

DOCKETED

Docket Number:	21-RPS-02
Project Title:	Renewables Portfolio Standard 10th Edition Guidebook Update
TN #:	241449
Document Title:	Presentation - Renewables Portfolio Standard Requirements for Energy Storage Devices
Description:	PDF file of PowerPoint presentation.
Filer:	Ulises Vargas
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/7/2022 4:05:49 PM
Docketed Date:	2/7/2022



California Energy Commission

Title: Renewables Portfolio Standard Requirements for Energy Storage Devices

Presenter: Ulises Vargas

Date: February 8, 2022



Housekeeping

1. Webinar is being recorded via Zoom and there is a court reporter
2. Public Comment
 - Use the “raise hand” feature in Zoom
 - Over the telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line
 - Type your question in the Q&A window
 - Limit comment to 3 minutes per commenter or organization per topic
3. Written comments are due by 5:00 p.m. on February 22, 2022
 - Submit through the e-commenting system (21-RPS-02) at:
<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=21-RPS-02>
 - Subscribe to the Renewables List Serve at:
https://ww2.energy.ca.gov/listservers/index_cms.html



Agenda

- Overview of Energy Storage Devices in California's RPS
- RPS Eligibility Requirements
- Discussion on Configurations
- Stakeholder Comments
- Q&A and Public Comments



Guiding Questions for Workshop

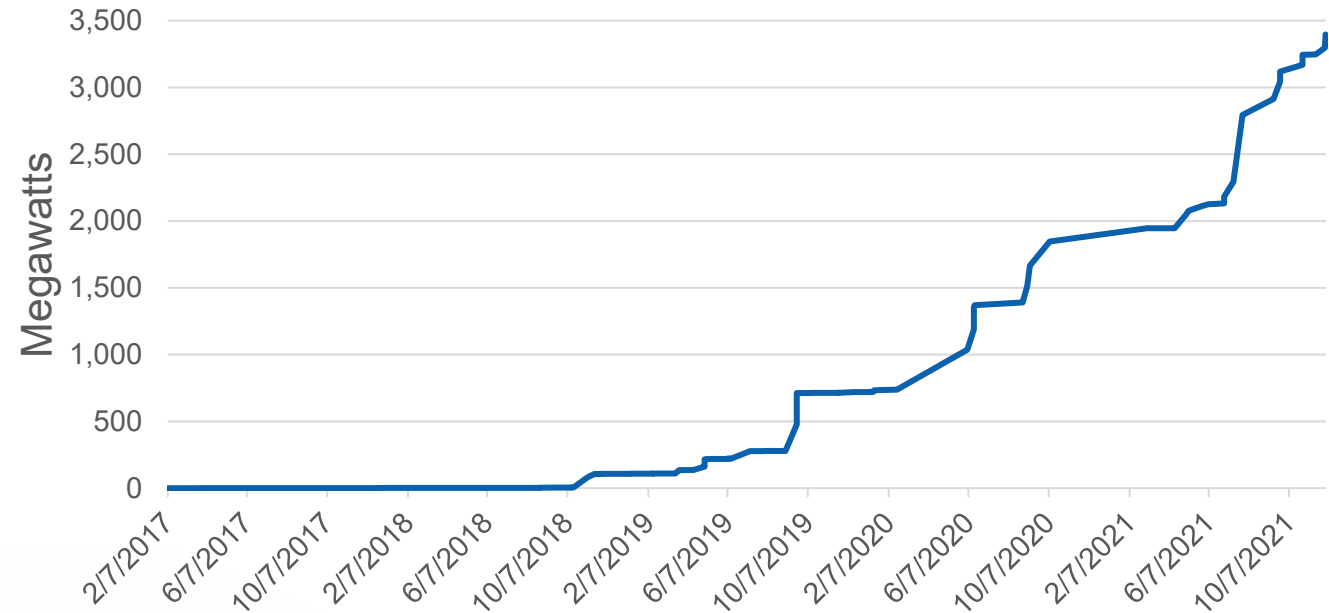
1. How is the energy landscape changing as a result of energy storage?
2. What does procurement look like for renewable facilities paired with energy storage? Do contracts account for energy losses from storage?
3. What impacts do current RPS requirements have on storage development?
4. Should the CEC develop energy storage loss accounting requirements for specific technology types, configurations, or scale?



