

# Staff Report 64 (Informational)

Informational report on Offshore Wind Energy in California and Adjacent Federal Waters

## **PARTY:**

---

California State Lands Commission (Commission)

## **PURPOSE:**

---

To provide a status update on staff activities associated with offshore wind energy generation planning in federal and California waters, including the release of the Port Readiness Plan and the Workforce Development Readiness Plan, which will inform the AB 525 Strategic Plan for offshore wind energy development.

## **NEED FOR RENEWABLE ENERGY:**

---

Senate Bill 100 (De León, 2018) mandates that the State move away from reliance on fossil fuels and toward carbon-free sources of electricity. As such, electricity generated from offshore wind (OSW) turbines is expected to become an important component of the energy portfolios of the State of California and the U.S. federal government. Furthermore, OSW complements solar photovoltaic sources of electricity, as OSW's generation capacity increases in the evening while photovoltaic generation is diminishing.

It is worth noting that California's deep waters necessitate the use of floating foundations, rather than the fixed-bottom foundations used on the East Coast of the United States. The established nature of fixed foundation technology has been cited as one reason why the OSW industry was established earlier on the East Coast than on the West Coast.

## JURISDICTION AND REGULATORY AUTHORITY<sup>1</sup>:

---

The Submerged Lands Act of 1953 recognized the State's jurisdiction as extending to 3 geographical miles<sup>2</sup> offshore. Operations beyond 3 geographical miles fall under federal jurisdiction. OSW projects may span state and federal waters, with turbines located in federal waters and other components, such as transmission lines, being sited in state waters. In this case, a project would require both federal and state leases and permits corresponding to the location of the project component parts. These projects would also likely trigger review under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

### STATE

Established in 1938, **the Commission** manages roughly 4 million acres of tide and submerged lands and the beds of natural navigable rivers, streams, lakes, bays, estuaries, inlets, and straits. Within its land and resource management jurisdiction, the Commission acts as lessor and has the authority to negotiate, issue, amend, assign, or modify lease terms, and require bonding for projects. With respect to OSW projects, the Commission has jurisdiction and would issue leases for any components in state tide and submerged lands (i.e., power cables traversing state tide and submerged lands from federal OSW turbines to shore, or for OSW turbines on state tide and submerged lands).

The **California Coastal Commission (CCC)**, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone under the California Coastal Act. Under the federal Coastal Zone Management Act, the CCC also has authority to review projects in federal waters for consistency with the State's approved Coastal Management Program.

As a trustee agency, the **California Department of Fish and Wildlife (CDFW)** has jurisdiction over the conservation, protection, and management of fish, wildlife, and habitat necessary for the biologically sustainable populations of those species.

The **California Energy Commission (CEC)** is the State's primary energy policy and planning agency. The CEC has exclusive permitting authority for all thermal power

---

<sup>1</sup> Only the most actively involved state and federal agencies are described. For more comprehensive and detailed descriptions, please see the California Energy Commission's report "[Assembly Bill 525 Offshore Wind Energy Permitting Roadmap.](#)"

<sup>2</sup> The U.S. Supreme Court found that geographical and nautical miles are equivalent. (*United States v. California*, 574 U.S. 105, 135 S. Ct. 563 (2014).)

plants 50 megawatts or greater and was given new authority in 2022 to establish a certification program for certain types of energy facilities.

## **FEDERAL**

The federal **Bureau of Ocean Energy Management (BOEM)** is the lead federal agency for OSW leasing activities within the Outer Continental Shelf, the area beyond the State's 3-mile jurisdiction. For operations managed by the federal government, the **Bureau of Safety and Environmental Enforcement (BSEE)** is responsible for enforcing compliance with safety and environmental standards through regular inspections and other monitoring activities.

