California Energy Commission
September 10, 2025, Business Meeting
Backup Materials for National Offshore Wind Research and Development Consortium

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution.
2. Project Summaries and California Environmental Quality Act (CEQA) Analysis for Proposed Subawards Under the National Offshore Wind Research and Development Consortium (NOWRDC), Agreement No. EPC-22-009.

RESOLUTION NO: 25-0910-XX

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: National Offshore Wind Research and Development Consortium

WHEREAS, pursuant to Public Resources Code section 25710 et seq. the State Energy Resources Conservation and Development Commission ("CEC") is authorized to establish and administer the Electric Program Investment Charge ("EPIC") Program; and

WHEREAS, in March 2023 CEC approved Agreement EPC-22-009 with National Offshore Wind Research and Development Consortium (NOWRDC) for a $5,000,000 grant to establish and manage a collaborative effort to develop solicitations that will support California's offshore wind deployment; and

WHEREAS, NOWRDC has established and is managing a collaborative CEC-NOWRDC Offshore Wind Initiative to inform the development of one or more solicitations to support California's offshore wind deployment and reflect the offshore wind priorities identified in the EPIC investment plan; and

WHEREAS, Under Agreement EPC-22-009, NOWRDC administered a competitive solicitation and selected sub-award grant recipients, leveraging federal and state funds and benefiting California ratepayers and has proposed to CEC sub-award grant projects for funding; and

WHEREAS, CEC staff has reviewed the sub-award grant projects NOWRDC has proposed, and recommends the following sub-award grant projects for funding:

1. RCAM Technologies, Inc. dba Sperra. This project, with $850,000 in CEC funding, will develop a 3D-printed, concrete floating construction station to assist the manufacturing, assembling, and launching of concrete floating offshore wind (FOSW) foundations.

2. Foss Maritime Company, LLC. This project, with $332,500 in CEC funding, will develop a concept-level design utilizing two extra-large ocean-going deck barges that can be joined and used as a floating dry dock to add flexibility for port facilities and accommodate various sized FOSW components.

3. Monterey Bay Aquarium Research Institute. This project, with $673,609 in CEC funding, will develop an environmental monitoring system for a FOSW farm that uses autonomous underwater vehicles (AUVs) equipped with sensor packages. The design will be developed with guidance from an advisory board composed of government and industry representatives.

4. Orpheus Ocean, Inc. This project, with $1,125,000 in CEC funding, will further develop an existing AUV for environmental monitoring around a FOSW farm by integrating and validating a sensor package. The AUV is intended to collect high resolution benthic images and data for biodiversity assessments and subsurface geohazards mapping.

5. Teledyne Marine. This project (NOWRDC partner-funded) will develop an environmental conditions monitoring system using both an AUV and an uncrewed surface vehicle equipped with sensors capable of collecting data at various depths surrounding FOSW turbines.

6. Geo SubSea, LLC. This project, with $1,125,000 in CEC funding, will develop a small, maneuverable uncrewed underwater vehicle (UUV) capable of deepwater seabed mapping and environmental data collection that is operational near FOSW structures.

7. The Candide Group LLC. This project, with $225,000 in CEC funding, will conduct laboratory testing on the technical feasibility of a bio-inspired UUV intended for subsea environmental monitoring and inspection in FOSW developments.

WHEREAS, CEC staff has reviewed the projects and determined that each project is exempt from the California Environmental Quality Act, as described in CEC staff's "Project Summaries and California Environmental Quality Act (CEQA) Analysis For Proposed Grant Subawards Under the National Offshore Wind Research and Development Consortium – CEC NOWRDC Offshore Wind Block Grant Program Memorandum ("Memorandum") dated August 22, 2025, a document that is included in the backup materials to this Business Meeting item.

THEREFORE, BE IT RESOLVED, that the CEC adopts CEC staff's CEQA findings contained in the Memorandum for the 7 sub-awarded projects; and

FURTHER BE IT RESOLVED, that the CEC approves the 7 sub-awarded projects for a total of $4,331,109 from NOWRDC's current EPC-22-009 agreement budget; and

FURTHER BE IT RESOLVED, that the CEC directs NOWRDC to execute grant agreements with the approved sub-awardees pursuant to the requirements of Agreement EPC-22-009 and subject to the condition that The Candide Group, LLC completes its registration with the California Secretary of State prior to NOWRDC's execution of its grant agreement.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on September 10, 2025.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

_____
Kim Todd
Secretariat

State of California **California Natural Resources Agency**

M e m o r a n d u m

To: Chair David Hochschild
Vice-Chair Siva Gunda
Commissioner Noemí Gallardo
Commissioner Nancy Skinner
Commissioner Andrew McAllister

Date: August 28,2025

From: Katherine Greenwald
Associate Energy Specialist

Telephone: (279) 226-1147

Subject: PROJECT SUMMARIES AND CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ANALYSIS FOR PROPOSED GRANT SUBAWARDS UNDER THE NATIONAL OFFSHORE WIND RESEARCH AND DEVELOPMENT CONSORTIUM - CEC-NOWRDC OFFSHORE WIND BLOCK GRANT PROGRAM

National Wind Technology Consortium, Inc. dba National Offshore Wind Research and Development Consortium (NOWRDC) was awarded a California Energy Commission (CEC) grant for $5M (Agreement EPC-22-009 approved in March 2023). The agreement was to establish and manage a collaborative effort to develop solicitations and award sub-grants that will support California's offshore wind deployment and reflect the offshore wind priorities identified in The Electric Program Investment Charge (EPIC) 2021-2025 Investment Plan.

