



Hawaiian  
Electric

# Microgrid Services Tariff Working Group

December 21, 2020

Updated with **revisions** based on discussion



# Agenda

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- ◆ Commission's Guidance
- ◆ Proposed Timeline



# Commission's Guidance – 12/10/20 Letter

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- ◆ Parties jointly file revised documents by Jan. 25, 2021 to:
  - Address recommended actions (next section)
  - Address any other issues the Parties identify as needing attention
  - For areas of disagreement, Parties individually file alternative redlines with supporting arguments





**Hawaiian  
Electric**

# Commission's Recommended Actions

12/10/20 Letter



# 1) Customer Microgrid Interconnection Agreement

## 1. Customer Microgrid Interconnection Agreement (Tariff Section A)

Hawaiian Electric clarified that an Interconnection Agreement for Customer Microgrids would not be necessary. The Parties generally agreed that the Application for Customer Microgrids, as well as enrollment in applicable DER Programs, would accommodate the needs of Customer Microgrids. It appears that no further action is needed regarding the Interconnection Agreement for Customer Microgrids.

## Proposed Action

- None



## 2) Definition of Customer

12/10/20 Letter

### 2. Definition of the Customer (Tariff Sections A.1.g and E.1.a)

MRC explained that its proposed edits to the Tariff section A.1.g stem from concerns about variety of different relationships that a Microgrid Operator could have with Microgrid Participants, and that so long as the definition does not preclude a third party Microgrid Operator that is different than the Microgrid Owner the definition does not need to be updated. MRC agreed that this concept should be clarified in Section E.1.a. Ulupono Initiative stated that the definition of customer may still be problematic, but agreed that Section E.1.a needed further clarification. The Parties should discuss MRC's redlines to the definition of Customer in the Draft Tariff (which includes the Microgrid Operator of a Customer Microgrid in the definition) and revise the definition accordingly. In doing so, the Parties should consider the roles of the owner of a Microgrid and the Microgrid Operator, any applicable laws in Hawaii, and determine whether a distinction should be made between these roles in the Tariff.

MRC's Redline

g. "Customer" or "Customers" used herein is as defined in Company Rule No. 1. and includes the Microgrid Operator of a Customer Microgrid.

### Proposed Actions

- WG members to discuss at next meeting



# 3) Applicability of Other Tariffs

12/10/20 Letter

**3. Applicability of Other Tariffs (Tariff Section B.3)**

MRC clarified that its proposed edits to section B.3 stem from the idea that in a Customer Microgrid, only the owner of the generating unit or lessee of the generating unit would be compensated under existing DER Programs. The Parties agreed to review MRC's proposed edits to clarify and further distinguish between the Microgrid Operator and the Microgrid Owner. The Commission recommends that the Parties discuss MRC's proposed redlines, including the inclusion of language stating that a Customer Microgrid shall not be subject to Rule 15. The Parties should decide whether those redlines should be included in the revised Draft Tariff.

MRC's Redline

3. For Customer Microgrids and Hybrid Microgrids, existing tariffs and programs shall generally be applicable. However, a Customer Microgrid shall not be subject to Rule 15. In addition, any Company Rule which requires that Generating Facilities be owned by a Customer or located on Customer premises to be eligible shall be deemed to include all Generating Facilities that are behind the Point of Common Coupling of a Customer Microgrid and under the operating control of the Microgrid Operator.

## Proposed Action

- MRC to present perspective to WG for discussion at next meeting



## 4) Indemnification

### 4. Indemnification (Tariff Sections C.1-2)

Hawaiian Electric favored including indemnification language in the tariff, at least as a starting point, in order to account for the variety of possible structures behind the meter and corresponding relationships. However, Ulupono asserted that having the indemnification language in the tariff would not necessarily provide the desired flexibility

and recourse; Ulupono instead suggested that having the indemnification language in the interconnection agreement would allow for negotiating and tailoring the language to each unique project. Hawaiian Electric raised additional concerns that interconnection agreements under other tariffs may need to be rewritten to account for customer microgrids specifically.

The Commission recommends that the Parties decide whether further edits are necessary in the indemnification sections of the Draft Tariff and determine whether indemnification language should be removed from the tariff and instead be included in only the Hybrid Microgrid Operator Interconnection Agreement. The Parties should also evaluate and propose any other necessary changes needed other tariffs to account for customer microgrids.

### Proposed Action

- Hawaiian Electric to review and propose changes (if any) for discussion





## 5) Data set for Feasibility Study

### 5. Data Set Satisfaction Prior to Conducting the Feasibility Study (Tariff Section D.3.b)

Hawaiian Electric agreed to create a list for this data standard. The Company should create a list of standardized data that will be required of all Applicants of a Hybrid Microgrid who request a feasibility study, incorporate this list in all pertinent documents, and provide all revisions to the Parties for review.

