



Senate Bill 100 Implementation

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SB 100 Implementation Activities



2021 Joint Agency
SB 100 Report
published.

2021

Joint agencies will
publish 2025 SB 100
report.

2025

Infrastructure, Modeling, Implementation

- Land Use
- Transmission Planning
- Long-Term Reliability Assessment
- Modeling improvements to consider NEBs/Social Costs
- CAISO Exploratory 20-Year Transmission Study

SB 100 Implementation Workshops



- June 2, 2021: Joint Agency Workshop on Next Steps to Plan for Senate Bill 100 Resource Build
- July 22, 2021: Joint Agency Workshop on Next Steps to Plan for Senate Bill 100 Resource Build - Transmission
- August 12, 2021: Joint Agency Workshop on Next Steps to Plan for Senate Bill 100 Resource Build: Resource Mapping
- November 1, 2021: Joint Agency Workshop on Planning for Senate Bill 100 Analysis of Non-Energy Benefits, Social Costs and Reliability

Key Takeaways



- Resource buildout needs to occur at unprecedented pace and scale.
- Need to invest in our transmission system.
- Resulting resource builds must achieve multiple goals leading to an energy system that is clean, reliable, equitable, resilient, and protects the environment.
- The state is behind in assessing non-energy benefits and social costs.
- It will be a challenge to integrate reliability, non-energy benefits, and social costs into a comprehensive analysis.

Offshore Wind Energy



- Bureau of Ocean Energy Management – California Offshore Renewable Energy Task Force
- Before the 2021 SB 100 Joint-Agency Report
 - Outreach and data gathering
 - 2018 BOEM Call for Information and Nominations
 - Continued stakeholder discussions
- Since the 2021 SB 100 Joint-Agency Report
 - Departments of the Interior, Defense and the State of California agree to accelerate wind energy offshore the central and northern coasts of California
 - Humboldt Wind Energy Area and “Morro Bay 399”
 - Assembly Bill 525 (Chiu, 2021) strategic plan for offshore wind energy

July 30, 2021:

Proclamation of a State of Emergency on Energy

“[t]he California Energy Commission, in consultation with the California Air Resources Board, the California Independent System Operator, and the California Public Utilities Commission, shall identify and prioritize action on recommendations in the March 2021 Senate Bill (SB) 100 Joint Agency Report, and any additional actions, that would accelerate the State’s transition to carbon-free energy.”





Report to the Governor on Priority SB 100 Actions to Accelerate the Transition to Carbon-Free Energy:



**Report to the Governor on
Priority SB 100 Actions to
Accelerate the Transition to
Carbon-Free Energy**

September 2021 | CEC-200-2021-008

Discusses:



Ongoing challenges to bring clean energy resources online.

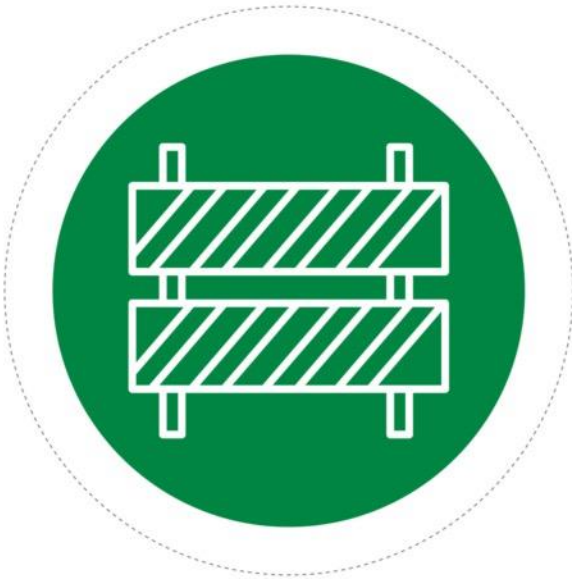


Actions taken by the CEC, CPUC, CARB, and CAISO to address system reliability issues and accelerate the state's transition to a clean energy system.



Recommendations for priority actions to address some of these challenges.

