DOCKETED		
Docket Number:	21-RPS-02	
Project Title:	Renewables Portfolio Standard 10th Edition Guidebook Update	
TN #:	263232	
Document Title:	Presentation - May 21 2025 Public Meeting - Scoping Meeting on Proposed Updates for the RPS Eligibility Guidebook, Tenth Edition	
Description:	N/A	
Filer:	Rose Saga	
Organization:	California Energy Commission	
Submitter Role:	Public Agency	
Submission Date:	5/21/2025 1:20:06 PM	
Docketed Date:	5/21/2025	



Scoping Meeting on Proposed Updates for the RPS Eligibility Guidebook, 10th Edition

Presenter: Siting, Transmission and Environmental Protection Division Date: May 21, 2025

Meeting Purpose and Scope

- Present proposed updates for RPS Guidebook 10th ed.
- Solicit feedback from stakeholders
 - Comment opportunity after each subject area
 - General comments at the end

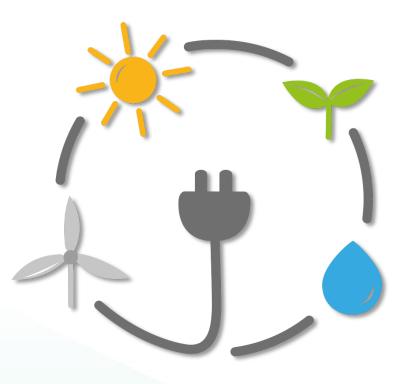
In Scope	Out of Scope	
RPS Guidebook subject matter updates	WREGIS or RPS Online System Issues	
Impacts guidebook updates may have	Verification & Compliance Results	
	Other RPS issues	



Time	Item	
9:00am – 9:30am	 Overview/Logistics Opening Remarks Meeting Purpose, Scope and Background Information Public Participation 	
9:30am – 11:00am	 Proposed Updates (including public comment) 1 – Document Formatting 2 – Location Eligibility 3 – Verification & Compliance Updates 4 – Energy Storage 5 – Metering Requirements 	
11:00am – 11:15am	• Break	
11:15am – 12:45pm	 Proposed Updates (including public comment) 6 – Distributed Generation 7 – Facilities with Air Permits 8 – Biomethane Delivery Requirements 9 – Linear Generators and Fuel Cells Other Issues Raised 	
12:45pm – 1:00pm	Schedule and Next Steps	

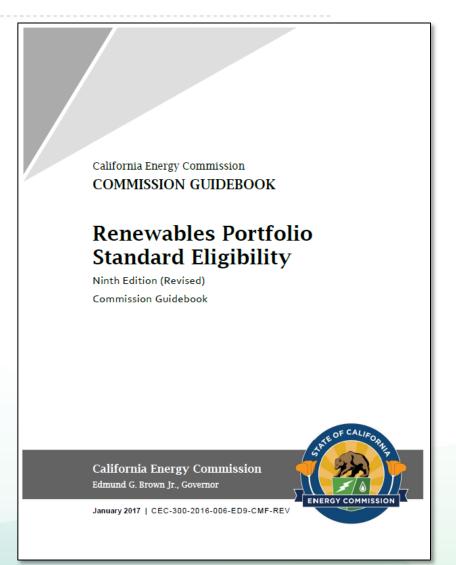


- Mandates state load-serving entities (LSE) to procure renewable energy
- **Procurement amounts** proportional to retail sales, measured in MWh
- Targets progressively increase, current mandate is **60% by 2030**
- Many different renewable resource types are eligible

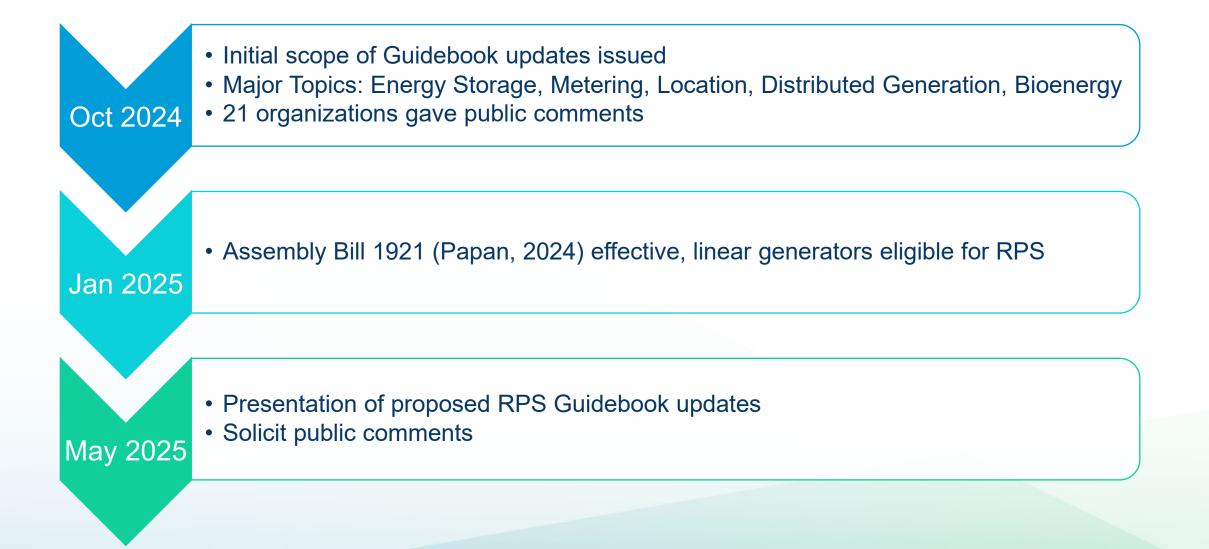




- RPS facility certification requirements
- RPS eligible renewable resource definitions
- Annual reporting requirements
- <u>RPS Eligibility Guidebook, 9th Edition</u> (Revised)









