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Comments of GSCE on June 2, 2021, Joint Agency Workshop

Additional submitted attachment is included below.

BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

SB100 Implementation: Planning for SB100 Resource Build.	21-SIT-01 (May 21, 2021)

COMMENT OF GOLDEN STATE CLEAN ENERGY, LLC, ON JOINT AGENCY WORKSHOP ON NEXT STEPS TO PLAN FOR SENATE BILL 100 RESOURCE BUILD

Golden State Clean Energy ("GSCE"), the developer of the Westlands Solar Park, appreciates the opportunity to submit these comments on the SB 100 Report Joint Agency workshop held on June 2, 2021. The Westlands Solar Park is a 20,000+ acre pre-permitted solar and energy storage master plan project capable of generating up to 2,700 MW and located in the southern part of the Westlands Water District in California's Central Valley. The Westlands competitive renewable energy zone was identified in the Renewable Energy Transmission Initiative as an area with the fewest environmental barriers to renewable energy development because much of the land in the area is drainage impaired and near existing transmission corridors that can deliver power to all parts of the state.

GSCE appreciates the SB 100 implementation report bringing attention to the importance of land use and transmission planning because the state will need a significant build out of renewable generation and new long lead time infrastructure to meet our carbon reduction goals. We believe that the immediate next steps in the land use and transmission planning effort must be made clear to the public and start now since long lead time infrastructure projects may take a decade to complete. The timing for this new land use and transmission planning effort is also crucial since the information from this process will inform CAISO's new 20-year transmission outlook and the next integrated resource plan at the CPUC.

GSCE is a strong supporter of the land use and transmission planning efforts being undertaken by the CEC to support the goals of meeting SB 100. We believe this process can be successful if it does not reinvent the wheel and instead leans on the existing body of work by stakeholder groups, like RETI, as well as work done by environmental NGOs and the Governor's Office of Planning and Research. Existing studies have consistently showed that the Central Valley and its drainage impaired, marginal farmlands have the least amount of barriers to successfully building large-scale solar and energy storage resources needed to meet SB 100. Also, the implementation of the Sustainable Groundwater Management Act ("SGMA") may bring an additional 600,000 acres of marginal farmland that can be used for renewable energy development, but private landowners and water agencies in the valley need to begin planning now for how this farmland will be converted to solar and energy storage and how much new transmission infrastructure would need to be built to deliver this power. GSCE would like to see the SB 100 Report's land

use and transmission planning effort provide recommendations to plan and build least-regrets transmission as envisioned in the first RETI process.

Goals and direction for resource planning to meet SB 100

I. Do not reinvent the wheel when it comes to land use studies. Use existing studies and reports, which often show the Central Valley as among the highest resource build potential areas.

The land use considerations and assumptions that will be needed to implement the SB 100 Report are a huge undertaking, and California does not have the time to start land use planning from scratch. Land use assumptions will be needed to inform this year's 20-year transmission outlook, which is already underway. Time must be afforded to stakeholders in this venue to provide feedback on the proposed land use assumptions, which the Joint Agencies then may need to respond and react to, and CAISO's stakeholder process may also require further discussion of the land use assumptions in the 20-year transmission outlook. CAISO will then have to conduct the studies, potentially involving numerous scenarios and land use sensitivities, all in time to issue a final report.

A lot of consensus already exists around some broader areas available for development, and some least-regrets areas are clear from existing land use studies. The Joint Agencies should start by solidifying least-regrets areas. Once an initial set of land use assumptions is created, the Joint Agencies can continue to examine and update land use assumptions, but CAISO's initial 20-year transmission outlook should have the state's buy-in via the Joint Agencies supporting some common land use assumptions.

Numerous existing studies point to the Central Valley as a major focal point for a renewable energy build out. This is one clear least-regrets area to develop new energy resources such as solar and backbone transmission. For instance, a 2016 stakeholder effort led by the Conservation Biology Institute and Berkeley Law's Center for Law, Energy and the Environment identified 470,000 acres of least-conflict lands in the San Joaquin Valley for solar PV development.[1] Other studies supporting energy development in the Central Valley include The Nature Conservancy's *Power of Place*[2] and the Defenders of Wildlife's *Smart From the Start*.[3]

[1] *A Path Forward: Identifying Least-Conflict Solar PV Development in California's San Joaquin Valley*, May 2016, *available at*: https://sjvp.databasin.org/pages/least-conflict/.
[2] The Nature Conservancy, *Power of Place*, June 2019, *available at*: https://www.nature.org/en-us/about-us/where-we-work/united-states/california/stories-in-california/clean-energy/.
[3] Defenders of Wildlife, *Smart From the Start: Responsible Renewable Energy Development in the Southern San Joaquin Valley*, 2012, *available at*: https://defenders.org/sites/default/files/publications/smartfromthestartreport12_print.pdf.

II. The Central Valley can provide the land to support a variety of energy infrastructure needs while also complementing other policy aims of the state.

A number of California's policy aims would be furthered by targeting the Central Valley for the infrastructure needed for the clean energy transition. These policy aims include decarbonizing and reducing emissions in disadvantaged communities, environmental justice, orderly retirement of agricultural lands as a result of SGMA, shifting away from solar development in fragile desert ecosystems, and of course our clean energy resource needs.

The Central Valley has a disproportionate number of disadvantaged communities. And many communities in the Central Valley have faced environmental justice issues involving air pollution from natural gas plants and farming operations. These issues can start to be alleviated by developing solar generation on drainage impaired and fallowed farmlands in the region. The dispatch of more solar generation in the Central Valley will reduce the dispatch of natural gas generation in northern California and the valley, and this will have a positive impact on air quality in the region.

