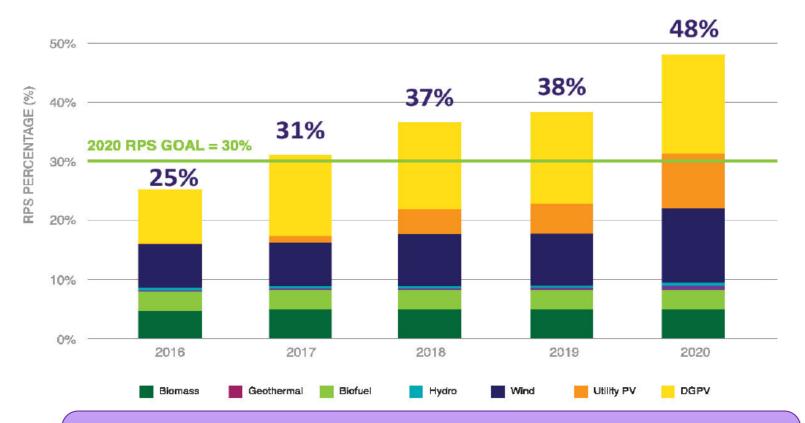
### Distributed PV Potential Estimates

Therese Klaty
Hawaiian Electric Company
November 16, 2017

#### In the near term, distributed PV is the <sup>2</sup> largest contributing resource to RPS



What is the potential contribution of distributed PV in the long term?

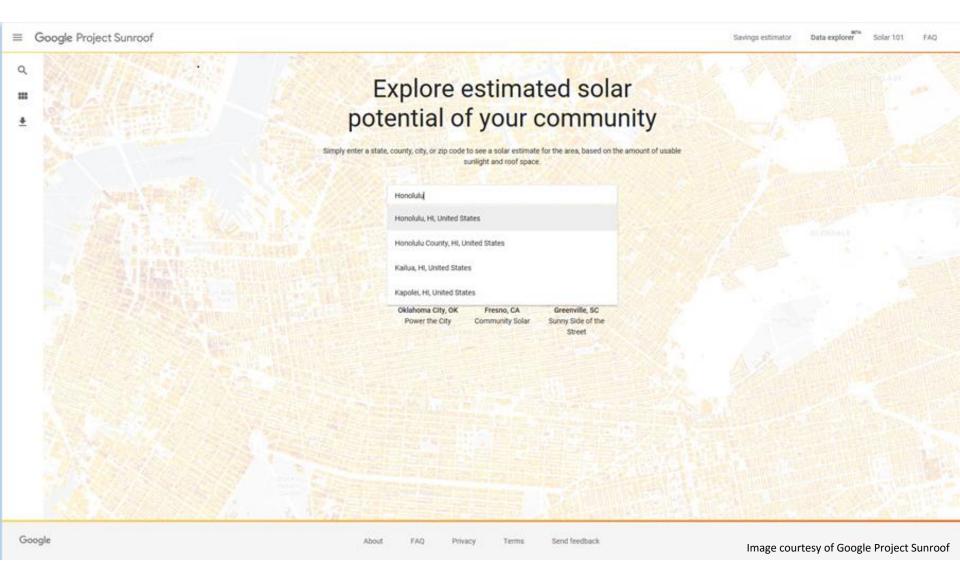


**Hawaiian Electric** Maui Electric Hawai'i Electric Light

## Distributed PV High Market Potential December 2016 PSIP Assumptions

- Percent of sales offset by DG PV by 2045
  - 100% of single-family residential sales
  - 20-25% of total commercial sales
- Installed capacity derived from resulting customer kWh sales offset
- ◆ Linear growth from 2021 to 2045
- This is a high penetration scenario, not a technical potential or an economic potential

#### https://www.google.com/get/sunroof/data-explorer/





### Google Project Sunroof Rooftop PV Technical Potential

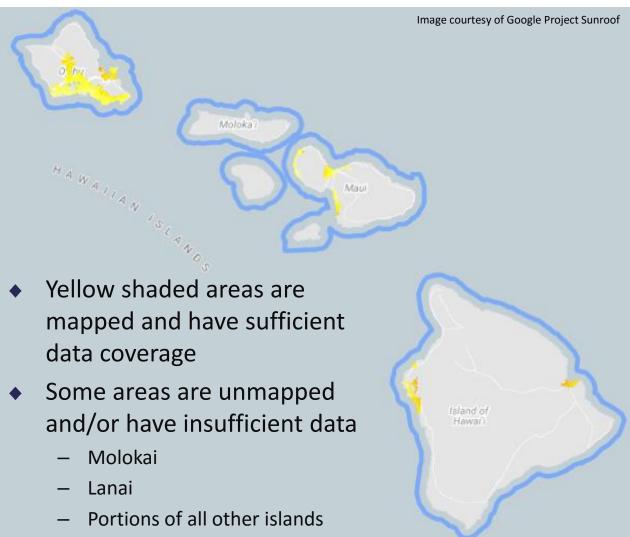
All existing building rooftops Mapped by Google Maps Unmapped Insufficient Sufficient Data Coverage Data Not Viable Viable for Solar Unusable Space Meets Minimum Space Criteria, No Obstacles