Opening Remarks





Background

• Why this item is being addressed

Current Requirements

• Language in current RPS Guidebook (9th edition)

Proposed Update

• Staff concept for RPS Guidebook 10th Ed

Questions for Stakeholders

• Guiding questions, then public comment discussion



- 1. Webinar
 - Being recorded via Zoom
- 2. Public Comment Options
 - Use "raise hand" feature in Zoom
 - Over telephone: dial *9 to "raise hand" and *6 to mute/unmute
 Type your question in the Q&A window
- 3. Written Comment
 - Due by 5:00 P.M. on June 5, 2025
 - Submit through the e-commenting system (**21-RPS-02**) at: https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docket number=21-RPS-02
 - Subscribe to CEC General Renewable Energy Programs at: https://public.govdelivery.com/accounts/CNRA/signup/31911



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Item 1: Document Formatting



Guidebook Structure – 9th Edition

Alphabetical and numerical heading styles

No navigation pane / bookmarks

Non-interactive table lists

Out-of-date language, hyperlinks, etc.

CHAPTER 4: RPS Online System

The Energy Commission developed the RPS Online System for the RPS program to streamline the RPS certification application and reporting processes. The RPS Online System is at https://tps.energy.ca.gov/. This chapter provides an overview of the RPS Online System, including the account management, certification application, and reporting processes. Instructions on how to use the RPS Online System will be made available within the RPS Online System.³⁶

Applicants shall use the RPS Online System starting January 25, 2017, when the *RPS Guidebook, Ninth Edition,* takes effect. The Energy Commission requests applicants to submit applications for certification including supplemental forms using the forms in the *RPS Guidebook, Eighth Edition* no later than January 6, 2017, to allow time to transition to the RPS Online System. Applications received between January 6, 2017, and January 25, 2017, the adoption date of the *RPS Guidebook, Ninth Edition*, may be delayed during the transition to the RPS Online System.

If the RPS Online System is down for maintenance or there is a systemwide outage and users need to submit applications, reports, and other documents, users may contact RPS staff at <u>RPSTrack@energy.ca.gov</u> for assistance.

A. Account Management

The RPS Online System will have an account structure for each LSE or facility owner called an "organization." Each organization will have the ability to add or remove individuals called "users" and assign roles such as "applicant," "attestant," or "trainee," with at least one individual assigned as the "Account Holder System Admin." Each role is defined in the RPS Online System instructions.

1. Account Users

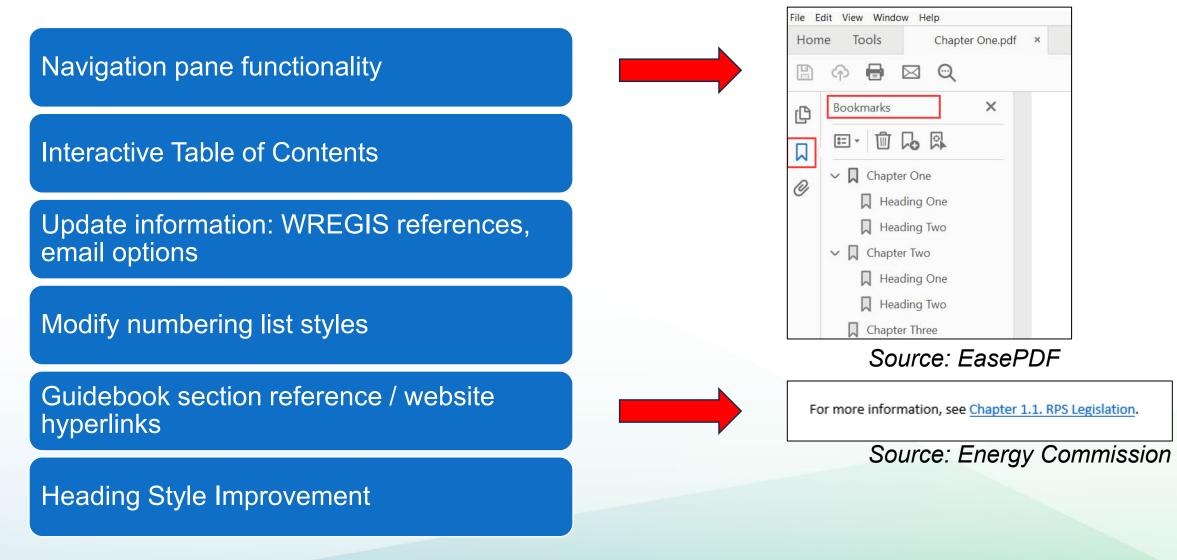
Within the organization account, the users will have permissions based on their assigned role(s). For example, a user may be assigned a role and have the ability to view an application, but may not have the ability to attest to an application. All account users will receive notifications within the RPS Online System and email alerts for specific activities taken or due to be taken.

36 Any updates to the RPS Online System instructions do not need to be adopted by the Energy Commission as the instructions are procedural and do not include RPS requirements not specified in the guidebook.

