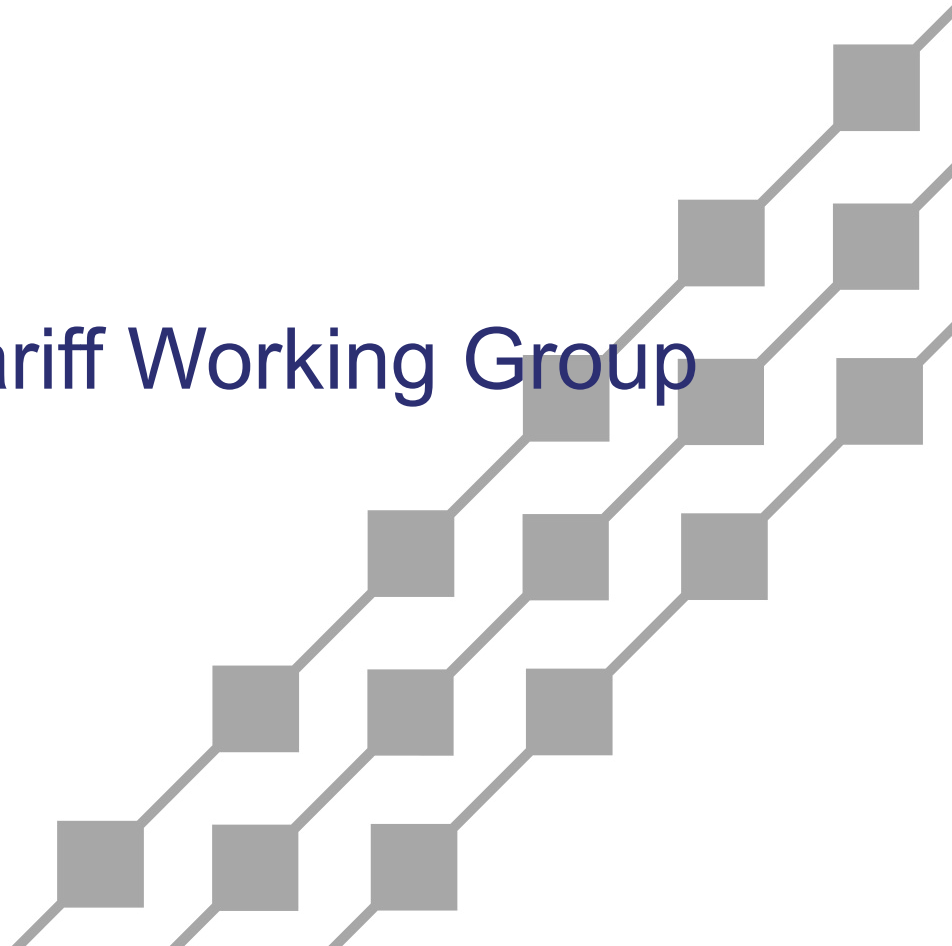




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Microgrid Services Tariff Working Group

January 14, 2021



Agenda

- ◆ Revisit Action Item List
- ◆ Today's Focus
 - Applicability of other Tariffs (i.e., Rule 15)
 - Project/Program Caps, Rated Power
 - Hybrid MGO IA Walk-Through
- ◆ Next Steps