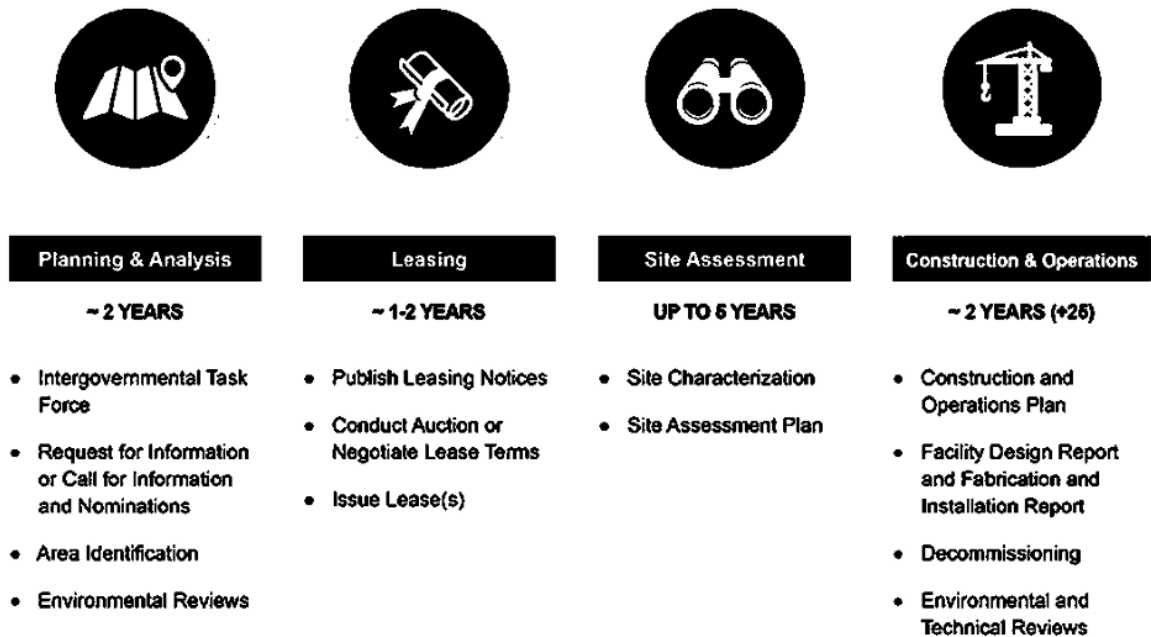
The **National Oceanic and Atmospheric Administration (NOAA)** houses several agencies with responsibilities related to OSW energy generation. One of the most prominent is the **National Marine Fisheries Service (NMFS; also referred to as NOAA Fisheries)**, which shares responsibility with other federal agencies for implementing the federal Endangered Species Act (ESA) and the Marine Mammal Protection Act. NMFS serves as the lead federal agency for implementation of the Magnuson-Stevens Fisheries Conservation and Management Act. If an OSW project was anticipated to adversely affect an ESA-listed species, marine mammals, or affect essential fish habitat, NMFS would have a regulatory role.

## **FEDERAL LEASING PROCESS:**

---

In 2016, BOEM and the State of California began working cooperatively on various aspects of OSW planning, as illustrated in Figure 1. Notable milestones included the formation of the [California Intergovernmental Renewable Energy Task Force](#) in 2016, followed by the development of a geospatial tool called the [California Offshore Wind Gateway](#) (Gateway). Agencies and stakeholders were able to use the Gateway to analyze factors such as wind speed and environmental conditions, and ultimately to confront trade-offs and make better informed decisions about the siting of OSW energy projects.

