

DOCKETED

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| Docket Number: | 19-ERDD-01 |
| Project Title: | Research Idea Exchange |
| TN #: | 235189 |
| Document Title: | Notice of Scoping Workshop |
| Description: | The California Energy Commission (CEC), will host a remote-access workshop to seek input on a draft research concept regarding development and testing of floating offshore wind energy technology. The objective of the research concept is to increase readiness, reliability, and competitiveness, while lowering the cost and the environmental and wildlife impacts of floating offshore wind energy projects in California. |
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| Submission Date: | 10/9/2020 12:09:48 PM |
| Docketed Date: | 10/9/2020 |

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Sacramento, California 95814Main website: www.energy.ca.gov

CEC-70 (Revised 5/2020)



IN THE MATTER OF:

Solicit Public Comments on CEC Draft
Research Concept "Advance to Next-
Generation Offshore Wind Energy Technology"

Docket No. 19-ERDD-01

NOTICE OF REMOTE-ACCESS
WORKSHOP

RE: Draft Research Concept

Notice of Scoping Workshop
October 22, 2020
10:00 a.m.
Remote Access Only

The California Energy Commission (CEC), will host a remote-access workshop to seek input on a draft research concept regarding development and testing of floating offshore wind energy technology. The objective of the research concept is to increase readiness, reliability, and competitiveness, while lowering the cost and the environmental and wildlife impacts of floating offshore wind energy projects in California.

The workshop will be held remotely, consistent with Executive Orders N-25-20 and N-29-20 and the recommendations from the California Department of Public Health to encourage physical distancing to slow the spread of COVID-19. The public is able to participate in the workshop consistent with the direction in these Executive Orders. Instructions for remote participation are below.

Agenda

CEC staff is seeking input from research community stakeholders and other interested parties to inform the direction and scope of a draft research concept. The proposed research concept focuses on supporting the development and pilot demonstration of innovative floating offshore wind component(s), tool(s), and installation processes that advance the readiness, reliability, and cost-competitiveness of floating offshore wind in California, while increasing the understanding of how floating offshore wind installation and operation may affect sensitive species and habitats. The specific objectives of the draft research concept are the following:

1. Innovate manufacturing/assembly processes and materials for floating offshore wind component(s) (for example, substructure, foundation and support substructure) and demonstrate at a pilot scale to validate the expected benefits, such as reducing the

levelized cost of energy and improving assessments of potential environmental and wildlife impacts of floating offshore wind projects.

2. Test and validate a monitoring system for floating offshore wind applications that support reduction of installation and operation and maintenance (O&M) costs and increase commercial readiness.
3. Develop tools or methods for assessing and monitoring the environmental impacts related to manufacturing, assembly, and operation of floating offshore wind component(s), such as impacts to marine biodiversity or habitat, currents, and coastal upwelling (process in which deep, cold water rises toward the surface).
4. Build a consortium that works on the development of parallel solutions for technical and environmental challenges that facilitate the deployment of cost-effective and environmental-friendly floating offshore wind projects in California.

The draft research concept contributes to implementation of the 2018-2020 Electric Program Investment Charge (EPIC) Triennial Investment Plan and transition to a new EPIC investment plan.

This workshop will:

1. Present initial ideas on the direction and scope of a draft research concept.
2. Introduce a set of questions to guide the discussion on the draft research concept.
3. Offer stakeholders the opportunity to provide input (oral and/or written comment) regarding the direction and scope of the draft research concept, as well as processes to facilitate production of actionable research.

A detailed [meeting agenda](#) will be posted prior to the workshop at <https://www.energy.ca.gov/event-calendar>.

Background

California's passage of Senate Bill (SB) 100 continues to change the landscape for clean energy development in the state by increasing demand for new, clean energy generation sources, such as offshore wind energy. The state has an estimated 112 GW of accessible offshore wind resources, with the vast majority of offshore wind resource potential (96 percent) located in water deeper than 60 meters, where traditional offshore wind technologies are not suitable. California faces multiple technical challenges in the implementation of offshore wind projects, including limited information from the handful of floating offshore wind (FOSW) demonstrations around the globe, the depth of the ocean offshore California, the cost of floating technology, and potential impacts on species, habitats, and other ocean uses.

A [recent study](#) (<https://www.energy.ca.gov/programs-and-topics/topics/renewable-energy/offshore-renewable-energy/offshore-wind-research-and>) funded by the CEC identified that research opportunities to overcome the FOSW challenges are focused on advancing floating technologies, such as substructure, anchor, mooring lines, and cabling webs; developing advanced

remote monitoring systems for proactive O&M; developing manufacturing and assembly solutions; and advancing technologies to reduce wildlife impacts, including smart curtailment and deterrents.

