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## DISCUSSION

**0509 GOVERNOR’S OFFICE OF BUSINESS AND ECONOMIC DEVELOPMENT  
3360 ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION  
3860 DEPARTMENT OF WATER RESOURCES  
3900 STATE AIR RESOURCES BOARD  
8660 PUBLIC UTILITIES COMMISSION**

**Issue 1: Clean Energy Reliability Investment Plan (CERIP)**

**Background.** Chapter 239, Statutes of 2022 (SB 846 Dodd) directs the California Energy Commission (CEC), in consultation with the California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB), to develop a plan to invest in “programs and projects that would accelerate the deployment of clean energy resources, support demand response, assist ratepayers, and increase energy reliability.” Specifically, SB 846 provides \$1 billion for clean energy investments over multiple years--\$100 million in 2023-24, \$400 million in 2024-25, and \$500 million in 2025-26.

The CEC developed the proposed funding priorities in the CERIP through extensive analysis of the state’s reliability situation in the near- and mid-term, taking into account the need to provide ratepayer benefits and scale the deployment of clean energy resources. A synthesis of the reliability analysis was provided to the Legislature, pursuant to the SB 846 requirement for a Joint Agency Reliability Planning Assessment, on February 9, 2023. The report notes that near- and mid-term reliability will meet planning standards, if the state can sustain record setting build out of clean energy resources to meet procurement requirements set by CPUC. However, there is the potential for shortfalls in the near- and mid-term if the state cannot bring resources on fast enough and experiences heat events like the state experienced in 2020 and 2022 or wildfire impacting transmission, like in 2021.

In CERIP, the CEC identified initiatives that support grid reliability, while also supporting ratepayer affordability, with a greater emphasis on scaling demand-side clean energy solutions. The CERIP also augments resources to support net peak reliability and potential extreme events that threaten grid reliability. The CERIP went through a public review process, was adopted by the CEC at the February 28, 2023 business meeting and was submitted to the Legislature on March 1, 2023.

**Governor’s Proposal.** The May Revision includes the following for CERIP:

Funding Priority	Proposed Funding 23/24	Proposed Funding 24/25	Proposed Funding 25/26	Proposed Funding Total
<b>Planning and Enabling Structures to Support Clean Energy Deployment</b>	\$57	\$5	\$5	\$67
<b>Central Procurement Function (CPF):</b> Support for DWR to stand up the CPF	\$32	\$0	\$0	\$32
<b>Permitting/Interconnection:</b> Address barriers throughout the energy resource development process, including permitting and interconnection delays, for local agencies, and other appropriate entities at the Governor’s Office of Business and Economic Development.	\$15	\$0	\$5	\$20
<b>CBO Support:</b> Improve processes and provide resources that support engagement and technical assistance for communities of concern.	\$8	\$5	\$0	\$13
<b>Transmission:</b> Support critical planning studies, such as Transmission Corridor Planning, and implementing recommendations in the permitting roadmap for offshore wind resources.	\$2	\$0	\$0	\$2
<b>Scaling Demand-Side Resources</b>	\$0	\$175	\$270	\$445
<b>Distributed and Customer-Side Solutions:</b> Initiatives that scale clean energy resources that are available across the state (clean distributed generation, energy storage, energy efficiency and/or demand response/demand flexibility technologies) and advance affordability and resilience, as well as reliability.	\$0	\$175	\$270	\$445
<b>Scaling Supply-Side Resources</b>	\$0	\$150	\$150	\$300
<b>Scaling Supply-Side Technologies:</b> Expanding clean energy generation options by helping scale commercial-ready technologies, including geothermal, and offshore wind. These classes of technologies may benefit from investments that can scale them and overcome initial high costs.	\$0	\$50	\$100	\$150
<b>Cost-Share Innovation Grants:</b> Providing cost share for projects that are needed for electric service reliability and the clean energy transition (including transmission). These cost-share investments could match federal funds and/or ratepayer funds that are going towards critical statewide resources and unlock projects that otherwise would not be deployed.	\$0	\$50	\$50	\$100
<b>Long-Duration Energy Storage:</b> Augmenting existing program to further expand the diversity of long-duration energy storage technologies, particularly non-lithium ion, that can provide extended reliability support at the net peak.	\$0	\$50	\$0	\$50
<b>Augmenting for Extreme Events</b>	\$33	\$50	\$65.4	\$148.4
<b>DSGS:</b> Demand Side Grid Support (DSGS) Program to create long-term extreme event load reduction, including to add Ag/Water industries	\$20	\$30	\$45.4	\$95.4
<b>DEBA:</b> Distributed Electricity Backup Assets Program (DEBA) under the SRR	\$13	\$20	\$20	\$53
<b>Administration</b>	\$10	\$20	\$9.6	\$39.6M
<b>Total</b>	\$100	\$400	\$500	\$1,000

