

**DOCKETED**

<b>Docket Number:</b>	19-ERDD-01
<b>Project Title:</b>	Research Idea Exchange
<b>TN #:</b>	224959
<b>Document Title:</b>	Notice of Staff Workshop - Next Generation Wind Energy Technologies and their Environmental Implications
<b>Description:</b>	California Energy Commission staff will conduct a workshop to discuss research needs and opportunities for the next generation of wind energy technologies. October 25, 2018
<b>Filer:</b>	Silvia Palma-Rojas
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	10/11/2018 2:16:17 PM
<b>Docketed Date:</b>	10/11/2018



In the matter of:	)	Docket No. 19-ERDD-01
	)	
Research Idea Exchange	)	WORKSHOP RE:
	)	NEXT GENERATION WIND
	)	ENERGY TECHNOLOGIES AND
	)	THEIR ENVIRONMENTAL
	)	IMPLICATIONS

---

## Notice of Staff Workshop Next Generation Wind Energy Technologies and their Environmental Implications

California Energy Commission staff will conduct a workshop to discuss research needs and opportunities for the next generation of wind energy technologies.

**October 25, 2018**

1:00 PM

CALIFORNIA ENERGY COMMISSION

1516 Ninth Street

1st Floor, Art Rosenfeld Hearing Room

Sacramento, California

(Wheelchair Accessible)

Remote Access Available by Computer or Phone via WebEx™  
(Instructions below)

### Background

The 2018-2020 Electric Program Investment Charge (EPIC) Triennial Investment Plan identified the need to advance manufacturing techniques of wind turbine components for larger turbines; introduce new composite material for taller land-based wind towers and larger blades; and develop and deploy a cost-effective real-time remote monitoring and control system for offshore and land-based wind turbines (Strategic Initiative 4.2.1 and 4.2.2). Strategic Initiative 7.3.1 called for investigating the risks to sensitive species and habitats from renewable energy projects in California, including offshore wind.

Advanced land-based wind energy technology with taller towers and larger blades will allow California to reach stronger, more consistent winds found high above the ground. This could unlock wind energy's potential across an additional 24,700 square miles, with a potential capacity of 128 gigawatts (GW). California also has a technical resource

capacity of 159 GW of offshore wind. To enable the development and deployment of offshore wind energy in California, marine environmental research needs to be conducted to provide information that will assist in developing, planning, and permitting offshore wind projects. Similarly, instrumentation and monitoring systems on environmental responses and technology performance can provide an opportunity for improving operational efficiencies and cost competitiveness of offshore wind farms in California.

The Energy Commission is considering releasing a solicitation to address the engineering challenges associated with the next-generation wind energy technologies, and to develop monitoring systems that increase the cost-competitiveness of wind energy generation and allow broader geographic deployment of wind power in California.

This workshop will gather information and feedback from stakeholders and experts about key challenges associated with the design, manufacturing, and deployment of larger rotors and blades, taller land-based wind towers, cost-effective real-time monitoring control systems, and research to survey and monitor environmental responses to offshore wind energy projects in California.

## **Agenda**

Discussion of the following topics is planned:

1. Advanced manufacturing and installation approach for utility-scale land-based wind turbine components
2. Real-time remote monitoring systems for offshore and land-based wind technologies
3. Next-generation land-based wind energy technologies and identification of pathways to successful implementation of taller and larger wind energy technology in California
4. Advanced implementation of cost-effective instrumentation, and real-time wireless remote monitoring and control systems to extend wind turbine lifetime, reduce levelized cost of energy, and increase productivity of offshore wind energy projects
5. Research needs, performance metrics, and economic viability to support development and deployment of next-generation wind energy technologies in California
6. Environmental and land use solutions to facilitate the transition to a decarbonized electricity system, including wind energy
7. Ongoing offshore environmental research and gaps relevant to planning and operations of offshore wind energy

## **Public Comment**

**Oral comments.** Staff will accept oral comments during the workshop. Comments may be limited to three minutes per speaker. Any comments may become part of the public record in this proceeding.