Barriers to Meeting and Accelerating SB 100



- **Challenges to Realization of Procurement**
- **Improving Long-Term Planning to Support SB 100 and Reliability**
- **Retail Choice Impacts**
- **Rate Impacts**
- **Considerations for Long Lead-Time Resources**
- **Maximizing Demand Response and Demand Flexibility**
- **Regional Markets**



Issue:

Potential Supply Chain and Project Development Impacts



Recommendations:



1

Utilize the task force comprised of the joint agencies, CAISO, and GO-Biz to address barriers to realization of procured resources through tracking, identifying, and addressing issues with individual projects.

2

Consider statutory changes that would allow the CPUC and CEC to disclose limited confidential information related to generation and energy storage projects with PPAs to CAISO for statewide planning purposes, but not for public release.

3

Examine the CAISO's current queue practices and tariff obligations. Consider awarding transmission services to resources that are ready to proceed through the interconnection process, while considering the impact on earlier queued projects and the long-term ramifications of such actions.



Issue:

Clean Electricity Generation and Storage Project Permitting Considerations



Recommendations:

1

Create a structure that better integrates statewide electricity planning and local land use planning and permitting, and that recognizes the scale and pace at which clean energy projects and supporting infrastructure must be built to achieve SB 100.

2

Consider statutory changes to reflect the urgency of the climate crisis and the magnitude of the need, including local financing and economic benefits, and expediting permit processes and judicial review as well as consolidating review at the state level for essential generation, storage and transmission projects.



Issue:

Transmission Planning, Permitting, and Interconnection



Recommendations:

- 1** Consider policy mechanisms and project viability measures that incentivize LSE selection of projects toward areas where interconnection and transmission network upgrades have a viable and timely path forward.
- 2** Establish a routinized process to provide transparency to the transmission network upgrades and interconnection processes.
- 3** Identify opportunities to integrate longer term SB 100 resource planning and mapping efforts and the CAISO's 20-Year Transmission Outlook, with the CPUC's IRP processes and resulting procurement orders.
- 4** Examine alignment of the CAISO transmission planning processes, CPUC integrated resource planning, and LSE procurement activities.



Issue:

Analytical Enhancements to Reflect Climate Change Impacts



Recommendations:

1

Incorporate climate impacts and reliability assessments into near-, mid- and long-term planning studies.



Issue:

Adapting State Planning to Support SB 100 and Reliability



Recommendations:

1

Use long term planning processes, IEPR, IRP, TPP and Scoping Plan to achieve SB 100 goals and support grid reliability.



Issue:

New Financing Mechanisms and Rate Designs to Address Affordability Impacts



Recommendations:



1

Consider statutory changes for the formation of a new entity for energy and transmission financing.

2

Explore statutory changes and regulatory mechanisms to reduce rate pressure on low- and moderate- income ratepayers.

3

Identify funding sources other than ratepayer monies to fund electric sector programs with societal benefits.



Issue:

Emerging Resources to Meet Long-Term Reliability Needs



Recommendations:

1

Improve existing data collection efforts and analysis to inform future analyses and track progress towards achieving SB 100.

2

Utilize SB 100 interagency process to facilitate long lead-time resource pathways to inform long-term planning decisions.



Issue:



Procurement of Long Lead-Time Resources



Recommendations:

1

Consider statutory and regulatory changes to create a central procurement entity or a new cost-recovery mechanism to secure the development path for certain large, long-lead time resources.



Issue:

Advancing Responsible Offshore Wind Energy Development



Recommendations:

1

Continue the interagency approach to preparing for near-term state actions to assess offshore wind energy and creating a strategic plan for offshore wind energy that is inclusive of stakeholder and tribal perspectives and advances the technology responsibly.



Issue:

Funding Technology Development and Demonstration



Recommendations:

1

Consider funding sources other than ratepayer monies for zero-carbon emerging technologies, including long-duration energy storage and renewable hydrogen production, to accelerate the deployment and scale up of these resources



Issue:

Maximizing Demand Response and Demand Flexibility



Recommendations:



1

Continue coordination efforts between the agencies and proceedings to maximize the opportunities with demand response and demand flexibility.



Issue:

Regional Markets



Recommendations:

1
2

Support the CAISO's implementation of the Extended Day Ahead Market.

Continue to explore the benefits of regionalization to enhance reliability, affordability, and decarbonization.



Issue:

Alignment with Federal Efforts



Recommendations:

1

Coordinate efforts to maximize opportunities for federal support of investment in California.

2

Pursue an agreement between key state and federal agencies to collaborate on clean energy project planning and permitting