42

Source: Energy Commission







• Current: 9th Edition

Chapter 2

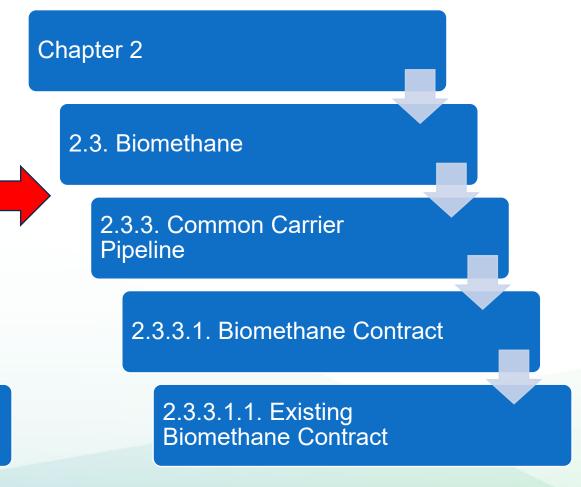
C. Biomethane

3. Common Carrier Pipeline

a. Biomethane Contract

(1) Existing Biomethane Contract

• Draft: 10th Edition





- 1. Suggestions for additional formatting/organizational changes?
- 2. Suggestions for what should not be changed?



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Item 2: Location Eligibility





Senate Bill (SB) 100

RPS-eligible and zero-carbon resources

 Supply 100% of CA's electric retail sales (2045)

Assembly Bill (AB) 525

Offshore Wind Strategic Plan

 Plan for development off CA coast

Senate Bill (SB) 605

- Wave and Tidal Offshore Renewable Energy

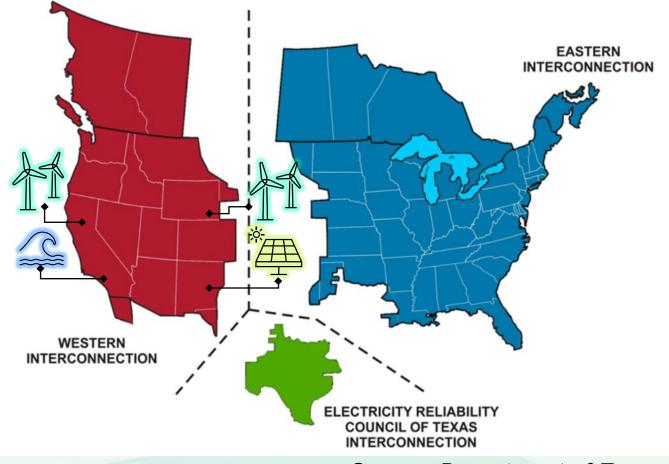
 Evaluate technology feasibility, cost, and benefits
 - $_{\odot}$ Identify suitable sea space for technologies



Source: Energy Commission



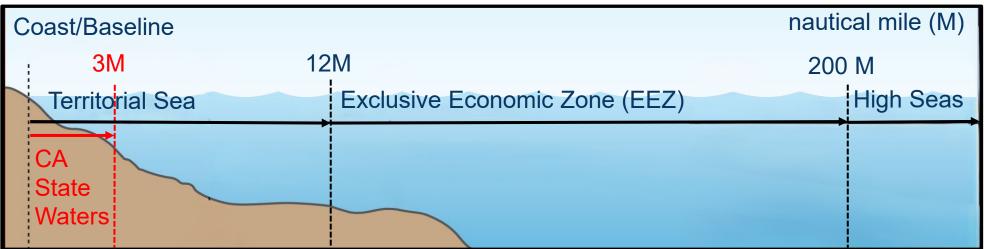
- Must have first Point of Interconnection within Western Interconnection
 - No reference to physical location in WECC
 - No reference to offshore facilities
 - Physical location outside Western Interconnection allowed, but...



Source: Department of Energy

L.O.R.S. Documentation

Source: NOAA



Subject to L.O.R.S. Requirements?

	Located within CA or state waters	Located outside CA or within EEZ	Located outside U.S. or international waters
Interconnects to CBA	No	No	Yes
Interconnects to non- CBA	Yes	Yes	Yes



Maintain first point of interconnection must be within Western Interconnection

Clarify facilities may be physically outside the Western Interconnection

References to offshore facilities in L.O.R.S. section



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Item 3: Verification & Compliance Administrative Updates and Clarifications





1-WREGIS retirement account naming convention	 Long-term procurement update for POUs
2-WREGIS adjustments	 Clarify timeframes and supporting documentation
3-REC retirements	 Remove inconsistent rule limiting REC usage within compliance period
4-Reporting for pseudo-tie arrangements	Remove e-tag requirement for CEC



- 1. Are there additional clarifications related to the Verification and Compliance sections of the Guidebook that should be addressed?
- 2. In terms of structure and formatting, should load-serving entity reporting for verification (Chapter 7) be presented differently in the guidebook? Should it remain the same?



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Item 4: Energy Storage





- Energy storage currently in the 9th edition of guidebook (2017)
- Exponential increase in storage systems from 2017 to present
- Now common for RPS resources to have energy storage onsite
- Confusion over accounting requirements regarding storage losses



Source: Energy Commission



Public Resources Code Section 25741:

(a) "Renewable electrical generation facility" means a facility that meets all of the following criteria:

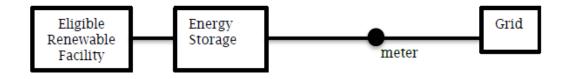
(1) The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells or linear generators using fuels described in this paragraph that otherwise meet the requirements of this subdivision, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and any additions or enhancements to the facility using that technology.

