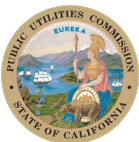


Resiliency & Microgrids Working Group Meeting 1

Resiliency and Microgrids Team, Energy Division
October 13, 2020



California Public
Utilities Commission

WebEx and Call-In Information

Join by Computer:

<https://cpuc.webex.com/cpuc/onstage/g.php?MTID=e99ef363529058689a59115c8d3c23701>

Event Password:RMWG20!

Join by Phone:

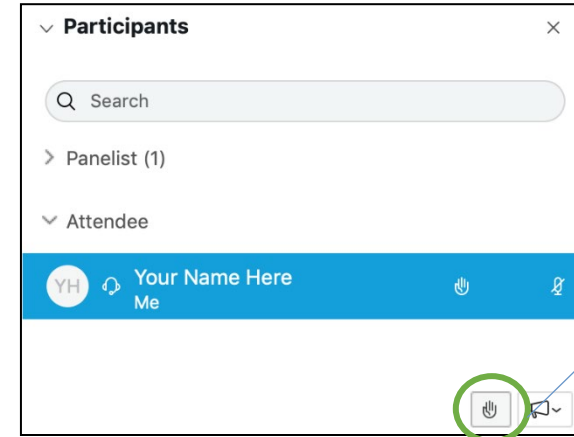
- 1-855-282-6330 (toll free); 1-415-655-0002 (toll)
- Meeting number (access code): 146 613 8132

Staff recommends using your computer's audio if possible.

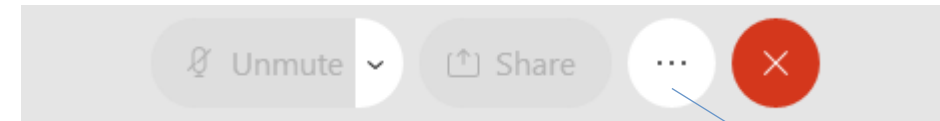
Today's presentations are available in the meeting invite (follow link above) and on <https://www.cpuc.ca.gov/resiliencyandmicrogrids>.

WebEx Logistics

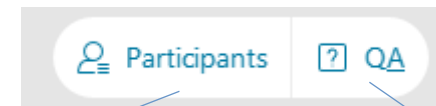
- All attendees are muted on entry by default.
- Questions can be asked verbally during Q&A segments using the “raise hand” function.
 - The host will unmute you during Q&A portions and you will have a maximum of 2 minutes to ask your question.
 - If you have another question, please “re-raise your hand” by clicking on the “raise hand” button twice.
- Questions can also be written in the Q&A box and will be answered verbally during Q&A segments.



Raise your hand by clicking the hand icon. Lower it by clicking again.



Access your meeting audio settings here



Click here to access the attendee list to raise and lower your hand

Access the written Q&A panel here

Q&A and Discussion Sections

In this meeting, there will be both Q&A and Discussion sections.

- **Q&A Sections:**
 - Q&A sections are to answer general questions about the content presented
 - All questions for this section should be directed to the Q&A box
 - Questions will be read aloud and answered by the team
- **Discussion Sections:**
 - Discussion sections are for broader discussion of topics being presented
 - Any party wishing to participate should use the raise hand function
 - Participants will be individually unmuted

Commissioner Shiroma

Opening Remarks

Agenda

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| I. Opening Remarks | 2:30 – 2:45 |
| II. Introduction to the RMWG | 2:45 – 3:20 |
| <ul style="list-style-type: none">• Present RMWG goals, ground rules, review schedule and logistics• Discuss initial prioritization of topics | |
| III. Group Q&A And Discussions | 3:20 – 4:00 |
| IV. Tariff Introduction (CPUC Staff) | 4:00 – 4:20 |
| <ul style="list-style-type: none">• Define what tariff means in the RMWG | |
| V. Group Q&A | 4:20 – 4:55 |
| V. Next Steps, Adjourn | |

Introductions to the RMWG

Jessica Tse & Rosanne Ratkiewicz

RMWG Goal & Objectives

To facilitate thoughtful and informed discussions with the working group participants to continue support resiliency efforts and the commercialization of microgrids.

Member input will inform CPUC's potential Track III proposals and activities. To achieve its purpose, the RMWG will serve as a forum for ED staff to:

- Determine the appropriateness of considering issues in Track III of the proceeding.
- Present and/or invite speakers to present on the resiliency and microgrid-related issues identified in the Concept Paper and Track II Staff Proposal.
- Facilitate discussions and solicit informal input on issues.
- Gather data that may inform policies in the form of staff proposals and/or white papers.

