

DOCKETED

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Project Title:	Integrated Resource Planning
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In the matter of,)	Docket No. 17-IEPR-07
)	
<i>2017 Integrated Energy Policy Report</i>)	JOINT AGENCY WORKSHOP
<i>(2017 IEPR)</i>)	
)	RE: Need for Flexibility in the Electricity
)	System

Notice of Joint Agency Workshop on the Increasing Need for Flexibility in the Electricity System

The California Energy Commission, the California Public Utilities Commission (CPUC), and the California Independent System Operator (California ISO) will jointly conduct a workshop to discuss the need for flexibility in the electricity system. Operational flexibility is needed to integrate increasing amounts of renewable generation and to adapt to other changes, including transportation electrification. The workshop is being conducted as part of the *2017 Integrated Energy Policy Report (IEPR)* proceeding.

The Lead Commissioner for the *2017 IEPR*, Robert B. Weisenmiller, will conduct the workshop jointly with the CPUC and California ISO. Other Commissioners at the Energy Commission may also attend and participate in the workshop, as well as Commissioners from the CPUC. A quorum of Commissioners from the Energy Commission and/or the CPUC may be in attendance, but no votes will be taken.

Friday, May 12, 2017
 9:30 a.m.
 CALIFORNIA ENERGY COMMISSION
 1516 Ninth Street
 First Floor, Art Rosenfeld Hearing Room
 Sacramento, California
 (Wheelchair Accessible)

Remote Access Available by Computer or Phone via WebEx™
 For details, go to www.energy.ca.gov/webcast.

Background

In 2015, Governor Edmund G. Brown Jr. signed Executive Order B-30-15, establishing a statewide goal to reduce greenhouse gas emissions 40 percent below 1990 levels by 2030. Senate Bill 32 (Pavley, Chapter 249, Statutes of 2016) (SB 32) put this statewide goal into law. To help reduce greenhouse gas emissions, the Governor called for California to increase to 50 percent the

electricity derived from renewable sources by 2030. One of the provisions of the Clean Energy and Pollution Reduction Act of 2015 (de León, Chapter 547, Statutes of 2015) (Senate Bill 350) is to increase the state's Renewables Portfolio Standard to require that 50 percent of California's electricity use be served with renewable energy resources by 2030, an increase from 33 percent by 2020.

As discussed in the *2016 IEPR*, renewable generation has grown tremendously in recent years, primarily from new wind and solar generation. California's success meeting a larger amount of its electricity needs with renewable resources is also bringing new challenges to maintaining the reliability of the electricity system. The variability in wind and solar generation creates large hourly increases and decreases in the amount of renewables that need to be integrated into the electricity grid. Integrating larger amounts of variable wind and solar generation requires more flexible resources to balance supply and demand.

Electrifying the transportation sector is another critical element of the Governor's efforts to reduce greenhouse gas emissions. With transportation accounting for about 37 percent of the state's greenhouse gas emissions in 2014 (the most recent data available) reducing emissions in the transportation sector is vital for meeting the state's climate goals. Governor Brown's Executive Order B-16-2012 encourages the use of zero-emission vehicles (ZEVs) in California and sets a long-term goal of reaching 1.5 million ZEVs on California's roadways by 2025. Provisions in Senate Bill 350 advance electrifying the transportation sector. Transportation electrification offers both opportunities to help manage the variability of renewable resources, and also another level of complexity and risk for grid operators.

The 2017 IEPR Scoping Order calls for exploring the operational issues associated with "integrating increasing amounts of variable renewable resources and electrifying the transportation sector. Various tools that could potentially be used to help maintain system reliability include: demand response; time-of-use retail rates; storage, including vehicle-to-grid; curtailment of over-generation; and enhanced ramping capability from conventional and renewable generation (the ability to rapidly increase or reduce generation depending on system needs). Further, an expanded Western Energy Imbalance Market for dispatch adjustments and a more regional market for day-ahead commitment and transmission planning, including expanding access to the Federal Columbia River Power System, could greatly enhance the flexibility needed to integrate increasing amounts of variable renewable resources. The state's portfolio of mitigation measures for integrating renewables could also include using excess renewable energy to power desalinization plants or for power-to-gas. Finally, the Energy Commission will explore the adequacy of price signals to encourage investment in alternatives to natural gas-fired ramping capabilities to help integrate renewables."

