

WIT.Committee

From: Alexander DeRoode <Alexander.DeRoode@co.maui.hi.us>
Sent: Friday, October 16, 2020 2:50 PM
To: Laksmi M. Abraham; WIT.Committee
Subject: Re: WIT Committee Meeting Reminder - 10/19 @1:30pm
Attachments: County of Maui Trajectory Towards 100% Clean Energy by 2045_Final.pdf

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Aloha WIT Committee,

Please find attached, my presentation for the upcoming WIT Committee meeting scheduled for 10/19.

mahalo,

Alex

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*Alex de Roode, M.S., C.E.M., LEED AP
Energy Commissioner
Office of Economic Development
County of Maui
Tel. (808) 270-7203*

>>> WIT.Committee <WIT.Committee@mauicounty.us> 10/14/20 1:17 PM >>>
Aloha,

On behalf of Councilmember Sugimura, thank you for agreeing to participate in our next Water, Infrastructure and Transportation meeting on Monday, October 19th at 1:30pm. The presentations and discussion will be focused on "Maui's Renewable Energy Future". Here is the link to the official [meeting agenda](#). You will find the log-in link for BlueJeans (online meeting platform) and the dial in number for the meeting at the top of the agenda. Simply click on the link (in the agenda) or copy and paste it into your browser to access the meeting.

Lastly, please send a copy of your presentation to wit.committee@mauicounty.us no later than tomorrow, Oct. 15th. Your presentation must be sent to the WIT Committee email to be accepted into the record for this meeting (please do not send it to my email). If you need more time, please let me know.

If you have any other questions, please feel free to email or contact me at the number below. I've attached the updated presentation agenda for your review. Mahalo for your participation and have a great meeting on Monday!

Laks

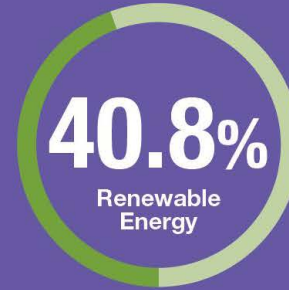
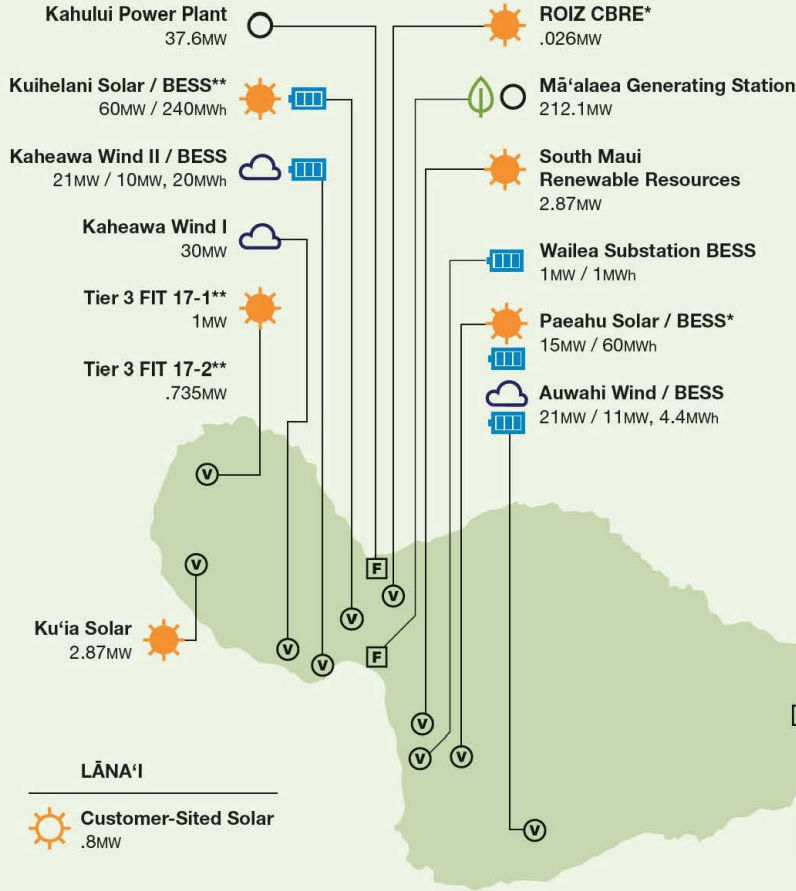
County of Maui's Trajectory Towards 100% Clean Energy by 2045

