

Islanded Communities Issues and Differences

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Electricity Use in Rural and Islanded Communities: A workshop
Supporting the Quadrennial Energy Review's Public Outreach

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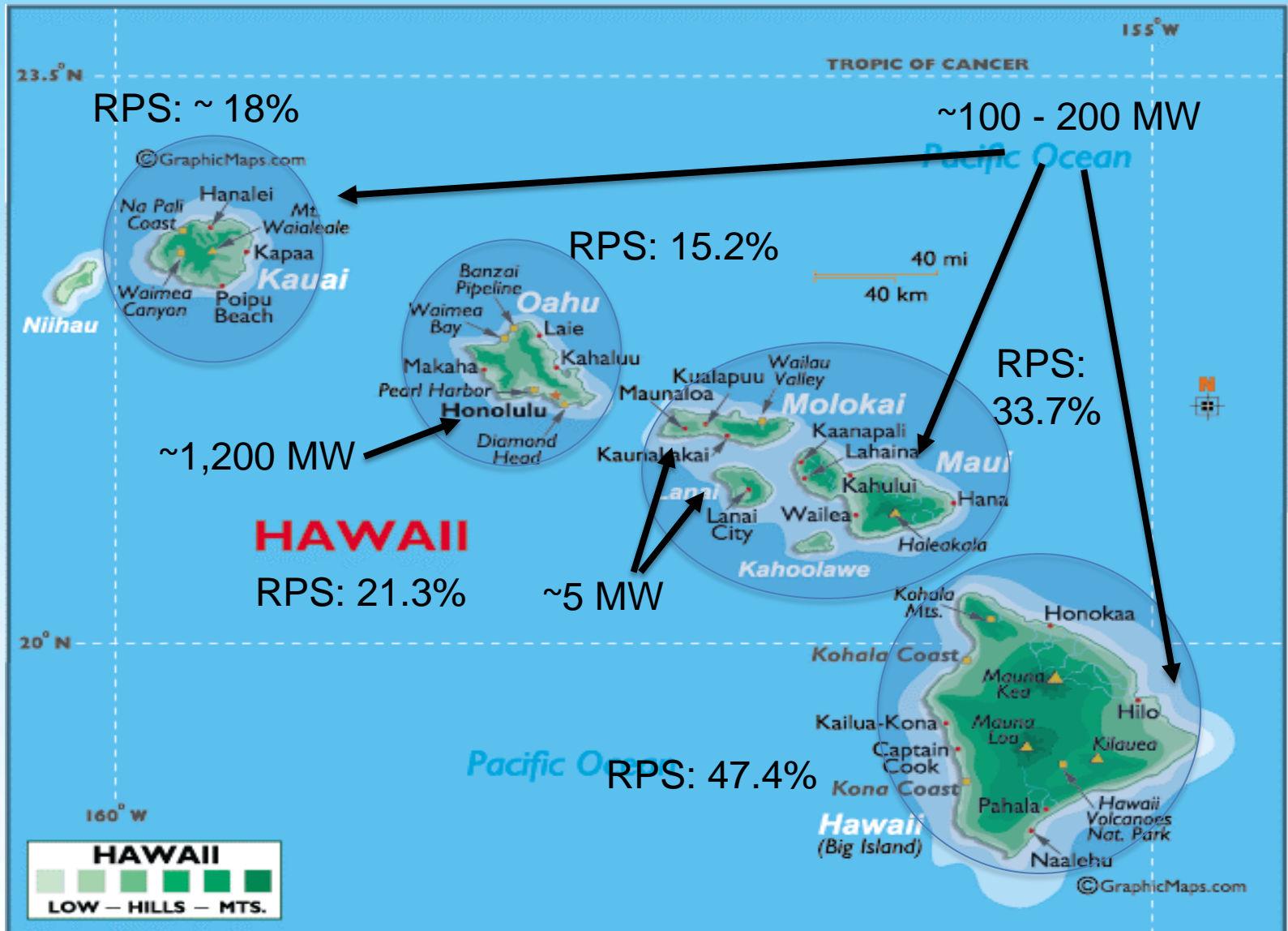
100% RPS by 2045



- Under Act 97 Hawaii is the first state to set a 100% RPS.
- Establishes confidence in the market.
- Drives investment decisions.



