

**HAWAII ENERGY POLICY FORUM
RENEWABLE ENERGY WORKING GROUP
ACTION PLAN**

TEN POINT PLAN POINTS #1, #8 & #9

#1 -- Expand Renewable Energy Opportunities

#8 --Support research and development of renewable energy to hydrogen.

#9 -- Support sustainable development and use of biofuels

Co-Chair: Warren Bollmeier

Co-Chair: Rick Reed

TPP #1: Expand Renewable Energy Opportunities

Goals:

- Support the state's Renewable Portfolio Standards mandate for Hawaii's electric utilities to meet 20% of utility sales of electrical energy in Hawaii from renewable sources by 2020.
- Promote the development and increased use of Hawaii's indigenous renewable resources to meet Hawaii's residential, commercial, industrial, government and transportation energy needs to the extent possible.

Background:

Current status of renewables in Hawaii:

1. Wind: three new windfarms with a total of 61 MW capacity were installed in 2006 and in 2007; and a number of other projects are under consideration. It is estimated roughly 10% of net-metered systems are small wind turbines, with the remainder being photovoltaic systems.
2. Solar: there are no large solar farms at the present time; one is under consideration. There are on the order of 100,000 solar hot water systems installed statewide with 3,000 to 4,000 new installations a year; and there are over 100 net metered PV systems and more than 1 MW of commercial, non-net-metered PV systems statewide.
3. Biomass-Electric: The biomass cogeneration units on Maui (HC&S) and Kauai (Gay & Robinson) continue to operate to meet site loads and export to the grid (up to 12 MW – HC&S). The City & County of Honolulu has issued a request for competitive sealed proposals to construct and operate an alternative energy facility and/or to improve and continue to operate the H-POWER facility (currently 46 MW). The City expects to award a contract(s) by January 2008. New biomass projects are under consideration: Kauai Island Utility Cooperative has selected two projects for negotiations as a result of a recent RFP for as-available renewable projects, and Renewable Hawaii Inc. has indicated there are one or

more biomass projects under consideration following its RFPs seeking renewable energy partners. HELCO has signed a purchase power agreement with Tradewinds, Inc. to buy energy from the burning of wood waste from company's proposed veneer plant.

4. Biomass-Fuels: Biodiesel production continues at Pacific Biodiesel's facility on Oahu and there is interest in expanding their production with development of new biomass feedstocks in the islands. BlueEarth Biodiesel, in partnership with a new HECO non-regulated subsidiary called Uluwehi o Kama Biodiesel, plans a large biodiesel production facility on Maui to supply MECO. Imperium Renewables, independent of HECO, is planning a similarly large biodiesel on Oahu near Kalaeloa Harbor. One ethanol facility is in development on Kauai (Gay & Robinson), and others are being considered for Oahu and Maui. Note: HECO is proceeding with construction of the 110 MW Campbell Industrial Park Generating Station which will be fueled 100 percent by biodiesel, and is also investigating use of biofuels in other units.
5. Geothermal: Puna Geothermal Ventures is planning to increase their 30 MW capacity by 8 MW in the near-term and an additional 22 MW is under consideration.
6. Hydro: Operation of run-of-the-stream hydropower units continues on Hawaii (12 MW-Wailuku Hydro and 2.5 MW-HELCO), Kauai (8 MW-non-utility), and Maui (5.6 MW –HC&S, and 500kW- Hawaii Energy Group). MECO is investigating the feasibility of a pumped-hydro storage facility on Maui
7. Ocean: A subsidiary of a mainland firm, Honolulu Seawater Air Conditioning, LLC, is developing the first of several large renewable energy seawater air conditioning (SWAC) district cooling systems in Hawaii.

The 2006 legislature passed significant legislation to provide tax credit incentives for the adoption of renewable energy systems by both the residential and commercial sectors. SB2957, Section 2 increased income tax credits for solar thermal, photovoltaic, and wind installations. The sunset date for these incentives was permanently removed which brings stability to the market and encourages the renewable energy business to invest in their business.

HB2175, Section 2 appropriated \$5,000,000 to install a minimum of four (4) photovoltaic, net energy metered pilot projects in public schools, one in each county.

