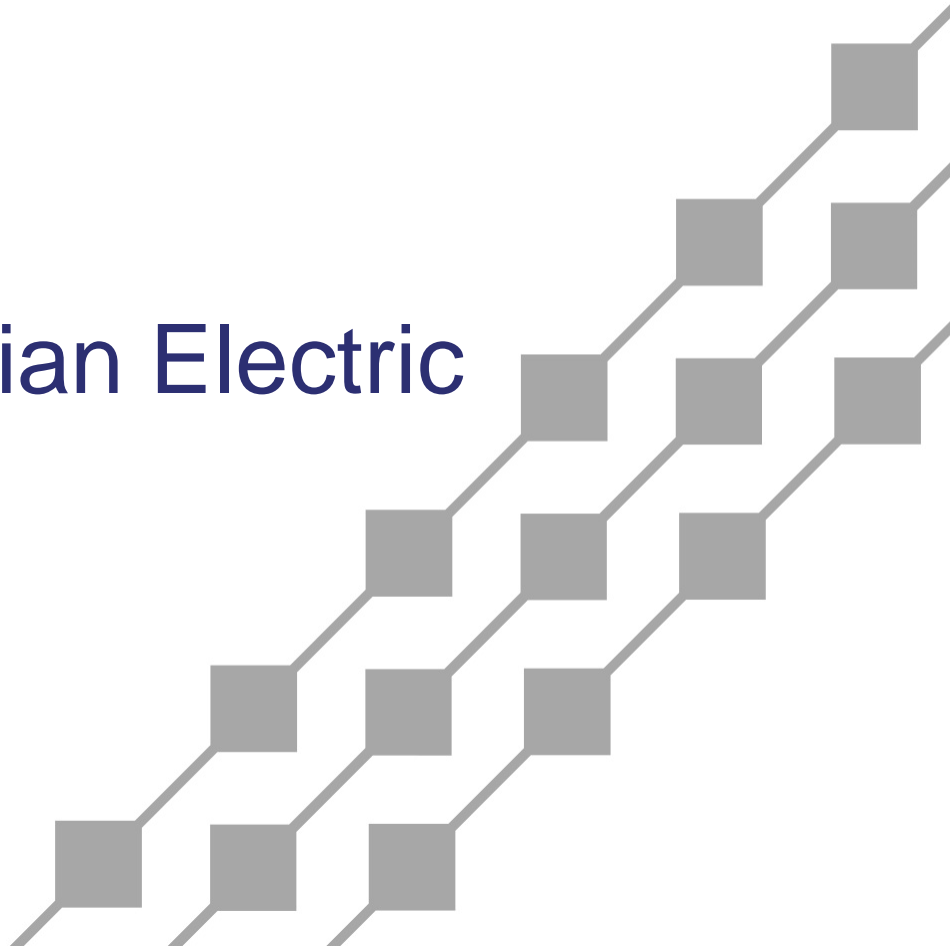


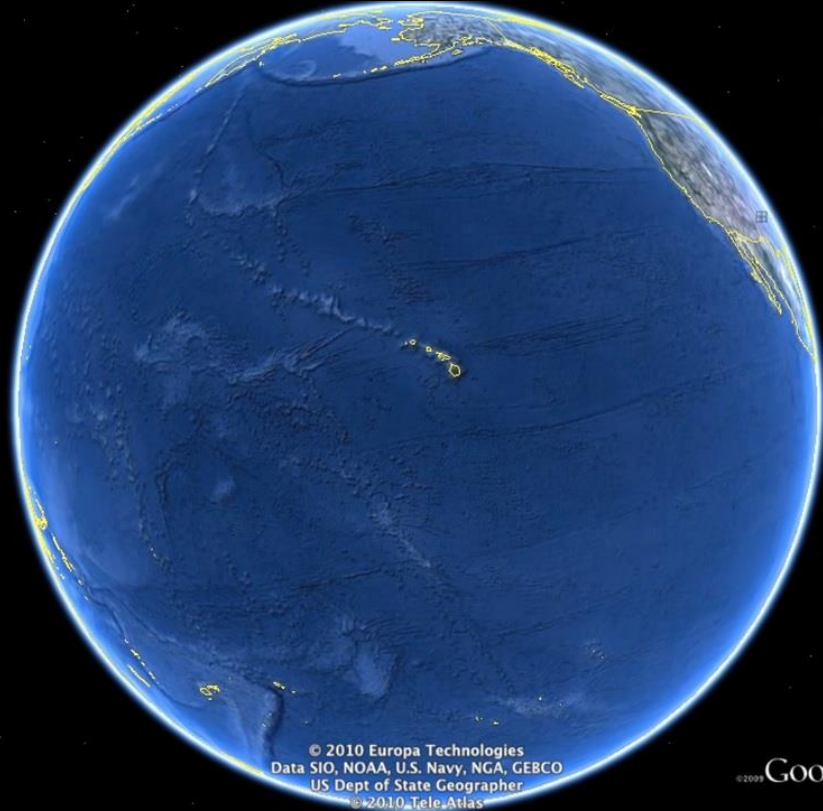


**Hawaiian
Electric**

Overview of Hawaiian Electric

March 9, 2022





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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