Presentation to the Maui County Council
Water Infrastructure and Transportation (WIT) Committee

October 19, 2020

Alex de Roode, M.S., C.E.M, LEED AP
Energy Commissioner, County of Maui
Office of Climate Action, Sustainability and Resilience

Maui County



RENEWABLE MIX

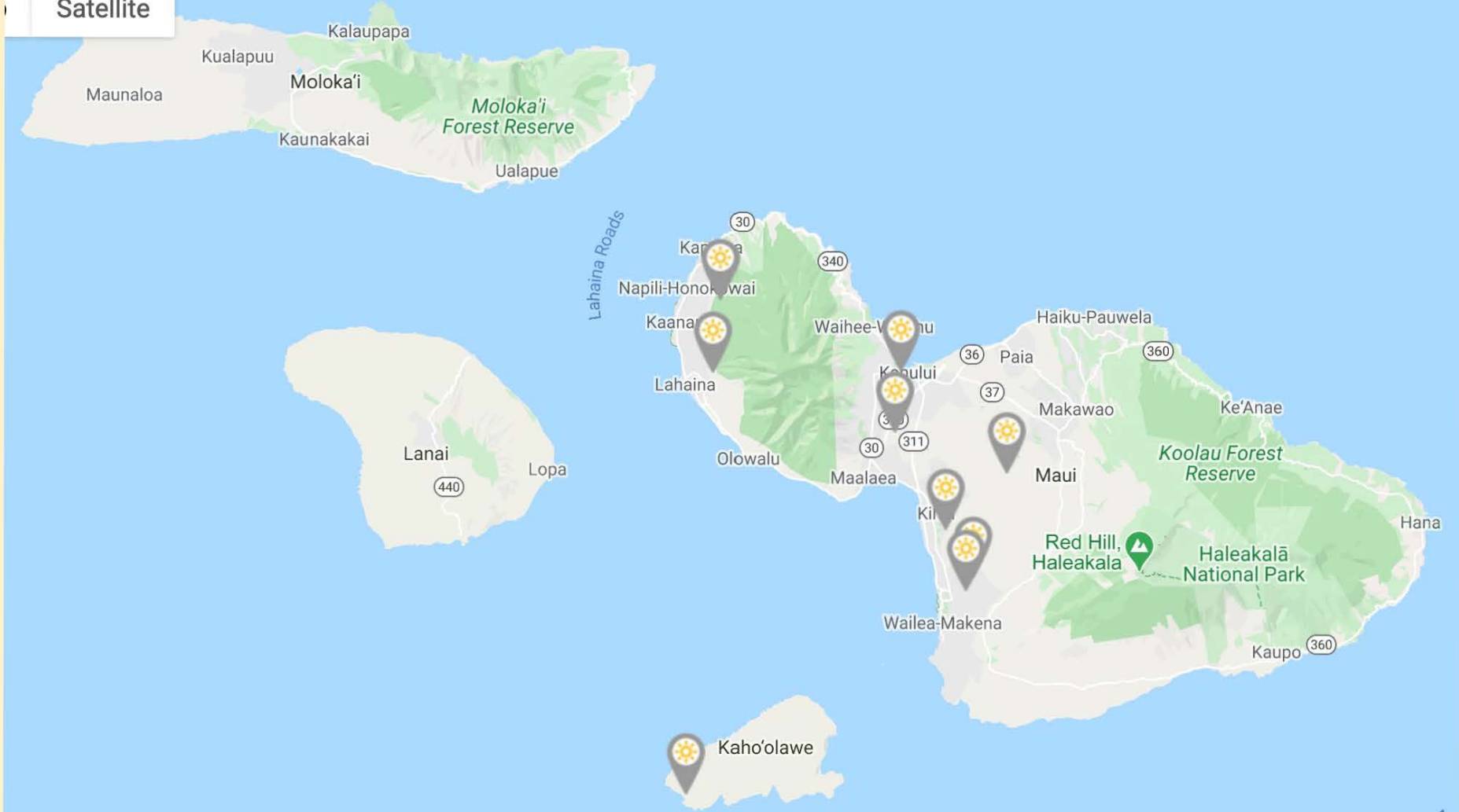


77% RENEWABLE PEAK
April 15, 2019

MAUI



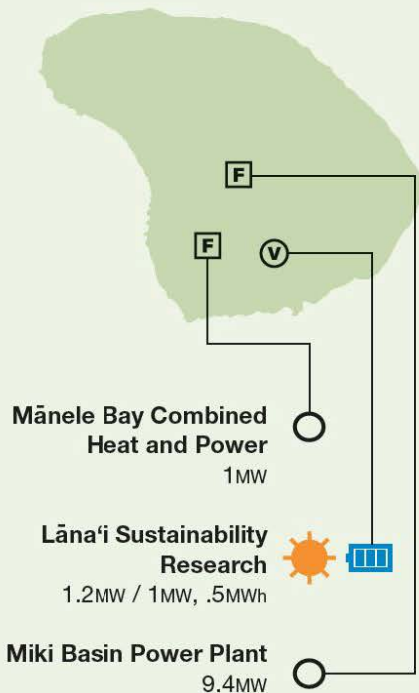
Satellite



LĀNA'I



Customer-Sited Solar
.8MW



Mānele Bay Combined Heat and Power
1MW

Lāna'i Sustainability Research
1.2MW / 1MW, .5MWh