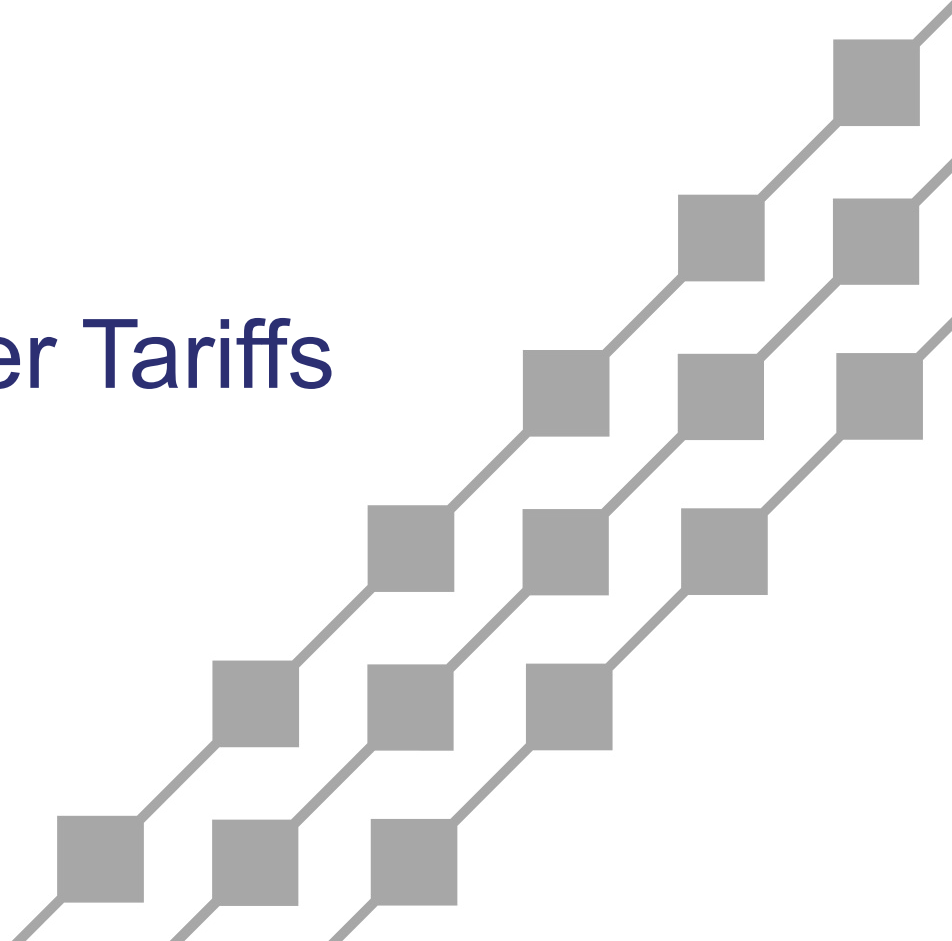
Action Item List

#	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	Open
3	Applicability of other Tariffs (i.e., Rule 15)	MRC	Present to WG	1/5	Open
4	Indemnification	HECO	Review and propose changes	1/5	Open
5	Data set for feasibility analysis	HECO	Develop list	1/11	Open
6	Hybrid MG Compensation	MRC/Ulupono	Present to WG and provide redlines for discussion	1/11	Open
7	Hybrid MG App Interconnection Queue	n/a	None	n/a	n/a
8	Project/Program Caps, Rated Power	HECO	Review and provide redlines	1/14	
9	Anti-Islanding Provisions	HECO	Review and provide redlines	1/5	Closed
10a		ALL	Review MRC Comments – IA Walk-through	1/14	
10b	Hybrid MGO Interconnection Agmt	HECO	Clarify phonline and soft-start ramp rate	1/11	Open
10c		CA	Present position regarding checklist	1/11	Open
11	Draft Mod to Rule 24 and other DER pgms	HECO	Provide draft of all Tariffs w/ revisions	1/11	Open



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Applicability of other Tariffs



Tariff Section 3 Revised Proposal (Jan. 5)

3. For Customer Microgrids and Hybrid Microgrids, existing tariffs and programs shall also be applicable subject to the following:
 - a. Notwithstanding Rule 15, A Microgrid Operator may resell electric energy received from the Company to (i) other persons within the electrical boundaries of the microgrid who have contracted to receive regular service from the microgrid and (ii) the Company; and
 - b. Any Company Rule or program which requires that Generating Facilities be owned or leased by a Customer or located on Customer premises to be eligible shall be deemed to include all Generating Facilities that are (i) behind the Point of Common Coupling of a Customer Microgrid and under the operating control of the Microgrid Operator and (ii) otherwise comply with the requirements of the rule or program.

HECO Proposal and Discussion

Par. 3 and 4a
acceptable to
MRC

Need further
discussion

3. For Hybrid Microgrids, existing tariffs and programs shall also be applicable.

4. For Customer Microgrids, existing tariffs and programs shall also be applicable, subject to the following:

a. A Microgrid Operator of a Customer Microgrid may allocate costs without markup for electric service received from the Company to other persons within the electrical boundaries of the microgrid who have contracted to receive regular service from the microgrid; and

b. Any Company Rule or program which requires that Generating Facilities be owned or leased by a Customer or located on Customer premises to be eligible shall be deemed to include all Generating Facilities that are

