

Energy Stakeholders

This appendix characterizes the multitude of organizations recognized as stake-holders in Hawaii's energy sector. This list is not represented as a complete list, but is an attempt to identify those organizations whose activities are likely to have a bearing on any outcome sought by HREDV. Most of these organizations are either government, university, or NGO. Private for-profit businesses are not listed, but HREDV has established and will maintain a list of stakeholders, including businesses primarily for constituent services.

Primary Organizations

The following organizations, like HREDV, are categorized as key stakeholders, mainly because their project portfolios are supported by significant funding from the federal government through grants, cooperative agreements, or other joint programs. Accordingly sponsor interests would be best served through a high degree of collaboration to eliminate or reduce duplication, to maximize leverage, and to strive for coordinated and superior outcomes.

Hawaii Natural Energy Institute

- Directs basic and applied research programs
- Developing policy analysis capability to support the state
- Receives significant funding from USDOE and USDOD through competitive and Congressionally-directed awards
- Resident technical capability: solar, thin-film, material science, biomass and biofuels, novel fuels like methane hydrates, fuel cells and membranes, electrochemical systems, battery management, hydrogen
- Currently serves as program integrator for a variety of projects involving Hawaiian Electric Company, its subsidiaries, and major industrial partners like General Electric Global Research
- Under contract to Hawaii PUC to evaluate and update Hawaii Renewable Energy Portfolio Standards
- Developed Big Island energy assessment and model with HECO, HELCO, GE, Sentech, conducting similar programs for MECO and possibly KIUC
- Program manager for:

- 1) Major Maui wind penetration study for future grid for USDOE Office of Electric Delivery and Energy Reliability (with GE, HECO, MECO, UPC Wind)
- 2) Hawaii Biofuels Master Plan for the DBEDT and USDOE
- 3) Hydrogen bus and fueling station deployment for National Park Service, USDOT and USDOE

Pacific International Center for High Technology Research

- Overall project administrator for a variety of federal DOD and DOE projects
- Ability to receive and disburse funding from multiple sources
- Significant senior advisory capacity from CEO and Board
- Business administration, contracting agency, fiscal agent
- Desires to rebuild technical capacity in the longer term
- Repository of technical knowledge for OTEC technology
- Experience and track record with Pacific island and Japan (international) projects

Hawaii Clean Energy Initiative, a program of the US Department of Energy

- Established a target to derive 70% of Hawaii energy from renewable energy resources by 2030
- Established a structure to achieve the target using four working groups, an integration group, and an overall executive steering committee
- Four working groups include efficiency, renewable energy, transportation, and transmission and distribution efficiency
- Rocheleau (HNEI) and Kaya (HREDV) are members of the integration group
- Expected to produce recommendations of program, project and policy to achieve above target
- Preliminary analysis to achieve 70% by 2030 in developed in June 2008 with policy recommendations for 2009 Hawaii Legislature
- Supporting regulatory reform by providing training to PUC regulators and interested stakeholders
- Provided funding to HNEI to match state funds for biofuels master plan

- Bill Parks (USDOE-OE) coordinating locally, IPA expires in October 2008, extended for one more year
- Supporting efforts of County EDBs and Government (Maui and Kauai so far) to complete county energy strategies
- Has ability to reach into technical expertise in both DOE and national labs
- Challenge to secure funding commitments for programmatic investments in Hawaii from DOE, FY09 AOP developed by EE through NREL
- Uses support contractors extensively, e.g., Booz Allen for the working group structure

Related Organizations

There are numerous agencies who currently are engaged with clean energy development in the State of Hawaii. It is important to identify these organizations and their responsibilities, and what they are doing in order to most effectively design programs for HREDV. The following listing, while not complete, represents some of the more active organizations.