Objectives

The overall objective is to encourage further use of renewable energy in Hawaii, in part, by taking advantage of the momentum already gained in the market, evaluating the impact of existing policies and incentives and assessing the need for additional measures.

Action Plans:

1. In the near term, the Renewable Energy Working Group (“REWG”) will work with the state (DOE and DBEDT), the utilities, industry and others to monitor the rate of “take up” by the market to determine how well existing policies and incentives are working. Periodic progress reports will be prepared.
2. Program “Tune-Up” - identify barriers to the effective implementation of the program – can we make them better? Seek input from industry on barriers and “speed bumps”.
3. Brief legislature & PUC – provide near-term briefings to the legislature and PUC/DCA on how the program is going.
4. Prepare OPeds on the successes and/or failures of the program to keep the program on the front burner with the public and the legislature. It would be very useful to prepare energy savings “success” stories.
5. Coordinate with the EE and Communications WG’s.
6. Report on the energy savings results of the Department of Education solar pilot project.
7. Support inclusion of additional schools to the solar program.
8. Support DBEDT renewable energy and energy efficiency programs and initiatives. Evaluate the need for additional funding and positions at DBEDT to support their mission.
9. Identify and report on promising new renewable energy technologies (such as solar thermal electric, SWAC, solar air conditioning and wave energy). Recommendations will be made to the Forum regarding potential State energy initiatives and appropriate legislative or regulatory actions.
10. Consider establishment of development zones for ocean and wave energy.
11. Evaluate the need for incentives to support state-wide waste-to-energy projects.

TPP #8 - Support research and development of renewable energy to hydrogen (RE2H2).

Goals :

- Advocate for recognition for Hawaii as a premier demonstration site for the deployment of hydrogen fuels and energy systems
- Support funding requests for R&D on Hawaii’s renewable energy sources as potential sources to produce hydrogen.
- Support leveraging state funds to attract federal programs that will assist in the development of Hawaii’s RE2H2 sources and energy systems.

Background

The 2006 legislature passed legislation now embodied in HRS 196-10 to establish the Hawaii Renewable Hydrogen Program (“RHP”) and the Hydrogen Investment Capital Special Fund. DBEDT and the Hawaii Strategic Development Corporation (HSDC) will administer the fund. DBEDT will select a private-sector entity to manage of the fund under contract to DBEDT.

Objectives/Desired Outcomes

1. Significant investments are made in existing and new R&D programs in Hawaii to develop RE2H2 production technologies.
2. Hawaii becomes a national leader and prime demonstration site in the United States for -developing and implementing the use of hydrogen fuels and energy systems.
3. A new hydrogen fuel and energy system technology industry is spawned and nurtured via the development and implementation the RHP by DBEDT.

Indicators/Metrics

1. Numbers of projects/new businesses
2. Dollar value of projects/new business
3. Dollar value of Federal investment
4. Number of people employed in R&D &P

Action Plans:

1. Work with DBEDT to provide support for the implementation of the RHP.
2. Assess areas where the Forum can provide ongoing support including additional financial resources for DBEDT to fulfill its mandate.

TPP #9 – Support the sustainable development and use of biofuels

Goals :

- Advocate for the increased sustainable utilization of biofuels in Hawaii's energy mix.
- Support efforts to increase local biofuel production with the emphasis on the development of sustainable local sources of biofuel feedstocks.
- Support development of a Hawaii Bioenergy Master Plan.

Background

During the 2007 legislative session, the Forum initiated legislation for the development of a Hawaii Bioenergy Master Plan that was ultimately included in HB1003 and funded for \$300,000 to be expended by DBEDT. The legislation directed the plan be completed by the start of the 2009 session with an interim progress report at the start of the 2008 session.

Objectives/Desired Outcomes

1. The development of an action-based Bioenergy Master Plan with input from all interested stakeholders.
2. The amount of biofuels used in transportation increases by 20% in ten years.

Indicators/Metrics

1. Biofuels Master Plan is produced on time

2. Percentage of biofuels increases by 20% over 10 years

Action Plans:

1. Provide support to DBEDT for the development of the Hawaii Bioenergy Master Plan.
2. Evaluate the need for additional funding and positions to support the development of the Hawaii Bioenergy Master Plan.
3. Prepare a white paper on Biofuels for Hawaii. The paper will include issues relating to use of biofuels for electricity and transportation needs. Input will be solicited from all interested stakeholders.