The focus of the first year of funding in 2023-24 is to improve planning and enabling structures that can support greater clean energy deployment in years two and three of funding, 2024-25 and 2025-26 respectively. The first year also augments the state’s grid reliability during extreme events. Because the largest funding allocations in SB 846 are in 2024-25 and 2025-26, the CEC has proposed those years to

implement initiatives that can scale both demand-side and supply-side resources, with a greater emphasis on demand-side resources.

The CEC proposes that funding in future years will fund initiatives in each of the funding priority categories, but in different proportions. The CEC proposes continued funding for enabling investments, but at a lower level than in the first year, to focus less on planning activities in future years and more on scaling of resources. The CEC proposes continued support to augment resources for extreme events, with a slightly increased but level funding in years two and three to bring on additional sectors that can support grid reliability during extreme events.

**Planning and Enabling Structures to Support Clean Energy Deployment.** There are certain activities that do not directly reduce demand or generate electricity directly but are critical to set a path more effectively to achieving greater load reduction and generation. These activities include improving planning processes and supporting the development of new or improving existing institutional structures that enable resources to support grid reliability. The CEC has identified four focus areas for CERIP funding for enabling investments. Two of these will improve planning processes and two will support institutional structure development/improvement. Funding for this priority area is primarily in the first year with a total of \$57M in year one and \$5M each for years two and three:

- Stand up Department of Water Resources (DWR) Central Procurement Function (CPF): Proposed funding of \$32M in 2023-24 to support staffing necessary to establish the CPF program within DWR. This funding would not be used to fund procurement of energy resources. All long-term support for the CPF would be through cost recovery from a nonbypassable charge approved by the CPUC. DWR's CPF program will enable the state to procure and catalyze the development of long-lead time, large, and diverse clean resources (e.g., geothermal, offshore wind, long duration energy storage, etc.). These energy resources require years of planning and strategic financing mechanisms to develop and support long-term energy reliability and greenhouse gas reduction. DWR will administer the CPF program under the Statewide Water and Energy Electricity Supply and Strategic Reserve Office. If designated by the CPUC to implement the CPF program, DWR will coordinate with the CPUC and consult with others in implementing its critical processes of the new program, establishing and implementing internal policies and operations, researching technical requirements of diverse clean energy resources under the CPUC's consideration, and other start-up functions to establish the CPF program. If DWR is not selected to perform the CPF, any funds from the requested \$32M will be returned to the CERIP after incurred costs to support the Scaling Supply-Side Technologies effort.
- Permitting: GO-Biz Office of Permit Assistance will utilize proposed funding of \$15 million in 2023-24 and \$5 million in 2025-26 to establish best practices and produce documentation to increase transparency and alignment of local jurisdiction permitting processes to significantly reduce barriers for deployment of energy projects, inclusive of crossjurisdictional transmission projects. GO-Biz will establish parameters for determining local jurisdictional readiness, using prior implementations like Plug-In Electric Vehicle Charging Station Readiness and the Broadband for All Permitting Playbook for Local Jurisdictions. The program will provide technical assistance and direct engagement to increase transparency and alignment of process to ensure readiness standards are consistent. Performance based awards on concentrations of project and time to implementation will be delivered to audited and certified local jurisdictions.
- Community Engagement: Proposed funding would be \$8M for 2023-24 and an additional \$5M in 2024-25. As noted previously, the state has appropriately shifted to a greater focus on supporting justice communities in the clean energy transition. The state would benefit from greater support from community-based organizations to inform program development. Resources to reimburse community-based organizations for their involvement in CEC planning activities

will help to provide additional, valuable community feedback to improve planning, identify project types that could benefit communities, and help inform permitting and development of clean energy resources. Funding in this area would be administered by the CEC and would be provided as grants to community-based organizations for working with the CEC to identify critical community needs and to shape clean energy programs, with an emphasis on the demand-side programs.

