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**CCSA and SEIA Joint Comments on SB 100 Draft Results
Workshop**

Additional submitted attachment is included below.



March 5, 2026

California Energy Commission
Docket No. 23-SB-100
715 P Street
Sacramento, CA 95814

Re: Docket No. 23-SB-100: Hybrid Workshop on 2025 SB 100 Joint Agency Report
Draft Results

The Coalition for Community Solar Access and the Solar Energy Industries Association (collectively, the “Joint Commenters”) appreciate the opportunity to comment on the draft modeling results presented at the February 19, 2026 workshop for the 2025 Senate Bill (“SB”) 100 Joint Agency Report.

The draft modeling results provide a useful framework for evaluating potential pathways to achieve California’s SB 100 goals. However, the current scenario framework does not appear to evaluate a pathway involving higher levels of distributed solar and storage deployment, particularly front-of-the-meter (“FTM”) distributed energy resources (“DERs”). As discussed below, evaluating such a pathway would help address two key issues raised by the draft results: (1) the very high solar build rates implied by current planning portfolios and (2) the modeling framework’s limited ability to capture the system value of distribution-connected resources.

I. The Draft Results Do Not Include a High-DER Scenario Previously Discussed in the Study Planning Process

The scenarios presented in the February 2026 workshop focus primarily on alternative assumptions regarding supply-side resource technologies, including offshore wind deployment, carbon capture retrofits, hydrogen demand, and combustion resource retirements.

While these scenarios provide insight into potential resource technology pathways, they do not appear to include a scenario examining higher levels of DERs, including FTM solar and storage resources interconnected at the distribution level.

Earlier SB 100 study planning discussions referenced a potential DER-focused scenario, examining higher levels of distributed resources, including community solar.¹ Evaluating such a

¹ The “DER Focus” scenario was presented in the Joint Agency [SB 100 Analytical Framework Workshop](#), 10/31/23. The workshop materials describe a DER Focus scenario that will include “increased adoption of front-of-the-meter distributed resources.” Modeling inputs and assumptions for that scenario were also presented in the Joint Agency [SB 100 Inputs and Assumptions Workshop](#), 2/16/24.

scenario would provide useful insight into how distributed solar and storage resources could complement utility-scale development in meeting the state’s long-term clean electricity goals.

Without such a scenario, the current analysis largely evaluates pathways centered on transmission-connected generation resources. This provides an incomplete picture of the range of available options for achieving SB 100 and removes from consideration a class of resources that can be deployed through different siting, permitting, and interconnection pathways and may therefore help address the very high clean-energy build rates and associated implementation challenges implied by the current SB 100 scenarios.

II. Current SB 100 Scenarios Imply Very High Build Rates Relative to Historical Deployment Levels

Between 2025 and 2045, the comparison scenario presented in the SB 100 workshop shows the system adding approximately:

- 100 GW of solar capacity
- 45 GW of storage capacity
- 25 GW of in-state wind capacity
- 30 GW of out-of-state wind capacity

These deployment levels imply average annual build rates on the order of:

- ~5 GW of solar per year
- ~2 GW of storage per year
- ~1.3 GW of in-state wind per year
- ~1.5 GW of out-of-state wind per year

These figures are broadly consistent with the analysis presented in the recent CPUC IRP Transmission Planning Process (“TPP”) Ruling indicating that California may need to deploy 4–7 GW of solar capacity per year by the end of this decade to maintain reliability and meet greenhouse gas reduction targets. However, these deployment levels represent a substantial increase relative to historical experience. As noted in the TPP Ruling, utility-scale solar deployment in California has typically occurred at a rate closer to 1–3 GW per year, reflecting real-world constraints related to project siting, permitting timelines, transmission availability, and interconnection backlogs. As the Ruling notes, “the buildout of [utility-scale] solar, in particular, is so large that it calls into question whether it can feasibly be built in the quantities and timing identified in this round of IRP modeling.”²

Wind development has also faced significant constraints in recent years. The IRP TPP Ruling notes that the recommended portfolios rely on substantial levels of both in-state and out-of-state wind development at levels that have not recently been achieved.³ Much of California’s highest-quality in-state wind resource has already been developed, and new projects frequently require

² See the CPUC’s [ALJ Ruling Seeking Comments on Electricity Portfolios for 2026-2027 Transmission Planning Process and Need for Additional Reliability Procurement](#), page 12.

³ *Id.*, p.14.

access to new transmission or remote resource areas. As a result, achieving the levels of wind deployment assumed in the SB 100 modeling will likely depend on the successful development of new transmission infrastructure and expanded regional resource integration.

Importantly, the joint agencies themselves identified these deployment challenges in the 2021 SB 100 Joint Agency Report, which emphasized that achieving SB 100 would require sustained resource build rates at or above historical records.⁴ The report noted that the modeled SB 100 portfolios required 25-year average build rates that are comparable to or greater than the highest single-year build rates historically achieved, and cautioned that such “record-setting resource development rates” have significant implications for workforce availability, land-use planning, supply chains, and regulatory and permitting processes.⁵

These observations remain highly relevant today. As the scale of required renewable deployment continues to increase in planning portfolios, questions regarding the feasibility of sustained record-setting build rates—and the potential bottlenecks that could emerge in siting, permitting, and interconnection processes—remain central considerations for long-term planning. This is especially true moving into the future as the best utility-scale sites get built, and what remains is harder to site, permit, and interconnect.