A CEC-funded [research roadmap](https://ww2.energy.ca.gov/2020publications/CEC-500-2020-062/CEC-500-2020-062.pdf) (https://ww2.energy.ca.gov/2020publications/CEC-500-2020-062/CEC-500-2020-062.pdf) on utility-scale renewable energy technologies also identified research opportunities to facilitate the development of cost-competitive FOSW projects in California.

Prioritized FOSW research opportunities include: the development and demonstration of floating offshore platform manufacturing approaches; and the development of innovative solutions for port infrastructure readiness for FOSW deployment.

Innovation on floating substructure and foundation design, installation, and inspection and monitoring are identified as key in reducing FOSW's levelized cost of energy. Literature estimates that manufacturing of the floating substructure, turbine and anchor make up the main portion of the life cycle cost of a FOSW project, followed by O&M, and installation costs. Average capital expenditure per project breaks down as follows: the substructure and foundation contribute 27 percent; the turbine approximately 25 percent, electrical installation 19 percent; assembly and installation 9 percent; and the remaining expenditure totals 20 percent.

Public Comment

Oral Comments:

Staff will accept oral comments at the end of the workshop. Comments may be limited to three minutes or less per speaker and one person per organization. If participating via Zoom's online platform, use the "raise hand" feature so the administrator can announce your name and unmute you. If you are participating by telephone, press *9 to "raise your hand" and *6 to mute/unmute. See detailed instructions below.

Written comments:

Written comments must be submitted to the Docket Unit by **5:00 p.m. November 13, 2020**. Written and oral comments, attachments, and associated contact information (including address, phone number, and email address) will become part of the public record of this proceeding with access available via any internet search engine.

The CEC encourages use of its electronic commenting system. Visit the [CEC e-commenting system](https://www.energy.ca.gov/proceedings/e-filing-and-e-commenting) at <https://www.energy.ca.gov/proceedings/e-filing-and-e-commenting>, which links to the comment page for this docket.

At the "Add Comment" page, enter your contact information and a comment title describing the subject of your comment(s). Comments may be included in the "Comment Text" box or attached as a downloadable, searchable document in Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf) file. The maximum file size allowed is 10 MB.

Written comments may also be submitted by email. Include docket number 19-ERDD-01 and "CEC Draft Research Concept" in the subject line and email to docket@energy.ca.gov.

A paper copy may also be sent to:

California Energy Commission
Docket Unit, MS-4
Docket No. 19-ERDD-01
1516 Ninth Street
Sacramento, California 95814-5512

Public Advisor and Other CEC Contacts

The CEC's Public Advisor's Office provides the public with assistance in participating in CEC proceedings. For information on participation or to request interpreting services or reasonable accommodations, please contact Public Advisor Noemí O. Gallardo at publicadvisor@energy.ca.gov, by phone at (916) 654-4489, or toll free at (800) 822-6228. Requests for interpreting services and reasonable accommodations should be made at least five days in advance. The CEC will work diligently to accommodate all requests.

Media inquiries should be directed to mediaoffice@energy.ca.gov or (916) 654-4989.

General and technical inquiries should be directed to Silvia Palma-Rojas at silvia.palma-rojas@energy.ca.gov.

Remote Attendance

Participants may join scheduled panel sessions by clicking on the links below. The meeting may also be accessed at [Zoom](https://join.zoom.us) (<https://join.zoom.us>) by entering the unique Meeting ID and password for each session listed below. To comment, dial *9 to "raise your hand." To participate by telephone, see instructions below.

Join Via Computer: Follow the link below and the instructions on your screen to join the Zoom Meeting.

[Joint Zoom Meeting](#)

Meeting ID: 945 9580 3237

Meeting password: nextwind

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Join Via Telephone Only:

Dial by your location

(888) 475-4499 US Toll-free

(877) 853-5257 US Toll-free

Meeting ID: 945 9580 3237

International numbers available: <https://energy.zoom.us/j/acc84wXezK>.

For comments: Dial *9 to "raise your hand" and *6 to mute/unmute your phone line.

If you experience difficulties, you may contact Zoom at (888) 799-9666 ext. 2, or the Public Advisor's Office via email or phone.

Availability of Documents

Documents and presentations for this meeting will be available at [Docket Unit 19-ERDD-01: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?doctetnumber=19-ERDD-01](https://efiling.energy.ca.gov/Lists/DocketLog.aspx?doctetnumber=19-ERDD-01)

List Servers:

OffshoreEnergy listserv

Wind listserv

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Research listserv

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