

Resiliency & Microgrids Working Group

Multi Property Tariff Phase: Consumer Protection

Resiliency and Microgrids Team, Energy Division

March 22, 2021



California Public
Utilities Commission

WebEx and Call-In Information

Join by Computer:

<https://cpuc.webex.com/cpuc/onstage/g.php?MTID=e2f9680cb54bd967d023af3182ffda006>

Event Password: RMWG

Join by Phone:

- Please register using WebEx link to view phone number.
(Staff recommends using your computer's audio if possible.)

Notes:

- Today's presentations are available in the meeting invite (follow link above) and will be available shortly after the meeting on <https://www.cpuc.ca.gov/resiliencyandmicrogrids>.
- This meeting will not be recorded and there will not be meeting minutes.

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.
 - Please lower your hand after you’ve asked 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

WebEx Tip

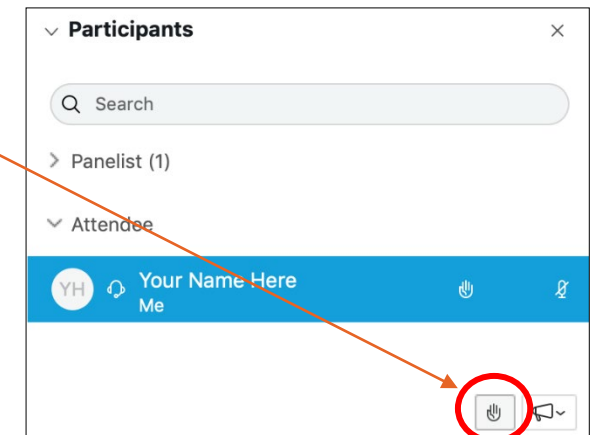
1. Click here to access the attendee list to raise and lower your hand.

Access the written Q&A panel here

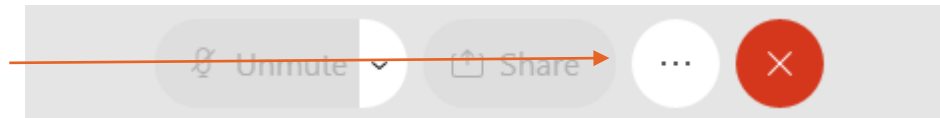


2. Raise your hand by clicking the hand icon.

3. Lower it by clicking again.



Access your meeting audio settings here



WebEx Event Materials

Event Information: Resiliency and Microgrids Working Group Meeting


Registration is required to join this event. If you have not registered, please do so now. [English](#) : [San Francisco Time](#)

Event status: Not started ([Register](#))

Date and time: Tuesday, March 2, 2021 9:30 am
Pacific Standard Time (San Francisco, GMT-08:00)
[Change time zone](#)

Duration: 1 hour

Description:



Event material: [RMWG Meeting Material_EXAMPLE.docx](#) (31.7 KB)

By joining this event, you are accepting the Cisco Webex [Terms of Service](#) and [Privacy Statement](#).

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Agenda

I. Introductions

2:00 – 2:05

- WebEx Logistics
- Review agenda

II. Consumer Protection Considerations

2:05 – 3:55

- Examine ways in which microgrid customers and non-participating ratepayers are protected (or not protected) from unjust or unreasonable rates.
- Present questions for the working group on how to develop protections in a multi-customer microgrid tariff.

V. Next Steps

3:55 – 4:00



On peak 298 kW x \$4.33000 x 23.71 d
 Mid peak 252 kW x \$0.81000 x 22
 Energy - Summer
 On peak 9,073 kWh x \$0.05232
 Mid peak 11,910 kWh x \$0.01
 On peak 12,338 kWh x \$0
 Energy - Winter
 Mid peak 5,624 kWh x 5
 Off peak 3,634 kWh x
 Customer charg

Potential Consumer Protections Under a Multi-Customer Microgrid Tariff

\$22.99 nuclear
 \$240.17 public
 Franchise fees repr
 Your Generation ch
 Transition Charge
 DWR provided 21.3

Fangxing Liu
 Steven Shoemaker
 Kristin Rounds
 March 22, 2021

DWR
 Energy - Summer
 On peak 1,993 kWh x \$0.0798
 Mid peak 2,616 kWh x \$0.07981
 Off peak 2,710 kWh x \$0.07981 \$21
 Energy - Winter
 Mid peak 1,235 kWh x \$0.07981 \$98.57
 Off peak 798 kWh x \$0.07981 \$63.69
 Facilities related demand 360 kW x \$1,86000 \$669,60

Purpose of Presentation

Review how this proceeding has approached the issue of microgrid customer protections.

Present an overview of two microgrid ownership structures.

Examine ways in which microgrid customers and non-participating ratepayers are protected (or not protected) from unjust or unreasonable rates.

Present questions for the Working Group on how to develop protections in a multi-customer microgrid tariff.



Prompt Questions

From Energy Division's Multi-Property, Multi-Customer Microgrids Tariff Discussion Prompt and Questions:

- If **peer-to-peer transactions** are part of the intended microgrid operation under the tariff, how can customers be assured that energy charges set by other customers within the microgrid, are **just and reasonable**?
- What mechanism will be in place to ensure that **costs do not shift** from participating to non-participating customers?