RMWG Ground Rules for Participation

1. Members must be willing to work constructively and collaboratively to find reasonable approaches for developing the work products identified in this charter recognizing the broader CPUC goals and responsibilities and policy goals, including but not limited to: promote safe and reliable utility service, ensure just and reasonable rates, and design and implement public policies that promote California's environmental sustainability goals.
2. The topics to be addressed may become highly technical. Energy Division will do its best to provide materials and resources to facilitate understanding of these topics. Members must make a good faith effort to review and understand any materials provided in advance of RMWG meetings. This may require time outside of the designated RMWG meeting times.

RMWG Ground Rules for Participation

3. Members must restrict comments and discussions during meetings to the relevant topics being discussed for each meeting.
4. Members must be committed to helping Energy Division meet the deadlines that will be developed in this working group.
5. Members acknowledge that amendments to the RMWG charter might be updated and revised from time to time.

Frequency and Format

- To start, meetings will occur approximately every month.
- The RMWG will be the main venue for member engagement. However, there may be a need to convene discrete, specific-purpose bodies that branches off this main group to fulfill specific functions.
- Sample Agenda:
 - I. Admin/Intro
 - Ex. ED report out on recent completed action items; provide updates to follow up items from previous meeting; discuss near-term activities
 - II. Presentation Topic
 - ED introduces topic area; ED presents or invites speaker/s to present on a topic
 - III. Group Discussion and Q&A
 - Members to discuss, ask clarifying questions, and provide initial responses.
 - May or may not include breakout groups, and group report outs afterwards.
 - IV. Close

RMWG Formal Comments

The discussions within the working group meetings are not entered into the record. There will be opportunities to offer formal comments when a staff proposal and/or white paper is published.

Prioritization of RMWG Topics to Address

Microgrids and Resiliency Staff Concept Paper, July 22, 2020 ([link](#))

Type I-IV Microgrid	Real Property	Proceeding R.19.09.009 Track 1, 2, 3
Type I	Single Parcel	Track 1, 2
Type II	Contiguous parcels not crossing street	Track 1, 2
Type III	> 2 Contiguous parcels not crossing street	Track 3
Type IV	Assets cross street	Track 3

Coordination of RMWG Topics with other proceedings

- Integrated Distributed Energy Resources (IDER) – [R.14-10-003](#)
- Integrated Resource Planning (IRP) – [R.20-05-003](#)
- Renewable Market Adjusting Tariff (ReMAT) – R.[18-07-003](#)
- Self Generation Incentive Program (SGIP) – [R.20-05-012](#)
- Net Energy Metering (NEM) – [R.20-08-020](#)
- Interconnection – [R.17-07-007](#)

Priority Topics for RMWG to Address (Overview)

High Priorities

- Tariffs or procurement approaches for multi-parcel microgrids (Types III & IV)
- PUC 218-compliant approaches for multi-parcel microgrid ownership
- Value of resiliency, including but not limited to metrics or frameworks for value discovery

Lower Priorities

- Definitions of critical facilities
- CAISO wholesale market access
- Tariffs for single parcel, customer-facing microgrids
- Changes to PUC 218

Priority Topics for RMWG to Address

High Priorities

1. Multi-parcel microgrids (Types III & IV)
 - A. Tariffs details to address:
 - i. Pricing (rate schedule and compensation)
 - ii. Partnerships
 - iii. Standard Contracts
 - iv. Agreements
 - v. Safety
 - vi. Liability
 - vii. Cost Allocation
 - B. Redwood Coast Airport Microgrid (RCAM) – using this project as a beginning template

Priority Topics for RMWG to Address

High Priorities (cont'd)

2. PUC 218 - compliant approaches for multi-parcel microgrid ownership
 - A. What is NOT in our jurisdiction
 - B. Safety and Liability
 - C. What we can do
 - i. Electrical Cooperatives
 - ii. Micro-utilities
3. Value of resiliency, including but not limited to metrics or frameworks for value discovery
 - A. Internal ED Coordination – common resiliency policy issues across sections
 - B. Resiliency Metrics and Evaluation
 - C. Resiliency Investment Framework
 - D. Resiliency Valuation

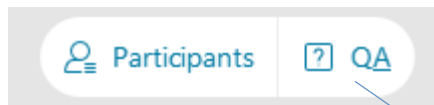
Priority Topics for RMWG to Address

Lower Priorities

1. Critical Facilities – definition and inclusions/exclusions
2. CAISO wholesale market access
3. Tariffs refinement for single parcel, customer-facing microgrids (Type I and II)
 - A. Backbone is Proposal 3 currently limited to NEM-eligible technologies
 - B. Tariff refinement such as:
 - i. Exemptions
 - ii. Fossil Fuel resources w/low emissions (the two may be intertwined)
4. Changes to PUC 218

Questions?