**Written comments.** Written comments should be submitted to the Dockets Unit by **5:00 p.m. on November 1, 2018**. Written comments will be also accepted at the workshop, however, the Commission may not have time to review them before the conclusion of the meeting.

Please note that your written and oral comments, attachments, and associated contact information (e.g. your address, phone number, email address) become part of the viewable public record. This information may become available via Google, Yahoo, and any other search engines.

The Energy Commission encourages use of its electronic commenting system. Visit the website at <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-ERDD-01>.

This link will take you to the page for adding comments to this docket. Please enter your contact information, any organization name, and a comment title describing the subject of your comments. You may include comments in the box titled "Comment Text" or attach a file in a downloadable, **searchable format** in Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf). Maximum file size is 10 MB.

Written comments may also be submitted by emailing them (include docket number 19-ERDD-01) to the Docket Unit at [docket@energy.ca.gov](mailto:docket@energy.ca.gov).

If you prefer, you may send a paper copy of your comments to:

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

## **Public Adviser and Commission Contacts**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, at [PublicAdviser@energy.ca.gov](mailto:PublicAdviser@energy.ca.gov) or (916) 654-4489, or toll free at (800) 822-6228.

If you have a disability and require assistance to participate, please contact Erica Rodriguez at [erica.rodriguez@energy.ca.gov](mailto:erica.rodriguez@energy.ca.gov) or (916) 654-4314 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov) or (916) 654-4989.

If you have questions on the subject matter of this meeting, please contact Silvia Palma-Rojas at [Silvia.Palma-Rojas@energy.ca.gov](mailto:Silvia.Palma-Rojas@energy.ca.gov) or (916) 327-1716.

## Remote Attendance

You may participate in this meeting through WebEx, the Energy Commission's online meeting service. Presentations will appear on your computer screen, and you may listen to audio via your computer or telephone. Please be aware that the meeting may be recorded.

VIA COMPUTER: Go to <https://energy.webex.com/ec>. If this event is shown on the list of events, click on its "Join" link. If it is not listed, click the "Unlisted Events" link on the left of your screen and enter the meeting number **926 036 514**. When prompted, enter your name and email address. No meeting password is needed.

The "Join Conference" menu will offer you a choice of audio connections:

1. To call into the meeting: Select "I will call in" and follow the on-screen directions.
2. International Attendees: Click on the "Global call-in number" link.
3. To have WebEx call you: Enter your phone number and click "Call Me."
4. To listen over the computer: If you have a broadband connection, and a headset or a computer microphone and speakers, you may use VoIP (Internet audio) by going to the Audio menu, clicking on "Use Computer Headset," then "Call Using Computer."

VIA TELEPHONE ONLY (no visual presentation): Call 1-866-469-3239 (toll-free in the U.S. and Canada). When prompted, enter the unique meeting number above. International callers may select their number from <https://energy.webex.com/energy/globalcallin.php>.

VIA MOBILE DEVICES: Access to WebEx meetings is now available from your mobile device. To download an app, go to [www.webex.com/products/web-conferencing/mobile.html](http://www.webex.com/products/web-conferencing/mobile.html).

Please be aware that WebEx audio and on-screen activity may be recorded. WebEx Technical Support is available at 1-866-229-3239.

## Muting

We greatly appreciate your cooperation in reducing unwanted noise on the audio connection by muting your line when you are not speaking. Mute your line rather than placing your phone on hold. Using WebEx, you may mute yourself by right clicking on your name in the panelists or attendees list and selecting 'Mute.' If you are only using a telephone connection, press "\*6" once to mute and again to unmute.

## Availability of Documents

Documents and presentations for this meeting will be available online at

<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-ERDD-01>

Mail Lists:  
EPIC listserv; Research listserv