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Comments of Advanced Energy United on Feb 19 Workshop

Additional submitted attachment is included below.



California Energy Commission
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March 5, 2026

**Comments of Advanced Energy United
On Feb. 19 Workshop on 2025 SB 100 Joint Agency Report Draft Results**

Advanced Energy United (United) appreciates the Commission's work on the SB 100 report and the February 19th workshop presenting draft modeling results.

United is a trade association comprised of over 100 companies both large and small across the technology spectrum, including energy efficiency, demand response, solar and wind generation, next generation geothermal, energy storage, clean fuel generation, electric vehicles and charging equipment, advanced metering infrastructure, transmission and distribution equipment, distributed energy resource ("DER") aggregators and enabling software, and large load customers.

We understand that the SB 100 report is not a planning process, but rather an assessment of progress toward the SB 100 goals and identification of challenges to, and opportunities for, further progress. As such, the SB 100 report should make policy-relevant observations and recommendations for policy action to resolve challenges and leverage opportunities. Therefore we offer here recommendations for policy insights and recommendations that the SB 100 report should include, based on the draft modeling shared in the Feb. 19 workshop.

United urges the Commission to include a "DER Focus" scenario, if possible, and in any case to clearly describe the significant contribution of behind-the-meter distributed resources and load flexibility in the modeling results, and to draw out policy-relevant conclusions and recommendations. These recommendations are expanded below.

The Commission should present a "DER Focus" Scenario to explore ambitious expansions of behind-the-meter resources and demand flexibility

United and other stakeholders had previously been under the impression that CEC was preparing a scenario with high levels of DERs for the SB 100 report, but this scenario is absent from the draft results, and no explanation was offered during the workshop. Indeed, the "DER Focus"

scenario is still prominently listed on the agency’s 2025 SB 100 report website.¹ It was only in response to questions that we learned a relatively significant (roughly 50 GW) of BTM DERs and load flexibility were “baked into” the demand and supply side of the modeling, and yet their contributions to energy supply and resource adequacy were uncredited, their full capabilities unexplored, and the impacts of any expansion in reduction of their availability on the other large-scale resource undiscussed.

We fear the lack of a DER Focus scenario makes the significant contributions of BTM resources and load flexibility invisible to policymakers and the public and may mask important policy implications.

We strongly urge CEC to consider adding (or restoring) a DER Focus scenario to the modeling results. If this is not feasible at this late date, we suggest it is critical that the SB 100 report clearly explain the substantial BTM DER and load flex resources already incorporated on both the demand and supply side of the model, explain the effects these resource have in reducing peak demand and addressing core reliability risks, conceptually illustrate the effect that increases or decreases in these resources would have on the other resource build and cost results of modeling, and discuss policy recommendations to address barriers, and highlight opportunities, to expanding these important resources.

Contributions of behind-the-meter (BTM) solar and storage are hidden in demand forecast, and capacity contribution of of batteries as dispatchable Virtual Power Plants is not considered.

First, staff explained² that behind-the-meter solar and storage resources are baked into the demand forecast. With roughly 35,000 MW of BTM solar capacity and between 6,500 to 18,000 MW³ of BTM storage projected in the state by 2045, this represents a significant resource by any definition. Yet the modeling results do not discuss how this resource, and any change in its growth rate that may be affected by policy, affects the need and build out of the other resources that are the focus of the modeling.

Moreover, by baking BTM solar and storage into the demand forecast, the modeling approach treats solar and storage as a purely static resource, with a generation and export shape pre-

¹ “DER Focus” is listed on energy.ca.gov/sb100 under “Scenarios”

² Workshop at 1:03

³ While Staff cited roughly 35,000 MW of BTM solar used in modeling, Staff did not recall the exact number used for projected 2045 BTM storage during the workshop. But according to figures shared during the November 13, 2025 IEPR Workshop on slide 18 of “Behind-the-Meter Distributed Generation Forecast Results” the CEC currently projects a “low” case of roughly 6,500 MW, a “high case of roughly 18,000 MW, and a “mid” case of roughly 8,500 MW of BTM storage by 2045.



determined (presumably) by rate design that is exogenous to the modeling exercise. In the words of staff, “the model does not optimize...those batteries.”⁴

However, storage is an eminently dispatchable resource. BTM batteries can and may in the future be operated as a dispatchable resource, sometimes known as a Virtual Power Plant, responding to both economic and reliability signals to provide capacity and energy when most needed by the grid. Ignoring this dispatchability and treating BTM storage as a static resource is a policy choice that potentially inflates the need for other resources at certain other high-need hours of the year. In effect, up to 18,000 MW of potential capacity, *already assumed to exist on the system but not considered as capacity*, is left out of the equation. We urge the CEC staff to correct this oversight with a DER Focus scenario that allows BTM storage to be dispatched by the RA and production cost models instead of acting solely as a demand modifier.

Demand flexibility may be underestimated, even as significant contributions of demand flexibility to resource adequacy are masked

Second, staff explained⁵ that the modeling incorporated roughly 9,000 MW of load flexibility which are dispatched in modeling to provide critical reliability. It appears that this resource was not considered in the capacity expansion model, but rather “forced in” the resource adequacy model. While not apples-to-apples with resource selection in capacity expansion, the existence of load flexibility in the resource adequacy model does affect the new capacity selection as it validates whether the selected portfolio can meet essential reliability (LOLE) targets. Thus load flexibility is a key component of the SB 100 portfolio, but it is not credited as such.

According to the SB 846 Load Shift Goal Report⁶, California currently regularly uses 3,100-3,600 MW of demand response and load flexibility (total, including both market-integrated and not). While 9,000 MW represents a significant expansion compared to today it is only a moderate expansion, by 2045, from the SB 846 Load Shift Goal of 7,000 MW of load flexibility by 2030. Especially given that SB 100 projects up to 120,000 GWh of annual energy demand from (potentially flexible) electric transportation alone,⁷ 9,000 MW of load flexibility appears low.

In other words, the modeling exercise critically relied on a significant expansion (and yet underwhelming long-term projection) of load flexibility, and yet that resource is not credited in the modeling – and presumably may not feature in the resulting policy recommendations being drafted. This would be a regrettable and misleading error. If a large expansion of demand

⁴ Workshop at 1:04

⁵ *ibid*

⁶ Neumann, Ingrid and Erik Lyon. May 2023. Senate Bill 846 Load-Shift Goal Report. California Energy Commission. Publication Number: CEC-200-2023-008

⁷ “Transportation Energy Demand Scenarios for SB 100” Slide 5, presented August 7, 2024.



flexibility is relied on to achieve the cost effective future resource portfolio and to “keep the lights on” (as staff reported)⁸, it should be highlighted in modeling results and in the SB 100 report, and appropriate policy recommendations drafted. Even more enlightening would be a DER Focus scenario that created realistic but ambitious goals for load flexibility by 2045 and transparently modeled its effect on large resource build needs.

Fundamentally, California is not currently on track to develop this crucial, low-cost flexibility resource, and concerted effort by policymakers is required. Instead of downplaying this resource, we urge CEC to expand on the SB 846 goal to craft a realistic yet ambitious 2045 load flexibility target, highlight its role in providing critical resource adequacy, and draft policy recommendations to ensure it is available.

Conclusion

Advanced Energy United appreciates the opportunity to submit these comments and looks forward to continuing to engage in the SB 100 Report development process.

Signed,

Brian Turner
Senior Director
Advanced Energy United

⁸ Workshop at 1:04