Existing Requirements – 9th Edition

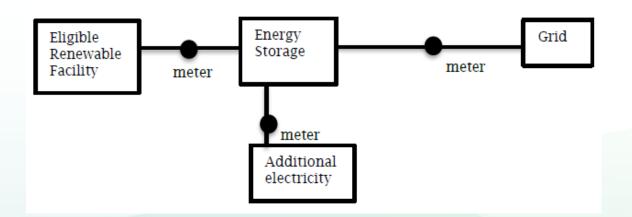
Existing RPS Guidebook Requirements

- RECs only attributed to generation
- Standalone storage not RPS-eligible
- Storage can be an "addition or enhancement" to an RPS facility
- Additions or enhancements can be either "integrated" or "directly connected" and subject to loss accounting
- *Unstated loss accounting when onsite storage is not considered an "addition or enhancement"

• Integrated:

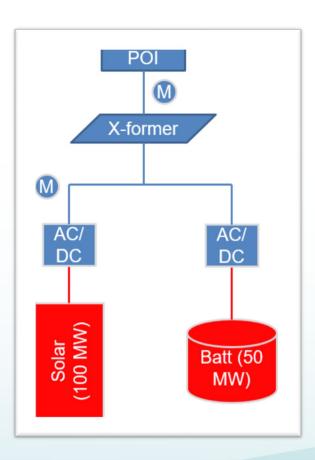


• Directly Connected:

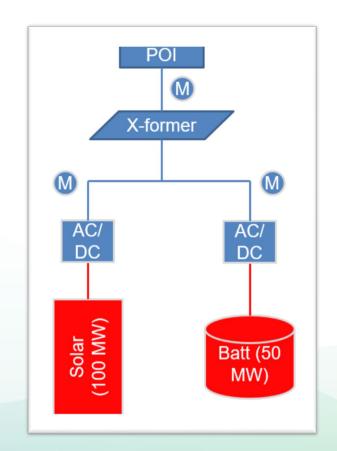




Hybrid Resource



Co-located Resource





Stakeholder Comments

- Misalignment with CAISO and WREGIS treatment of storage
- Requiring loss accounting for co-located storage penalizes and disincentivizes pairing storage with renewables
- Unfair treatment compared to stand-alone storage
- Disincentivizing paired storage could lead to curtailment, grid unreliability
- Need for replacement RECs could lead to increased costs to ratepayers

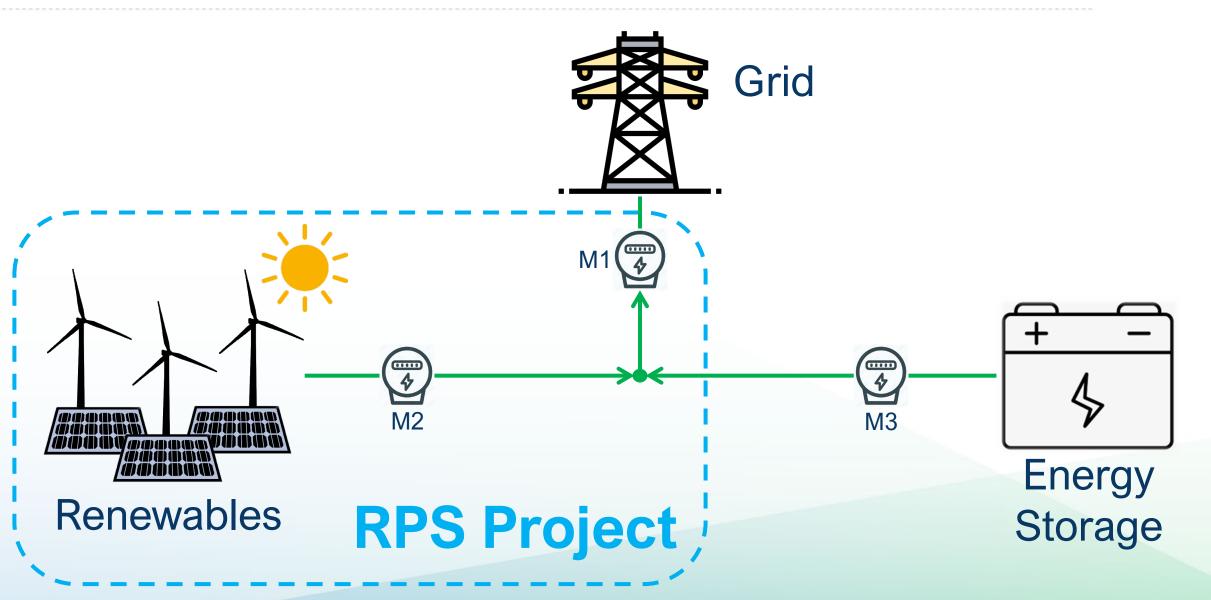
Stakeholder Recommendation

Do not deduct storage efficiency losses when determining REC eligibility



- 1 Diagrams/categories of energy storage removed
- 2 New glossary definitions added related to energy storage
- 3 Storage designated and metered separate from the facility <u>not subject to loss</u> <u>accounting</u>
- 4 Only additions or enhancements subject to loss accounting
- 5 All losses for interconnection needs still netted (i.e. transformer, line loss, etc.)
- 6 Any eligible resources used as inputs must be netted out (e.g. pumped hydro)





Multi-stage Facilities with Storage



• Example: Solar PV feeding Pumped Storage Hydroelectric

- Proposal
 - Facilities can only claim final output as RPS-eligible
 - Input energy cannot be used for RPS compliance or any other program
 - Facility creating output electricity must be an eligible resource



1. Does this proposal present challenges for any specific configurations / specific technology (ie lithium-ion vs compressed air, etc)?