**Google Sunroof Technical Potential** 



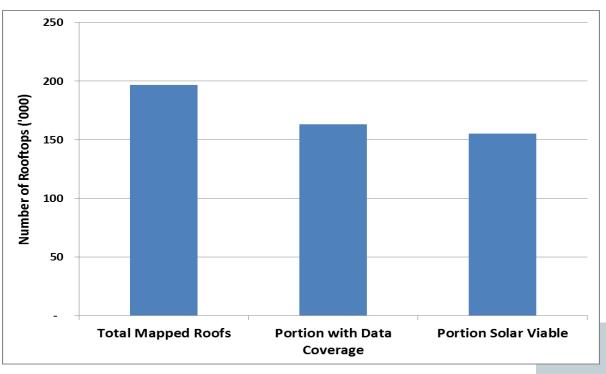
Hawaiian Electric Maui Electric Hawaiʻi Electric Light

#### **Google Project Sunroof Coverage of Hawaiian** 5 **Electric Companies Service Territory**





#### Google Sunroof on Oahu

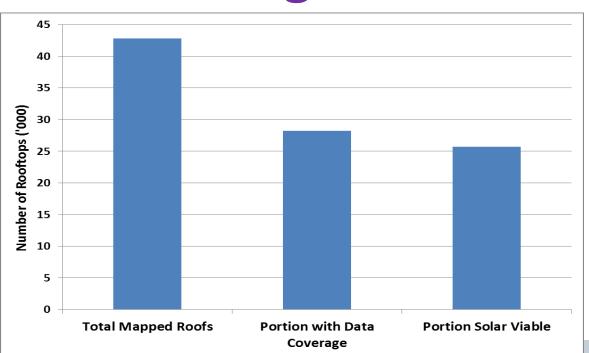


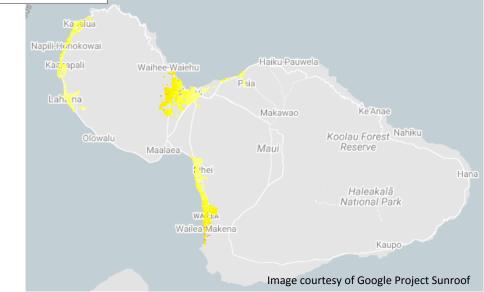


Kawela Bay



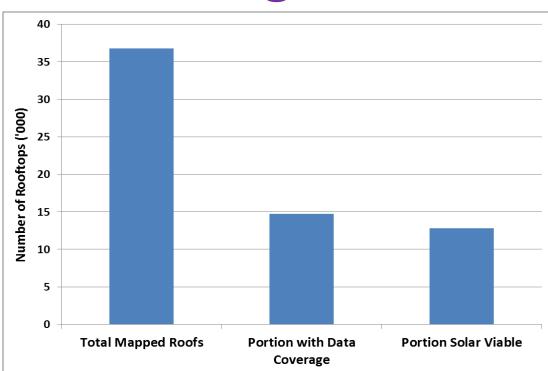
#### **Google Sunroof on Maui**

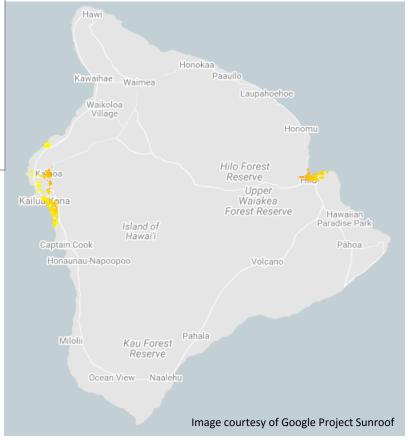






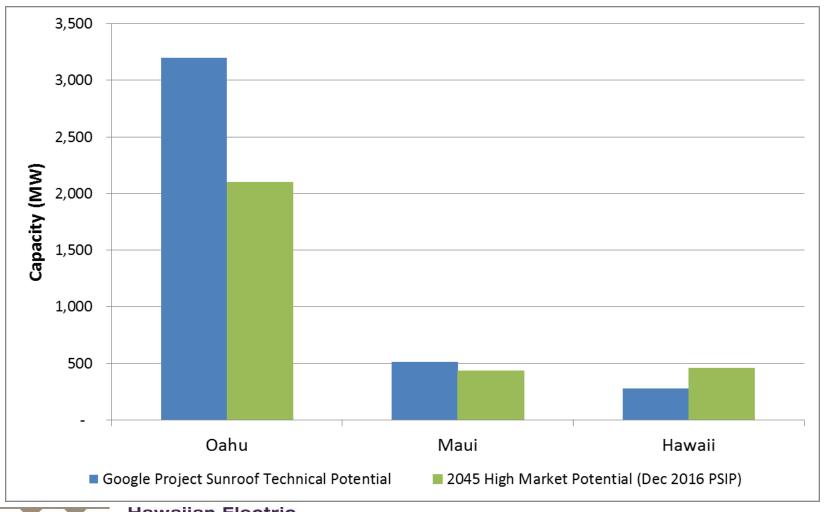
#### **Google Sunroof on Hawaii**







# Comparison of Technical Potential and High Forecast





#### Mahalo