Miki Basin Power Plant
9.4MW



.025MW

Hāna Substation
2MW

Kawela Plantation****
.25MW / .25MWh



Pālā'au Plant
12MW

Moloka'i BESS
1MW / .397MWh

Moloka'i New Energy Partners / BESS**
2MW / 3MW, 15MWh

MOLOKA'I



Customer-Sited Solar
2.3MW



Community Solar*
.25MW

*Awaiting approval

**Awaiting construction

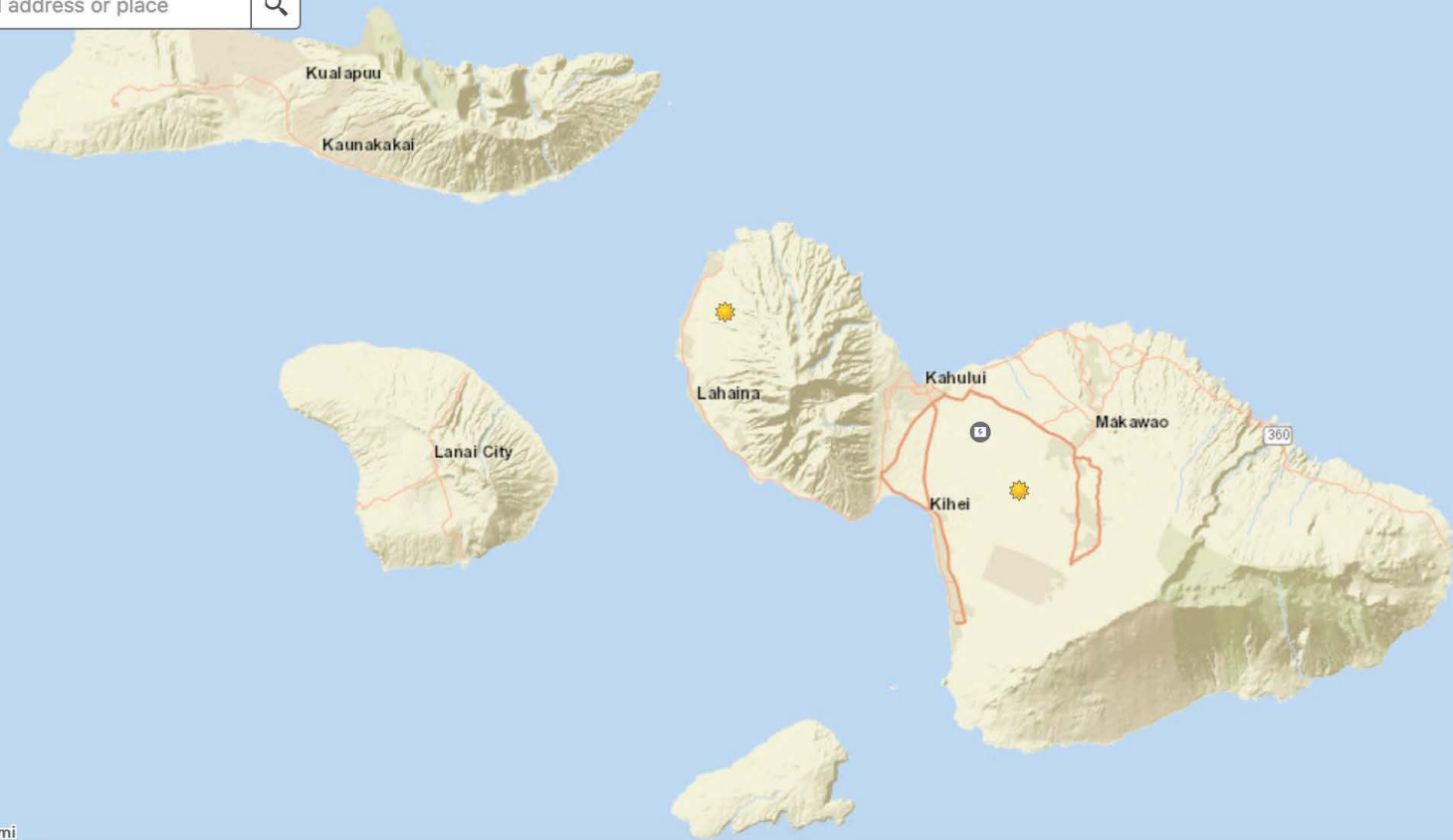
***Under construction

****Under construction / PUC approval pending

*****In progress



Find address or place



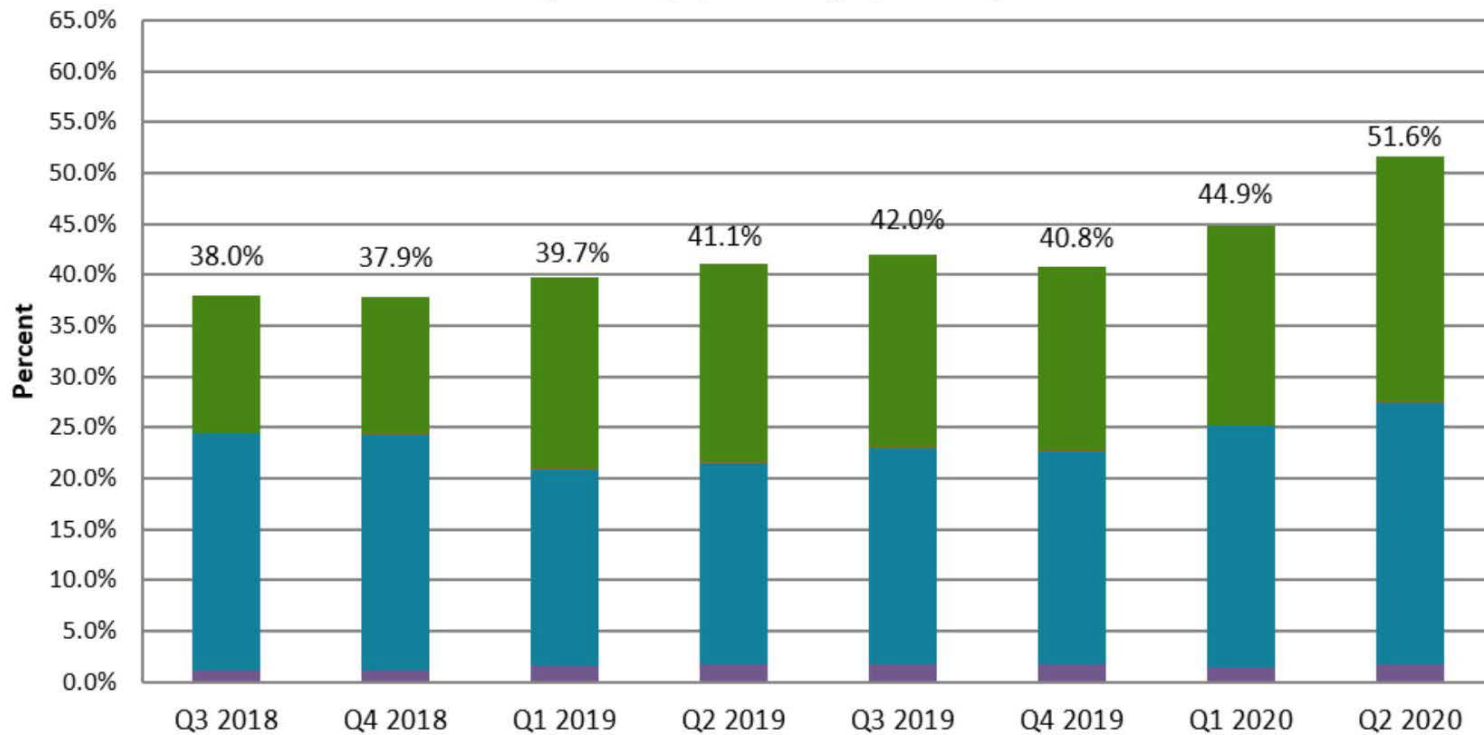
10mi