California should continue pursuing this ambitious utility-scale buildout and accelerate ongoing efforts to address permitting, transmission, and interconnection barriers that can slow project development. The state has made meaningful progress in recent years expanding clean energy deployment, and those efforts should continue. However, from a long-term planning perspective, it would be risky to assume that California can rely exclusively on achieving unprecedented utility-scale build rates every year for multiple decades in order to meet SB 100 and maintain grid reliability.

Evaluating additional deployment pathways—including FTM DERs that rely on different siting, permitting, and interconnection processes—would provide policymakers with a more complete picture of how the build levels assumed in planning portfolios could realistically be achieved.

III. FTM DERs Provide a Complementary Deployment Pathway

DERs interconnected on either side of the customer meter can help address deployment challenges by expanding the range of viable development pathways for clean energy resources and reducing reliance on sustained record-high utility-scale build rates.

FTM DERs have different interconnection, permitting, and land use characteristics compared to utility-scale resources, and so can be procured without adding to the existing bottlenecks that are causing market tightness. In fact, facilitating FTM DER procurement can help to alleviate some of those market pressures. Specifically:

- **Interconnection:** Properly sited projects that can achieve CEC load-modifier status by serving downstream distribution-connected load can interconnect as Energy Only through Rule 21 or WDAT, providing reliability and GHG reduction benefits without the need for

⁴ See the [2021 SB 100 Joint Agency Report](#) (Mar 2021). Page 11.

⁵ *Id.*, p.17.

a lengthy deliverability study. DERs can complete their studies in under 12 months and achieve commercial operation within approximately 24 months. Indeed, the WDAT Fast Track process for projects under 2 MWac provides an even faster interconnection pathway, enabling accelerated procurement and meaningful reliability benefits.

- **Permitting:** FTM DERs have a smaller geographic footprint and generally do not have a federal approvals nexus, significantly derisking the projects from possible federal obstruction.
- **Land Use:** A 5 MW FTM solar plus storage ground-mount project can fit on roughly 30 acres of land. While there will certainly be some land use constraints to siting, these limits are likely less impactful than they might be for utility-scale projects that require hundreds of acres in what are often more environmentally sensitive locations. The best locations for this resource class are also still available because the mid-scale 3-5 MW solar market in California is largely undeveloped. Furthermore, these projects can be constructed in the built environment, such as brownfields and commercial and industry rooftops, or on shared agricultural sites that provide added revenue for farmers and enable them to keep their adjoining land in production.

As a result, FTM DERs can complement utility-scale development by expanding the total pool of viable development opportunities for clean energy resources rather than competing directly for the same sites or infrastructure.

Recent modeling conducted by Aurora Energy Research illustrates this potential. Using a combination of capacity expansion, production cost, and power flow modeling, that analysis found that deploying approximately 5.4 GW of distributed solar-plus-storage resources across CAISO Local Reliability Areas could ease pressure on utility-scale build rates, lower in-state gas emissions, and reduce system costs by approximately \$6.5 billion over twenty years, driven by avoided energy, capacity, and transmission costs.⁶ This analysis is particularly relevant given that the Joint Agencies identified the lack of power flow modeling and local reliability analysis as a key limitation of the SB 100 modeling framework.

These findings are consistent with recent policy analyses nationwide highlighting the role that FTM DERs can play in increasing grid utilization and accelerating clean energy deployment. For example, a recent state policy playbook from Deploy Action recommends that state leaders “support and scale front-of-the-meter DERs / storage” as part of broader strategies to manage load growth, improve grid utilization, and control infrastructure costs.⁷

Given these characteristics, evaluating higher levels of FTM DER deployment would help illuminate how alternative clean energy deployment pathways could influence the feasibility of achieving the build levels assumed in current planning portfolios. Because these resources rely on different siting, permitting, and interconnection processes than transmission-connected generation, they can expand the total pace of clean energy deployment rather than competing directly with utility-scale projects for the same development pipeline. Incorporating a High-DER scenario into the SB 100 analysis would therefore provide policymakers with a clearer understanding of how distributed solar and storage resources could complement utility-scale

⁶ See Aurora Energy Research, [The Value of Community Solar and Storage in CAISO](#) (Apr 2025)

⁷ See Deploy Action, [Grid Growth, Utilization, and Affordability: A Playbook for States](#) (Feb 2026), Pages 21-22

development while helping manage the deployment risks associated with sustained record-setting renewable build rates.

IV. Recommendations

To provide policymakers with a more complete understanding of the potential pathways for achieving California's SB 100 goals, the Joint Agencies should incorporate a High-DER scenario into the SB 100 modeling framework.

Earlier SB 100 study planning materials contemplated evaluating a scenario with higher levels of distributed energy resources, including FTM DERs. Incorporating such a scenario into the final analysis would help ensure that the SB 100 report evaluates a broader range of deployment pathways for achieving the state's long-term clean energy targets.

Evaluating this pathway is particularly important given the very high clean energy deployment rates implied by current planning portfolios. As discussed above, the SB 100 modeling results assume sustained resource build rates that exceed historical deployment levels for multiple decades. The 2021 SB 100 Joint Agency Report similarly emphasized that achieving SB 100 would require long-term clean deployment at or above historical record build rates and noted the importance of a diversified portfolio approach and associated infrastructure reform.

We urge the Joint Agencies to return to their original work plan and incorporate a High-DER scenario into the final SB 100 analysis to provide a more complete assessment of how California can achieve its clean energy goals while maintaining system reliability and managing long-term deployment risks. Doing so would allow the agencies to evaluate how diversified deployment pathways can complement utility-scale development and help manage the risks associated with sustained record-setting renewable build rates.

Respectfully,

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