**HAWAII ENERGY POLICY FORUM
ENERGY EFFICIENCY WORKING GROUP
ACTION PLAN**

**TEN POINT PLAN POINT #2
Promote Conservation and Energy Efficiency
TEN POINT PLAN POINT #7
Improve Energy Efficiencies and Options in Transportation**

TPP #2 Promote Conservation and Energy Efficiency

Goal(s):

1. Improve widespread energy efficiency in the State.

2. Support the State's Lead by Example Program – demonstrate the financial benefits of energy efficient buildings to the commercial and residential sector by implementing public building energy legislation and documenting the effects of energy efficiency.
 - Communicate the progress to the legislature and public.
 - Identify barriers to implementation and develop solutions to dismantling them.

Background:

The 2006 legislature passed HB2175 which along with three other energy bills (SB2957, SB3185, and HB2848) became Act 96. The legislation established that all new construction of state facilities and large retrofits should achieve the Leadership in Energy and Environmental Design LEED Silver rating. This standard improves the energy performance in the new buildings by approximately 30% over buildings designed and constructed without the LEED Silver rating.

In addition HB 2175 requires the state to lead by example, setting green building standards for state buildings and instructs state agencies to maximize usage of energy-savings contracts, including performance contracts and utility energy-efficiency service contracts. The legislation also promotes the use of “green building” practices by requiring counties to establish priority processing of permit applications for construction projects that incorporate energy efficiency and environmental design.

Pursuant to enactment of this law, the Director of the Department of Business, Economic Development and Tourism (DBEDT) is designated as the “coordinator” in Act 96. Therefore, DBEDT has taken the lead in providing technical assistance to state agencies; providing training to state personnel and consulting design professionals. In addition, DBEDT has been and will continue to facilitate, and coordinate efforts among state agencies to adhere to the new legislation and it will report activities and progress to the Legislature. Members of this working group have been working closely with decision makers on various state projects and alongside DBEDT to achieve the goals as stated above. There has been an unprecedented level of coordination among state agencies (facilitated by DBEDT) to share information and experiences to streamline the establishment and implementation of energy efficient building design standards, energy

efficiency financing options, including performance contracting, and commissioning/retro-commissioning services. This level of cooperation is essential if the large-scale energy goals for the state are to be realized.

Objectives and Desired Outcomes:

1. Adequate staffing and administrative support for Lead by Example
2. Adequate staffing, administrative support and personnel training to support goals of legislation in each state agency
3. Establish contract language, procurement processes and contractual vehicles for securing power purchasing agreements for renewable energy systems, commissioning, retro-commissioning, performance contracts, and sustainable design services as well as municipal leasing and other financing options for state energy projects.
 - a. Standardized and utilized these procedures across state agencies.
 - b. Develop in- house technical capacity to verify the adequate delivery of these services
4. Successful implementation of energy efficiency in public buildings
5. Acceptance and implementation of energy efficiency by commercial and residential sectors
6. Link energy conservation and renewable energy applications to greenhouse gas reduction in state facilities

Indicators / Metrics:

1. Four State buildings have been approved and certified by the US Environmental Protection Agency as ENERGY STAR.
 - The State Office Tower [2006]
 - Kapolei Office Building [2005 and 2006]
 - Paki Hale Courthouse [2006]
 - Kapolei has been awarded ENERGY STAR® (for two years.)
2. Six state buildings have been completed or are under construction to meet
 - LEED standards, from LEED Certified to LEED Platinum. The buildings are:¹
 - NELHA Hawai'i Gateway Energy Center: LEED Platinum
 - UH John A. Burns School of Medicine: LEED Certified
 - UH-Manoa Frear Hall Resident Building (Building permit application phase; foundation under construction): LEED Silver

¹ DBEDT, Lead by Example, State of Hawai'i Agencies' Energy Initiatives, FY 2005-2006, Report to the 2007 Hawai'i State Legislature

- DOE Waipahu Intermediate School Cafeteria: LEED Certified
 - UH-Hilo Student Life Complex – Phase 1A (Under construction): LEED Certified
 - UH Hilo – Mauna Kea Astronomy Education Center (construction completed; pending verification for LEED Silver): LEED Silver
3. In FY06 alone, DBEDT sponsored or cosponsored more than 45 training and informational events that included participation by over 289 state employees.²
 4. A Sub-metering program on the UH Manoa Campus has been started allowing the UHM administration to accurately measure energy consumption on a per building basis.