### Proposed Action

- Hawaiian Electric to provide for future WG meeting



## 6) Hybrid Microgrid Compensation

### 6. Hybrid Microgrid Compensation (Tariff Section E.2)

Hawaiian Electric's consultant acknowledged that leasing has not been discussed significantly in this proceeding and remains a very complicated topic in other jurisdictions. MRC asserted that leasing could be a way to allow Hybrid Microgrids to operate as if they were Customer Microgrids and commented that there will be very few providers that would pursue a Hybrid Microgrid project under the singular arrangement considered in the Draft Tariff. The Parties should discuss the possibility of including language in the Draft Tariff that allows for a leasing arrangement between the Microgrid Operator and the Company for Hybrid Microgrids.

### Proposed Action

- MRC and/or Ulupono to present to WG and provide redlines for discussion



## 7) Hybrid Microgrid Applications Interconnection Queue

### 7. Hybrid Microgrid Applications Interconnection Queue (Tariff Section G)

Hawaiian Electric clarified that the term “queue” refers to an Interconnection queue for hybrid microgrids. No further action appears necessary regarding this topic.

### Proposed Action

- None



## 8) Project/Program caps, Rated Power

**8. Project Caps, Program Caps, and Rated Power (Tariff Sections D.2, I.2, and H.3.a.i)**

Hawaiian Electric stated that the Project caps were justified by the size of a feeder being around 3MW, and thus Hawaiian Electric selected a 3MW cap. Hawaiian Electric acknowledged that Molokai and Lanai may not need to be excluded from the Draft Tariff

and agreed to discuss this topic with the Parties. Regarding Rated Power, Hawaiian Electric agreed to clarify the reference as it related to the transition from grid connected to islanded mode that required zero power with a nominal margin allowed based upon the generating capability of the Microgrid.

The Parties should evaluate the impacts of increasing (or altogether eliminating) proposed project caps and program caps for all islands. Additionally, the Parties should discuss inclusion of Molokai and Lanai and propose corresponding project caps and program caps for those islands, if necessary.

The Company should revise the definition of Rated Power in the Draft Tariff and accompanying documents in light of the Parties' discussions, or otherwise provide reference to any applicable definition.

### Proposed Action

- Hawaiian Electric to review program caps and provide edits to clarify definitions (re: “rated power”)



## 9) Anti-Islanding Provisions

12/10/20 Letter

### 9. Anti-Islanding Provisions (Tariff Section H.3 paragraph 4)

Hawaiian Electric explained that these provisions were included to allow a transition to island mode whenever the system would otherwise trip offline and stated that it was willing to re-write item (2) to be clearer. The Company should provide its revisions to the Parties for review.

Commission's  
12/10/20  
Redline

A Customer Microgrid may disconnect from the Company System and transition from Grid-Connected Mode to Island Mode, (1) under any of the Trip or Cease to Energize conditions as required by Rule 14H, Appendix I (e.g., Table 4A-1, Table-4A-4, and Table 4A-5 of Rule 14H, Appendix I) or (2) where anti-islanding conditions are present and where the Generating Facility is required to Cease to Energize and Trip within two seconds where an island may be detected on the Company System. In either of these cases, the Customer Microgrid may transition to Island Mode provided that the Customer Microgrid does not energize any part of the Company System.



**Author**  
Please clarify this provision. Is the intent to refer to anti-islanding provisions of Rule 14H?

### Proposed Action

- Hawaiian Electric to provide revision to WG.



# 10) Hybrid MG Operator Interconnection Agreement

## **10. Draft Hybrid Microgrid Operator Interconnection Agreement**

The Parties are requested to engage in further dialogue on and revise the Draft Hybrid Microgrid Operator Interconnection Agreement to reflect discussion at the Technical Conference. For instance, at the Technical Conference, the Company clarified that a phonline requirement may not be necessary for Company-owned meters (as specified in Section 1.d.i.B of Exhibit B), as advanced meters could provide the necessary functionalities. In addition, the Company should replace or revise any references to a Soft-Start Ramp Rate (as seen in Section H.3.a.i of the Draft Tariff) to ensure consistency in definitions of ramp rate throughout the Draft Tariff and accompanying documents.

With respect to the Draft Hybrid Microgrid Operator Disclosure Checklist referenced in the Draft Hybrid Microgrid Operator Interconnection Agreement, the Commission has proposed removal of the checklist. At the Technical Conference, the Consumer Advocate emphasized the importance of protecting customers. The Parties should discuss the Consumer Advocate's concerns and work to identify ways to further streamline the Draft Hybrid Microgrid Operator Disclosure Checklist.

The Commission emphasizes the importance of Parties working collaboratively to revise and further streamline the Draft Hybrid Microgrid Operator Interconnection Agreement as this draft does not appear to adequately meet the intent of Act 200.

### Proposed Action

- **Parties to review Baird's comments (sent via email 12/21/20). Agree on action plan at next WG meeting.**
- Hawaiian Electric will clarify phonline requirement and soft-start ramp rate references.
- Consumer Advocate to present their position regarding the Disclosure Checklist. **After presentation,** parties to provide alternative proposals to resolve concerns.