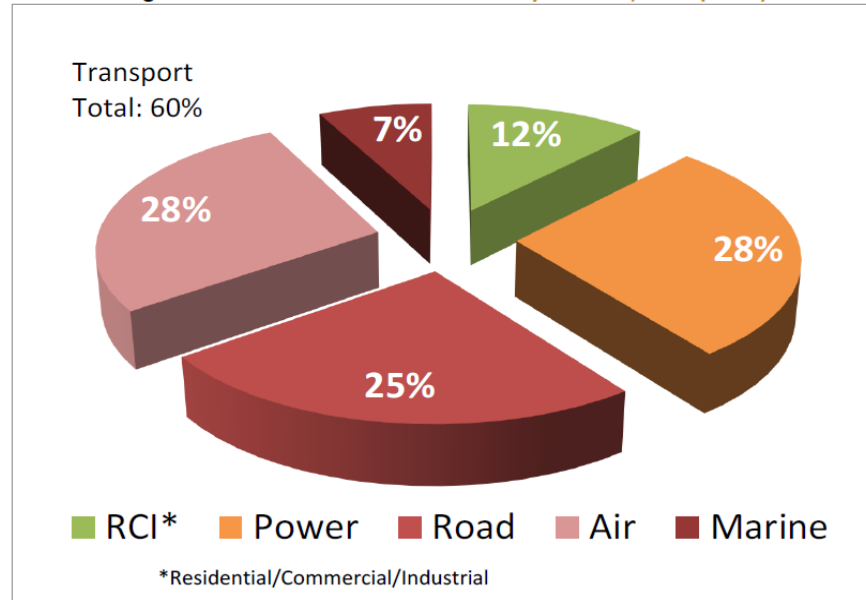
Island Diversity



Hawaii's Energy Choice

Energy independence means breaking our addiction on imported fuels.

Figure 9: Hawaii Oil-Product Demand by End-Use, 2011 (vol %)

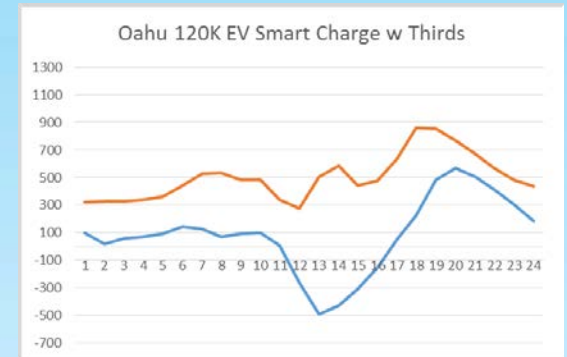
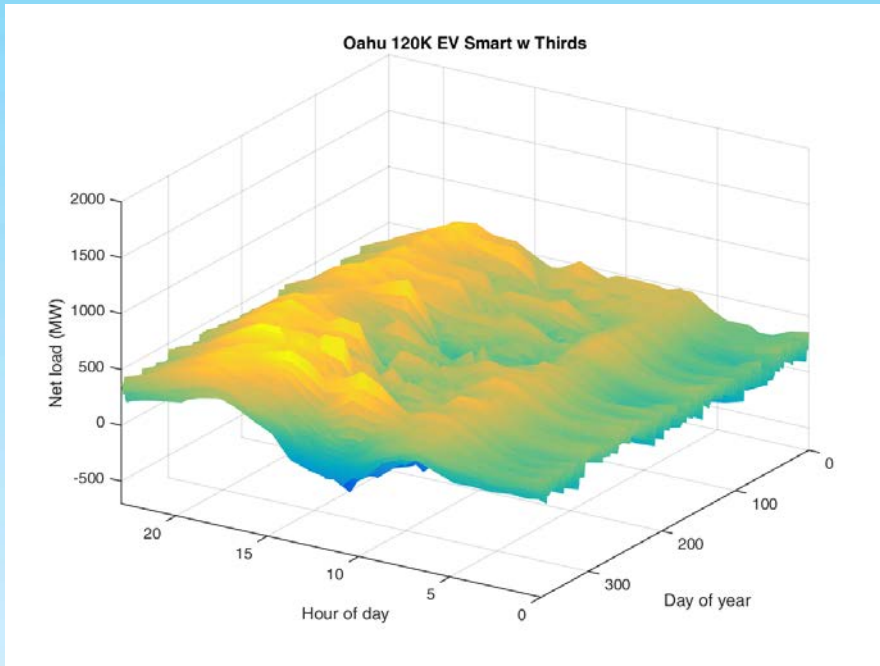


The issues island grids face have broader implications than simply electricity supply

Solving the comprehensive issue can provide challenges and opportunities

Energy Transfer Between Sectors

Electric and Ground Transportation



Incremental Impact of EV Charging	Peak Load	System Storage Requirements	
70% RPS w/ Evening EV Charging	~ 15%	~ + 10% MW	~ + 15% MWh
70% RPS w/ Smart EV Charging	~ 0%	~ - 10% MW	~ - 20% MWh

RPS Modeled with 1/3 wind, 1/3 solar and 1/3 baseload renewables (e.g. biomass, geothermal, OTEC)
Assumes 120k EVs on Oahu (roughly 15% of passenger vehicles)

Mahalo

Clean Energy Innovation & Deployment for a Better Hawaii!



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