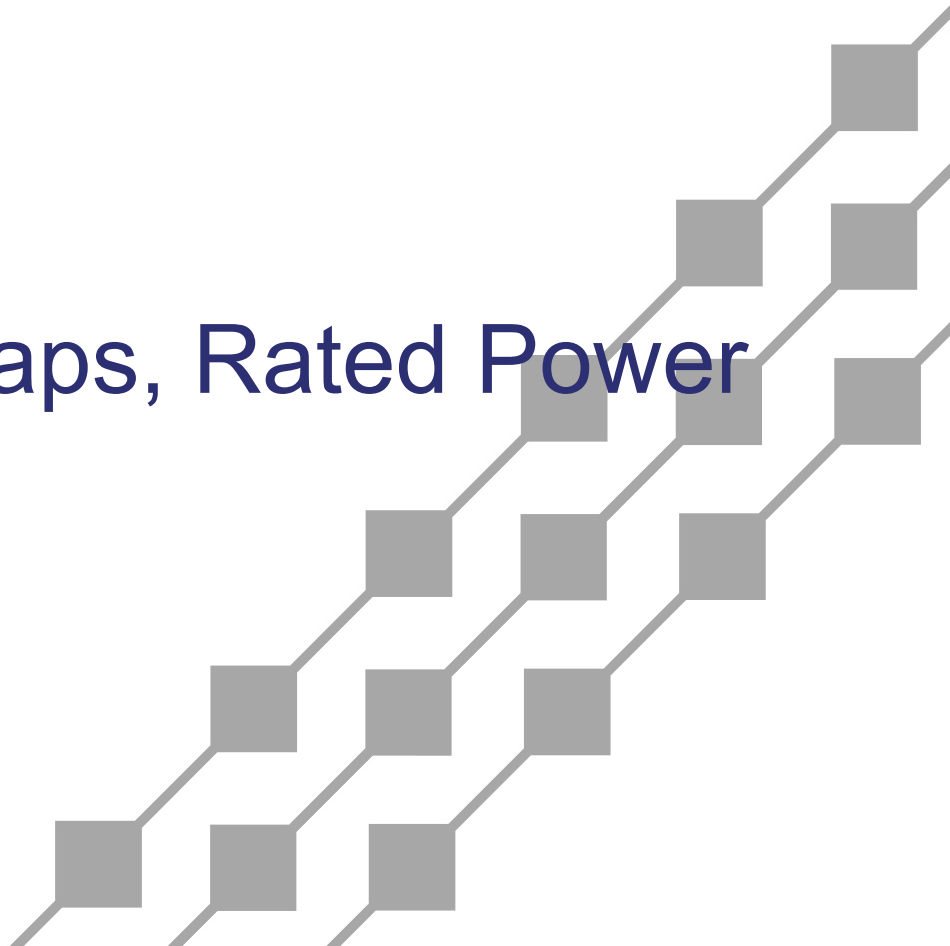
(i) behind the Point of Common Coupling of a Customer Microgrid and under the operating control of the Microgrid Operator and (ii) otherwise comply with the requirements of the rule or program.





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Project/Program Caps, Rated Power



Total Rated Capacity

Hybrid MGO IA, Exhibit G (Definitions)

- Suggested language by WG to remain flexible for storage output?

49. “Total Rated Capacity” means the aggregate total of all Generating Facilities that intend to supply power to the Hybrid Microgrid during Island Mode as defined in Section 7 of Exhibit A to this Interconnection Agreement.

Alternative from Rule 14H

Technical System Size: Technical System Size as used herein applies to photovoltaic inverter-based generation, including those paired with energy storage systems. Technical System Size for all other types of Generating Facilities will be handled on a case-by-case basis. Technical System Size refers to the maximum possible simultaneous generation (including discharge of energy storage systems) of the Generating Facility, and is calculated as the lesser of the sum of all inverter strings of the aggregate system or the maximum amount of export as permitted by the existence of an on-site limiting element that caps the amount of the Generating Facility’s export at the Point of Common Coupling (“PCC”). Each inverter string is calculated as the sum of all simultaneous kWdc per inverter string or the inverter kWac per inverter string, whichever is less. Technical System Size is used as part of the technical review process as described herein.





