

<b>DOCKETED</b>	
<b>Docket Number:</b>	23-SB-100
<b>Project Title:</b>	SB 100 Joint Agency Report
<b>TN #:</b>	254501
<b>Document Title:</b>	Sierra Club California Comments on CEC SB 100 Land Use Workshop
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Sierra Club California
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	2/15/2024 4:52:41 PM
<b>Docketed Date:</b>	2/15/2024

*Comment Received From: Sierra Club California  
Submitted On: 2/15/2024  
Docket Number: 23-SB-100*

**Sierra Club California Comments on CEC SB 100 Land Use  
Workshop**

*Additional submitted attachment is included below.*



February 15, 2024

California Energy Commission  
715 P Street  
Sacramento, CA 95814

*Submitted online via comment submittal portal*

**RE: Sierra Club Comments on Senate Bill 100 Land Use Workshop**

Dear Commissioners,

On behalf of Sierra Club and our more than half a million members and supporters statewide, thank you for the opportunity to comment on the California Energy Commission’s (“CEC” or “Commission”) Senate Bill (“SB”) 100 Land Use Workshop. We continue to support California’s goal to achieve a 100% renewable and zero-carbon electricity sector by 2045<sup>1</sup> or earlier and to support resource planning that will lead to substantial reductions in the need for gas plants in local capacity areas by 2035.<sup>2</sup> We further support the state’s ongoing commitment to achieving this goal by supporting sustainable, resilient, and equitable communities and natural spaces. With these comments, the Sierra Club makes the following recommendations to the Commission regarding its planned land use approach:

1. Include safeguarding biodiversity and increasing climate resilience on the list of land use-related challenges of SB 100 implementation;
2. Update the latest California Public Utilities Commission (“CPUC”) Integrated Resource Plan (“IRP”) inputs and assumptions to include recent increases to resource adequacy costs;
3. Ensure that the capacity expansion system can optimize distributed energy resources (“DERs”); and

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<sup>1</sup> Cal. Pub. Util. Code § 454.53.

<sup>2</sup> Cal. Pub. Util. Code § 454.57(e).

4. Use the California Department of Fish & Wildlife’s Climate Resilience Ranks 4 & 5 as a land use screening resource.

### **I. The Report Should Include Safeguarding Biodiversity and Increasing Climate Resiliency in its List of Land Use-Related Challenges of SB 100 Implementation.**

At the land use workshop, Commission staff asked stakeholders to describe the land use-related challenges to SB 100 implementation. Staff during the same workshop acknowledged a number of goals, including statewide land and water conservation through the state’s 30x30 goals as well as agricultural land considerations. Sierra Club wholly supports these goals and further urge the Commission to explicitly recognize two accordant goals and challenges throughout SB 100 implementation: safeguarding biodiversity, and increasing climate resilience.

As noted in our previous comments, California’s unique biodiversity is critical to our community’s health and well-being, but is under threat by considerable changes to our climate. The state’s commitment to protecting fragile ecosystems and habitats through measures like 30x30 and the Natural and Working Lands Climate Smart Strategy are critical to supporting the unique diversity of species in adapting and thriving across the state’s varied landscape in the face of these changes. California’s various habitats are critical for protecting our communities, safeguarding our water supply, and supporting life statewide. The loss of these habitats would result in increased stress on our communities’ health and infrastructure as climate change advances and would require an ever-increasing supply of energy to offset the benefits and stability that California’s biodiversity currently supports. By protecting the state’s most critical biodiversity areas, we also support our own climate resilience.

Climate resilience requires safeguarding the state’s biodiversity through identifying critical habitat and ensuring those habitats remain intact and interconnected enough to thrive as we plan to meet our SB 100 goals.

Recommendation:

- Include safeguarding biodiversity and increasing climate resilience to the challenges of SB 100 land use-related challenges.

