DOCKETED	
Docket Number:	19-MISC-04
Project Title:	Modeling Tool to Maximize Solar + Storage Benefits
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Description:	December 12, 2019 at 10:00 a.m.
Filer:	Liet Le
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IN THE MATTER OF:

Modeling Tool to Maximize Solar + Storage Docket No. 19-MISC-04

RE: Staff Workshop to Summarize the Solar + Storage Modeling Tool

NOTICE OF STAFF WORKSHOP

California Energy Commission (CEC) staff, in consultation with Energy and Environmental Economics, Inc. (E3), will present and summarize the Solar + Storage Modeling Tool developed by E3 under Electric Program Investment Charge (EPIC) agreement EPC-17-004, "*Enhanced Modeling Tools to Maximize Solar* + *Storage Benefits*". The Solar + Storage Modeling Tool evaluates the benefit of solar, storage, and other distributed energy resources (DERs), and estimates the value proposition of the integrated systems based on their expected optimal operations, location on the grid, market prices, and other characteristics. This is the final of three workshops on the Solar + Storage Modeling Tool.

> December 12, 2019 10:00 a.m. – 12:00 p.m.

Warren-Alquist State Energy Building 1516 Ninth Street 1st Floor, Charles R. Imbrecht Hearing Room Sacramento, California 95814 (Wheelchair Accessible)

Remote access is available by computer or phone via WebEx.™ (Instructions below.)

Agenda

The workshop will summarize the Solar + Storage Modeling Tool, discuss the changes and improvements to the tool since the initial public release, review case studies in which the tool was used to assesses the cost effectiveness of photovoltaic (PV), storage, and other DER technologies, and discuss recommendations and next steps.

Staff is seeking input on:

- 1. What additional features or capabilities would you like to see added that would be most beneficial to you?
- 2. Have you used or do you plan on using this tool to assess the cost effectiveness of PV, storage, and other DER technologies? If so, what is the use case?

3. What are your recommendations on how this tool can be improved?

The primary audience for this workshop includes representatives that are focused on DER project development evaluation, including utilities, project developers, DER vendors, and policy makers.

Background

California leads the nation in installed solar rooftop systems and is home to advanced technology companies designing and manufacturing battery storage, communicating controls, electric vehicles, and other advanced technologies that comprise the emerging smart grid. Solar is a valuable renewable energy resource, but it is already hitting hosting capacity limits on parts of the distribution system. The California Independent System Operator is projecting that further increases will make integration challenging. As the penetration of solar increases and technology costs decrease, opportunities will arise to increase the benefits of solar by shaping its output with battery storage, advanced controls on electrical consumption, and other DERs. To capture the value from these technologies and to provide a stable long-term value proposition to accelerate their development and deployment, grid planners and operators need to integrate the capabilities these technologies provide into the planning and operations of the electricity grid.

The Energy Commission and its consultants held two public workshops to introduce the Solar + Storage Modeling Tool. The first workshop on June 12, 2019, provided an introduction to the modeling tool, reviewed the user guide and functionalities, and discussed how the tool can simulate and determine which design will maximize the benefits of DERs to ratepayers. The next workshop on August 19, 2019, provided an indepth training for stakeholders who are interested in using the tool. E3 guided stakeholders through the process of creating inputs, analyzing the cases, and viewing the final results.

The functionalities of the Solar+ Storage Modeling Tool will result in lower electricity costs to ratepayers. Investor-owned utilities (IOUs) will be able to incentivize customer use of DERs through tariffs and programs, and align this use with the needs of the electricity grid. By incentivizing the provision of grid services from DERs, IOUs can avoid buying those services from other providers, reduce fossil fuel use, avoid investments in new generation capacity, and defer investments in new transmission and distribution infrastructure.

Public Comment

Oral comments: Staff will accept oral comments during the workshop. Comments may be limited to three minutes per speaker and one speaker per organization. Any comments may become part of the public record for this proceeding.

Written comments: Written comments must be submitted to the Docket Unit by

5:00 p.m. on **December 20, 2019**. Written comments will also be accepted at the workshop; however, the Energy Commission may not have time to review them before the conclusion of the meeting.

Written and oral comments, attachments, and associated contact information (e.g. address, phone number, email address) become part of the viewable public record. This information may also become available via any Internet search engine.

The Energy Commission encourages use of its electronic commenting system. Visit <u>https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-MISC-04</u>, which links to the comment page for this docket. Select or enter a proceeding to be taken to 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 in a downloadable, searchable Microsoft[®] Word (.doc, .docx) or Adobe[®] Acrobat[®] (.pdf) file. Maximum file size is 10 MB.

Written comments may also be submitted by email. Include the docket number 19-MISC-04 and Modeling Tool to Maximize Solar + Storage in the subject line and send to <u>docket@energy.ca.gov</u>.

If preferred, a paper copy may be submitted to:

California Energy Commission Docket Unit, MS-4 Re: Docket No. 19-MISC-04 1516 Ninth Street Sacramento, CA 95814-5512

Public Advisor and Other Commission Contacts

The CEC's Public Advisor's Office provides the public assistance in participating in CEC proceedings. For information on how to participate in this forum, please contact Public Advisor, Noemí O. Gallardo, at <u>publicadvisor@energy.ca.gov</u>, (916) 654-4489 or toll free at (800) 822-6228.

Please direct requests for reasonable accommodation to Yolanda Rushin at <u>yolanda.rushin@energy.ca.gov</u> or (916) 654-4310 at least five days in advance.

Media inquiries should be directed to the Media and Public Communications Office at <u>mediaoffice@energy.ca.gov</u> or (916) 654-4989.

Questions on the subject matter of this meeting should be directed to Liet Le at <u>Liet.Le@energy.ca.gov</u> or (916) 327-1450.

Remote Attendance

WebEx is the Energy Commission's online meeting service. When attending remotely, presentations will appear on your computer/laptop/mobile device screen and audio may be heard via the device or telephone. Please be aware that the WebEx meeting may be recorded. WebEx technical support is available at 1-866-229-3239.

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The "Join Conference" menu offers a choice of audio connections:

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Via Telephone: (no visual presentation): Call 1-866-469-3239 (toll free in the U.S. and Canada) and when prompted, enter the meeting number above. International callers may select a number from <u>https://energy.webex.com/energy/globalcallin.php</u>.

Via Mobile Device: Download the application from <u>www.webex.com/products/web-</u> <u>conferencing/mobile.html</u>.

Muting: We greatly appreciate your cooperation in reducing background 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, right click on your name in the panelists or attendees list and select "Mute." If you are 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 at <u>https://ww2.energy.ca.gov/research/mod_tool_max_solar_storage/</u>

Dated:

at Sacramento, California

Laurie ten Hope Deputy Director Energy Research and Development Division Mail Lists: Diversity listerv DACAG listerv epic listserv research listserv