



# Hawaii Clean Energy Initiative Progress

January 2011

# HCEI Goals

## HCEI provides a framework to help Hawaii realize these goals:

- Transform State to a 70% clean energy economy by 2030
- Stabilize energy cost volatility and protect brittle economy
- Reap economic and environmental benefits of transformation, including:
  - Increasing Hawaii's energy and economic security
  - Fostering and demonstrating Hawaii's innovation
  - Building the work force for the future
  - Serving as a clean energy model for the U.S. and the world

# HCEI Long-Term Commitment

HCEI codified in statute with the passage of Act 73 in April, 2010

The Hawaii Legislature solidified Hawaii's commitment to reaching HCEI's clean energy goals and formalized the objectives, partnerships, resources, and reporting requirements

HCEI represents a vital collaboration of committed stakeholders

- Federal, state, and county governments
- Non-profit organizations
- Academic institutions
- Military installations
- Private sector: utilities, refiners, project developers, builders, farmers, landowners, and the automotive industry

# Stakeholders

- Local Government
- Private Sector (Including Utilities)
- Non-Governmental Organizations
- Trade Associations
- State Government
- Universities
- Federal Government Agencies
- County Economic Development Boards

Convene and Coordinate Stakeholders



**The Hawaii Clean Energy Initiative**

Cohesive Clean Energy Strategy and Vision for State



# Information Users

- All HCEI Stakeholders
- PLUS-
- State Legislature
- State Regulatory Bodies
- Local Communities
- Local Businesses

Facilitation, Expertise and Analysis

**Hawaii State Energy Office**

**U.S. Department of Energy**

Critical Feedback Loop



# Electricity Sector Accomplishments

- Established **40%** State Renewable Portfolio Standard
- Completed HECO Energy Agreement with the state:
  - Energy commitments
  - Measures to increase energy efficiency
  - Improvements to grid operation and infrastructure
- Set aggressive **renewable energy goals** with Kauai Island Utility Cooperative
- Numerous PUC dockets completed and in process to change utilities
- Completed construction of **30MW** Kahuku Wind Farm on Oahu
- Constructed and commissioned **bio-fueled** Campbell combustion turbine
- Established Hawaii as the nation's **leader** in growth rate of distributed generation PV installation
- Completed wind and solar power **grid-integration** and **grid-impact** studies for all islands

# Efficiency Sector Accomplishments

- Set 30% Energy Efficiency Portfolio Standard to **4,300 GWh by 2030**
- Created and launched public **benefits fund** to finance retrofitting of building energy efficiency technologies
- Launched state **“Lead By Example”** program
- Established new highly efficient building codes (IECC 2006 or higher), which have been adopted by all counties in Hawaii
- Adopted approach of **decoupled** utility revenue stream from kWh usage
- Weatherized hundreds of **homes** across the State
- Working with Building Industry Association on new homes
- Coordinating with DoD on housing stock retrofits

# Transportation Sector Accomplishments

- State began numerous **collaborative partnerships** with automotive manufacturers infrastructure suppliers to accelerate the deployment of electric and hydrogen vehicles.
- Hawaii EV-Ready Program is providing **\$4 million** in grants and rebates for installation of EV charging network and the purchase of plug-in vehicles
- Oahu Transit Services operating **80 HEV** transit buses for routine service
- General Motors and Gas Company launched **Hawaii Hydrogen Initiative** to develop hydrogen production distribution and fuel cell vehicles for Hawaii
- City and County of Honolulu fleet continues to use **locally-produced** biodiesel

# Fuels Sector Accomplishments

- Bio-energy **master plan** completed
- HECO running the only **bio-fueled turbine generator** in the world
- Biodiesel is made and delivered on the four main islands
- Several small-scale **crop trials** underway
- Several pilot, drop-in replacement **fuel refinery projects** underway
- HECO issued an **RFP for 210 million gallons/year** (MGY) of locally-produced biofuels and has signed one contract
- PACOM launched Green Initiative for Fuels Transition Pacific (GIFTPAC) for **replacing 25%** of its current aviation and marine diesel fuels in Hawaii with renewable fuels.
- Bio-fuels being tested and certified in steam boiler plant on Oahu