Not only are there policy benefits, but a very substantial amount of land is available for developing energy and transmission resources. That is crucial given the significant land impact expected when developing resources needed to meet SB 100. SGMA will make upwards of 600,000 acres of fallowed land available for resource planning that should be leveraged to meet SB 100.[4] The Central Valley has a high concentration of such land, and specifically the Westlands Water District could have up to 250,000 acres or more of drainage impaired and fallowed farmland that could be converted to solar generation and storage, which could equate to approximately 30,000+ MW of solar energy[5] or almost half of the needed utility-scale solar appearing in the 2021 SB 100 Report's Core study case.[6]

Many during the recent workshop highlighted local opposition and dealing with landowners as a major obstacle to building the resources needed to meet SB 100. The Central Valley provides a strong alternative to other regions of the state by reducing some of these issues (e.g., less environmental conflicts, reduced concern for local prohibition of certain development).

Lastly, geographic diversity is important to having a balanced, secure grid and minimizing

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[4] *See* David Sunding & David Roland-Holst, *Blueprint Economic Impact Analysis: Phase One Results*, at 4, Feb. 15, 2020, *available at*: https://static1.squarespace.com/static/5e56f3cdb4c0de1f3af59166/t/5ebd753c879bb66cc1b0c74e/1589474628077/Blueprint.EIA.PhaseOne.2.28-v4+%281%29.pdf (This analysis estimates that 798,000 acres of farmland in the San Joaquin Valley is facing retirement due to SGMA. This analysis also studied SGMA impacts combined with anticipated reductions in surface water deliveries to farmers, finding that this combination of water reduction policies could result in a loss of 992,000 acres of farmland. *Id.* at 5.).

[5] *See* NREL, *Land-Use Requirements for Solar Power Plants in the United States*, at v, June 2013, *available at*: https://www.nrel.gov/docs/fy13osti/56290.pdf (Assuming eight acres of land are needed per megawatt of solar capacity, 31,250 MW could be developed on 250,000 acres of land in the Westlands Water District.).

[6] Joint Agency workshop presentation, Next Steps to Plan for Senate Bill 100 Resource Build, at slide 13, 16, June 2, 2021.

excessive curtailment and congestion. California should diversify its solar fleet by developing beyond the southern California desert.

III. The SB 100 Report, as well as other planning efforts conducted by the Joint Agencies with nearer-term planning horizons, needs to provide clear policy guidance to unlock the potential of the Central Valley. Without coordinated planning facilitating and supporting this development, a major opportunity will be missed and the path towards 2045 risks being more difficult, costly, piecemeal, and consumptive of precious resources such as California land.

Guidance and leadership are needed to realize the clean energy potential of the Central Valley. California's future resource need is too great, and a piecemeal approach greatly increases the risk of California's energy transition being too burdensome on ratepayers and overly consumptive of the state's land. The main benefit of this SB 100 Report and the collaboration among the Joint Agencies is the centralized, top-down direction the state's energy agencies can plan for and provide. Planning must involve or translate into clear direction for the industry to follow.

Retirement of Diablo Canyon Power Plant needs to be paired with the development of replacement generation in central California; the current and best option is the continued development of solar and storage in the Central Valley, or otherwise DCPP retirement will increase the use of natural gas generation in and around the Central Valley. California also needs to coordinate and guide regional planning efforts to build hydrogen infrastructure, which too is a generation resource likely needed to meet SB 100 that can be developed in the Central Valley.[7] And resource planning needs to accurately consider a high solar penetration grid that will be relied on to power an increasingly electrified economy while also producing renewable fuels. Midday solar generation must be deliverable to end-users, as well as energy storage resources and emerging green fuel production sites that enable time-shifting of our most affordable renewable energy.

Conclusion

GSCE urges the prioritization of least-regrets transmission planning in the Central Valley. Central Valley foundational transmission lines are least-regrets because they follow the

[7] *See generally* Utility Dive, *California coalition aims to make hydrogen power cost-competitive by 2030*, May 17, 2021, *available at*: https://www.utilitydive.com/news/california-coalition-aims-to-make-hydrogen-power-cost-competitive-by-2030/600239/; *see generally* Canary Media, *Los Angeles plans to jump-start a green hydrogen market in the US*, June 8, 2021, *available at*: https://www.canarymedia.com/articles/los-angeles-seeks-to-jump-start-a-green-hydrogen-market-in-the-u-s/?utm_id=30846&sfmc_id=4406217 (Details LADWP's HyDeal and shows the benefits of a coordinated effort to driving down the costs for green hydrogen.); *see generally* San Francisco Chronicle, Opinion, *California must invest in hydrogen infrastructure to meet zero-emission goals*, Feb. 26, 2021, *available at*: https://www.sfchronicle.com/opinion/openforum/article/California-must-invest-in-hydrogen-infrastructure-15981072.php (Opinion piece authored by Assembly Member Bill Quirk and Assembly Member Autumn Burke on why California needs to plan for hydrogen infrastructure now to meet the state's climate goals).

Garamendi principles and will provide both reliability and policy benefits. New transmission is needed in-state to address excessive curtailment and provide more deliverability for solar generation.

We commend the Joint Agencies for the significant effort undertaken so far, but we cannot overstate the urgency for California to move much more quickly in its transition to a carbon-free energy future. Thank you again for the opportunity to comment on the workshop.

Dated: June 22, 2021

Respectfully submitted,

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