US Dept of State Geographer
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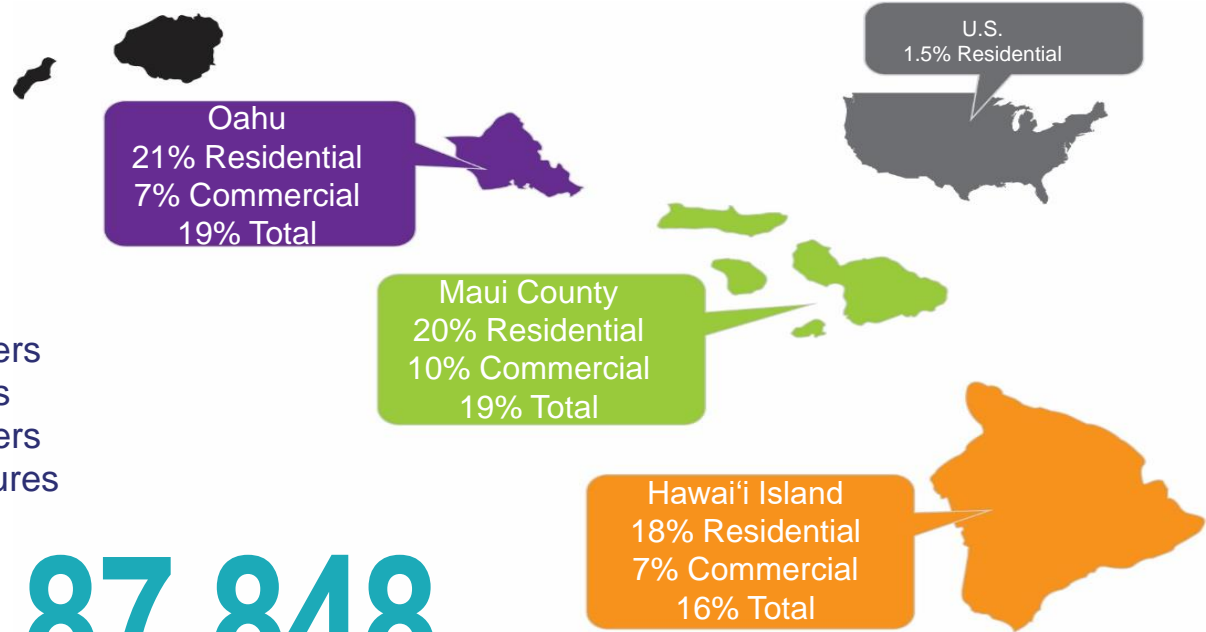
©2009 Google

Customers play an important role in Hawaii's clean energy transition: rooftop solar