NOWRDC held an open application period, Solicitation 4.0, in Q3 2024 and received 32 applications. As a result of the open application, 7 projects are being proposed at the September 10, 2025, CEC Business Meeting. These projects total $4.3M in subawards, funded from agreement EPC-22-009. These prior-approved NOWRDC grant funds will leverage another $2.8M in funding from The New York State Energy Research and Development Authority and Massachusetts Clean Energy Center for a total of $7.1M for all seven projects along with an additional $1.1M in committed match funding from applicants.

I am an Associate Energy Specialist in the Energy Research and Development Division of the CEC. I have reviewed the project information and CEQA compliance forms submitted by each applicant. Below are project summaries and my CEQA analysis for each proposed project:

1. **PROJECT TITLE: DESIGN, FABRICATION, AND PILOT TESTING OF A FLOATING CONSTRUCTION STATION** for **DOMESTIC MANUFACTURE, ASSEMBLY, LAUNCH, AND RETRIEVAL OF FLOATING WIND TURBINES**
   Prime Applicant, Location: RCAM Technologies, Inc. dba Sperra, CA
   Subcontractor(s), Location:
   - ABS, TX
   - Bardex Corporation, CA
   - Crowley, CA
   - WSP, NY
   - Tufts University, MA

   Project Summary: This project aims to address the U.S. offshore wind industry's challenges related to port infrastructure, vessel availability, and supply chain limitations by developing a Floating Construction Station, an innovative, modular, floating dock for manufacturing, assembling, and launching concrete floating offshore wind (FOSW) foundations. The project will design, fabricate, and demonstrate a scaled prototype at the Port of Los Angeles.

   CEQA Exemption Status: 14 CCR 15301

   Reason Why Project is Exempt: Cal. Code Regs, tit. 14, § 15301, Existing Facilities, provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible, or no expansion of use are exempt from CEQA. The project includes fabrication and temporary in-water testing of a subscale prototype concrete floating construction station at the existing and permitted laboratory environment at AltaSea in the Port of Los Angeles. No modifications to existing structures will be required and at the end of the project the concrete floating dock will be removed from the water, deconstructed and recycled. Currently, the same floating docks routinely moors barges and ships as normal operations. For this reason, the project will involve negligible or no expansion of use of the facility and is categorically exempt from CEQA under California Code of Regulations, title 14, § 15301.

2. **PROJECT TITLE: NOVEL LAUNCHING PLATFORM FOR FLOATING OFFSHORE WIND**
   Prime Applicant, Location: Foss Maritime Company, LLC, WA
   Subcontractor(s), Location:
   - ABS, TX
   - Heger Dry Dock, MA
   - Hockema Group, WA
   - Moffatt & Nichol, MA

   Project Summary: This project aims to address the U.S. offshore wind industry's challenges related to port infrastructure, vessel availability, and supply chain limitations by developing OmniDock™, an innovative, modular, floating dock for manufacturing, assembling, and launching concrete floating offshore wind (FOW) foundations. The project will design, fabricate, and demonstrate a scaled prototype at the Port of Los Angeles.

CEQA Exemption Status: 14 CCR 15306

Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA.
The project involves a paper study and technical feasibility study to develop a novel launching platform for floating offshore wind. Thus, this project consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.

3. **PROJECT TITLE: EVALUATING UNCREWED UNDERWATER VEHICLES FOR ENVIRONMENTAL MONITORING AROUND OFFSHORE WIND INFRASTRUCTURE**
Prime Proposer, Location: Monterey Bay Aquarium Research Institute, CA
Subcontractor(s), Location: None

Project Summary: A fleet of the Monterey Bay Aquarium Research Institute's (MBARI's) Long-Range Autonomous Underwater Vehicles will be combined with an underwater docking system that provides power and a communications gateway to realize a highly-configurable heterologous observing network capable of multiple modes of sensing and sampling. This system provides a means by which environmental monitoring around floating offshore wind development infrastructure could be accomplished absent sustained crewed vessel support and human-in-the-loop intervention. The project advisory board will guide the application of the network (sensors, samplers, data aggregation and presentation) to inform stakeholders of what is possible and develop a vision for recreating this system in a commercial setting.

CEQA Exemption Status: 14 CCR 15306

Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. The project includes information collection from operating a fleet of autonomous underwater vehicles in and around the Monterey Bay National Marine Sanctuary as part of an ongoing research study under a federal permit. Thus, this project consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.