### **II. Update CPUC IRP Inputs & Assumptions for Recently Increasing Resource Adequacy Costs, Including Recent Increased Costs of Gas Plant Operation.**

The Commission must use updated resource adequacy costs to ensure that its analysis is tied to reality. At the Land Use Workshop, Commission staff indicated that it will be relying on the CPUC’s busbar mapping, including its land use evaluation data and methods, for its scenario analysis.<sup>3</sup> Staff also noted that they will use capacity expansion modeling at a downscaled or

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<sup>3</sup> CEC SB 100 Land Use Workshop Slides at 16 [hereinafter “SB 100 Land Use Slides”].

more geographically-specific level of granularity for its environmental and land use evaluation.<sup>4</sup> Staff did not disclose which resources it is considering specifically for resource and system pricing, but they did note that they would use CPUC IRP inputs and assumptions for capacity density metrics.<sup>5</sup>

Sierra Club urges the Commission to ensure that its resources reflect the most recent available prices for resource adequacy capacity in order to provide actionable results. Gas plants currently provide most of the state's resource adequacy capacity, and the CPUC emphasized in its latest Resource Adequacy ("RA") Report, issued in March 2023, that local resource adequacy prices have increased significantly.<sup>6</sup> The report showed that contracts can cost over \$16 per kW-month,<sup>7</sup> equivalent to approximately \$192/kW-year, an amount substantially higher than the cost assumed in the Commission's current modeling. Similarly, the CPUC last updated its IRP inputs and assumptions in June 2023 for the latest cycle. While the RA Report would have been available by that time, it is not clear that the IRP inputs and assumptions incorporated the latest RA prices.

It is also critical to note that since 2022, state law requires the Commission to issue annual "resource projections that, combined with transmission expansions, are expected to substantially reduce, no later than 2035, the need for non-preferred resources in local capacity areas."<sup>8</sup> In other words, the Commission must incorporate plans to reduce the need for gas plants in many population centers across the state into its resource projections. There is no exception to this mandate for SB 100 planning, and we accordingly urge the Commission to specifically ensure that its next SB 100 report incorporates the resources necessary to displace those gas plants. Including the most recent and accurate costs for these resources in the upcoming capacity expansion modeling will aid that effort.

Before the Commission bases its scenario analysis and capacity expansion models on resources from the CPUC's IRP proceeding, it is critical that the resources be confirmed to be using the latest RA prices. The Commission should include these higher, more recent RA prices for two reasons. First, most of the state's resource adequacy capacity is provided by gas plants, and these higher RA prices better reflect the actual costs of continuing to rely on gas plants to meet our grid needs. Second, the higher prices might lead the capacity expansion models to select new renewable or non-emitting resources that might be cost competitive with existing gas plants.

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<sup>4</sup> SB 100 Land Use Slides at 17.

<sup>5</sup> SB 100 Land Use Slides at 16.

<sup>6</sup> CPUC, 2021 Res. Adequacy Report at 14 (Mar. 2023), available at [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/2021\\_ra\\_report.pdf](https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/resource-adequacy-homepage/2021_ra_report.pdf).

<sup>7</sup> *Id.* at 27-28 (September contracts are over \$16/kW month).

<sup>8</sup> Cal. Pub. Util. Code § 454.57(e)(4).

Recommendation:

- Update the latest CPUC IRP inputs and assumptions to include recent increases to resource adequacy costs.

### **III. Ensure that the Capacity Expansion System Can Optimize DERs.**

As the state plans to meet significant new electricity demand alongside SB 100 goals, distributed energy resources offer multiple benefits, including energy democratization, increased local reliability, and better integration with other California climate goals like building and transportation electrification. In addition, demand-side resources and other DERs hold particular benefits for addressing land use challenges because their development almost always occurs where other land development has already occurred. Commission staff seem to acknowledge this by incorporating the DER Focus scenario in the SB 100 Planning methodology. However, we ask that the Commission go further to ensure that DERs are better captured in the Commission’s planned capacity expansion modeling.

Full consideration of DERs in its capacity expansion modeling requires that the Commission recognize the current limitations of the RESOLVE model that the Commission uses in IRP planning and adjust accordingly. Various parties—including Sierra Club—have critiqued the CPUC’s RESOLVE model’s inability to include DER as a resource for optimization alongside utility-scale resources.<sup>9</sup> These comments noted that the CPUC has not yet corrected its failure to optimize demand-side and distributed energy resources in RESOLVE for procurement planning. This failure to optimize DERs is inconsistent with the state’s loading order, which specifically requires the prioritization of demand-side resources. Until this problem is resolved, DERs continue to be underutilized in utility-scale and statewide energy planning. Without enabling capacity expansion models to optimize for DERs, the state runs the risk of relying too heavily on utility scale resources and transmission resources while missing opportunities for lower cost resources that provide additional benefits such as local resilience, avoided land use conflicts, and utility-scale development.