**Figure 1: BOEM’s Four-Phase Process for Energy Projects in the Outer Continental Shelf**

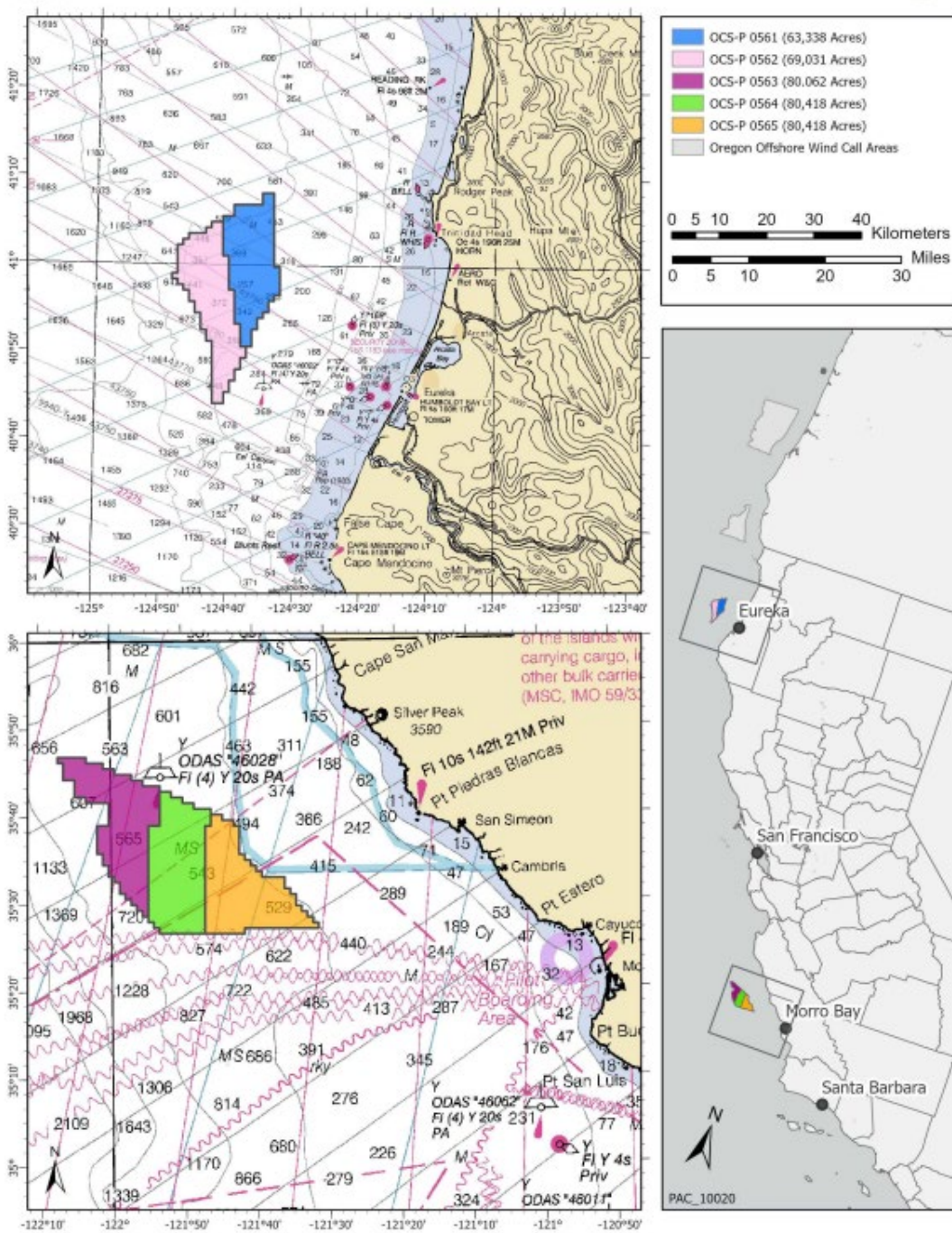


(Source: BOEM webpage, Regulatory Framework and Guidelines, <https://www.boem.gov/renewable-energy/regulatory-framework-and-guidelines>)

BOEM released a Call for Information and Nominations in 2016 and a subsequent Call in 2021 to receive public input on specific geographic areas for potential wind leasing, among other purposes. These Wind Energy Areas (WEAs), depicted in Figure 2, then became available for leasing through BOEM’s auction process in December 2022. The winners of the lease auctions are listed in Table 1 below; the leases for each WEA became effective on June 1, 2023<sup>3</sup>.

<sup>3</sup> For more information on state-imposed conditions on BOEM’s leases with the developers, please see <https://www.coastal.ca.gov/upcoming-projects/offshore-wind/>.

**Figure 2: The Northern California (aka Humboldt) and Central California (aka Morro Bay) Lease Areas.**



Source: BOEM's California Activities webpage, <https://www.boem.gov/renewable-energy/state-activities/california>)

**Table 1: Winners of the December 2022 BOEM lease auction with corresponding Wind Energy Area and lease area number.**

<b>WEA</b>	<b>Lease Area Number</b>	<b>Company</b>
Humboldt	OCS-PO561	RWE Offshore Wind Holdings, LLC
Humboldt	OCS-PO562	California North Floating, LLC
Morro Bay	OCS-PO563	Equinor Wind US, LLC
Morro Bay	OCS-PO564	Golden State Wind, LLC
Morro Bay	OCS-PO565	Invenergy California Offshore, LLC

The third phase of BOEM's leasing process is entitled Site Assessment and involves site characterization and assessment activities to inform the design of the proposed project. Within a year of securing a lease, developers must submit a site assessment plan that describes the initial activities necessary to characterize a lease site. Developers then have up to five years to conduct the site characterization and assessment studies and surveys.