Strategic Industries Division, Department of Business, Economic Development and Tourism

- Co-project lead for Hawaii Clean Energy Efficiency Initiative
- Major potential player in PUC dockets dealing with decoupling and feed-in tariffs for renewable energy
- Responsible for the execution of state energy policy
- Advises, analyzes, recommends policy actions to Governor and Legislature

Hawaii Energy Policy Forum, a program of the University of Hawaii Public Policy Research Institute

- Has its own working groups: efficiency, regulatory, greenhouse gas, transportation, conventional fuels, communication, cultural
- Currently completing transportation efficiency study
- Has good track record to bring energy stake-holders together

- Has developed ability to be influential in Legislature; members include Chairs of House and Senate Energy and Environment committees
- Started five years ago with senior level representatives from organizations represented; now attended by mid-management and lower staff
- Has access to support staff through UH graduate program
- Has been able to attract funding from Legislature, DBEDT, DOH, OHA, and private sources

Greenhouse Gas Task Force under Act 234

- Supported by DBEDT and DOH
- Tasked to update state GHG inventory by 12/31/08
- Tasked to complete work plan to reduce GHG emissions to 1990 levels by 2020 by 2010
- Will utilize overall program management contractor (ICF Consulting) to support task force

College of Tropical Agriculture and Human Resources, UH

- Supporting for biofuels crop development, mainly identification of candidate crops and species
- May be supporting some crop trials work in conjunction with Hawaii DOA and HARC

Climate Change Commission, UH Manoa Chancellor's Office

- Obtained funding from HECO to kick-start GHG analysis program
- Supporting development of economic model for Hawaii energy sector to assess policy implications of GHG reduction strategies and clean energy investments
- Currently updating GHG inventory originally prepared by DBEDT for EPA

Hawaii Public Utilities Commission

- Major energy player with regulatory oversight over all of Hawaii's four electric utilities
- Has significant dockets underway that will define the future of renewable energy electricity
- Oversees utility long-range planning through utility formulated Integrated Resource Plans
- Has issued key decisions: creation of public benefits fund for DSM, competitive procurement of supply side resources, policy on distributed generation

- Has opened decoupling and feed-in tariff dockets to change regulatory structure in support of efficiency and renewable energy investments by regulated electric companies (both recommended through HCEI)
- Rigorous process for intervention, hampers full and open public discourse

Hawaiian Electric Company

- Developing 4th Integrated Resource Plan
- Has internal plan for renewable energy commitments which is now being integrated with HCEI effort through a voluntary agreement with the State
- Reported to have managers tasked internally to develop new business approaches emphasizing energy efficiency and renewable energy, along with major business transformation
- Top level leadership changes and vacancies raises questions about potential company restructuring
- Major cost-share partner mainly with projects involving HNEI and federal funding
- Has issued an RFP to acquire 100 MW of renewable energy to serve Oahu
- Has signed a voluntary agreement with the state with a timetable to secure commitments for 1000 MW of renewable energy

Maui Electric Light Company

- President a vocal utility proponent of need to move aggressively to renewable energy
- Has own integrated resource plan
- May be best able to capitalize on significant introductions of renewable energy through biodiesel fuel substitution (80% of generation from diesels) from imports or local agriculture
- Announced off-take recipient for Blue Earth Biofuels, partnership with Blue Earth and HECO, which has since been stalled
- Significant renewable energy from biomass through HC&S (sugar cultivation) operations
- Major wind resources on line; major wind resources under development which can lead to significant penetration of intermittent wind of greater than 50%
- Major opportunity for deployment of advanced technology to address wind curtailment through grid improvement and management strategies

- Site of first commercial wave energy device, 2.7MW Oceanlinx system

Hawaii Electric Light Company

- New leadership with new President
- Only utility with access to base-load geothermal energy
- Significant potential for wind energy and biomass energy from tree farm harvesting
- Significant land asset because of relative size of island compared to population served

Kauai Island Utilities Cooperative

- Only ratepayer owned electric utility cooperative in Hawaii
- President has publicly stated a 50% renewable energy target
- Developing its own renewable energy strategic plan
- Has successfully utilized competitive process to seek developers of renewable energy in the past