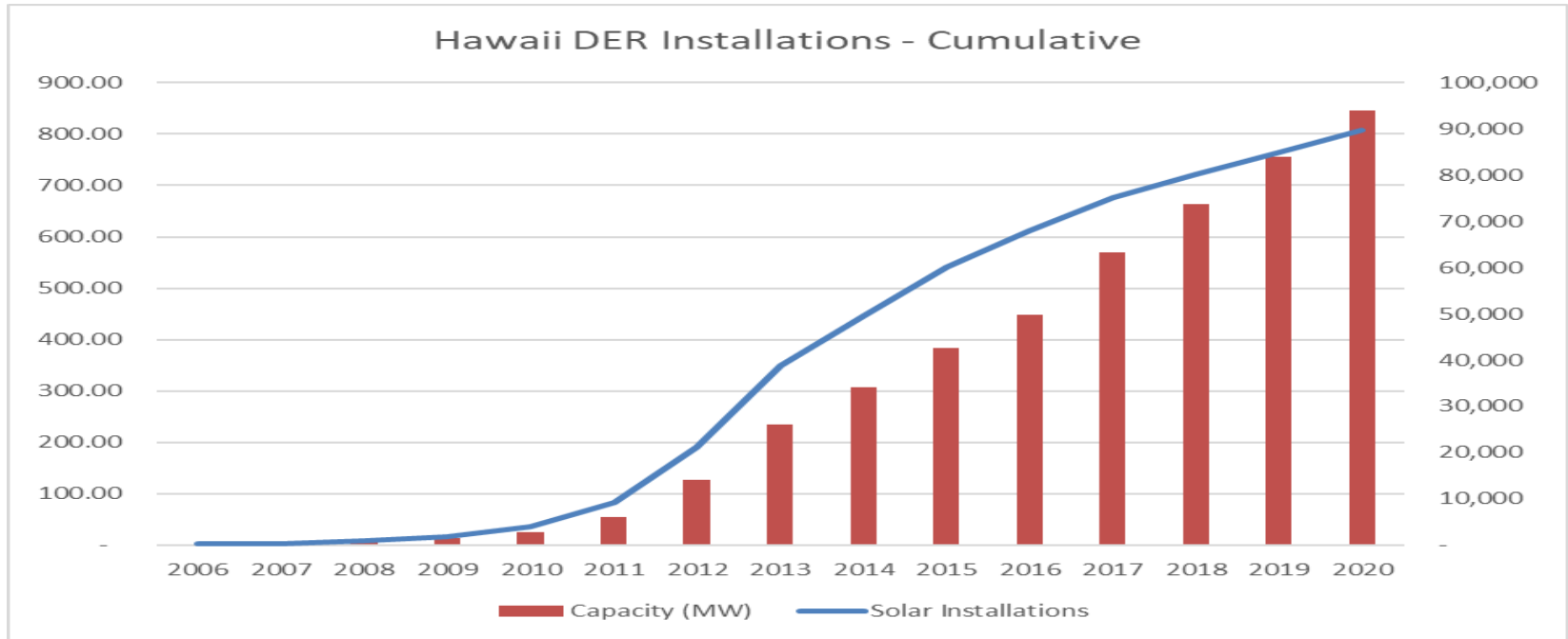
465,000 customers
300 substations
550 substation transformers
9,000 miles of power lines
70,000 service transformers
175,000 poles and structures