The final phase is known as the Construction and Operations phase and involves the developer submitting a Construction and Operations Plan, which describes the specific project the developer intends to construct and operate. When BOEM receives a Construction and Operations Plan, it conducts a NEPA review for the specific project under consideration. Once NEPA is complete, BOEM issues a record of decision describing its approval, conditional approval, or denial of the project, and any required modification or mitigation. If the project is approved, the developer moves forward with construction and operations after the record of decision is released.

As noted earlier, projects located in federal waters will have component parts (e.g., transmission cables) located in state waters. Developers will need to apply to the Commission for a lease, and the project will be subject to environmental review under CEQA. Many industry and stakeholder groups have advocated for the state and federal government to work cooperatively on a joint NEPA/CEQA process to create clarity for the public and efficiency of analysis.

Following completion of CEQA documentation, the Commission would decide whether to certify the environmental documents and issue a lease for the components of the WEA projects in state waters. The developer will need to obtain



permits from several federal and state agencies. The CEC's [AB 525 OSW Energy Permitting Roadmap](#) contains a thorough discussion of issues surrounding permitting.

## **STATE POLICY AND STATUTORY FRAMEWORK:**

---

The Submerged Lands Act of 1953 confirmed California title to the lands and natural resources located within three geographical miles of the State's coastline. For purposes of the Act, the term "natural resources" includes oil, gas, and all other minerals. The Act addresses the rights and claims by the State to the lands and resources beneath navigable waters within its historic boundaries and provides for their development by the State.

### **RECENTLY ENACTED LEGISLATION**

#### **[Senate Bill 100 \(De León, 2018\)](#)**

In 2018, the California Legislature passed SB 100, officially called "The 100 Percent Clean Energy Act of 2018." This bill:

1. Sets a 2045 goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources — those such as solar and wind energy that do not emit climate-altering greenhouse gases.
2. Updates the State's Renewables Portfolio Standard to ensure that by 2030 at least 60 percent of California's electricity is renewable.
3. Requires the Energy Commission, Public Utilities Commission and California Air Resources Board to use programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter.

In 2021, the CEC published the [SB 100 Joint Agency Report](#), which reviews the ways in which California can "provide 100 percent of electricity retail sales and state loads from renewable and zero-carbon resources" by 2045. OSW production is cited as one of many pathways for the State to meet these goals.

### [Senate Bill 1020 \(Laird, 2022\)](#)

In 2022, the California Legislature passed SB 1020, which sets interim requirements for electricity sales on the way to achieving the 2045 target established by SB 100. SB 1020 requires that a combination of renewable and zero-carbon sources make up 90 percent of statewide electricity sales by 2030 and 95 percent by 2035. SB 1020 also requires that by 2035, renewable and zero-carbon sources supply 100 percent of the electricity used to serve state agencies.<sup>4</sup>

### [Assembly Bill 525 \(Chiu, 2021\)](#)

In 2021, the California Legislature passed [AB 525 \(Chiu\)](#), which requires the CEC, in coordination with other state agencies to:

1. Evaluate and quantify the maximum feasible OSW energy generation capacity in waters off the California coast.
2. Establish OSW planning goals for 2030 and 2045.
3. Coordinate with specified state and local agencies to develop a five-part strategic plan for OSW development off the California coast in federal waters and submit it to the Natural Resources Agency and the Legislature by June 2023.

Over the past two years, Commission staff has worked closely with CEC staff and other partner agencies on various aspects of this legislation, details of which are further outlined in the next section.

## **IMPLEMENTATION OF ASSEMBLY BILL 525:**

### **Maximum Feasible Offshore Wind Energy Generation and 2030/2045 Planning Goals**

In August 2022, the CEC published the report "[Offshore Wind Energy Development off the California Coast: Maximum Feasible Capacity and Megawatt Planning Goals for 2030 and 2045](#)," which established OSW energy generation targets of 2 to 5 gigawatts by 2030 and 25 gigawatts by 2045. This report indicated that the publication of the Strategic Plan could affect both the maximum feasible OSW energy generation, as well as these OSW generation targets. According to the report, these targets were primarily based on the following criteria:

---

<sup>4</sup><https://lao.ca.gov/Publications/Report/4660#:~:text=Senate%20Bill%201020%20sets%20interim,and%2095%20percent%20by%202035.>



- The findings of the [2021 SB 100 Joint Agency Report](#).
- The need to initiate long-term transmission and infrastructure planning to facilitate delivery of OSW energy to Californians.
- The need for reliable renewable energy that accommodates California's shifting peak load<sup>5</sup>
- The generation profile<sup>6</sup> of OSW off the California coast
- The potential impacts on coastal resources, fisheries, Native American and Indigenous peoples, and national defense, and strategies for addressing those potential impacts
- Any executive action from the Governor regarding OSW.