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Project Name	Developer	Technology	Island	Location	Capacity	Project Status
AES Kuihelani Solar	AES Distributed Energy, Inc.	Solar	Maui	Waikapu	60MWac + 240MWh Storage	Proposed/Under Development
Kahana Solar	Innergex	Solar	Maui	Napili-Honokowai	20 MWac + 80 MWh	Proposed/Under Development
Kamaole Solar	SB Energy Corp.	Solar	Maui	Kihei	40 MWac + 160 MWh	Proposed/Under Development
Kuia Solar Project	Hawaii Pacific Solar, Haleakala Energy Associates, Kenyon Energy (SSA Solar of HI 2), M+W Energy, Bay4 Energy, Sun Financial	Solar	Maui	Lahaina	2.87 MWac / 3.794 MWdc	Existing/Operational
Paeahu Solar	Innergex Renewable Energy, Inc.	Solar	Maui	Wailea	15 MW + 60 MWh BESS	Proposed/Under Development
Pulehu Solar	Longroad Energy	Solar	Maui	Pulehu	40 MWac + 160 MWh	Proposed/Under Development
South Maui Renewable Resources Solar Project	Hawaii Pacific Solar, Haleakala Energy Associates, Kenyon Energy (SSA Solar of HI 3), M+W Energy, Bay4 Energy, Sun Financial	Solar	Maui	Kihei	2.87 MWac / 3.794 MWdc	Existing/Operational