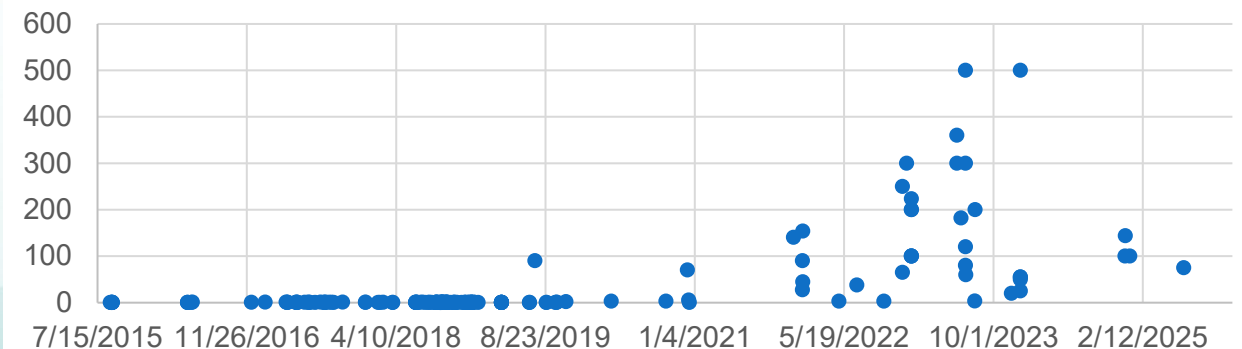
The Rise of Energy Storage

- **3,400 MW** of storage capacity paired with Approved RPS facilities
- **2,700 MW** of additional capacity under review
- Many projects are among largest in the world
- **97%** is precertified, not yet operational, and **96%** in-state

Cumulative Storage Power



Power (MW) vs Online Date (COD)





Market Drivers

Federal Investment Tax Credit (ITC) [Storage added in 2018]

- Funding of initial project cost, charging limited to only solar for first five years

FERC Order 841 [2018]

- Allows storage to bid into wholesale market as a separate resource

CPUC Mandate (Decision 19-11-016) [2019]

- IOUs to procure 1,325MW by 2020, implement by 2024 (AB 2514)

CAISO Guidance on Storage Resources [2019]

- Developed eligible configurations for storage as grid resources



Current RPS Requirements

Storage device is an addition or enhancement

Standalone energy storage is not RPS-eligible

RECs can only be created for generation

Losses from energy storage must be netted out

Additional electricity sources must be netted out



Current *RPS Guidebook* Diagrams

Regulatory basis for eligibility

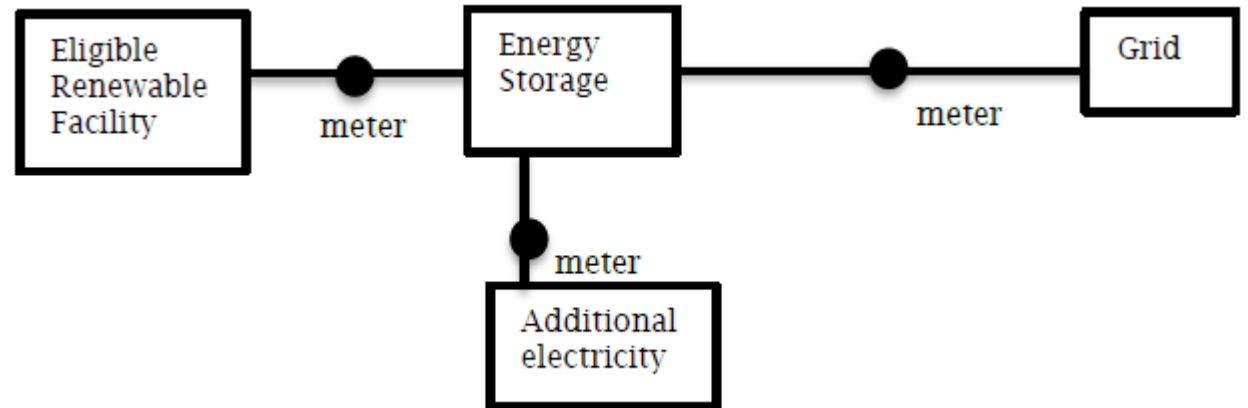
- PRC section 25741(a)(1) under definition of a “Renewable electrical generation facility”:

“...and any additions or enhancements to the facility using that technology.”