- **Transmission Planning:** Proposed funding would be \$2M for 2023-24 only. Stakeholders have identified the need for more transmission to support the necessary growth in clean energy resources. The state would benefit from investing in additional planning for transmission. The typically long development cycle associated with transmission development makes this a prime area to focus on in the near term. Studies that evaluate different potential transmission corridors can advance the planning process. Relatively small investments in this space could be critical to inform transmission development. Funding in this area would be for technical support for transmission studies.

### Scaling Demand-side Clean Energy Resources

The CEC proposes \$175M in 2024-25 and \$270M in 2025-26 to develop a new program of initiatives, in close collaboration with the CPUC, to support distributed and customer-side solutions that scale clean energy resources that are available across the state (clean distributed generation, energy storage, energy efficiency and/or demand response/demand flexibility technologies) and advance affordability and resilience, as well as reliability. These customer side applications will accelerate net peak load reduction and demand flexibility through investments, designed for a range of customers, including residential housing; tribes seeking to reduce utility bills and improve resiliency; agricultural customers with large pumping loads, commercial and industrial customers; state agencies and facilities; and local governments. Funding will be used to expand the deployment of a diverse suite of clean distributed generation and energy storage technologies coupled with load management and demand reduction technologies. Priority would be given to projects that improve customer and grid reliability, lead to ratepayer cost savings, and assist with customer energization. Solutions may also include panel upgrades and infrastructure that support all electric building projects, light-, medium-, and/or heavy-duty electric vehicle electric charging equipment, and grid integration controls. Funding would be targeted to projects that avoid the need for electric distribution system capacity upgrades in the near- and mid-term or would provide a more cost-effective method for addressing new or expanded customer load (i.e., non-wire alternative). Program funding could also be used to cover costs for traditional electric distribution system capacity expansions, extensions, and upgrades, if necessary, for a particular project. The CEC would work closely with CPUC, the electric investor-owned utilities (IOUs) and POU's to determine optimal locations for these types of projects, identifying when a project would lead to "electric distribution deferrals" or necessary electric distribution upgrades. CEC will work with CPUC during the first year of CERIP to create program structure and funding opportunities. This approach will ensure that the initiatives can be implemented quickly in years two and three to realize ratepayer benefits in the near term while supporting grid reliability in the near- and mid-term. These initiatives also support the loading order and the state's clean energy deployment and greenhouse gas reduction goals.

### Scaling Supply-side Clean Energy Resources

The CEC proposes a total of \$300M (\$150M each year for 2024-25 and 2025-26) that can support greater scaling of supply-side resources in a way that does not compete with but is complementary to existing supply-side resource build out. Funds would be allocated through three programs: a supply side investment program, enhancing the CEC's LDES program and a supply-side innovation grant program.

- **Scaling Supply-side Technologies:** Proposed funding would be \$50M for 2024-25 and expanding to \$100M in 2025-26. Resources would help expanding clean energy generation options by helping to scale commercially ready technologies through cost-share in coordination with the Central Procurement Function contemplated by the CPUC. The state needs to diversify the suite of clean energy options, in part to hedge against the supply chain and permitting issues associated with solar and storage. Many newer technologies, including those that have been under development over recent years – and even funded in part by CEC Electric Program Investment Charge program grants – are just now becoming commercially viable. These new classes of technologies will benefit from investments that can move them from demonstrations to large-scale deployments. Other more established technologies, such as geothermal, or offshore wind may have new opportunities for deployment, especially when combined with additional investment to push them towards economic feasibility. These larger, long-lead time resources would be addressed through the Central Procurement Function. Investments for supply-side resources can help to bring the overall project costs down, enabling a more affordable resource for ratepayers.
- **Cost-Share Innovation Grants:** Proposed funding would be \$50M each for 2024-25 and 2025- 26. Resources would be invested to expand clean energy generation options by helping scale promising commercially ready technologies. This initiative could fund strategies not previously deployed but that appear to have the potential to unlock greater supply-side value. This initiative would solicit new strategies for deploying clean energy technologies. Grants would fund projects that are a combination of new approaches and either newly commercial or commercially ready technologies. This funding would be available to be leveraged for federal cost share opportunities.
- **Long Duration Energy Storage:** Proposed funding would be \$50M for 2024-25 only. Resources would be allocated to augment the CEC’s Long Duration Energy Storage (LDES) program to further expand the diversity of LDES technologies, particularly non-lithium ion, that can provide extended reliability support at the net peak.