Project Name	Developer	Technology	Island	Location	Capacity	Project Status
KIRC Solar Array + Storage	KIRC, UHMC	Solar	Maui	Kahoolawe	100 kW	Existing/Operational
UH-Maui Solar+Battery	Johnson Controls	Solar	Maui	Kahului	2.8 MW + 13.2 MWh BESS	Existing/Operational
Auwahi Wind	American Electric Power Company (AEP Wind Holdings, LLC), BP Wind Energy	Wind	Maui	Ulupalakua	21MW	Existing/Operational
Kaheawa Wind Power I	TerraForm Power (previously SunEdison/First Wind)	Wind	Maui	Kaheawa	30 MW	Existing/Operational
Kaheawa Wind Power II	TerraForm Power, Younicos (previously SunEdison/First Wind)	Wind	Maui	Kaheawa	21 MW + 10 MW BESS	Existing/Operational
La Ola Solar Farm (Lanai Sustainability Research)	Castle & Cooke, SunPower, Xtreme Power, Pulama Lanai	Solar	Lanai	Lanai City	1.2 MWac	Existing/Operational

Renewable Portfolio Standard Compliance (Year-to-Date) Maui County Quarterly (8 Rolling Quarters)



- Biomass (including municipal solid waste)
- Utility-scale Photovoltaic and Solar Thermal
- Hydro
- Wind
- Biofuels
- Customer-sited, Grid-connected renewables

Tax Incentives – Credits (USA / Hawaii)

Federal Energy Credit

30 Percent Credit on Qualifying Assets

- Nonrefundable
- Reducing in Future Years
 - 26% in 2020, 22% in 2021 and 10% in 2022

Hawaii Renewable Generation Credits

Hawaii Renewable Energy Technologies Income Tax Credit ("RETITC")

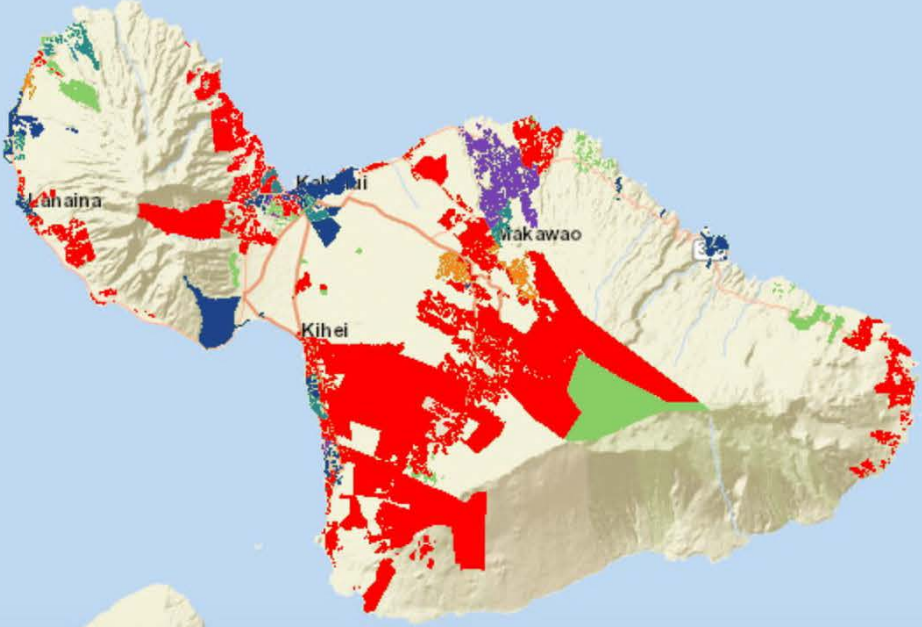
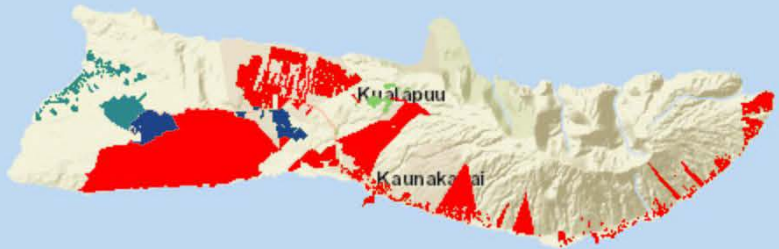
- 35 Percent Credit of the Actual Cost or the Cap Amount
- 24.5 Percent (Refundable) Credit
 - Results in 30 Percent Reduction in the Eligible Credit and Effects the Cap