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Item 5: Metering Requirements





Accuracy requirement = ±2%

Independently verified by a third-party organization

Third-party recognized by OSHA's NRTL program

Nationally Recognized Testing Laboratory

No direct statement a meter must measure in AC or DC

Ambiguity on DC metering acceptance

Flexibility in generation calculation method



RPS Facilities must meet WREGIS requirements

Measured at First Point of Interconnection

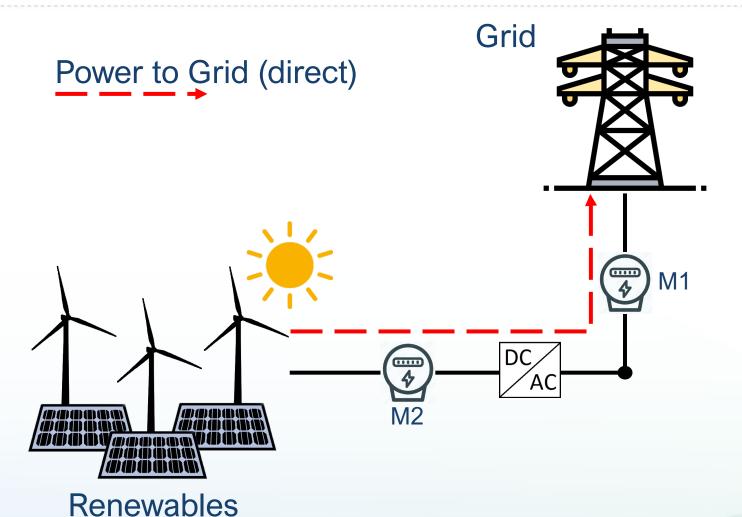
Or, adjusted to reflect energy delivered to grid

• High side of the transformer

Accuracy requirement of ±0.5%

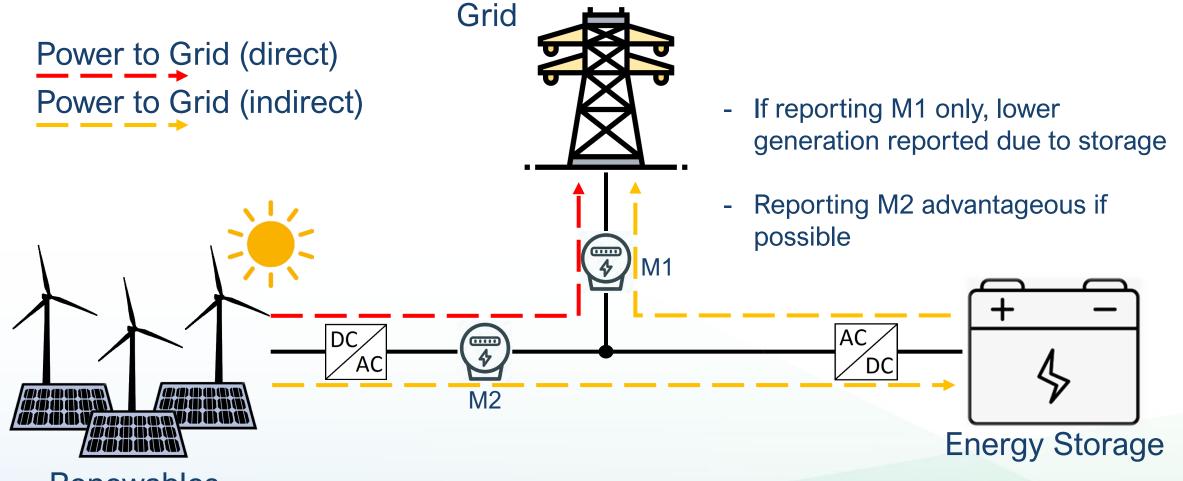
Flexibility under the discretion of a state program





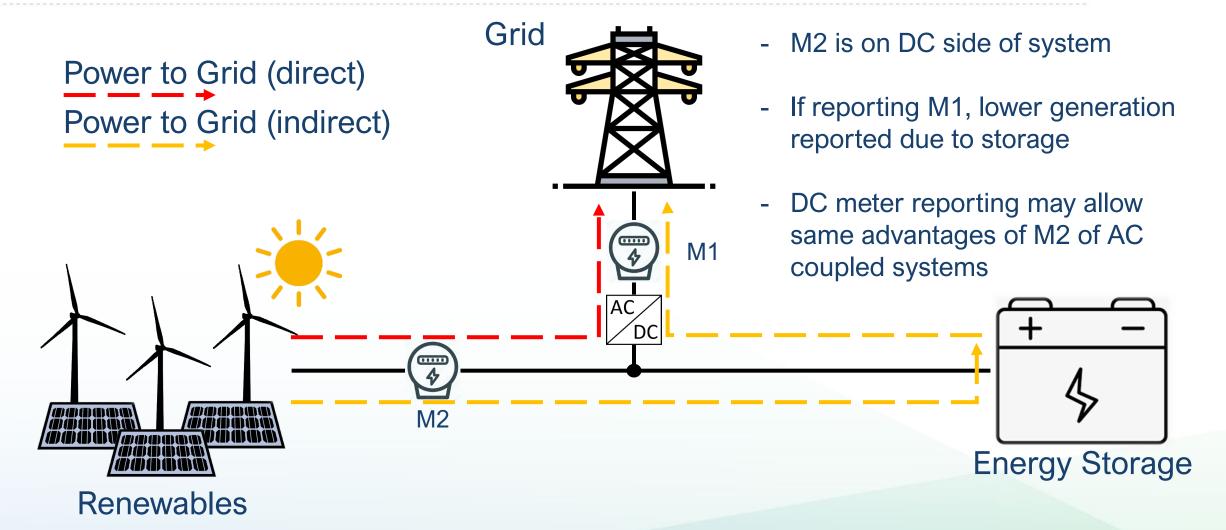
- Adjustment must be made for POI or high side of transformer value
- Should credit an equivalent number of RECs for either meter