Specific Forum Actions:

Actions to be Taken/Underway

1. Continue to work with state agencies and the private sector to advance improved energy efficiency in buildings. Identify barriers and make recommendations to amend existing legislation or provide recommendations to develop new legislation to advance energy conservation, renewable energy and reduced green house gas emissions in the State.
2. Improve the Energy Performance of the State Capitol Building.
 - a. Pursuant to the energy assessments that were performed on the Capitol building in 2006-07 DBEDT and DAGS have procured the services for a retro commissioning of the building. It is being performed (3rd-4th quarters of 2007). This will lead to an estimated energy saving of 25% for the building.
 - b. Working Group members will continue to track that project to promote and expand the use of retro-commissioning services for other state facilities.
3. Working Group members will continue to work with DBEDT and other agencies to track and quantify the energy savings realized or anticipated in on-going projects.
4. Working Group members will continue to work with DBEDT, the UHM Administration and other State Agencies to implement and track the use of Commissioning, Retro-commissioning services and Energy Performance Contracts on State buildings.
5. Continue to work closely with the University of Hawaii at Manoa (UHM) administration to demonstrate energy conservation and energy efficiency applications on the campus
 - a. Explore energy efficiency on other UH campuses

² DBEDT, Lead by Example, State of Hawai'i Agencies' Energy Initiatives, FY 2005-2006, Report to the 2007 Hawai'i State Legislature

6. Continue to work with UHM administration and other State Agencies to develop language for procuring power purchasing agreements, commissioning, retro commissioning, energy performance and sustainable design services.
7. Continue to work with DBEDT and other State agencies to identify viable options for financing energy efficiency and renewable energy opportunities
8. Develop case studies showing the financial benefits of implementing energy efficiency projects in state buildings.
9. Explore other strategies with other Working Groups (eg. regulatory relating to utility DSM programs, third party administrator, etc.)
10. Work with the Communications WG to provide periodic reports for dissemination to the public.

Actions Taken:

1. "Energy by Example" program performed energy audits for the State Capitol, Saunders Hall on the university of Hawaii Manoa campus, Farrington High School, and United Laundry Service.
2. An advisory group has been established to make recommendations to the state for implementing greater levels of energy conservation in public buildings.
3. The University of Hawaii at Manoa administration has established new energy policy guidelines for the main campus. They include:
 - i. 30% reduction in overall campus energy use by 2012
 - ii. 50% reduction in overall campus energy use by 2015
 - iii. 25% renewable energy supply by 2020
4. A partnership has been formed between HECO and the UH Manoa campus to pursue large-scale energy reduction on the campus. This has led to an electrical metering program.
5. An Assistant Vice Chancellor has been hired at the Manoa campus to oversee the operations of the campus facilities and to ensure an improved energy performance of all new and existing building to be compliant with or to exceed the standards that are articulated in Act 96.
6. UH Manoa issued a Statement of Interest for qualified commissioning/retro-commissioning agents.
7. DOE initiated an incentive/disincentive energy conservation program for 280 schools statewide.
8. DAGS has initiated retro commissioning for five state buildings, including the State Capitol.
9. Hawaii Public Housing Authority is developing a performance-contracting Request for Proposals to initiate energy efficiency improvements in its state and federal public housing facilities.
10. DAGS is now the lead for performance contracting initiatives; DBEDT will continue working with HPHA on their performance contract.
11. DBEDT completed a cost-benefit, life-cycle analysis for the new College of Education.
12. DBEDT is developing a cost-benefit, life-cycle analysis for the State Capitol at LEED Silver.

Synopsis of Achievements/Progress

1. State agencies are working together and moving forward in developing the contractual and procurement vehicles to enable them to implement commissioning, energy services contracts and green building design services.
2. State agencies are developing methods to quantify energy usage through energy assessments and sub-metering. Next steps toward a more effective and accurate energy tracking will be the widespread application of coordinated Energy Management Systems (EMS) for state facilities.
3. Retro-commissioning for existing facilities and LEED Silver projects are currently being initiated in response to the new legislation. As these projects are completed, more energy related data and information on the opportunities and barriers of the process will be available.