4. **PROJECT TITLE: AN ULTRA SCALABLE AUV FOR DEEP BENTHIC ACCESS**
Prime Applicant, Location: Orpheus Ocean, Inc., MA
Subcontractor(s), Location:
- Integral Consulting Inc., CA

Project Summary: This project will enhance the Orpheus AUV with advanced autonomous payloads for critical seafloor data collection in the Canopy Wind floating offshore wind lease area. In collaboration with Integral Consulting, Orpheus Ocean will develop, integrate, and

validate an optical substrate profiling system for high-resolution benthic imaging, an eDNA sampler for biodiversity assessment, and a methane sensor for subsurface geohazard mapping. The payloads will be designed for seamless autonomous operation and tested in both controlled and open-water environments. Finally, the AUV and developed payloads will perform an extended commercial demonstration in an operational environment onboard a research vessel in the Canopy Wind lease area, in partnership with project developer RWE.

CEQA Exemption Status: 14 CCR 15306

Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. The project includes information collection from field testing and validation activities of the small, self-contained sensors and platforms for autonomous underwater vehicles near Morro Bay and Santa Barbara. All equipment will be removed upon completion of the field testing and no materials from the testing locations will be removed. Thus, this project consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.

5. **PROJECT TITLE: ENVIRONMENTAL MONITORING OF FLOATING OFFSHORE WIND FARMS USING AUTONOMOUS VEHICLES**
Prime Applicant, Location: Teledyne Marine, MA
Subcontractor(s), Location:
- Rutgers University, NJ

Project Summary: This project will use two separate autonomous marine vehicles to monitor environmental conditions around floating windfarm platforms. Surface monitoring will be conducted by an Uncrewed Surface Vehicle provided by Open Ocean Robotics – the DataXplorer which includes a meteorological sensor suite for wind speed and direction, air temperature and pressure, water temperature and depth, as well as a marine life monitoring package to include passive acoustic and eDNA sampling. Subsea monitoring will be accomplished down to 1000m using a pair of Teledyne Slocum autonomous underwater gliders which will host a set of physical ocean sensors, and marine biological sensors. Vehicles will be tracked and connected via acoustic modems.

CEQA Exemption Status: 14 CCR 15306

Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. The project includes information collection from operation and observations of an uncrewed underwater and surface vehicle for two weeks in federal waters offshore of Humboldt Bay. The area is outside any national marine sanctuaries. All equipment will be removed upon completion of the field testing and no materials from the testing locations will be removed. Thus, this project

consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.

6. **PROJECT TITLE: A SMALL, SCALABLE, HIGHLY MANEUVERABLE AND COST EFFECTIVE UUV SOLUTION FOR ACQUIRING ACCURATE ENVIRONMENTAL DATA WITHIN A FLOATING WIND FARM FOOTPRINT TO FULL PROJECT DEPTH**
Prime Applicant, Location: Geo SubSea, LLC, CT
Subcontractor(s), Location:
   - Lobster Robotics, The Netherlands

   Project Summary: This project aims to develop Recon, a compact, untethered uncrewed underwater vehicle (UUV) designed for deepwater seabed mapping and environmental data collection. Featuring pressure-tolerant electronics (PTE), obstacle avoidance, and a full-depth rating up to 3,000 meters, Recon enables systematic, high-quality data collection while operating near floating wind structures. Its small size and ability to deploy from existing offshore wind vessels (CTVs or fisheries vessels) reduce reliance on specialized ships, cutting operational costs and emissions.

   CEQA Exemption Status: 14 CCR 15306

   Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. The project includes information collection from autonomous underwater vehicles (AUV) field demonstrations and testing offshore from Ventura and Santa Barbara, California. Test sites are planned for north of Santa Barbara Channel around some of the oil platforms, on seabed slopes south of Anacapa Island, and in the Santa Cruz Basin south of Santa Cruz Island. The AUV devices have navigation and conductivity, temperature, and depth sensors with high resolution 4K cameras for seafloor image acquisition but do not include any low frequency sonar systems. Thus, this project consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.

7. **PROJECT TITLE: BIO-INSPIRED RESIDENT UNDERWATER VEHICLE FOR FISHERY SURVEYS**
Prime Applicant, Location: The Candide Group, LLC, CA
Subcontractor(s), Location:
   - Loggerhead Instruments, FL
   - University of California Berkeley, CA
   - University of Wisconsin – Madison, WI
   - Dolphin Labs, CA

   Project Summary: This project aims to develop, validate, and commercialize an advanced bioinspired uncrewed underwater vehicle (UUV) for subsea environmental monitoring and inspection in offshore wind developments with a focus on technical feasibility, including

concept development, hydrodynamic simulations, energy-efficient navigation, hardware prototyping, and laboratory testing.

CEQA Exemption Status: 14 CCR 15306

Reason Why Project is Exempt: California Code of Regulations, title 14, §15306, Information Collection, provides that projects which consist of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. The project includes information collection limited to design, modeling, simulation and lab-based testing which have no physical impacts on the environment and preparation of a feasibility study. Thus, this project consists of basic data collection, research, and evaluation activities and is categorically exempt from CEQA under California Code of Regulations, tit 14, §15306.