AC-Coupled Energy Storage



Renewables

DC-Coupled Energy Storage





Ambiguity on DC metering acceptance

- DC metering may not be able to meet current requirements
- Standards exist for DC metering such as ANSI C12.32-2021

Accuracy rating has not been updated

- Established at ±2% in 5th Edition Guidebook (2012)
- RPS not aligned with current WREGIS requirements



Add language allowing DC metering

- Must be consistent with AC metering requirements:
 - Accuracy, testing, certification

Add language requiring adjustment of DC values

- Include DC/AC conversion losses
- Adjust to value at high side of transformer
- Must be consistent with WREGIS requirements

Update metering accuracy requirements to ±0.5%

• A legacy clause may be added



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15-minute Break





Item 6: Distributed Generation





- Collection of individual distributed energy resources (DERs)
 - Rooftop solar
 - Battery storage
 - Demand flexible appliances
- Only generating DERs are eligible for RPS
- Increased interest in participation from developers



Source: Energy Commission



Limited to wind and photovoltaic systems

Aggregated capacity <= 250 kW

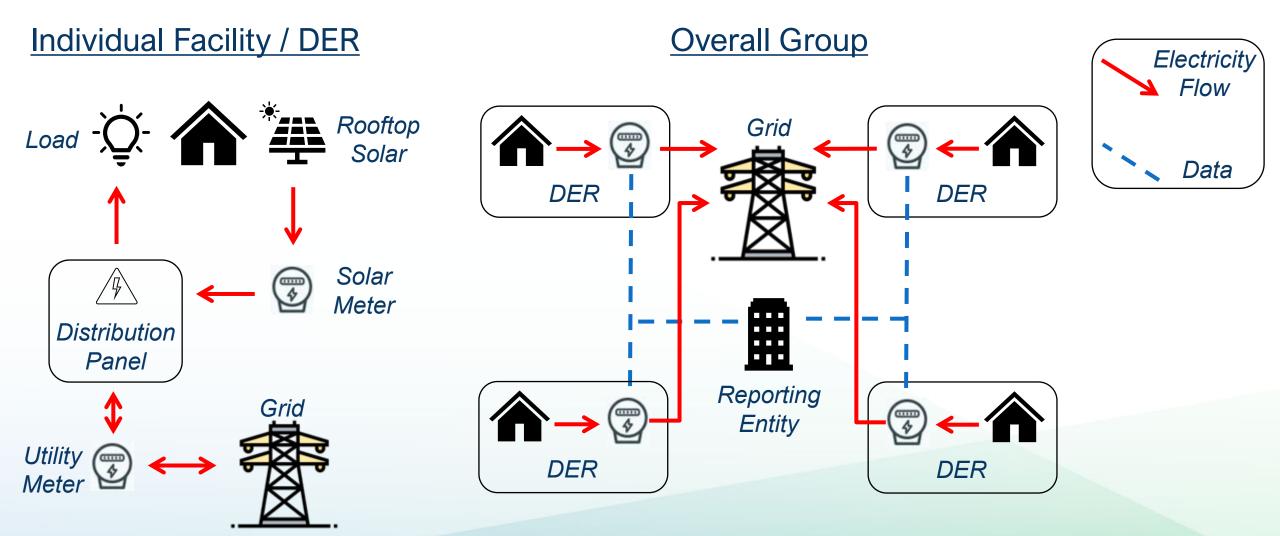
May amend up to a max of 360 kW

Must be commercially operational

Precertification is not allowed

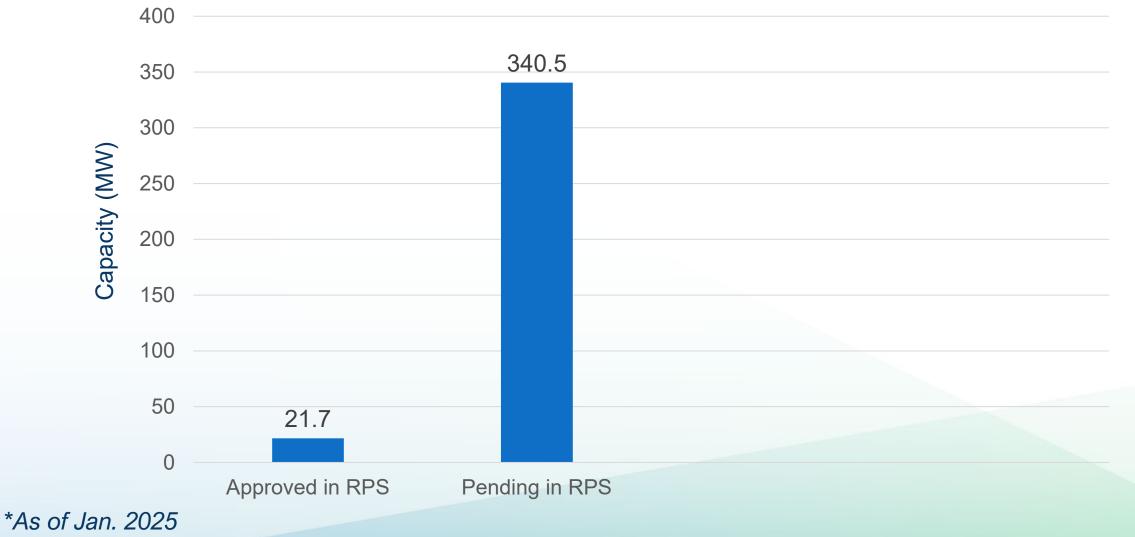
Each individual facility meets RPS eligibility requirements