Impact on Community:

1. Projects that are implementing the ACT 96 standards are just getting initiated. Data is being collected on the costs, energy savings, benefits and barriers associated with Retro-commissioning, Energy Service Contracts and LEED Silver buildings. The community impacts and benefits are :
 - a. Elevated standards of practice for professionals that will serve both the public and private sectors.
 - b. State facility based initiative encourages the private sector to follow
 - c. Reduced state-wide dependence of fossil fuel
 - d. Increase resources for programs rather than revenue going to inefficient use of electricity
 - e. Reduced green house gas emissions

TPP #7: Improve Energy Efficiencies and Options in Transportation

Goals:

- Dramatically improve the energy efficiency and the use of indigenous fuels in the transportation sector.
- Lead by example – demonstrate to the commercial sector the financial benefits of energy efficient vehicles by documenting the effects of energy efficiency on state transportation fleets.
 - Monitor progress in implementing alternative fuels in state transportation fleets;
 - Communicate the progress (or lack of progress) to the legislature and public.
 - Identify barriers to implementation and develop solutions to dismantling them.

Background:

In Hawaii the major emphasis on transportation energy efficiency has focused on the use of mass transit and very little effort has been made to make the vehicle fleet more efficient. This is despite the high cost of vehicle fuels and the high visibility enjoyed by the Gas Cap program. This emphasis diverted attention from the basic premise – use less gas in the first place through the use of fuel-efficient vehicles. Furthermore the public culture is a “love affair” with large vehicles, however as the price of fuels continues to rise, this may be displaced by a new energy efficiency culture. The Forum needs to work on encouraging this cultural shift.

Legislation passed by the 2006 legislature includes the following:

SB 2957, Section 5 – establishes a statewide alternative fuel standard;

HB 2175, Section 28 – clarifies the state procurement policy for energy efficient vehicles.

Transportation efficiency was an area where the Forum made a more concentrated effort during the 2007 legislative session. HB 869–Energy Efficient Transportation Strategies was passed in the 2007 session.

Objectives and Desired Outcomes:

- Support the development and implementation of energy efficient strategies in the transportation sector in the state and counties
- Support the development and use of alternative energy fuels for transportation

Indicators / Metrics:

- Energy consumption (btu/passenger mile)

Specific Forum Actions:

- Actions to be Taken/Underway
 - Explore energy efficient strategies in the transportation sector
 - Develop indicator(s) to measure progress of an energy efficient vehicles= program and the implementation of the alternative fuel standard.
 - State Government Energy Efficiency Vehicle Report Card: work with DBEDT to monitor the effectiveness of energy efficient vehicle implementation actions in state departments and produce a departmental energy efficient vehicle report card;
- Actions Taken
 - Obtained support (Act 254 passed by 2007 Legislature and signed by the Governor) for developing energy efficient strategies in the transportation sector.
 - _ State, county, and private agencies are working together to explore energy impacts in the transportation sector and to develop strategies that will increase energy efficiency in transportation.

Impact on Community:

- Reduce GHG emissions and consumption of imported fossil fuels in the transportation sector

**HAWAII ENERGY POLICY FORUM
GREENHOUSE GAS EMISSIONS WORKING GROUP
ACTION PLAN**

**TEN POINT PLAN POINT # 3
Reduce Greenhouse Gas Emissions in Hawaii**

Goal(s):

- To assist the State and energy stakeholders to reduce greenhouse gas emissions to 1990 levels as called for in Act 234 adopted and signed into law in 2007
- To identify and promote greenhouse gas emission reduction measures that optimize global benefits and minimize the negative impacts of greenhouse gas emission controls on the state economy with particular attention to impacts on low-income residents.

Background: The Hawaii State Legislature adopted Act 234, which calls for the reduction of greenhouse gas emissions in Hawaii to levels at or below estimated emissions for 1990 by January 1, 2020. Act 234 calls for the Department of Health and the Department of Business, Economic Development and Tourism to update the inventory of greenhouse gas emissions by December 31, 2008. The law also establishes a Greenhouse Gas Emissions Reduction Task Force that is charged with developing a work plan and regulatory scheme to achieve the maximum practically and technically feasible and cost effective reduction in greenhouse gas emissions to achieve the emissions limit established by the Act.