Discussion of Customer Protections in R.19-09-009

- The Track 2 Decision:
 - Allowed microgrids that serve public agencies to provide electricity to customers on adjacent premises in the event of a grid outage.
 - Limit of 10 microgrid projects per IOU.
 - This lowered barriers to developing microgrids while acknowledging the Commission's stated concerns about allowing private entities to provide electricity services outside of Commission jurisdiction (and the protection that jurisdiction entails).



The Commission has Differentiated Between Microgrids that Serve Public and Private Entities in R.19-09-009

The Track 2 Decision requires that party-to-party electricity services during outages be limited to microgrids that serve public entities.

The Commission found that focusing on public entities ensured accountability to the public, as these entities are charged with protecting the public from undue costs.

Source: Decision 21-01-018 , p. 29.



The Redwood Coast Airport Microgrid is an Example of the Accountability of Public Agencies

- Redwood Coast Energy Authority (RCEA) (the local Community Choice Aggregation electricity provider, or CCA), whose board is made up of council members from RCEA's participating cities, invested in a portion of the generation included in the Redwood Coast Airport Microgrid (RCAM).
- That generation consists of a 2.2 MW Solar PV Array and 8.8 MWh of storage.

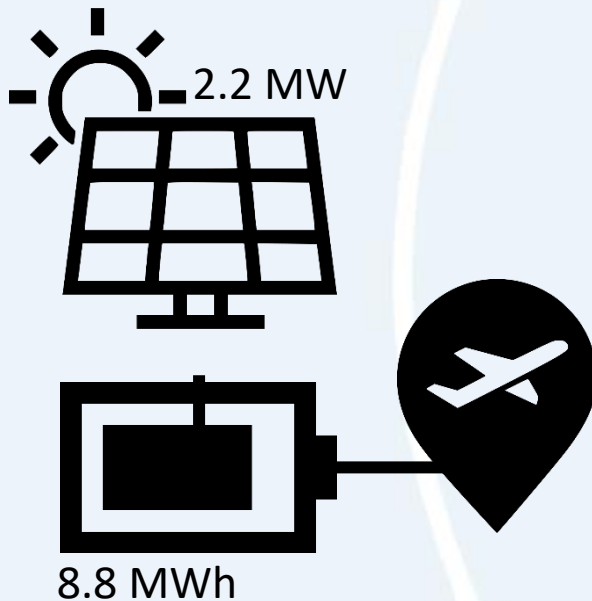


Source: RCEA

Source: Presentation for the Resiliency and Microgrids Working Group by the Schatz Energy Research Center. November 4, 2020. Available at <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442466691>



Potential Consumer Protections for Local CCA Customers in the RCAM



The CCA-owned generation is partially used to serve CCA customers by participating in CAISO markets during blue sky operations.

If RCEA's customers disagree with the microgrid investment, they can:

Switch back to PG&E

OR

Engage with elected officials on the RCEA board



REDWOOD COAST
Energy Authority

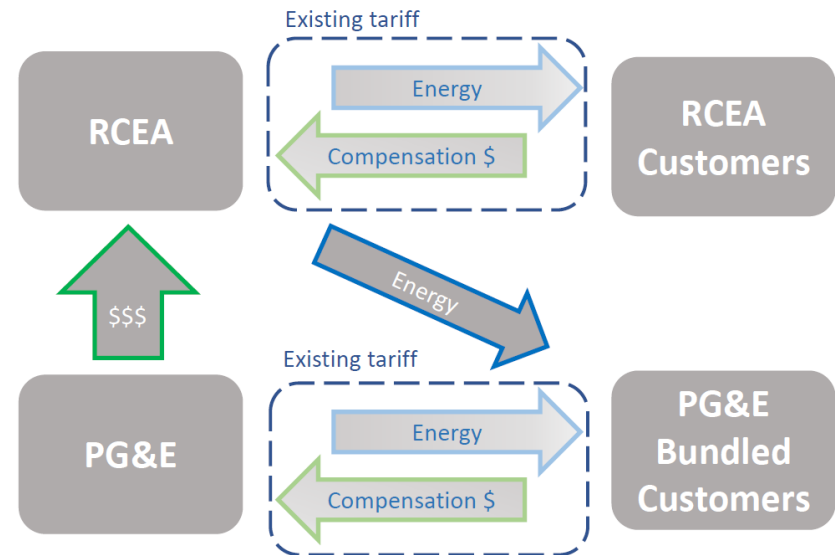
Are these consumer protection options sufficient?

Source: <https://redwoodenergy.org/about/board-of-directors/>



Microgrid Customers Should be Protected for Services Rendered During Islanding Events

- During grid-wide outages, the CCA's generation should provide electricity to microgrid customers.
 - RCEA worked with PG&E to establish an “islanded grid services tariff” that outlines how those services will be provided.
- The Resiliency and Microgrid Working Group should establish how customers are specifically protected in an islanding scenario.
 - How are per-kWh rates determined during an islanding events?