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Hybrid MGO IA Walk-Through

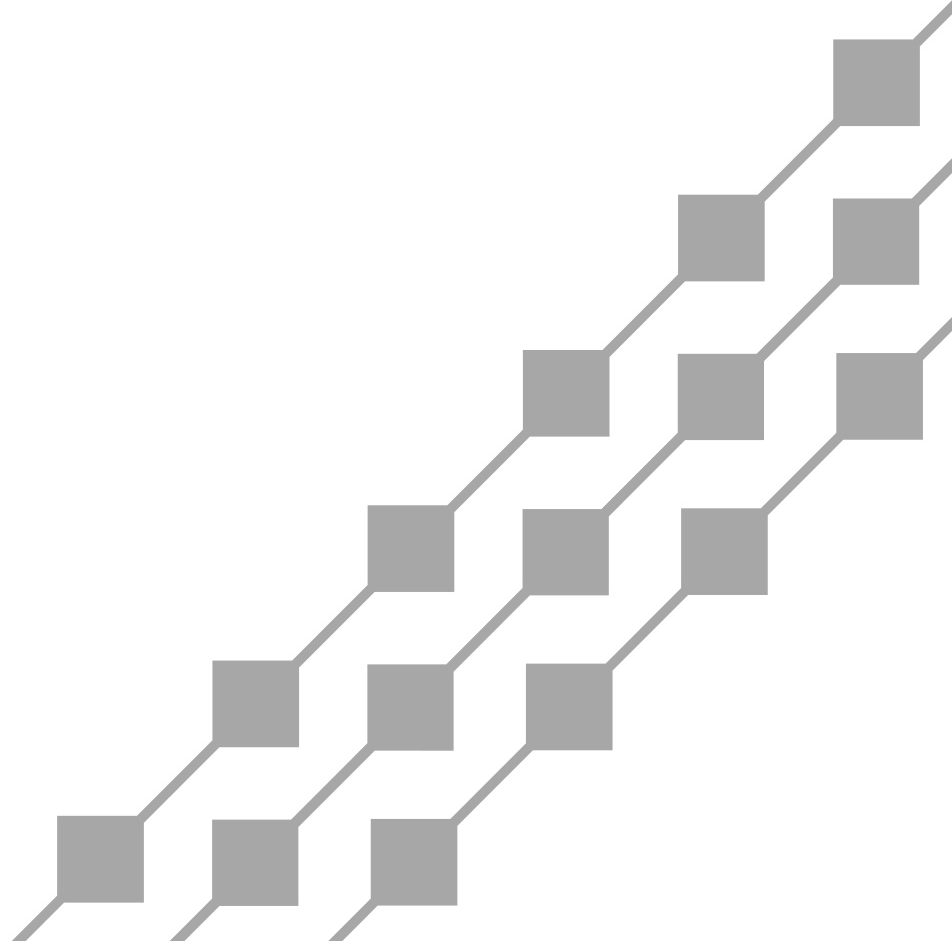
Discussion with Word Doc





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Next Steps



Action Item List

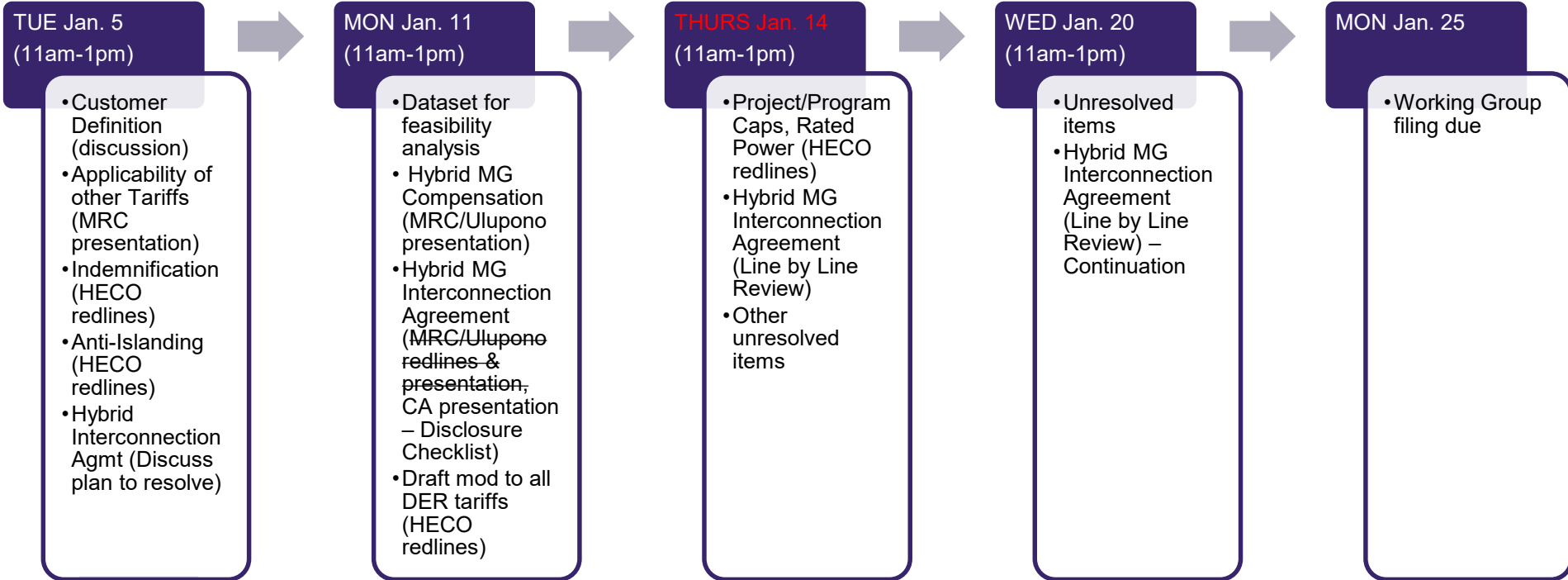
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Other items not identified in Items 1-11?

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



Proposed Timeline





Mahalo for your time.

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