### Augmenting for Extreme Events

Proposed funding would augment the DSGS program by \$20M in 2023-24, \$30M in 2024-25, and \$45.4 million in 2025-26. The DEBA program is proposed to be augmented by \$13M in 2023-24 and \$20M each in 2024-25 and 2025-26. The DSGS and DEBA programs were initially authorized under Chapter 61, Statutes of 2022 (AB 205). After the adoption of AB 205, the Legislature approved Chapter 251, Statutes of 2022 (AB 209) – which established a legislative mandate for DSGS to expand into CPUC jurisdictions without appropriate corresponding funding. Additional funding for DSGS will enable the program to better expand into CPUC jurisdiction territories and provide stability – or reduce risks – for participants to rely on the program. Given the inherent uncertainty of extreme heat events – and feedback from stakeholders and participants questioning the stability of the fund -- this additional funding is essential for the success of the program and to ensure confidence in participants. Additional funding for DEBA will enable the expansion of clean energy technology deployment to support the net peak.

### Administration

Administrative funding will provide the CEC the ability to increase staff and secure technical support to implement CERIP priority initiatives that fall under its purview. Proposed funding of \$10M in the first year will be focused on administering the first-year funds and a larger focus on developing the detailed demand-side and supply-side clean energy resource initiatives. Proposed funding of \$29.6M across 2024-25 and 2025-26 will be for managing the initiatives formed in the first year. The demand-side and

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supply-side initiatives will be shaped through a public process of workshops to scope initiatives and develop grant funding opportunities and guidelines.

**Staff Recommendation.** Hold Open.

**0540 OCEAN PROTECTION COUNCIL (OPC)**  
**3360 ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION (CALIFORNIA ENERGY COMMISSION OR CEC)**  
**3560 STATE LANDS COMMISSION (SLC)**  
**3600 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW)**  
**3720 CALIFORNIA COASTAL COMMISSION**

## **Issue 2: Oversight: Offshore Wind Energy (OWE): Resources-Related Roles and Responsibilities**

**Background. *Offshore Wind Energy (OWE): Basics.*** All wind turbines operate in the same basic manner. As the wind blows, it flows over the airfoil-shaped blades of wind turbines, causing the turbine blades to spin. The blades are connected to a drive shaft that turns an electric generator to produce electricity. The newest wind turbines are technologically advanced and include engineering and mechanical innovations to help maximize efficiency and increase the production of electricity.

Offshore wind is a domestic energy resource that is located close to major coastal load centers. It provides an alternative to long-distance transmission or development of electricity generation on land-constrained regions. Offshore winds tend to blow harder and more uniformly than on land. Since the higher wind speeds can produce significantly more energy/electricity, developers are increasingly interested in pursuing OWE resources.

OWE facility design and engineering depends on site-specific conditions, particularly water depth, seabed geology, and wave loading.

***OWE: Potential Environmental Impacts.*** California is home to one of the most diverse coastal and ocean ecosystems in the world, with over 1,100 miles of coastline; and the protection of coastal and ocean resources remains an important value for the state as a steward of them.

According to NOAA, scientists around the world are still investigating the potential impacts of OWE development on marine life. Site assessment, construction, and operations could interact with marine life on the seabed, in the water, and at the surface. For example, OWE projects could:

- Increase ocean noise, which could affect the behaviors of fish, whales, and other species.
- Introduce electro-magnetic fields that impact navigation, predator detection, communication, and the ability for fish and shellfish to find mates.
- Change existing habitats by altering local and regional hydrodynamics.
- Create a “reef effect” where marine life cluster around the hard surfaces of wind developments.
- Impact organism life cycle stages, including larval dispersal and spawning.
- Change species composition, abundance, distribution, and survival rates.
- Increase vessel traffic, which could lead to more vessel strikes.
- Release contaminants that can be consumed or absorbed by marine life.

