject to LCRs is essential and must be accelerated.

You cannot fix a problem if you do not acknowledge its existence. Therefore, we applaud the Joint Agencies for leading a focused discussion to plan for and address transmission needs that will be crucial for allowing the State of California to meet SB 100 goals, support increased electrification and plan for reduced reliance on fossil fuels in the production of electricity. The State will be procuring tens of thousands of new renewable resources in coming years. And by law, *most* existing gas plants will need to retire over time. Yet, the high voltage transmission system in California has changed little in the last decade and, as of the recently concluded CAISO 2020-2021 TPP, almost no significant new transmission will be planned, approved, or built.

[1] https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M340/K159/340159322.PDF

With a 10 year or more lead-time for transmission, it is difficult to see how California can increase generation resources by nearly three-fold, allow for a deliberative retirement of gas plants on some reasonable schedule commencing in 2030, and not consider building new transmission now to accommodate these plans that implement SB 100. And, as mentioned above, the natural gas plants will be running significantly more in the meantime as demand for electricity increases in transmission constrained LCR areas like LA.

Air quality is not the only public policy that will be adversely affected. California, in partnership with the Biden Administration, is aggressively implementing policies to encourage building an offshore wind (OSW) industry in California that will be an important source of economic activity and jobs. Yet, as described above, while OSW energy can be delivered to the CAISO transmission grid in central California, it cannot be purchased by, or delivered to, the load in LA and other major urban load centers in California like the Greater Bay Area LCRA due to the lack of transmission.

This is even more unfortunate considering the SB 100 priority focus on reducing the impacts of natural gas plants on DAC's. As mentioned, the lack of transmission in the face of increased demand for electricity will lead to *increased* adverse impacts on DACs in LA. Thus, CAISO approval of new transmission into LA as part of the current 2021-2022 TPP is now more essential than ever. Given the breadth and scope of the transmission crisis we face in California there can be no reason to preclude the CAISO from planning and approving transmission for LA as soon as possible including in the current 2021-2022 TPP. Failure to do so will increase and extend the many faceted harm that California, and DACs, will experience.

In the case of the PTEP Project, the CAISO has studied the Project over the past few years and is currently restudying it again in the 2021-2022 TPP. The CAISO has consistently found that the 2,000 MW subsea cable project can deliver 2,000 MWs to LA and reduce LCRs by 1,993 MWs thereby allowing an equivalent amount of existing or new clean energy resources to be delivered from the Diablo Canyon 500 kV switchyard to LA. Further, the CAISO has studied PTEP against other alternatives for reducing LCRs in LA and reducing dependence on natural gas-fired generation and found that PTEP compared favorably against all other alternatives including transmission from the east and batteries inside the LA Basin. The decision not to include the Project in the Transmission Plan was predicated on the CPUC's failure to inform the CAISO that there is a need for the gas plants in LA to be retired. This is bewildering since the Joint Agencies know that SB 100 establishes it as a priority goal to reduce emissions in areas like LA that have the worst air quality that is adversely impacting DACs. There is simply no logical reason for refusing to allow and encourage the CAISO to approve the PTEP Project in the current TPP. Indeed, the opposite is true, transmission into LA is urgently needed to avoid the increased harmful impacts in LA as demand grows from electrification.

California badly needs a transmission roadmap identifying transmission additions that are "least regrets," and robust under a variety of future scenarios. With the 10-year lead time for new transmission, the CAISO and other Joint Agencies must act now to implement high voltage transmission additions while complying with SB 100 which, in part, requires prioritization in

areas such as Los Angeles. New transmission would relieve congestion into the Los Angeles Basin, allowing for non-emitting diverse resources from around the state to reduce LCRs and displace emitting local thermal generation.

Commissioner Douglas mentioned at the June 2 Workshop that a future SB 100 Workshop focused on transmission is planned for this summer. California Western Grid urges the Joint Agencies to hold a transmission workshop as soon as practicable and that the workshop include a session dedicated to transitioning the grid to meet the needs of SB 100.

In addition to the holding an SB 100 Workshop on transmission, California Western Grid urges the CAISO and the other Joint Agencies to:

- Recognize that SB 100 creates a clear and compelling "public policy" need to plan and approve transmission into LA to comply with the SB 100 requirements including a priority focus on areas like LA that have the dirtiest air that is disproportionately impacting DACs.

- Recognize that this public policy need requires planning and approval of transmission into LA in the pending 2021-2022 TPP.

- Create a "grid roadmap" to identify the additional new long-lead time, least regrets transmission that California will need to maintain reliable and economic service while implementing the goals of SB 100. The grid roadmap should include deliberative annual goals for reducing dependency on thermal generation, particularly in LCR areas that are transmission constrained and unable to access new clean generation.

- Explore "low", "mid" and "deep" decarbonization (aggressive thermal retirement) scenarios to examine how much additional transmission will be required under each scenario.

- Model additional transmission requirements needed to support load growth associated with electrification of transportation and buildings,

- Ensure the grid roadmap is actionable and move to study and approve those new transmission elements as part of the 2021-2022 TPP.

In summary, while California Western Grid is encouraged that the Joint Agencies are taking the initiative to proactively plan for SB 100 implementation, including the need for the grid of the future that supports SB 100 goals, we are concerned that additional steps are urgently necessary at a minimum for California to achieve SB 100 goals. The Joint Agencies and the CAISO each have a unique and critical role in ensuring the grid is robust to support SB 100 goals reliably and cost effectively. Failure to plan for the required transmission could likely lead to additional unwanted curtailment of renewable resources, added cost to consumers and

potentially result in dramatic grid failures much like those experienced in California last summer and Texas this past winter. We look forward to participating in future SB 100 workshops and the development of the CAISO's 20-Year Transmission Outlook.

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