Act 234 calls on the Task Force to make recommendations on options for reducing greenhouse gas emissions including:

- Direct emissions reduction measures;
- Alternative compliance mechanisms;
- Market-based compliance measures; and
- Potential monetary and non-monetary incentives.

Act 234 also calls on the Task Force to investigate analytical tools, economic models, and other scientific methods to evaluate the total potential costs and total potential economic benefits of plans to reduce greenhouse gas emissions to the state's economy, environment, and public health.

The greenhouse gas emission reduction measures identified in Act 234 could have extensive impacts on Hawaii's economy. Several mainland states are currently evaluating the impacts of emissions reductions and market-based compliance measures on their greenhouse gas emissions and on their economies. The United States Congress is also contemplating such measures. Therefore, it is imperative that the Greenhouse Gas Emissions Task Force and the Departments of Health and Business, Economic Development and Tourism provide the Legislature and the Governor with solid environmental and economic analyses of the costs and benefits of alternatives for reducing greenhouse gas emissions.

Objectives and Desired Outcomes:

- To provide guidance and analytical support to the Greenhouse Gas Emission Task Force to assess policy options for greenhouse gas emission reductions;
- To work with the Greenhouse Gas Emissions Task Force to develop recommendations to the Legislature on greenhouse gas emissions control policies that will meet the targets set forth in Act 234 and minimize the negative impacts of emissions controls
 - To assess the feasibility and costs and benefits of possible implementation measures including: limiting stack emissions of greenhouse gases on power plants, a carbon tax levied on oil imports and/or at the local refineries, cap and trade systems managed locally, and incentives to reduce greenhouse gas emissions
 - To evaluate policies developed and implemented by other states and regions and impact assessments of those policies;
 - To assess options for national legislation being considered by the US Congress and the potential impacts of such legislation on state policies and the Hawaii economy

Indicators / Metrics:

- Completion of an assessment of existing greenhouse gas emissions data
- Compilation and development of data identifying 1990 and current levels of Hawaii greenhouse gas emissions by source
 - Completion of an initial assessment of policy options for reducing greenhouse gas emissions
- Development of methods to project greenhouse gas emissions, reduction costs and economic impacts for various possible reduction measures and policies
- Identification of policy, technical and regulatory issues associated with greenhouse gas reduction regulations
 - Development of recommendations to the Legislature on additional analytical work required to fully assess policy options for reducing greenhouse gas emissions in Hawaii

Specific Forum Actions:

Specific Forum actions will be determined based on the process and actions of the Greenhouse Gas Emissions Task Force. Interim actions include:

- Monitoring the formation and actions of the Greenhouse Gas Emissions Task Force
- Monitoring actions of stakeholders, stakeholder groups, governmental agencies or other entities involved in the analysis, regulation or implementation of greenhouse gas measures and policies.

**HAWAII ENERGY POLICY FORUM
COMMUNICATION/OUTREACH WORKING GROUP
ACTION PLAN**

**TEN POINT PLAN POINT #4
FOSTER CIVIC ACTION AND PARTICIPATION**

Goal(s):

- Increase awareness and outreach for HEPF activities and initiatives to opinion leaders and the community at large
- A more effective Hawaii Energy Policy Forum due to increasing awareness and respect for its role, work and recommendations among policy makers, energy stakeholders and the public.

Background:

- The C/O Working Group was established to communicate the work of the other substantive working groups and increase awareness and education of opinion leaders as well as the general public. Over the years it has worked with other working groups to publicize briefings, develop and distribute press releases to the media, coordinate press conferences, and explored ways to educate the decision makers and the public on energy issues and policies.

Objectives and Desired Outcomes:

- Develop with the Forum and implement a communications and outreach strategy to support the activities of the HEPF, and to implement the Ten Point Action Plan.
- Engage key stakeholders, business leaders, government officials, and energy specialists in supporting HEPF activities.
- Assist in the conceptualization and coordination of public education forums, including workshops and panels, to educate the general public about energy issues facing Hawaii.
- Coordinate media, communications and public education activities (both paid and free media) with support HEPF goals and objectives.
- Assist in obtaining print, radio, and television sponsorships, including public service announcements and special showings, which feature energy issues.