WebEx Tip

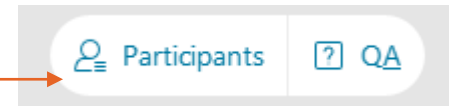


**Access the written
Q&A panel here**

Discussion

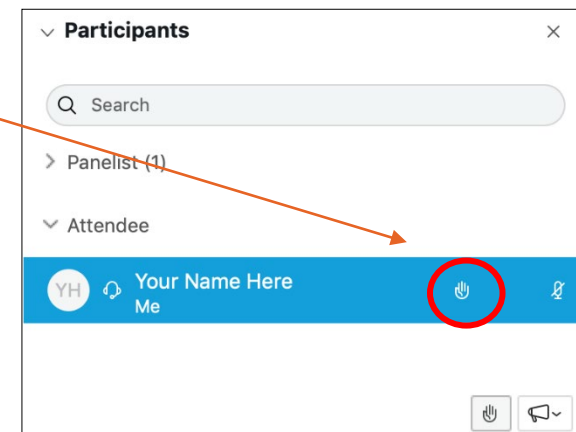
WebEx Tip

1. Click here to access the attendee list to raise and lower your hand.



2. Raise your hand by clicking the hand icon.

3. Lower it by clicking again.



Let us know what you think on these topics

- Would you like these meetings to be recorded and available for viewing later? Or would that hinder your participation in the discussions?
- Would you prefer close to full day meetings or would you prefer more frequent shorter meetings?
- Will you be willing to volunteer to write meeting minutes for a future meeting which will be circulated to the working group/service list? (These will not be fact-checked or CPUC endorsed)
- Any other thoughts regarding logistics?

Let us know what you think on these topics

- Do you agree with the current prioritization of the issues?
- Are there any other issues (high or low priority) you think should be on this list, for the Working Group to discuss?
- Are there issues on the list you think should NOT be on the list?
- Are there some issues that are dependent on the outcome of other issues such that one should be discussed before another?

Tariff Introductions

Joyce Steingass

Without shifting costs between ratepayers, develop separate large electrical corporation rates and tariffs, as necessary, to support microgrids, while ensuring that system, public, and worker safety are given the highest priority.

- PUC 8371 (d)

Tariffs provide the rates, rules, terms and conditions by which a customer receives utility service

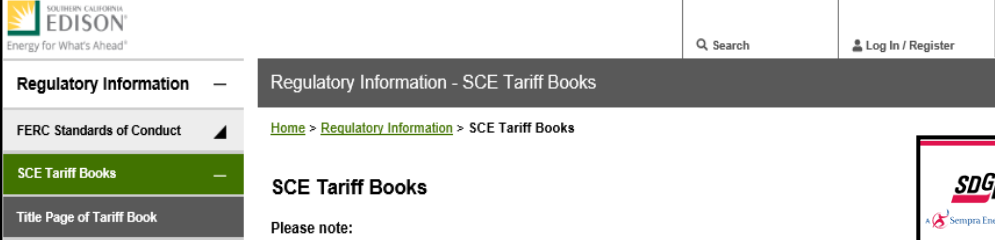
- Authorized effective rates and rules
- Filed with and approved by the CPUC
- Service must be provided according to authorized tariffs
- No officer, employee, or representative of the utility has any authority to waive, alter or amend the tariff schedules or any part thereof in any respect.

Tariffs currently in place were found to be just and reasonable by the CPUC. By definition, they were found to reflect CPUC's best judgment. They balance various policy goals and responsibilities. Therefore, advocates of tariff changes must articulate how the underlying objectives of the current rules can be satisfied even as the tariffs are changed. Or, they must justify how those objectives are either no longer relevant or lower priority.

Tariffs refer to documents found in a utility's Tariff Book

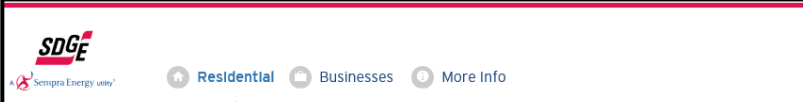
Tariffs

Current gas and electric rate schedules, preliminary statements



Tariffs

Current gas and electric rate schedules, preliminary statements



Tariffs refer to documents found in a utility's Tariff Book.

