

## **EXECUTIVE SUMMARY**

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California State Lands Commission (CSLC) staff is currently in the early stages of information gathering for two lease applications for offshore wind energy projects in State waters, located in the Pacific Ocean offshore Vandenberg Space Force Base (VSFB), formerly named Vandenberg Air Force Base (VAFB), in western Santa Barbara County. The Preliminary Environmental Assessment (PEA) for the Vandenberg Offshore Wind Energy Projects (Project or Projects) is an early information document to assist with the upcoming formal California Environmental Quality Act (CEQA) process, including the Notice of Preparation and scoping for the Environmental Impact Report (EIR). The PEA is not intended to include the content and in-depth analysis of an Initial Study, but rather to serve as an early foundation of information to feed into the EIR process.

The PEA provides background information on offshore wind development in California as well as the purpose, goals, and site selection factors for the Projects provided by the Project proponents. The PEA also includes information on staff's early government consultation, tribal government outreach and consultation, and stakeholder outreach process and the feedback received during the process. CSLC staff determined that because floating offshore wind is a new technology that has not yet been deployed on the U.S. west coast, it should seek early engagement and input via a comprehensive public and tribal government consultation process, which included a series of virtual public outreach meetings with public agencies, tribal government representatives, and key stakeholder groups, to gather information about concerns, suggestions, and data sources for the preliminary environmental review of both Projects. CSLC staff used that information to prepare this PEA for the proposed Projects.

The two Project Applicants (or proponents) are CADEMO Corporation (CADEMO), a renewable energy development company, and IDEOL USA Inc. (IDEOL), a floating offshore wind technology company and project developer. CADEMO proposes to install and operate four offshore floating wind turbines (FWT) that would be moored and anchored to the seafloor. CADEMO proposes to examine the performance of two distinct floating foundation platforms (barge and tension-leg) with their FWTs. The boundary of the CADEMO's proposed lease area encompasses approximately 6.2 square miles. However, CADEMO estimates that with further site design and planning, a considerably smaller lease area could be possible, which would be evaluated further as part of an EIR process. According to the application, each wind turbine would be capable of producing 12 to 15 megawatts (MW) of renewable electricity. A combined maximum of 60 MW could be generated from the proposed four wind turbines, which would be connected in a series with electrical inter-array cables.

IDEOL proposes to engineer, construct, install, operate, and ultimately decommission a floating offshore wind electrical generation demonstration project. This proposed Project

would consist of up to four floating Damping Pool ® barge concrete foundations moored to the seabed. Up to four offshore wind turbine generators would be installed on the floating foundations capable of producing up to 10 MW each. As proposed, the lease area would encompass approximately 5.2 square miles. Each FWT would be secured redundantly with six to eight mooring lines anchored to the seafloor. IDEOL is investigating two anchoring options for the proposed Project, including suction piles and drag embedment anchors. Medium-voltage electrical inter-array cables would connect the FWTs to one another.

Both Projects would have separate subsea static cables buried under the seafloor at a depth of approximately 5 feet from the southernmost wind turbine and connected to an onshore cable landing site connecting to proposed new electrical substations located south of Point Arguello within VSFB near the Vandenberg Dock. Each Project would have its own new substation. CADEMO proposes to construct a new onshore overhead transmission line for approximately 11 miles from the proposed new substation to the existing Surf Substation for connection to the California Independent System Operator (CAISO) power grid. IDEOL proposes constructing approximately 4.2 miles of new overhead transmission line connecting the proposed new substation to Substation N for electricity distribution to VSFB. IDEOL also proposes to connect to the CAISO power grid; additional information is required from IDEOL to determine the location and extent of additional infrastructure to connect to the CAISO system.

The PEA provides a preliminary description of both Projects with specific details of the wind turbine designs, sequencing of construction phases, operations and maintenance, and decommissioning. The PEA also includes a preliminary description of alternatives to the proposed Projects that are anticipated to be considered in an EIR for feasibility and further evaluation.

Based on the proposed descriptions of the Projects, CSLC conducted an initial assessment of potential environmental impacts to various affected resources in the Project areas, including the following:

- Aesthetics
- Air Quality and Greenhouse Gas Emissions
- Biological Resources – Marine
- Biological Resources – Terrestrial
- Cultural Resources
- Energy, Utilities, and Service Systems
- Geology, Soils, and Paleontological Resources
- Hazards and Hazardous Materials
- Hydrology, Water Quality, and Coastal Processes
- Land Use and Planning
- Noise
- Population and Housing
- Recreation
- Transportation

Each affected resource assessment includes a brief description of the environmental setting and identification of onshore and offshore Project components and potential impacts. These sections also provide a summary of the comments, suggestions, and concerns shared by participants in the focused outreach meetings and in written comments, information and data resources suggested by those participants, and a preliminary, qualitative assessment of the type and source of potential impacts on affected resources that would be analyzed in detail in an EIR.

CSLC staff believes that understanding how the proposed CADEMO and IDEOL Projects may affect communities and ocean users is a critical part of developing this early assessment. Further, the proposed Projects would be located within the geographic and cultural homelands of several California Native American Tribes who must be consulted pursuant to State law and the CSLC's adopted policy on Tribal Consultation. The final section of the PEA focuses on a preliminary assessment of considerations relating to communities and ocean users whose livelihoods and sense of social equity could be affected by the proposed Projects, including commercial and recreational fishermen, Tribes with cultural and geographic affiliation to the Project areas, and disadvantaged or vulnerable residents.

CSLC staff will continue to work with the Project proponents and engage with stakeholders and Tribes as evaluation of the Projects continues and through the CEQA process.