

# *Project Overview*

## **Economic Study of Hawaii's Renewable Portfolio Standard**

*Anticipated Completion: September 2017*

**Prepared by:  
GE Energy Consulting**

**Prepared for:  
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The Hawaii Natural Energy Institute (HNEI) contracted with the Economic Research Organization of the University of Hawaii, (UHERO) to model long-term changes to electricity demand and the effects of large-scale renewable energy adoption to Hawaii's overall economy. To assess the economic implications for the State of achieving high penetration levels of renewable energy, policy mechanisms and economic outcomes are the focus. Various scenarios from the Hawaii Renewable Portfolio Standards Study conducted by HNEI and GE Energy Consulting (GE) are being considered, with economic and policy impacts assessed in relation to comparable fossil fuel resources. (For more on the HNEI/GE Hawaii Renewable Portfolio Standards Study see the report at <http://www.hnei.hawaii.edu/publications/project-reports>.)

To simulate the production and consumption of electricity, UHERO is using the Hawaii Computable General Equilibrium Model (H-CGE), calibrated to future oil price forecasts provided by the US Energy Information Administration's Annual Energy Outlook (based on Brent crude). The impact of new electric power load profiles (using GE modeling inputs), storage capacity, and rate design will be assessed given existing data on consumer price response in Hawaii (and elsewhere where relevant) to identify policy changes impacting load profile.

This project is jointly funded by the U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability under the Hawai'i Energy Sustainability Program, and the Hawaii Natural Energy Institute via the State of Hawaii, Energy Systems Development Special Fund.

The final technical report, *Economic Study of Hawaii's Renewable Portfolio Standard* will be posted online at <http://www.hnei.hawaii.edu/publications/project-reports#HESP>, anticipated for September 2017.