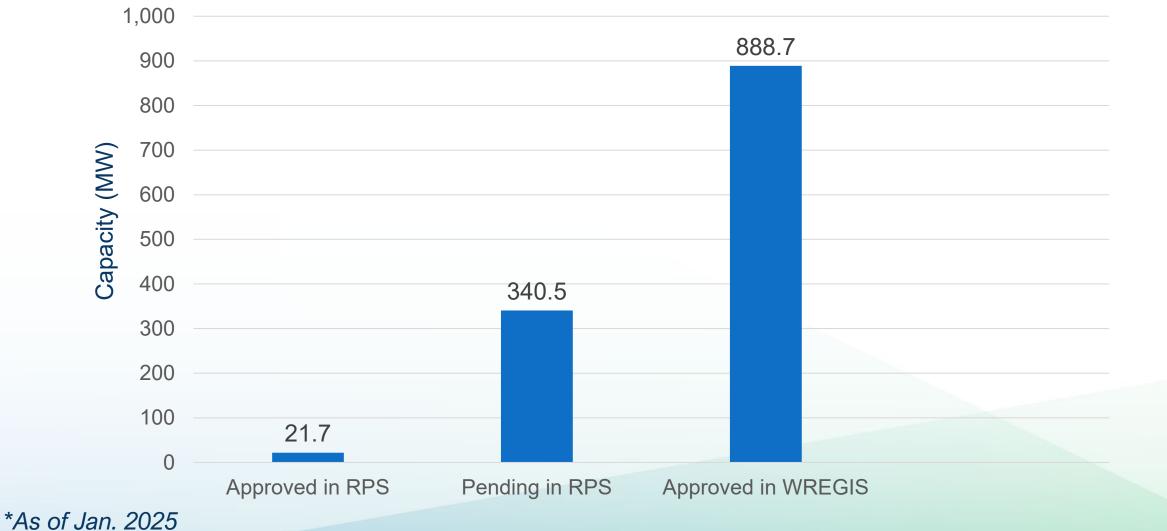


Distributed Generation in California



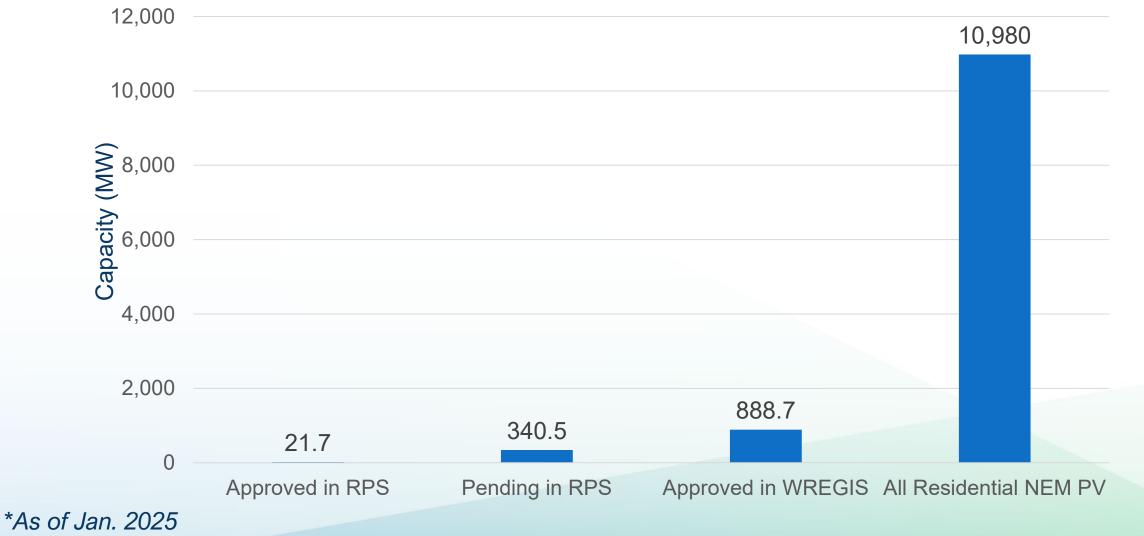


Distributed Generation in California





Distributed Generation in California





1. Clarify existing language and requirements

2. Present a bulk application process

3. Add a location requirement for groups



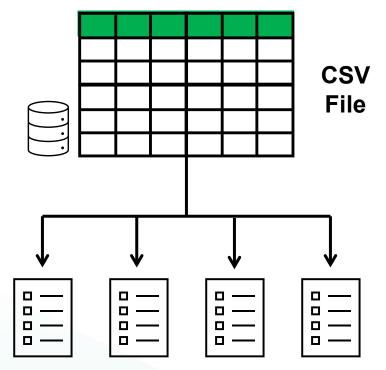
- New terminology!
 - Change "aggregated units" to "distributed generation groups"
 - Each unit of a group considered DERs
- Clarify allowed participation in incentive programs (e.g. Net Energy Metering)



Source: Energy Commission



- Option for a bulk application submission process
 - CSV Import into RPS Online
 - Prepopulates applications for you
 - Data prescreening required
 - Applicant still reviews and attests in RPS Online
- Process is subject to change
- Applicants may use either bulk or standard process