Offshore wind is a new use of marine waters, requiring substantial scientific exploration, regulatory review, and monitoring. It is critical to ensure that the planning, siting, and development of new projects to do not harm fisheries, fishing communities, aquatic wildlife such as marine mammals, endangered



species, ecosystems, and critical habitat. Also, it is necessary to ensure that new projects are compatible with other ocean uses, including commercial, recreational, and tribal fishing.

***Monitoring, Mitigation, and Adaptive Management.*** There have been efforts made to assess/begin to assess the potential impacts of large-scale wind turbine installations off the shore of California to birds, fish, and other wildlife. While progress has been made, it is difficult to collect data for extended periods in the open ocean; and conditions offshore may be more variable due to climate change. In view of this, it is likely that only with the installation of the actual turbines and associated facilities offshore will the impacts become evident. Therefore, monitoring for impacts to wildlife should be an ongoing obligation of the installations and operation of any offshore wind facility.

***Advancing Environmental Monitoring Technologies for Floating Offshore Wind.*** In August 2022, CEC released a competitive solicitation to fund projects that advance environmental monitoring technologies to support efforts by floating offshore wind operators, state agencies, and other relevant entities to better evaluate biological and ecological implications of floating offshore wind deployments. The CEC received eight proposals by October 2022.

In February 2023, CEC announced that there would be three awardees with a total of \$8.9 million (Electric Program Investment Charge Interim Plan (\$7.7 million) and the Electric Program Investment Charge 4 Program (\$1.2 million)) to fund their projects. The three awardees are as follows:

- 1) \$3.5 million to Lawrence Berkeley National Laboratory: Integrated Monitoring of Cetacean and Ocean Environmental Impacts from Floating Offshore Wind Development on the Pacific Coast.
- 2) \$3.4 million to Integral Consulting, Inc.: Integrated, Real-Time, Multi-Scale System for Monitoring Seabird Interactions with Floating Offshore Wind Technologies.
- 3) \$2 million to Schafer Energy Research Center – Humboldt State University Sponsored Programs Foundation: Integrated Monitoring and Mitigation Approach to Reduce Entanglement Hazards for Floating Offshore Wind Developments.

Funding of proposed projects from this solicitation is contingent upon the approval of these projects at a publicly noticed CEC business meeting and execution of a grant agreement.

***Fishing Community Impacts.*** There will be a need to make OWE compatible with fishing, aquaculture, and other ocean uses. The construction and operation of wind turbines could impact commercial, recreational, and tribal fishing in a variety of ways, including:

- Displacing fishermen from traditional fishing areas
- Changing the distribution, abundance, and species composition of fish in an area
- Causing economic losses
- Increasing vessel traffic and competition for support services on shore
- Disrupting vessel radar systems
- Damaging or destroying fishing gear
- Reducing safety at sea from increased vessel traffic and navigation challenges.

In particular, fishermen using trawl, dredge, and other mobile gear may have to significantly change their operations to avoid interacting with turbines and underwater cables. Longline, gillnet, and fixed

gear fisheries could also be displaced by OWE projects or affected by ecosystem and navigation changes triggered by the operations.

***Existing Offshore Wind Turbine Projects.*** As of 2020, there were 35.5 gigawatts (GW) of offshore wind power installed globally. Most of this development is for turbines anchored to the sea bed through a solid foundation. For deeper depths — beyond 165 feet or so — floating turbines are feasible. In these instances, the turbines are anchored to the sea bed via cables.

The vast majority of OWE development so far has occurred in the Atlantic Outer Continental Shelf. However, new OWE areas are being proposed along the East Coast, in the Gulf of Mexico, and in the Pacific waters. The White House has set a goal of significantly increasing the nation's OWE capacity to 30 gigawatts by 2030.

There are at least two European projects utilizing floating offshore wind turbines — one of which is the 6 megawatt (MW) turbines used in the Hywind Scotland project off the coast of Scotland that have rotor diameters on the order of 154 meters (about 1.4 football fields in length including end zones).

***California and OWE.*** Northwesterly winds drive the upwelling of deeper, cool nutrient-rich waters that sustains a thriving ecosystem. The development of large-scale OWE projects has the potential to reduce the wind stress at the sea surface, which could have local and/or regional implications on California wind-driven upwelling, nutrient delivery, and ecosystem dynamics.