87,848

Total Solar Systems



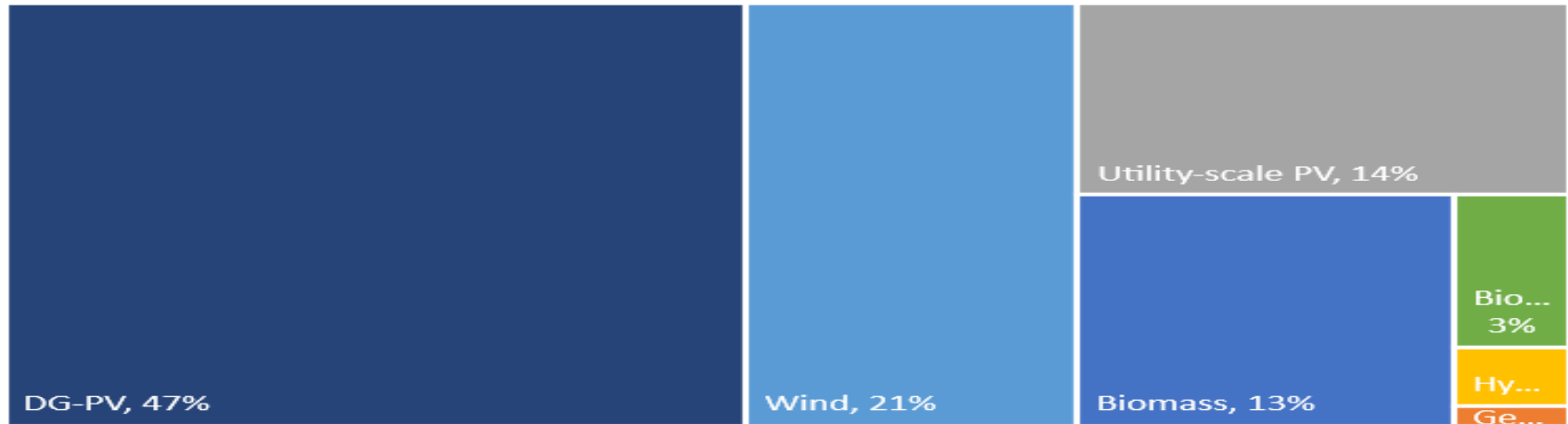
Growth of Distributed Rooftop Solar



Renewable Portfolio

Hawaii Renewable Mix (2020)

- Biomass
- Geothermal
- Utility-scale PV
- Hydro
- Wind
- Biofuels
- DG-PV



Renewable Dispatchable Generation

Approved By Regulators

Name	Island	Developer	Tech	Size	Estimated Completion	RPS % Points Contribution
AES Kuihelani	Maui (Central Maui)	AES Kuihelani Solar, LLC	Solar + BESS	60 MW, 240 MWh (BESS)	10/2023	1.9
AES Waikoloa Solar, LLC	Hawaii Island (Waikoloa)	AES Waikoloa Solar, LLC	Solar + BESS	30 MW, 120 MWh (BESS)	11/2022	0.8
AES West Oahu Solar, LLC	Oahu (West Oahu)	AES West Oahu Solar, LLC	Solar + BESS	12.5 MW, 50 MWh (BESS)	9/2022	0.4
Hale Kuawehi Solar LLC	Hawaii Island (Waimea)	Hale Kuawehi Solar LLC (Innergex)	Solar + BESS	30 MW, 120 MWh (BESS)	12/2022	0.8
Hoohana Solar 1, LLC	Oahu (Kunia)	Hanwha Energy USA Holdings Corp (174 Power Global)	Solar + BESS	52 MW, 208 MWh (BESS)	8/2023	1.4
Kahana Solar	Maui (Napili – Honokowai)	Innergex	Solar + BESS	20 MW, 80 MWh (BESS)	2023	0.7
Kamaole Solar	Maui (Kihei)	Potentia Renewable Developments LLC and Peg Gen Holdings LLC	Solar + BESS	40 MW, 160 MWh (BESS)	2023	1.4

Battery Bonus Program

Hawaiian Electric is paying cash incentive for residential & commercial customers on O'ahu only to add storage to an existing or new rooftop solar system.

(Scheduled dispatch: 6-8pm)

One-time incentive

Tiered incentives (\$850 - \$500/kW)



New initiatives

- Grid Services
- Advanced Inverter standards development
- Grid-forming inverter technology
- Community-based renewable energy
- Microgrid
- Non-wires alternative
- FTM battery installation





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Mahalo