Possible Federal Income Recognition of Credits



Maui County Locational Value Map (LVM)

Source: HECO



% Available of Hosting Capacity

- ✓ Up to 5%
- ✓ 5 up to 15%
- ✓ 15 up to 30%
- ✓ 30 up to 50%
- ✓ 50% and greater

Distribution Grid Needs Forecast

- ✓ Certainty 1: Certain
- ✓ Certainty 0: Uncertain
- ✓ Certainty None: N/A

Community Based Renewable Energy (CBRE)

Often called community-solar.

Provides way for subscribers who do not have privately-owned rooftop solar to benefit from electricity generated by solar located in their utility service territory.

Companies, organizations, developers or groups authorized to do business in State of Hawaii can become "subscriber organization" to propose community solar projects.

Electricity from community solar project enters island grid and contributes to State and County renewable energy goals.

Once a community solar project is complete, tested and approved to send electricity to grid, customers who participate ("subscribers") will get monthly electric bill credit.

Discussions underway to consider County of Maui as potential landowner for siting of CBRE projects.

CBRE Phase 1 (Continued)

Limitations of CBRE Phase 1

- Oahu – 5 MW
- Hawaii Island – 1 MW
- Maui – 1 MW
- Molokai – 0.5 MW
- Lanai – 0.5 MW

Credit Rate by Island (CBRE)

- Oahu – 15 cents per kWh
- Hawaii Island – 15 cents per kWh
- Maui – 16.50 cents per kWh
- Molokai – 22.50 cents per kWh
- Lanai – 26 cents per kWh

CBRE Phase 2

CBRE can help support economic recovery from COVID-19 by creating investment, jobs and tax revenues, while advancing State's clean energy goals.

CBRE Phase 1: limited to 8 MW

CBRE Phase 2: up to 235 MW of renewable generation across HECO's five-island service territory, including Molokai and Lanai.

Phase 2 places special emphasis on opportunities for participation of low to moderate income (LMI) residential customers.

Simplified tariff for smaller projects (< 250 kW) to support faster implementation.

Phase 2 projects expected to go online through 2021.

CBRE Phase 2 capacity limits for individual projects, Tranche 1

Location	Large Projects	Small Projects	LMI
Oahu	75 MW	15 MW	Minimum 1 uncapped project
Maui	12.5 MW	2.5 + 975 kW from Phase 1	Minimum 1 uncapped project
Hawaii Island	12.5 MW	2.5 MW	Minimum 1 uncapped project
Lanai		2.5 + 500 kW from Phase 1	-
Molokai		2.5 + 250 kW from Phase 1	-

CBRE Phase 2 capacity limits for individual projects, Tranche 2

Location	Large Projects	Small Projects
Oahu	75 MW	5 MW
Maui	12.5 MW	2.5 MW
Hawaii Island	12.5 MW	2.5 MW

(Source: HECO)

Procurement Timeline

Milestone	Schedule Dates
Draft RFP filed*	July 9, 2020
Technical Status Conference	July 29, 2020
Parties and Participants file Comments by	August 12, 2020
Proposed Final RFP filed	September 8, 2020
Final RFP is Issued	October 20, 2020
IPP and Affiliate Proposal Due Date	December 22, 2020
Selection of Priority List	March 5, 2021
BAFOs Due	March 12, 2021
Selection of Final Award Group	June 25, 2021
Contract Negotiations Start	July 6, 2021



*Maui LMI Draft RFP submitted as a representative of Maui, O'ahu and Hawai'i LMI RFPs.



Mahalo

Q & A

Maui County
Aloha+ CHALLENGE