In August 2022, the State Energy Resources Conservation and Development Commission (California Energy Commission or CEC) released ambitious targets for OWE generation off the coast of California. These include a goal of 5 GW installed by 2030 and 25 GW by 2045. For context, 1 GW is estimated to be sufficient to provide electricity to 700,000 – 750,000 residences. OWE generation is projected to be an important component of the state's efforts to decarbonize energy generation and to achieve carbon neutrality by 2045. The US National Renewable Energy Laboratory has estimated that the state has the technical potential for 200 GW of offshore wind generation.

Due to the water depth in areas with high ambient winds, much of the OWE projects serving California are likely to be composed of very large floating wind turbines anchored to the sea floor in federal waters (3-200 miles) offshore. A Siemens 10 MW turbine has a rotor diameter of 193 meters (about 1.75 football fields), and the Coastal Commission estimates that a 15 MW turbine would have a maximum height at blade tip of about 889 feet and a rotor length of about 807 feet. These turbines would have to have about one mile distance between them in all directions for operation. These projects will include components in state waters, such as cables transporting the energy onshore, vessels transiting state waters to serve the projects, and docking and support facilities onshore. The cables located on the California sea floor will require right-of-way leases from the state.

***OWE Leases Off the Coast of California.*** In December 2022, the federal agency with leasing authority — the Bureau of Ocean Energy Management (BOEM) — held a wind energy auction for five leases off the coast of California. This was the first federal OWE leases in the Pacific. The leases sold for \$757.1 million and covered 373,268 acres located approximately 20 miles offshore of central (San Luis Obispo County) and northern (Humboldt County) California. These lease areas have the potential to generate up to 4.6 GW of OWE.

The Coastal Commission found in its federal consistency determination for both leases that the proposed activities have the potential for adverse impacts to marine resources, commercial and recreational fishing, environmental justice communities, and tribal cultural resources, among other things. Examples

of these adverse impacts include sea floor habitat disturbance, elevated levels of underwater sound, marine species displacement, invasive species, and an increased risk of vessel strikes to marine mammals. In view of these findings, the Coastal Commission made its concurrence contingent upon seven conditions:

- Plan review and coordination between BOEM, the Coastal Commission, lessees, and other state agencies to include communication, and taking marine wildlife protection and monitoring measures, among other things.
- No bottom contact for sensitive areas of the sea floor such as deep-sea coral/sponge habitat.
- Minimizing the risk of vessel strikes by reducing vessel speed.
- Safe navigation.
- Engagement with environmental justice and local communities.
- Engagement with California Native American Tribes.
- Impacts to fishing and fishing communities.

On the last point, BOEM is required to have lessees have an independent fisheries liaison for coordination and communication of site activities affecting commercial and recreational fishing communities and harbor districts, and to coordinate activities and develop a process for requiring and remediating conflicts. Lessees are required to report on process, outreach, and outcomes of engagement with fishing communities and harbor districts.

BOEM is also required to work with the Coastal Commission, the lessee, and other regulators to develop and facilitate a working group consisting of fishing organizations and representatives of different regions/ports representing different fisheries in both the commercial and recreational sectors. This working group will develop a statewide strategy for avoidance, minimization, and mitigation of impacts to fishing and fisheries that prioritizes fisheries productivity, viability, and long-term resilience. The statewide strategy should include protocols for communication, best practices for survey and data collection, a methodology for a comprehensive socioeconomic analysis of direct and indirect impacts to fishing, a framework for compensatory mitigation for unavoidable impacts, and a fishing agreement template that memorializes the elements of the statewide strategy. The strategy should include specific consideration for those fisheries that are disproportionately and/or directly affected by offshore wind development.

**AB 525 (Chiu).** Among the several mandates, AB 525 (Chiu), Chapter 231, Statutes of 2021, required CEC, to develop and produce a coordinated, comprehensive, and efficient permitting roadmap for OWE facilities in federal waters off the coast of California (such as the identification of sea space and planning for the improvement of waterfront facilities), and associated electricity and transmission infrastructure. The permitting roadmap must include:

- A goal for the permitting timeframe.
- Clearly defined local, state, and federal agency roles, responsibilities, and decision-making authority.

- Interfaces with federal agencies, including timing, sequence, and coordination with federal permitting agencies, and coordination between reviews under the California Environmental Quality Act (CEQA) and the federal National Environmental Policy Act (NEPA).