The Gas Company

- Has identified renewable energy as a potential new business line for the company, starting first with landfill gas recovery
- Currently evaluating new market strategies under present owner

Enterprise Honolulu

- Has identified alternate energy as a major interest area; unclear that EH has any specific project development initiative
- Generally encourages and supports businesses in the alternative energy sector
- Designated a Vice President specifically for energy technologies

Maui Economic Development Board

- Very good track record in community-based technology and economic plan development
- Significant investment and success in workforce development activities
- Excellent track record in supporting technology company development on Maui
- Has identified alternate energy development as a top priority area
- Working closely with Maui County on the energy plan development process

Kauai Economic Development Board

- Has identified alternate energy as a priority development area
- Intends to start up a formal plan development and execution process shortly
- Held a very successful Kauai renewable energy meeting in September 2008

Hawaii Island Economic Development Board

- Has identified alternate energy as a priority development area
- Not sure they have any current formal plans
- Conducted a Zero Waste Conference in September to include a discussion of renewable energy program

Economic Development Alliance of Hawaii (made up of all economic development boards)

- Has developed a previous track record in managing federal grants, e.g. RETA-II program, EPA, tropical fish
- Has expressed current interest to focus their activities on food and fuel independence, and is attempting to define its role
- EDAH board formally adopted focus on food and energy as the core of its future activities

Honolulu, Maui, Hawaii and Kauai Counties

- Maui County:
 - 1) developing its own energy strategic plan using a series of working groups
 - 2) Able to tap significant interest in alternate energy through Maui Community College because of the Chancellor's interest
- Hawaii County:
 - 1) Struggling to develop a waste to energy facility which could alleviate impending solid waste management problem and provide energy as a by-product; supported by Mayor, but not by Council
 - 2) Discussing a formal program to establish a county energy plan: strong advocates among certain County Council members
- Kauai County:
 - 1) Has initiated the development of a Kauai energy plan; coordinating efforts with KEDB

- 2) Office of Economic Development tasked to develop the Kauai energy plan
- 3) Consultant selected: Sentech, Inc.
- Honolulu City and County:
 - 1) Adding third boiler to HPOWER plant for energy recovery from solid waste disposal
 - 2) Planning for rail transit which will have significant impact on electric generation needs for Oahu
 - 3) Mayor has established an internal sustainability plan development process

Other NGOs like HREA, HSTC, Kohala Center, Blue Planet Foundation, HIPA, HARC, Kanu Hawaii

- Hawaii Renewable Energy Alliance is the only locally organized group with paid membership from a spectrum of renewable energy private sector interest, regular intervenor at PUC and testifier at Legislature
- Kohala Center:
 - 1) Demonstrated track record in community sustainability projects including alternate energy
 - 2) Partnered with major Colleges and Universities to deploy student talent to undertake well-respected analyses, e.g. Big Island materials flow analyses, industrial synergies, and Big Island sustainable energy plan
- Blue Planet Foundation:
 - 1) Emerged as a possibly significant force to achieve a large-scale transformation to renewable energy, serving as a credible voice for change in Hawaii, with international aspirations
 - 2) Developing its own unique mission and program development plan
 - 3) Demonstrated that it has the ability to convene knowledgeable and committed individuals, using media effectively for broad community outreach
- HIPA, the Hawaii Institute for Public Affairs:
 - 1) offers non-partisan policy analysis and advice to government and private sector clients. Most notably for HREDV, it completed and published the Hawaii 2050 Sustainability Plan, which includes a section on sustainable energy choices for Hawaii

- 2) Demonstrated a significant ability to incorporate community input through outreach, survey techniques, and focus groups to validate planning assumptions
- Hawaii Agricultural Research Center is undertaking a variety of research activities to identify candidate biofuels crops for Hawaii specific growing conditions on several islands
 - Kanu Hawaii, has developed a program to seek, publicize, and track individual sustainability commitments through a web-based networking tool. Its leaders are targeting a young audience who are quick to understand social responsibility and individual commitments.