• **Integrated:**



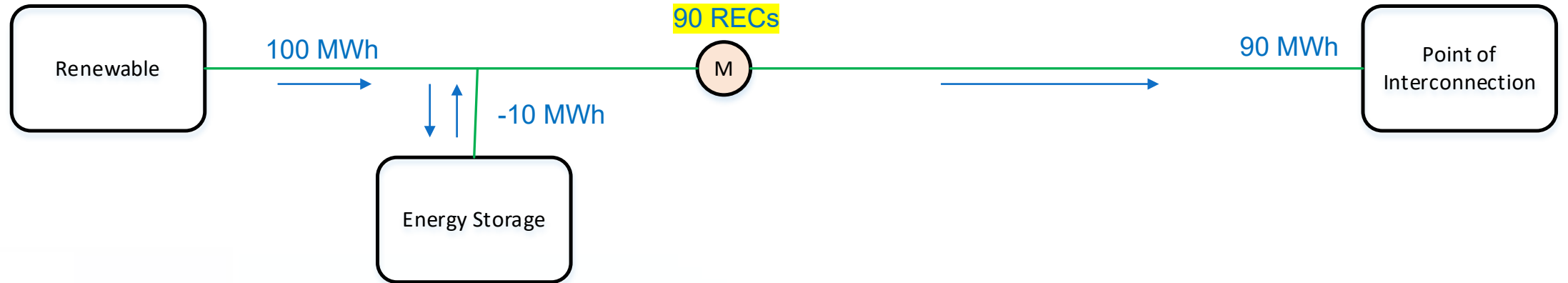
• **Directly Connected:**



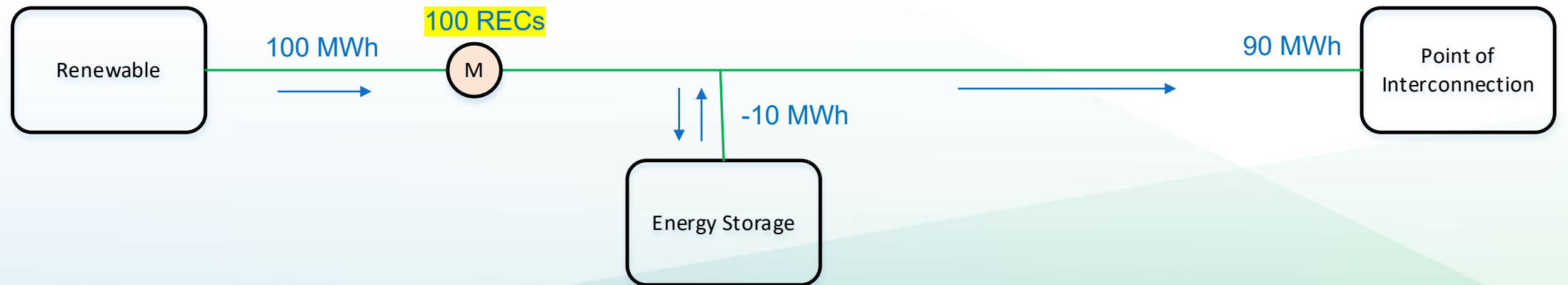


Metering Impact on RECs

Scenario A



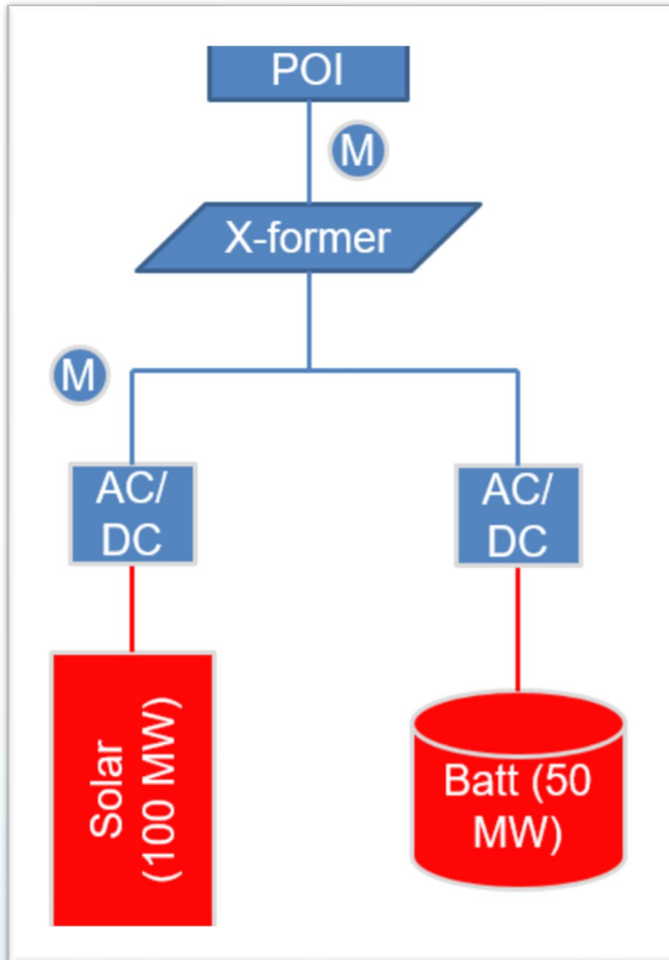
Scenario B



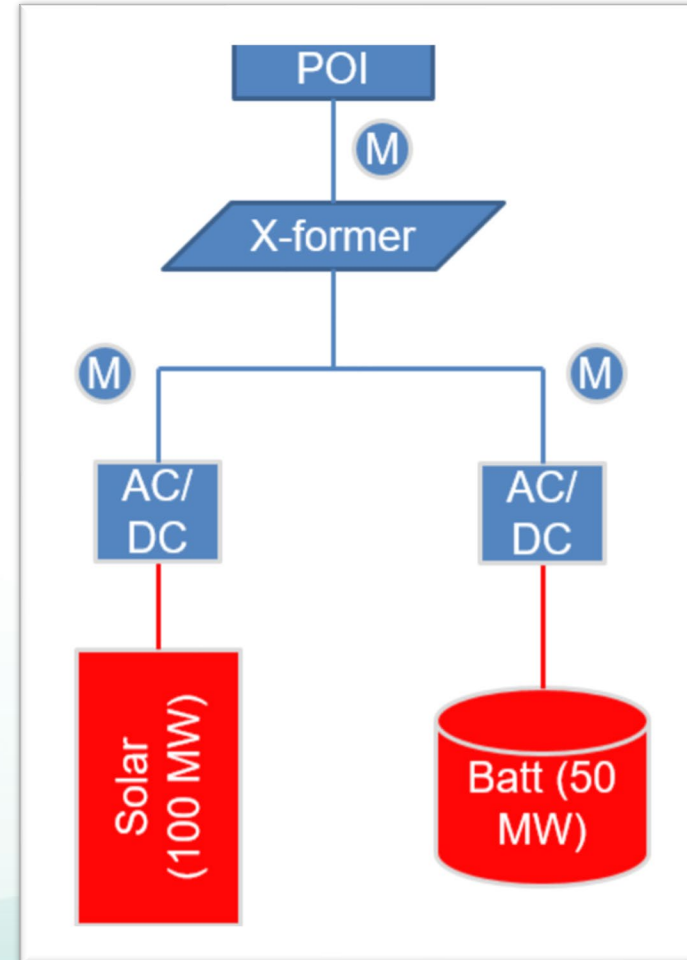


CAISO Diagrams

Hybrid Resource



Co-located Resource



<http://www.caiso.com/InitiativeDocuments/DraftFinalProposal-HybridResources.pdf>

- Some Co-located projects are not applying with storage as they believe it to be independent of the RPS facility.



Stakeholder Feedback

Current categories do not reflect the configurations being planned and developed

Unclear alignment with CAISO configurations and treatment

Losses due to energy storage should not be deducted from renewable generation



Next Steps

<u>Milestone</u>	<u>Date</u>
Staff Workshop	February 8, 2022
Written Comments Period – Start	February 9, 2022
Written Comments Period – Deadline	February 22, 2022
Staff Recommendation	Q2 2022



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Q&A and Public Comments





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Thank You

For more information:

Website: [Renewables Portfolio Standard - RPS | California Energy Commission](#)

Email: RPStrack@energy.ca.gov