To date, the CPUC has made incomplete efforts to address this modeling failure by either assuming that the current rates of DER deployment continue or by running separate DER sensitivities in the IRP proceeding. These methods are highly inefficient because they represent very blunt tools rather than a true optimization. It is unrealistic to assume that California’s DER deployment will continue at historical levels because the financial incentives for DERs changed dramatically with the recent changes to the net energy metering tariff. Running separate DER sensitivities provide only representative benchmarks of potential DER deployment rather than optimization. While either of these flawed options are available for the Commission in its SB

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<sup>9</sup> See, e.g., Cal. Env’t Just. All. and Sierra Club’s Opening Comments on the Proposed Decision Adopting 2023 Preferred Sys. Plan and Related Matters, and Addressing Two Petitions for Modification, R.20-05-003 at 6-7 (Jan. 30, 2024).

100 modeling, we urge the Commission to instead work with its modeling team to actually incorporate DERs as a resource available for optimization.

Recommendation:

- Incorporate DERs for optimization within the capacity expansion system.

#### **IV. Use the California Department of Fish & Wildlife’s Climate Resilience Ranks 4 & 5 as a Land Use Screening Resource.**

As described in Section I, safeguarding biodiversity and increasing climate resilience are critical challenges for SB 100 implementation, but existing resources can facilitate these actions.

California’s Department of Fish & Wildlife designated Climate Resilience Ranks to indicate the probability that a specific area will persist in the face of climate change. Climate Resilience Ranks 4 and 5 include the areas in California that are most likely to include climate refugia under all future climate projections. Neglecting to protect these habitats will accelerate the loss of species that make California one of the world’s 36 biodiversity hotspots and result in incalculable damage to California’s communities and natural spaces. Accordingly, Sierra Club recommends that the Commission exclude areas Ranked 4 or 5 by the Department of Fish & Wildlife from consideration for resource development in its land use planning.

Recommendation:

- Incorporate the California Department of Fish & Wildlife’s Climate Resilience Ranks and exclude areas ranked 4 or 5 from resource development in SB 100 land use planning.

#### **V. After Incorporating the Above Recommendations, We Support the Commission’s Planned Approach to Mapping Land Use Screens.**

Assuming that the Commission can adequately incorporate the ability to optimize for DERs and conserve sensitive biodiversity and climate resilience areas, Sierra Club supports the Commission’s planned scenario analysis.<sup>10</sup> Meeting our climate and energy goals will require unprecedented deployment of new renewable resources while also requiring that we uphold our values for prioritizing health, conservation, and resilience. Sierra Club expects that a significant portion of those renewable resources will be met with DERs, while other utility scale resources will also be needed.

Therefore, the ability to optimize these resources through comprehensive capacity expansion modeling provides a reasonable starting place. It is necessary to be able to compare the costs of developing local, distributed resources against the costs of building resources further from population centers with new transmission. This effort requires the ability to exclude sensitive and critical habitats and areas to be effective. After ensuring that DERs are an option and fully

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<sup>10</sup> SB 100 Land Use Workshop Slides at 18.

accounting for needed climate resilience screens, it is reasonable to optimize for development of transmission to reach renewable energy resources in low-impact areas. Ideally, a system design that incorporates full land use considerations should result in new transmission build only when it connects the grid to responsibly-sited renewable energy resources and is more cost effective and lower impact than the other alternatives. It is now the Commission's responsibility to realize that ideal by fully including adequate land screens and ensuring that its modeling fully incorporates the costs of all renewable resources and the infrastructure needed to connect it.

Sierra Club appreciates the opportunity to comment on the Commission's Land Use Workshop. This process has the potential to serve as an example across the country on how to protect human and ecological health while meeting ambitious and necessary climate goals. We continue to look forward to working with you throughout this process.

Sincerely,

/s/ Katherine Ramsey  
Katherine Ramsey  
Senior Attorney  
Sierra Club

/s/ Jason John  
Jason John  
Acting Director  
Sierra Club California