### Development of AB 525 Strategic Plan

For the past year, the CEC in partnership with other State agencies, including the Commission, CCC, and CDFW, has been working on the AB 525 Strategic Plan. The Strategic Plan is expected to be published in fall 2023, and will include the following five chapters:

- **Identification of sea space**, which will identify suitable sea space for WEAs in federal waters sufficient to accommodate the OSW planning goals for 2030 and 2045.
- **Economic and workforce developments and identification of port space and infrastructure**, which will contribute to a plan to improve waterfront facilities that could support a range of floating OSW energy development activities.
- **Transmission Planning**, which will assess the transmission investments and upgrades necessary to support the OSW planning goals for 2030 and 2045.
- **Permitting Roadmap**, which was also published as a [standalone report](#) in April 2023, and which describes timeframes and milestones for a permitting process for OSW energy facilities and associated electricity and transmission infrastructure off the coast of California.
- **Potential impacts on coastal resources, fisheries, Native American and Indigenous people, national defense and strategies for addressing potential impacts**, which will assess the potential impacts of OSW on coastal resources, fisheries, Native American and Indigenous peoples, and national defense, and strategies for addressing those potential impacts.

---

<sup>5</sup> Peak load is the highest level of demand on an electrical grid over a certain period of time.

<sup>6</sup> A generation profile indicates how much power can be produced during different times of a day, week, or year.

## **Commission Involvement in AB 525**

Producing the AB 525 Strategic Plan has required extensive coordination with federal, state, and local agencies, non-governmental organizations, the OSW industry, disadvantaged communities, tribal nations, fishing communities, and others. Commission staff has been and continues to outreach and engage with these stakeholders in coordination with the CEC.

In particular, Commission staff has attended in-person outreach meetings with fisheries communities in Morro Bay, Crescent City, Eureka, and Fort Bragg. At these meetings, CEC staff presented their work on the AB 525 Strategic Plan to identify the impacts of offshore wind development on California fishing communities and identify strategies to mitigate those impacts. Additionally, Commission staff has been involved in the launch of the Offshore Wind Tribal Working Group and is planning on attending several Intergovernmental Meetings in the late summer and early fall 2023.

Additionally, Commission staff has been participating in working groups and weekly coordination meetings with other state agencies related to ports, workforce development, sea space analysis, permitting, outreach, and other topics as needed.

## **PUBLICATION OF COMMISSION REPORTS:**

---

Commission staff has been most heavily involved with the strategic planning process related to assessing the current and future ability of California's ports to support the OSW industry, as well as assessing the State's current and future ability to provide a skilled, local workforce capable of supporting the OSW industry.

AB 525 requires the CEC, in coordination with other relevant state and local agencies, to develop a plan to improve waterfront facilities that could support a range of floating OSW energy development activities. Typically, those activities are categorized as follows:

- 1) Manufacturing/fabrication of component parts, which entails the manufacturing of the individual components of a wind turbine.
- 2) Staging and integration, which entails the assembly of the component parts into a functional wind turbine that will then be towed to an OSW area.
- 3) Operations and maintenance, which entails maintenance and repair activities on wind turbines.

The Commission has long-standing relationships with ports. For context, the California Legislature has enacted over 300 statutes that grant Public Trust lands to over 70 cities, counties, and port districts (referred to as grantees or trustees) to manage on the state's behalf for the people of California. The trustees must manage their granted lands in accordance with the uses permitted in each granting statute. Some grants authorize the construction of ports, harbors, airports, wharves, docks, piers, and other structures necessary to facilitate commerce and navigation. Other grants allow only visitor-serving recreational uses or open space. The Commission has residual oversight authority over these lands to ensure that ports comply with the Public Trust Doctrine and terms of their statutory trust grants. In the context of OSW, the Ports of Los Angeles, Long Beach, San Diego, San Francisco, Oakland, Richmond, Benicia, and Eureka are all located on granted lands. The Commission has long viewed collaboration and successful partnerships with ports as a foundation for serving the people of California and achieving strategic goals.