# 11) Draft Modifications to Rule 24 and other DER Programs

11. **Draft Modifications to Rule 24 and Other DER Programs for Customer and Hybrid Microgrids**

At the Technical Conference, the Company reaffirmed its intent to include the Draft Modifications to Rule 24 in all other applicable DER programs. The Company should identify all such other applicable DER programs (“Other Rules”) which are expected to contain redlined language. Further, if there are any additional modifications that need to be made to Rule 24 and the Other Rules (whether broadly applicable or applicable to only a subset of the Rules), the Commission directs the Parties to provide such additional modifications for both Customer and Hybrid Microgrids for review. The Commission requests that the Parties provide redlined versions of the DER tariffs for the Commission’s review incorporating the modifications, along with any necessary justifications or comments.

## Proposed Action

- Hawaiian Electric will review Commission’s redlines, and add them to each existing DER Tariff for WG review.



# Action Item List

#	Title	Owner	Action	Target	Status
1	Customer MG Interconnection Agreement	n/a	None	n/a	n/a
2	Definition of Customer	ALL	WG Discuss	1/5	
3	Applicability of other Tariffs (i.e., Rule 15)	MRC	Present to WG	1/5	
4	Indemnification	HECO	Review and propose changes	1/5	
5	Data set for feasibility analysis	HECO	Develop list	1/11	
6	Hybrid MG Compensation	MRC/Ulupono	Present to WG and provide redlines for discussion	1/11	
7	Hybrid MG App Interconnection Queue	n/a	None	n/a	n/a
8	Project/Program Caps, Rated Power	HECO	Review and provide redlines	1/18	
9	Anti-Islanding Provisions	HECO	Review and provide redlines	1/5	
10a	Hybrid MGO Interconnection Agmt	ALL	Review MRC Comments	1/5	
10b		HECO	Clarify phonenumber and soft-start ramp rate	1/11	
10c		CA	Present position regarding checklist	1/11	
11	Draft Mod to Rule 24 and other DER pgms	HECO	Provide draft of all Tariffs w/ revisions	1/11	



# Other items not identified in Items 1-11?

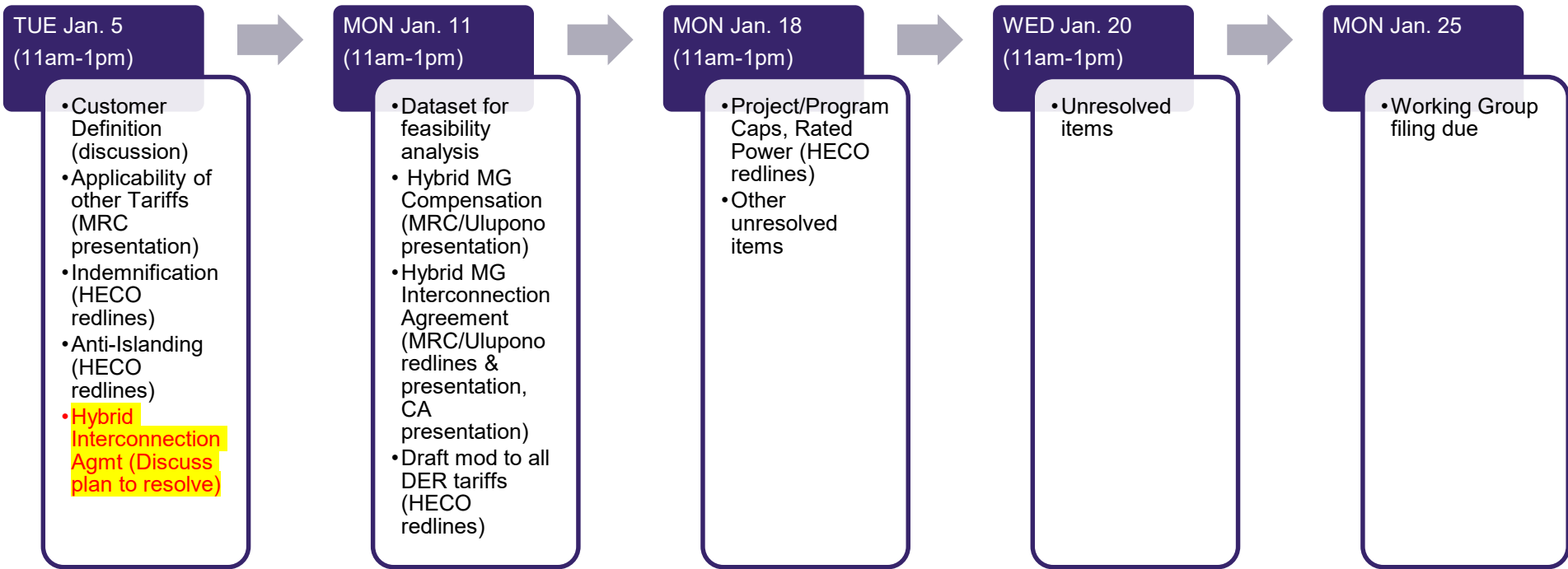
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- ◆ Discuss PUC Redlines
  - Removal of “emergency events” from MG definition
- ◆ What action item list should be placed (back to) the “parking lot”?



# Proposed Timeline

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Mahalo for your time.

<https://www.hawaiianelectric.com/about-us/our-vision-and-commitment/resilience/microgrid-services-tariff>