In December, 2022, CEC issued a draft conceptual permitting roadmap for OWE facilities originating in federal waters off the coast of California.

***Intergovernmental Renewable Energy Task Force.*** Floating OWE projects are complex and will require close coordination between BOEM, the state, and other federal and local agencies and tribal governments. To help facilitate this coordination, the Intergovernmental Renewable Energy Task Force (Task Force) was established in 2016. The Task Force, which includes representatives from federal, state, local, and federally recognized tribal governments, work together to identify opportunities for renewable energy leasing and development off the coast of California. Through coordination with the Task Force, and stakeholder outreach and engagement process, BOEM is moving forward with further environmental review for the leasing two areas mentioned above for additional evaluation of floating OWE development.

***Resources-Related Agencies Involved in OWE Development.*** Among the state agencies involved in OWE projects, several departments are within the California Natural Resources Agency, as follows:

***California Energy Commission (CEC).*** CEC is engaged in a range of initiatives to better understand the opportunities and actions for deploying floating offshore wind responsibly off the coast of the state, including the creating of the California Offshore Wind Energy Gateway.

Current law requires CEC, in coordination with specified state entities and other relevant federal, state, and local agencies, to develop a strategic plan for OWE developed or installed off the California coast in federal waters, and requires CEC to submit the strategic plan to the California Natural Resources Agency and the Legislature on or before June 30, 2023.

***California Coastal Commission (CCC).*** The Coastal Commission is an independent quasi-judicial state agency, and its mission statement states that it “is committed to protecting and enhancing California’s coast and ocean for present and future generations.” The Coastal Commission does so “through careful planning and regulation of environmentally sustainable development, rigorous use of science, strong public participation, education, and effective intergovernmental coordination.”

CCC implements the California Coastal Act and the federal Coastal Zone Management Act (CZMA). The California Coastal Act requires CCC review and authorization of all development within the state’s Coastal Zone. CCC’s coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridge line or five miles from the mean high tide line, whichever is less. For federal consistency, reviews under the CZMA, CCC reviews activities that affect the coastal zone, regardless of their location.

CCC’s coastal program uses a variety of planning, permitting, and non-regulatory mechanisms to manage coastal resources. CCC implements a permitting and planning program, including issuing coastal development permits (CDPs), reviewing local governments’ Local Coastal Programs (LCPs), reviewing appeals of locally permitted CDPs, and under the CZMA, federal consistency reviews of federal agency, federally permitted, and federally funded (to state and local government) activities. For the last of these (federal consistency reviews under the CZMA), the Commission’s standard of review is the enforceable policies of the CCMP, found in Chapter 3 of the Coastal Act.

The CZMA gives authority to CCC to review and authorize activities in federal waters. review of federal activities or permits outside of the coastal zone, including offshore wind projects, that could have an effect on the state's coastal resources; and is the only state agency with the authority to review and authorize activities in federal waters under the federal CZMA.

CCC reviewed BOEM's potential lease sales for Humboldt County (April 2022) and San Luis Obispo County (May 2022) and concurred in the federal consistency determination with the CCMP. CCC's concurrence covers lease and lease exploration activities.

Development activities in the coastal zone generally require a costal development permit from the CCC or from a local government with a local coastal program certified by the CCC. Development is broadly defined to include, among other things, the construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters. Coastal Act policies are the standards the CCC uses to determine the permissibility of proposed development subject to its jurisdiction.

Existing Coastal Act policies specifically address industrial development in the coastal zone, and encourage their development within existing sites, as provided. Coastal Act policies authorize permitting new industrial development if certain conditions are met, such as an alternative location is not feasible or more environmentally damaging, even if other Coastal Act polices are not complied with. Existing override policies guide permitting of marine terminals for tankers, oil and gas development in the coastal zone, including offshore oil development, new or expended refineries, and the construction of new thermal electric generating plants, among other things.

*Ocean Protection Council (OPC).* OPC advises the Governor and the Legislature on ocean and coastal issues and supports assessing the impacts of offshore wind to marine life, fisheries, tribal and cultural resources, and local economies. OPC's *Strategic Plan to Protect California's Coast and Ocean 2020-2025* includes a goal to support sustainable commercial OWE development.