Agenda

The agenda includes California ISO staff presentations providing an overview of operational issues with integrating increasing amounts of renewable generation and potential tools for managing further growth. Representatives from the Natural Resources Defense Council and Bonneville Power Administration will discuss how regional coordination is an important part of the portfolio of options to enhance system flexibility. Panel discussions will address other tools for increasing system flexibility including demand response and storage, options for managing excess electricity such as power-to-gas and desalinization plants, and the availability of flexible capacity in

generation resources, both conventional and renewable. Panelists will include industry representatives, utilities, environmental organizations, and the California ISO.

A detailed schedule will be posted prior to the workshop at:
http://www.energy.ca.gov/2017_energypolicy/.

Public Comment

Oral Comments: Oral comments will be accepted during the workshop. Public comments may be limited to three minutes or less per speaker. Any comments will become part of the public record in the Energy Commission's IEPR proceeding.

Written Comments: Written comments must be submitted to the Dockets Unit by 5:00 p.m. on **May 25, 2017**. Written comments will also be accepted at the workshop; however, Energy Commission staff may not have time to review them before the conclusion of the workshop. All written comments will become part of the public record of this proceeding.

For the 2017 IEPR, the Energy Commission is using an electronic commenting system. Visit the website at http://www.energy.ca.gov/2017_energypolicy/ and click on the “**Submit e-Comment**” link in the “Proceeding Information” box. From the drop down menu, please select the appropriate docket number. For this workshop, please select docket **17-IEPR-07 – Integrated Resource Planning**.

This will take you to the page for adding comments to that docket. Please enter your contact information and comment title. Under “subject(s),” select “**IEPR 2017-05-11 Workshop**” and “**IEPR public comments**.” You may include comments in the box titled “Comment Text” or attach a file with your comments. Attached comments must be in a Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf) formatted file.

The Energy Commission encourages use of its electronic commenting system, but written comments may also be submitted by e-mailing them to the Dockets Office, or by U.S. Mail to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 17-IEPR-07
1516 Ninth Street
Sacramento, CA 95814-5512

If you choose not to use the electronic filing system, please include the appropriate docket number on any e-mailed or written comments. Comments may be e-mailed to docket@energy.ca.gov and a copy to the IEPR program manager, Heather Raitt, by e-mail at Heather.Raitt@energy.ca.gov.

Please note that your electronic, e-mailed, written and oral comments, attachments, and associated contact information (for example, address, phone, and e-mail) become part of the viewable public record. Additionally, this information may become available via Google, Yahoo, and other search engines.

Public Adviser and Other 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, by e-mail at 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 Poneh Jones by e-mail at poneh.jones@energy.ca.gov or (916) 654-4425 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office by e-mail at mediaoffice@energy.ca.gov or (916) 654-4989.

If you have questions on the subject matter, please contact Kevin Barker, Chief of Staff for Chair Weisenmiller, by e-mail at kevin.barker@energy.ca.gov or (916) 651-6176. For general questions regarding the IEPR proceeding, please contact Raquel Kravitz, IEPR project manager, by e-mail at raquel.kravitz@energy.ca.gov or (916) 651-8836.

The service list for the 2017 IEPR is handled electronically. Notices and documents for this proceeding are posted to the Energy Commission website at http://www.energy.ca.gov/2017_energypolicy/.

When new information is posted, an e-mail will be sent to those on the energy policy e-mail listserv. We encourage those who are interested in receiving these notices to sign up for the listserv through the website at <http://www.energy.ca.gov/listservers/index.html>.

The listserv is titled "energypolicy."

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Availability of Documents

Energy Commission documents and presentations for this meeting will be available online at http://www.energy.ca.gov/2017_energy_policy/.

Date: May 1, 2017



ROBERT B. WEISENMILLER
Chair and Lead Commissioner
2017 Integrated Energy Policy Report



LIANE M. RANDOLPH
Commissioner
California Public Utilities Commission



TOM DOUGHTY
Vice President, Customer and State Affairs
California Independent System Operator

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