An online reference library: <https://www.pge.com/tariffs/index.page>

Preliminary Statements	Provide tariff provisions, e.g. territory served, types/classes of service rendered, general conditions of service. And, applicability, eligibility and accounting for tracking and recording memorandum or balancing accounts.
Tariff Rules	Rules regarding rates, charges, and services and covering the subjects required by G.O. 96-B, Rule 9.5.7.
Rate Schedules	Requirements to obtain service, rates and charges, special conditions, limitations, qualifications, or restrictions specific to the service or rates on the schedule.
Contracts & Deviations	List situations whereby the utility provides service at rates or under conditions different from tariffs in effect.

Customer generators may take service under various existing rules & schedules

Short Name	Title	Category	Goal
B-20	Service to Customers with Maximum Demands of 1000 kW or More	Schedule	Otherwise applicable rate schedule where maximum demand > 999 kW for at least 3 consecutive months.
Rule 21	Generating Facility Interconnection	Electric Rule	Interconnection, operating and metering requirements for certain kinds of Generating Facilities
NEM-FC	Net Energy Metering Service for Fuel Cell Customer Generators	Optional Schedule	Provides method of service for CARB eligible generators < 5MW on Time-of-Use rate schedule that achieve reductions in GHG emissions.
79-1069-02	Generating Facility Interconnection Agreement	Form	Agreement to interconnect & operate a generating facility. Facility must be a combination of generators, including at least one NEM2 Eligible customer-generator.
E-S	Standby Service	Schedule	Supplies electricity & capacity for customers whose supply would otherwise be delivered by utility facilities but are regularly and completely provided through facilities not owned by the utility.

Effectively designed tariffs set prices based on sound economic principles

- For CPUC-jurisdictional services, tariffs:
 - Determine how a utility recovers its costs
 - Set the rate or price for utility services
 - Allocate costs amongst customer classes
- Tariffs may address state policy goals & incorporate ratemaking principles:
 - Promote energy efficiency, reduce greenhouse gases, implement Renewables Portfolio Standard;
 - Ensure just & reasonable rates: rate stability & affordability;
 - Avoid cross-subsidization – cost causation: customers pay for services received, not services provided to others;
 - Provide equitable service, provide universal access, avoid discriminatory practices

Issues and challenges

Who is the targeted customer?

How should cross-cutting issues from WDAT be addressed?

Is compensating non-renewable exports in the public interest?

Are there services that should be compensated?

What level of compensation is prudent?

What evidence exists of benefits and cost savings to customers and society?

Which grid services are needed and where would they provide value?

How can rates be fairly/sustainably allocated – without cost shifting – as bundled service customer population decreases?

What flexibility is needed to supply backup power for resilience services?

Excerpts of R.19-09-009 Stakeholder Comments

Commonsense advice

- Be efficient
- Don't recreate the wheel
- Use existing tariffs wherever possible or simplify existing tariffs

Potential Areas of Controversy

- Adhere to SB 1339 tenets to avoid cost shifting
- Remove standby charges and departing load charges

Necessary Tasks:

Define technical & operational requirements for safety & reliability

- Microgrid controller technical requirements, specifications, and certification
- Microgrid transitional requirements
 - Minimum wait times to transition to and from grid connection
 - Minimum power quality requirements
 - Autonomous and manual transition requirements

Define roles and responsibilities for the business transactions

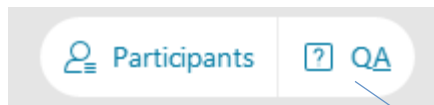
- Identify who pays what to whom for services provided
- Specify compensated energy transactions without duplicating
- Define the costs and fees associated with interconnection
- Ensure consumer protections are incorporated, for safety and cost

Future Meeting Steps

1. Review status of hybrid microgrid tariff development
 - Presentations relative to the Redwood Coast Airport Microgrid Project
 - Schatz Energy Research Center
 - Pacific Gas and Electric Company
2. Identify objectives of hybrid microgrid tariff

Questions?

WebEx Tip



**Access the written
Q&A panel here**

Next Steps

Next Steps

- This PowerPoint will be available at:
<https://www.cpuc.ca.gov/resiliencyandmicrogrids/>
- Next Meeting: 11/4/2020 AM
- Agenda and registration link will be shared shortly via the Service List and will be available on the CPUC Resiliency and Microgrid webpage
 - Registration requires acknowledgement and agreement to the Charter.

For more information:

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<https://www.cpsc.ca.gov/resiliencyandmicrogrids/>