Redwood Airport Microgrid Islanded Energy Tariff

Source: SB 1339 Microgrid Workshop by RCEA, December 2019



Does the Redwood Coast Airport Microgrid Protect Non-CCA Customers from Cost-Shifting?

- Distribution upgrade costs incurred by the microgrid are paid solely by RCEA and PG&E (subject to reasonableness review).
 - PG&E's contribution to the upgrades come from the Microgrid Infrastructure Cost Recovery Tariff, which is covered by Tariff Rule 2 Special Facilities Agreement.
- Departing load charges, such as the Power Charge Indifference Adjustment, are assessed to CCA customers to ensure that non-CCA customers do not bear costs associated with their departure.



Questions Moving Forward

- If the Commission allows private entities to participate in a multi-customer microgrid, how can we ensure accountability, and just and reasonable rates?
 - What existing protections can we learn from?



Source: BioCycle



One Option for Customer Protections : A Landlord – Tenant Microgrid

- Consider hypothetical landlord - whose electricity is provided by both a microgrid and their local utility - wishes to provide electricity to one of their tenants. The electricity payment may be bundled with the tenant's rent.
- How is a just and reasonable rate ensured in this scenario?



Source: Solar Industry Magazine



One Option for Customer Protections : A Landlord – Tenant Microgrid (continued)

- Whenever electric service is provided by a master-meter customer to users who are tenants, the master-meter customer shall charge each user of the service at the **same rate** which would be applicable if the user were receiving electricity from the electrical corporation (PU Code 739.5).
 - For example, a qualifying customer would need to be served at the California Alternative Rates for Energy, or CARE rate.
- Landlords are required to provide itemized electricity charges to each sub-metered tenant and post residential utilities electric rate schedules in easy-to-find locations (PU Code 739.5).
- Tenants can pursue legal action if their landlord is over-charging customers greater than utility.

Is this requirement sufficient and enforceable?



The Commission Has Developed a Consumer-Education Plan for Solar PV Customers

- The Commission requires solar customers to review a consumer protection guide that outlines what they need to know before signing a contract with a solar provider.
- Based on the results of this working group, the Commission should consider adopting an analogous guide for microgrid customers.

The image shows the cover of a document titled "CALIFORNIA SOLAR CONSUMER PROTECTION GUIDE". The text is in blue and black. Below the title, it says "Published January 2021". The background of the cover is white with a blue and orange border at the top.

CALIFORNIA SOLAR CONSUMER PROTECTION GUIDE

Published January 2021

Source: The California Public Utilities Commission



Discussion Questions: Protecting Microgrid Participants and Non-Participants

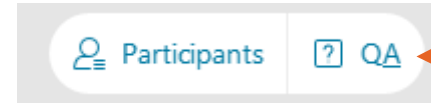
1. Should microgrid customers have the choice to opt out of the microgrid service?
2. What are the risks associated with allowing private entities to provide electricity services to third parties?
3. If microgrid owners are not subject to public election processes and customers opting out is infeasible, should the rates and charges to a customer of a microgrid not exceed the rates that the customer would pay for the electricity from their utility?
 - If this rule is adopted, should the Commission be concerned about arbitrage (buying electricity cheaply, storing it, and reselling at a higher utility rate?)
4. Should the Commission consider developing a consumer protection guide for microgrid customers?



Discussion and Q&A

WebEx Tip

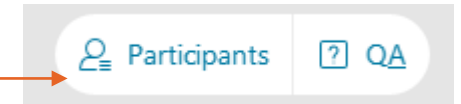
Option 1:



Access the written Q&A panel here

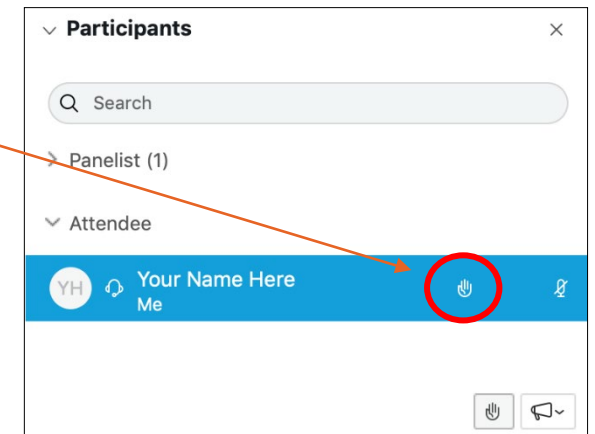
Option 2:

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.



Next Steps

- **Action Request from Members:**
 - Let us know if you have other tariff development-related resource suggestions that may be helpful for the working group members to be aware of.
- **Next Meeting**
 - **THERE WILL NOT BE A MEETING ON Monday, April 5, 2021.**
 - Monday, April 12, 2021, 2-4PM
Topic: RCEA's End User Perspective on CMET
- **Upcoming Meeting:** Please put a hold on your calendars for these meetings. The dates and topics may be subject to change, and we provide an update shortly.
 - Monday, April 19, 2021, 2-4PM
 - Monday, April 26, 2021, 2-4PM

For more information:

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