As part of developing a plan to improve waterfront facilities, the Commission contracted with a firm called Moffatt & Nichol to perform various analyses, which resulted in the publication of several reports: the "Alternative Port Assessment to Support Offshore Wind Final Assessment Report" (January 2023), the "Port Readiness Plan" (July 2023), and the "Workforce Development Readiness Plan" (June 2023). Funding for the Alternative Port Assessment report was provided in the 2021-22 state budget. Funding for the two additional plans was provided in the 2022-23 state budget. While these reports were published separately from the AB 525 Strategic Plan, their findings will be used to inform relevant chapters of the Strategic Plan.

### **Alternative Port Assessment to Support Offshore Wind**

In January 2023, the Commission published the "Alternative Port Assessment to Support Offshore Wind," which assesses the feasibility of constructing a new port along California's Central Coast to support the BOEM Morro Bay WEA. This report identifies potential alternative port locations between San Francisco and Long Beach and assesses the feasibility of potential port locations to determine the required infrastructure improvements and cost/schedule to develop sites for OSW.

The Alternative Port Assessment Report identified the following top three staging and integration sites and estimated costs, which are:

1. Port San Luis, \$2.4 billion
2. China Harbor, \$2.2 billion
3. Gato Canyon, \$2.5 billion

Three operations and maintenance sites (Port San Luis, Diablo Canyon, and Morro Bay) were also identified in BOEM's "[California Floating Offshore Wind Regional Ports Assessment](#)" study and are assessed in further detail in the Port Readiness Plan.

### **Port Readiness Plan**

The Port Readiness Plan, released in July, assesses the necessary investments in California ports to support OSW energy activities. The Plan considered the potential availability of land and water acreage at each seaport, including competing and current uses; infrastructure feasibility; access to deep water; bridge height restrictions; and potentially impacted natural and cultural resources, including coastal resources, fisheries, and Native American and Indigenous peoples.

Of the three types of activities taking place in ports, the Plan concluded that staging and integration sites are the most critical and that three to five of these sites are needed for the State to reach its goal of 25 GW of OSW generation by 2045. The siting of a staging and integration site is particularly challenging because it requires at least 80 acres and because the transport of a fully assembled turbine (approximately 1,100 ft in height) to the open ocean cannot be impeded by a bridge or other infrastructure. The Plan, which limited its analysis to port availability within California, found that the need for staging and integration sites can be met by existing ports.

Operations and maintenance are the next most critical activities; the plan concludes that nine to 16 berths will be required to support the required operations and maintenance vessels. Operations and maintenance activities will ideally take place as near as possible to wind projects.

The Plan concludes that having manufacturing/fabrication sites located in California is not necessarily required to complete OSW projects but having manufacturing/fabrication sites located in the state will maximize economic benefits and job creation. The necessary manufacturing/fabrication sites include:

- Two blade manufacturing/fabrication sites
- One tower manufacturing/fabrication site
- One nacelle assembly site
- Four foundation subcomponent manufacturing/fabrication sites
- Four foundation assembly sites

For the State to reach the 25 GW goal by 2045, \$11-\$12 billion (in U.S. 2023 dollars) needs to be invested to upgrade existing ports. Table 2 below summarizes port infrastructure and investments needed.

**Table 2: Potential port development summary.**

<b>Site Type*</b>	<b>Location</b>	<b>Assumed Ready Date</b>	<b>Cost ** (\$ in millions)</b>
S&I	Port of Humboldt	2028	\$700
S&I	Port of Humboldt	2031	\$700
S&I	Port of Long Beach	2031	\$1,100
S&I	Port of Long Beach	2035	\$1,100
MF (Foundation Assembly)	Port of San Francisco	2030-2032	\$520
MF (Foundation Assembly)	Port of Long Beach	2033	\$1,100
MF (Foundation Assembly)	Port of Long Beach	2035	\$1,100
MF (Foundation Assembly)	Port of Long Beach	2035	\$1,100
MF (Foundation Subcomponents)	Port of San Diego	2030-2035	\$275
MF (Foundation Subcomponents)	Bay Area Port	2030-2035	\$375
MF (Foundation Subcomponents)	Bay Area Port	2030-2035	\$350
MF (Foundation Subcomponents)	Bay Area Port	2030-2035	\$350
MF (Blades)	Bay Area Port	2030-2035	\$520
MF (Blades)	Bay Area Port	2030-2035	\$520
MF (Tower)	Port of Humboldt, Bay Area Port, or Port of Los Angeles	2030-2035	\$1,000
MF (Nacelle Assembly)	Bay Area Port	2030-2035	\$350

Site Type*	Location	Assumed Ready Date	Cost ** (\$ in millions)
Operations and maintenance	Assume 10 sites at \$50M each	2028-2045	\$500
Mooring Line & Anchor Storage	Port of Humboldt & Bay Area Port	2030-2035	<\$50
Electrical Laydown Sites	Port of Humboldt & Bay Area Port	2030-2035	<\$50
<b>Total</b>			<b>\$11,760</b>

(Source: Lim, J and Trowbridge, M. 2023. AB 525 Port Readiness Plan).