*State Lands Commission (SLC).* SLC manages lands owned by the state, including navigable waterways and submerged lands up to three nautical miles offshore. SLC considers applications for leases to use state lands, such as applications for offshore wind development in state waters.

SLC is vested with jurisdiction over certain public and sovereign lands, including tidelands and submerged lands. SLC administers these lands pursuant to statute and the public trust doctrine, a common law doctrine which, among other things, provides for the protection of maritime or water-dependent commerce.

SLC is authorized to enter into leases for commercial, industrial, and recreational purposes, among other things. Each form of lease shall contain such terms and conditions as SLC deems to be in the best interests of the state.

*California Department of Fish and Wildlife (CDFW).* CDFW has jurisdiction over conservation, protection, and management of fish, wildlife, native plants, and habitats necessary for biologically sustainable populations of species. CDFW is also responsible for marine biodiversity protection in the state's coastal marine waters. The Governor's January Budget proposal for 2023-24 includes 25 permanent positions and \$6.4 million for permitting energy projects, which helps prevent the mission level gaps in the most under resourced service areas identified in the Service-Based Budget Final Report from growing larger.

**2021-22 Budget Act: Clean Resilient Energy Expenditure Plan.** As part of the Administration's Clean Resilient Energy Expenditure Plan, approximately \$20 million was appropriated for an interagency approach to OWE:

- *\$6.5 million to OPC, CCC, and CDFW for interagency offshore wind environmental analyses.* In March 2021, the Biden Administration announced a nationwide goal of 30 gigawatts of offshore wind by 2030. Developers hope to move through the permitting, procurement, and transmission milestones quickly enough to qualify for the Investment Tax Credit (ITC), which requires that they spend five percent of upfront project cost by December 2025. To meet the ITC deadline, environmental analyses must be prepared with BOEM, CDFW, and CCC, the latter of which cannot collect fees for this first-of-a-kind review process. The resources provided were meant to ensure that the initial environmental assessments of OWE establish a foundation for moving forward with OWE and protect the marine and coastal environment. This funding was meant to accelerate environmental assessment of potential offshore wind areas off the state's coast such that the state would be positioned to evaluate proposed lease areas in a timely and sufficient manner, while positioning the potential projects to be able to complete the permitting process on time to qualify for the ITC. In coordination with CEC, OPC, CCC, and CDFW conduct environmental assessments that determine if floating offshore wind development would threaten coastal marine ecosystems. This includes assessing the impacts to the fishing industry and tribal communities.
  - *OPC (\$2.125 million):* The resources for environmental assessments will fulfill the state's role in the federal leasing process. The assessments supported by these resources build upon the already \$1 million in environmental assessments funded by the OPC and includes assessments of marine life, fisheries, cultural resources, and recreation.
  - *CCC (\$0.875 million):* The resources support a senior environmental scientist to synthesize information from OPC's environmental assessments and other studies to inform a comprehensive siting-level analysis of potential impacts to coastal resources from offshore wind development in the North and Central Coast. This analysis is included in CCC's federal consistency review of BOEM's proposed wind energy lease areas.
  - *CDFW (\$3.5 million):* The resources support scientific and legal staff that provide information on potential impacts to habitats, species, fisheries, ocean users, endangered species, and California Environmental Quality Act (CEQA) and the California Endangered Species Act (CESA) review. The resources also give the department the capacity needed to inform CCC's analysis of fishing information and data in their review of federal consistency with the Coastal Act.
- *\$2.2 million to CEC for OWE community outreach, engagement, and technical analysis.* The resources allow CEC to lead an outreach process, supported by consultants to work with stakeholder groups such as commercial fishers, tribal governments, and ports.
- *\$11 million to CEC for Humboldt offshore wind port investments.* Upgrades to the Humboldt port are necessary to any OWE project along the north coast. It is likely that this port will have a significant role to play for OWE projects along the central coast as well because of the availability of land around the port for storage, manufacturing and assembly. In recognition of the importance of this port, OPC funded a report assessing upgrades that would be needed at the port for OWE at various scales. In addition to the environmental and engineering work by Humboldt Bay Harbor, Recreation, and Conservation District (Harbor District), **the district has an application**

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for \$55 million in federal funding from the federal Department of Transportation. There is a 20 percent match requirement, and this funding provides for the Harbor District's match, including resources to complete additional environmental and engineering work.