Distributed Energy Resources
Connected

Hawaiian Electric
Maui Electric
Hawai'i Electric Light

August 2019

What's the plan for DER?

By Lani Shinsato
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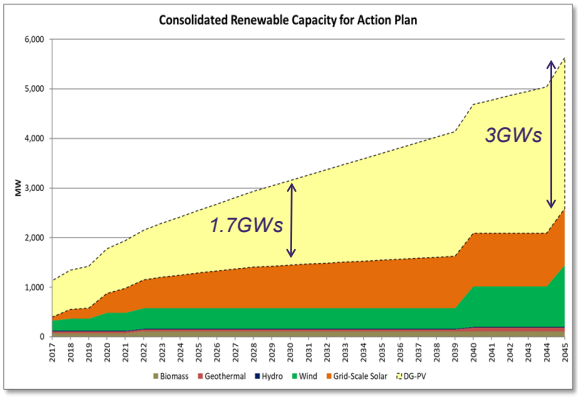
With the highest level of customer-sited rooftop solar among utilities across the nation, and much more needed to reach our 2045 clean energy goals, the Hawaiian Electric Companies are profoundly aware of the essential value of distributed energy resources.

Still many ask, what's the plan? What's your strategy for enabling more customers to be part of the clean energy transformation?

Our customers are the center of our DER Strategy, as captured in the adjoining graphic. The strategy is grounded on the following three principles: distributed energy resources are essential to achieving our 100 percent renewable energy goal, the utility must expand opportunities for cost-effective distributed energy resources, and the expansion of distributed energy resources must benefit all customers. We will work together with DER installers and the community to achieve these goals.

Our Power Supply Improvement Plan clearly lays out the role of DER. We recognize that we cannot come close to 100 percent renewable energy depending on grid-scale renewables and energy storage alone. Given our land constraints and population density, Hawai'i is uniquely dependent on customer-sited renewables to achieve state goals. In short, the question isn't if, but how best to enable distributed energy resource growth to fairly benefit all customers.

Our basic strategy, therefore, is to use pricing, in the form of rates; programs like Customer Grid Supply Plus, NEM-Plus, Smart Export and more; and procurements (for example larger community solar projects) to foster effective development and use of DER. - *Continued next page.*



Mark your calendar!

DER Monthly Stakeholder Meeting

10 am-noon,
Friday August 23

American Savings Bank Tower, 8th floor, Training room #1

Agenda includes Interstate Renewable Energy Council guest speaker on plans for an Interconnection Guidebook and proposals to update PUC Rule 14H; Proposed interconnection fee for systems over 30kW; and Advanced inverter workplan

Read more on the back.

DER Interconnection Application Fee

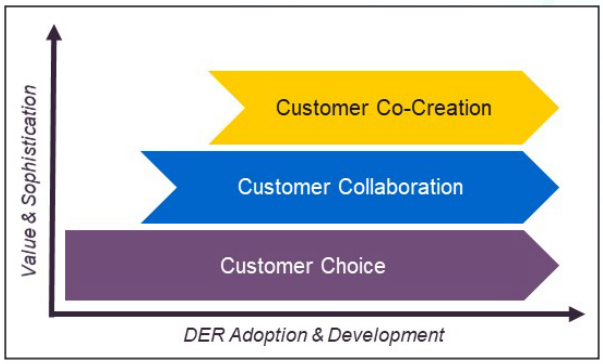
As you know, at present there is no fee to apply for DER interconnection. In recent stakeholder meetings, Hawaiian Electric proposed a one-time interconnection application fee of $100 for systems under 30 kW. This fee was calculated to cover the costs to maintain and improve the Customer Interconnection Tool (CIT).

The Hawaiian Electric Companies also propose a sliding one-time interconnection fee based on size for systems over 30 kW. We think a one-time fee of $5 per kW for systems over 30 kW is fair, reasonable, and is in line with the $5 per kW annual CBRE administration fee already approved by the Public Utilities Commission. - *Continued next page.*

What's the plan for DER? - *Continued.*

We see customer participation at three levels, which we are calling the "Three Cs." At the basic level, many customers will be fairly passive participants, for instance, taking part in time-of-use rates with advanced metering. The second level, collaboration includes, for instance, customers with rooftop solar and perhaps storage who may return some excess electricity to the grid. The third level we call co-creation which goes beyond simple rooftop solar ownership to include participation in demand response and provision of grid services through aggregators to help keep the grid stable, reliable and operating at highest efficiency for all.

These are the concepts that will be our standard as we develop advanced rates, proposed updates to regulatory rules, encourage new technology adoption (as in our advanced inverter program), and future programs for rooftop solar and behind-the-meter storage.



We are now developing a longer, more detailed DER strategy document to submit to the PUC. We will be seeking your input directly, through DER industry leadership and other stakeholder organizations. Stay tuned.

Interstate Renewable Energy Council

Hawaiian Electric plans to work with the Interstate Renewable Energy Council to develop an Interconnection Guidebook and possible proposals to update PUC Rule 14H.

At the DER Monthly Stakeholder Meeting, 10 am-noon, Friday August 23 in ASB Tower, 8th floor, Training room #1 you can hear from IREC and discuss the plan of work.

IREC is a 36-year-old not-for-profit organization working to make affordable, reliable, sustainable clean energy and energy efficiency possible for more Americans through fact-based regulatory policy engagement and best practice resources. This includes for low-to moderate-income renters, multi-family dwellers, and in underserved communities.

Among many IREC publications are: Guidebook for Distributed Energy Resource (DER) Interconnection; A Checklist for Voluntary Utility-Led Community Solar Programs; Expanding Solar Access: Pathways for Multifamily Housing; Optimizing the Grid: A Regulator's Guide to Hosting Capacity Analyses for Distributed Energy Resources and Charging Ahead: An Energy Storage Guide for Policymakers

Learn more at *irecusa.org*.

DER Interconnection Application Fee - *Continued.*

Thus the fee for a 40kW System would be $200.

No one likes to see fees go up but we believe this represents a more fair distribution of costs to those that benefit from the CIT and a fair distribution of costs between small and large systems. We will welcome your input at the stakeholders meeting on August 23.

Technical Talk: Critical Loads

Have you installed a system where a customer's critical loads are backed up by the PV/BESS system? If so, you may wonder: what is the proper protocol between DER installation and agreement execution for those backed-up loads? If backed-up loads are connected to the inverter, turning system disconnect off after installation will only allow batteries to power the backed-up loads for a short time before running out of energy. This could create a safety problem where critical customer loads may be left without power.

The standard practice is that the PV disconnect should be in the "OFF" position until the system has permission to operate. This is to ensure safety for crews doing the meter swap and avoid issues with billing by having the PV system run before modified DER billing. Contractors may have a way to temporarily feed critical loads from another source (i.e. service panel) at least until the system is interconnected but, if not, we allow the AC disconnect to be left in the "ON" position while the PV side remains off and bypassed by shutting off the DC disconnects for all inverters. If you have questions, please let us know!

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