\*(S&I=staging and integration, MF=manufacturing fabrication)

\*\*Cost is in 2023 dollars. Escalation is not included. Estimate accuracy is -30% / +50%

### Workforce Development Readiness Plan

The Workforce Development Readiness Plan, released in June, provides recommendations for how to develop a local and skilled workforce that can support the necessary investments and activities for seaports identified in the Port Readiness Plan in anticipation of meeting OSW energy generation targets of 25 GW by 2045. This analysis assessed:

1. The workforce needed to work directly on OSW projects.
2. The workforce needed to perform necessary work to upgrade ports to ensure they can support OSW projects.
3. The workforce needed to upgrade the transmission network.

The Workforce Development Readiness Plan assesses future workforce needs to meet these goals, the current workforce capable of supporting these goals, and performs a gap analysis to identify the difference between the existing and needed workforces. This report makes five recommendations to successfully develop the workforce needed for California to meet its OSW generation goals:

1. Identify a primary state agency for the economic development of California's OSW industry.
2. Align workforce investments with regional port strategies as well as the strengths and needs of each region.
3. Develop training programs and curriculum sequentially, according to workforce demands.
4. Engage early with unions, trade organizations, universities, and technical schools.



5. Invest in research and innovation for manufacturing, assembly, staging, and port logistics.

## **OFFSHORE WIND GENERATION IN CALIFORNIA WATERS:**

---

California's efforts are currently focused on federal lease areas and preparation for when developers submit lease or permit applications for the state-waters components of these projects. However, some proposals have been made for floating wind turbines within state waters. CADEMO Corporation, Inc was one of two developers to submit lease applications to the Commission in 2019 for OSW demonstration projects exclusively within state waters off Santa Barbara County. CADEMO and the other project, submitted by BW-IDEOL, were described by the developers as demonstration projects.

Before embarking on the CEQA process and preparation of an Environmental Impact Report (EIR) for either the CADEMO or BW-IDEOL project, staff prepared a Preliminary Environmental Assessment (PEA) that described the project area, components of both projects, and a preliminary assessment of environmental impacts. Staff determined that using a combination of an "early public consultation" scoping approach with preliminary project impact assessment was the best approach to initiate the environmental review for these projects. Early public consultation included a series of meetings with specific stakeholder groups, such as the commercial fishing community, environmental organizations, and jurisdictional regulatory agencies to gather input and recommended resources for the CEQA process. During this time, staff also initiated outreach with Native American Tribes with cultural affiliation with the project area to establish ongoing consultation as part of the CEQA process. The PEA provides preliminary insight on affected resources and was intended for use by staff to help guide development of the Notice of Preparation (NOP) and the scoping process, as a precursor to preparation of an EIR. This expanded scoping and public outreach also helped generate ideas for project alternatives and increased transparency and public participation as compared to a typical EIR process.

BW-IDEOL withdrew its application in February 2023. Consequently, the Commission will prepare an EIR for the CADEMO project.

CADEMO Corp. has proposed a demonstration project that includes four floating wind turbines in state waters capable of generating 12 to 15 megawatts per unit. The project area is off the coast of Vandenberg Space Force Base (VSFB) in Santa Barbara County. The project area includes a proposed lease area offshore of VSFB for floating wind turbines and infrastructure, onshore transmission infrastructure within VSFB jurisdiction, the Port of San Francisco and Port of Los Angeles for construction of the floating wind turbines and staging activities, and the vessel transit routes between the ports and project lease area. Please see the Commission's webpage for more information on the CADEMO project ([Applications for Offshore Wind Energy Development in State Waters | CA State Lands Commission](#)).