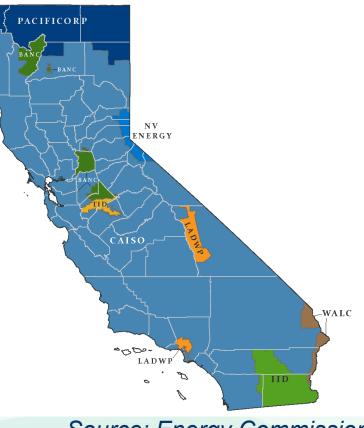


Multiple RPS Applications

Proposed Location Requirements

- Entire group interconnects to same balancing authority (BA)
 - Streamlines data for applications
 - Aligns requirements with other application types
- Can still have DG in different California BAs, but separate applications per BA





Balancing Authority Areas California, 2020



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Item 7: Facilities with Air Permits



Emissions in the RPS program

Senate Bill (SB) 100

- 100% RPS-eligible and zero-carbon resources by 2045
 - \circ Supply CA's electric retail sales

Renewables Portfolio Standard

- Allows emissions under very specific circumstances
- Evolving technologies call for consideration of impact to air quality



Source: Energy Commission



PUC 399.11(b)

 Achieving the renewables portfolio standard through the procurement of various electricity products from eligible renewable energy resources is intended to provide unique benefits to California, including all of the following, each of which independently justifies the program:

•

- (3)Reducing air pollution, particularly criteria pollutant emissions and toxic air contaminants, in the state.
- (4)Meeting the state's climate change goals by reducing emissions of greenhouse gases associated with electrical generation.



- Municipal Solid Waste Conversion
 - Must not produce air contaminants or emissions
- Biomethane
 - New contracts must demonstrate environmental benefit to state
- Out-of-state facilities
 - Must not violate California LORS



Source: Energy Commission



Ensure RPS facilities are providing intended benefits to California:

- 1. Facilities subject to CAA Title V permitting to provide emissions documentation
 - (existing documentation)
 - New facilities provide docs at time of application
 - Existing facilities provide docs upon request
- 2. Noncompliance with environmental regulations may cause certification suspensions



1. Are facilities able to provide emissions documentation at the time of application for Certification (upon Commercial Operations or within 180 days of Commercial Operations Date)?



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Item 8: Biomethane Delivery



Delivery Requirements

AB 2196 (2012)

- Re-instated RPS-eligibility of biomethane
- Established delivery requirements for biomethane procurement contracts

Existing Contracts

Facility must contract from injection point to final delivery point

Delivery can be with or against physical flow in pipeline

Final delivery point must be RPS facility

If facility is in CA, final delivery point can be:

- CA border
- Any other point in CA

New Contracts

Facility must contract from injection point to final delivery point

Pipelines must physically flow from injection to delivery point majority of time on annual basis

Final delivery point must be RPS facility

If facility is in CA, delivery satisfied if gas is injected into CA pipeline



Public Utilities Code Section 399.12.6

RPS Eligibility Guidebook

(3) The biomethane is delivered to a generating facility through a common carrier pipeline and meets all of the following requirements:

(A) The source of biomethane injects the biomethane into a common carrier pipeline that physically flows within California or toward the generating facility for which the biomethane was procured under the original contract. 3) The final delivery point of the biomethane must be the generation facility with the following exceptions:

a) New Biomethane Procurement Contracts: The delivery requirements are satisfied if the facility is within California and receives biomethane from a biomethane production site that injects the biomethane into a common carrier pipeline that physically flows within California.



Clarify language for delivery requirements

Delivery requirements for in-state facilities met if contracting gas injected within CA

 No physical flow requirement from injection point to facility



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Item 9: Linear Generators and Fuel Cells





Linear generators are a recent development in electricity generation

Compression/expansion of reacted gases results in linear motion

Linear motion creates dispatchable electricity

Fuel flexible: biomethane, hydrogen, natural gas, etc.



Linear generators are not listed as an eligible renewable energy resource

Fuel cells are RPS-eligible if utilizing an RPS-eligible fuel



- AB 1921 (Papan, 2024) went into effect January 2025
 - Adds linear generators using RPS-eligible fuels as an RPS-eligible resource
- Public Resources Code Section 25741(a)(1): "The facility uses...fuel cells or linear generators using fuels described in this paragraph that otherwise meet the requirements of this subdivision...and any additions or enhancements to the facility using that technology."



Add linear generators as an RPS-eligible resource

Linear generators will have same fuel eligibility requirements as fuel cells

Possible registration restrictions/requirements due to fuel flexibility

Fuel cell eligibility requirements to remain unchanged from 9th Edition



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Other Issues Raised





New or expanded resource eligibility

Resources delivering to CAISO load via Subscriber Participating Transmission Owner tariff

Alternative metering requirements

Affirming no double counting



Next Steps





Milestone	Anticipated Date
Written Comments Due	June 5, 2025
Post Draft 10 th ed RPS Guidebook	Late-July 2025
Workshop on Draft Guidebook	Mid-Aug 2025
Written Comments Period	Late-Aug 2025
Post Revised Draft 10 th ed RPS Guidebook	Early-Oct 2025
Written Comments Period	Early-Oct 2025
Final RPS Guidebook to Business Meeting	Early Dec 2025



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Thank You!

Web: <u>Renewables Portfolio Standard – RPS</u> Docket Log: <u>21-RPS-02</u> Email: <u>RPSTrack@energy.ca.gov</u> Phone: 1-916-653-6222