The following information represents the timeline of key events of the application and environmental review process that staff has undertaken thus far for the CADEMO project:

- Application submitted: August 21, 2019
- Application deemed complete for processing: July 21, 2020
- Early public outreach and PEA preparation: 2020 through October 2021
- Tribal consultation initiated: January 2021
- Commission staff execute a Memorandum of Understanding with CCC staff for coordination and review of the EIR: April 2021
- Commission staff receive authorization from the Commission to proceed with the solicitation process to hire an environmental consultant to prepare the EIR: October 2021 ([Item 32, October 21, 2021](#))
- Commission staff execute a contract with Aspen Environmental Group for preparation of the EIR: May 3, 2023
- Commission staff coordination with VSFB personnel and the Department of the Air Force (federal lead agency) on preparation of a joint NEPA and CEQA document for the project: September 2022 through present.

## NEXT STEPS:

---

**AB 525 Strategic Plan:** The Strategic Plan is anticipated for public release in the fall of 2023, to be followed by a public workshop.

**BOEM's Site Assessment Phase:** As referenced in Figure 1 and discussed above, the third phase in BOEM's four phase process is called "Site Assessment." The developers are currently developing their Site Assessment Plans, which BOEM must approve before activities can begin. The Commission may receive an application for a geophysical survey permit to assess the siting of transmission cables or other components in state waters.

**BOEM Preparation of a Programmatic Environmental Impact Statement:** BOEM has signaled its intention to prepare a Programmatic Environmental Impact Statement (PEIS) beginning in fall/winter 2023. A PEIS, in contrast to a project-level EIS, evaluates the effects of broad proposals or planning level decisions. In this case, BOEM will evaluate the potential impacts of OSW deployment in all five lease areas. BOEM can use the PEIS findings to more efficiently describe in detail the impact in a project-level EIS (this is often referred to as “tiering”). BOEM has signaled their desire to work cooperatively with the State of California; coordination meetings are being scheduled presently.

**Port Facility Permitting/Leasing:** As noted earlier and described in the AB 525 Port Readiness Plan, ports will likely require infrastructure upgrades to serve as one of the three port types supporting the industry (1. staging and integration, 2. manufacturing/fabrication, and 3. operations and maintenance). According to the Port Readiness Plan, the first staging and integration site needs to be functional by the late 2020s, with subsequent sites coming online in the early 2030s in order to meet the State’s goals. It is anticipated that most, if not all, ports pursuing infrastructure upgrades are located on granted lands. In this scenario, the Commission will likely serve as a trustee or responsible agency under CEQA (rather than lead) and has no direct leasing authority.

By way of example, the Humboldt Bay Harbor, Recreation and Conservation District published a CEQA NOP on June 26, 2023, for their planned port upgrades. Commission staff intend to submit a comment letter by the deadline of August 25, 2023, noting areas of importance for the forthcoming CEQA analysis.

As additional port upgrade projects move forward, Commission staff will continue to draw attention to issues via the Commission’s role as trustee and responsible agency. In the unexpected scenario of port upgrades or port development occurring on state sovereign (i.e., ungranted) lands, the Commission will take a more direct role in environmental review and leasing.

**CADEMO:** Staff recently received an agreement from the U.S. Department of the Air Force to participate as the federal lead agency for NEPA conformance. This will allow the two agencies to proceed with releasing a NOP and Notice of Intent (NOI) for preparation of a joint EIS/EIR document, which is anticipated in 2023. In response to the agreement from the Department of the Air Force, a contract amendment will be required with the Commission's consultant, Aspen Environmental Group, to prepare the environmental document for NEPA conformance. Release of the NOP/NOI will start the scoping process for preparation of the draft EIS/EIR. Staff is also working with Aspen Environmental Group and the CADEMO team to draft the NOP, project description, the initial sections of the administrative draft EIR, and coordination/preparation of baseline information for affected resources.

## **OTHER PERTINENT INFORMATION:**

---

1. This report is consistent with the "Leading Climate Activism" and "Meeting Evolving Public Trust Needs" Strategic Focus Areas of the Commission's 2021-2025 Strategic Plan.

## **CONCLUSION:**

---

The AB 525 strategic planning process and the publication of the Port Readiness Plan and the Workforce Readiness Plan highlight the many challenges of meeting California's OSW energy generation targets. This work will involve considerable staff resources, coordination with state and federal agencies and developers, and outreach and engagement with stakeholders. Efficiency and agility at all levels of project planning and review will be necessary for the timely development of infrastructure to support California's 2030 and 2045 OSW targets.