Indicators / Metrics:

- Public events: number of events, attendance, media coverage
- Press releases issued; news mentions
- Legislative and similar briefings: number, consistency, attendance; attendee responsiveness

- Sponsorship of public informational activities through venues to include broadcast and print media and public meetings

Specific Forum Actions:

- Actions to be Taken/Underway
 - Increase public awareness of energy initiatives to community at large
 - Develop regular energy efficiency briefings for community leaders
 - Create more informational material about energy issues
 - Identify and develop better relationships with key opinion leaders to let them know about HEPF, and encourage their involvement
 - Enhance marketing and paid media activities to reach broader audiences
 - Better coordinate with WG chairs to support their activities
- Actions Taken
 - Coordinated informational briefings before the House and Senate
 - Facilitated Congressional delegation involvement in HEPF
 - Conducted public forums on HEPF e.g., energy efficiency, Hawaii Business 2050 series, biofuels briefings, energy efficiency briefings with business sector and commercialization of renewable energy technologies
 - Developed HEPF Brochure and informational packet
 - Provided media and public relations support as appropriate

Synopsis of Achievements/Progress (KISS):

- Awareness of and respect for the Hawaii Energy Policy Forum continues to grow, though more needs to be done to provide independent, respected information to the general public.

Impact on Community:

- Broader public awareness of energy issues.
- Education and information regarding energy issues re: renewable energy technologies and energy efficiency in the business and agriculture sectors.

**HAWAII ENERGY POLICY FORUM
REGULATORY REFORM WORKING GROUP
ACTION PLAN**

**TEN POINT PLAN POINT #5
Enhance Regulatory Goals and Protections.**

Goal:

- Ensure policies, laws and regulations are consistent in promoting efficiency and renewable resources.
- Promote policies, reforms and resources to support the Public Utilities Commission (PUC) and the Division of Consumer Advocacy (DCA) in progressive and aggressive efforts to protect the public's interest and implement sound energy strategy.

Background:

Two important ways that the State expresses its energy policies are through its laws and through the actions of its utility regulatory agencies. It is important that the State's laws encourage, rather than impede, energy efficiency and renewable energy resources. The State's utility regulatory program includes the Public Utilities Commission and the Division of Consumer Advocacy. Both of these agencies play central and essential roles in determining and implementing the State's energy policies. These agencies need sufficient resources and a determined resolve to promote sound energy policies.

Objectives and Desired Outcomes:

- Improve County and State policies and regulations to enable and promote energy efficiency and renewable energy resources.
 - Determine what existing policies and regulations present barriers to promoting efficiency and renewable resources
 - Identify solutions and opportunities to make state and county policies and regulations supportive of efficiency and renewable resources
- Provide for adequate financial and staff resources for the PUC and DCA
 - Staff salaries commensurate with industry standards and sufficient to attract and maintain qualified personnel
 - Agency modernization and reorganization to facilitate efficient agency productivity
 - Agency budgets sufficient to retain qualified consulting services as necessary
- Develop awareness of the importance of implementing progressive energy policy
 - Appreciation by government leaders and legislators of the crucial importance of regulatory agency capability and productivity to implement sound state energy policies.

- Active resolve by the PUC and DCA to embrace and implement progressive energy policies in the regulation of the State's energy utilities.

Indicators / Metrics:

- All pertinent county and state ordinances, statutes, administrative rules and agency policies reviewed for consistency with enabling and promoting energy efficiency and renewable resources.
- Specific solutions and opportunities identified to make policies and regulations more conducive to energy efficiency and renewable resources.
- Specific amendments proposed and promoted to improve county and state policies and regulations.
- Government leaders informed and appreciative of the importance of regulatory agency capability and productivity
- Support and passage of regulatory agency reorganization plans to provide invigorated agency capability and productivity
 - Sufficient and appropriate agency staff positions
 - Sufficient agency staff salaries
 - Sufficient agency budgets
- Adequate financial and staff resources for the PUC and DCA
 - Staff salaries commensurate with industry standards and sufficient to attract and maintain qualified personnel
 - Agency modernization and reorganization to facilitate efficient agency productivity
 - Agency budgets sufficient to retain qualified consulting services as necessary
- PUC and DCA effectively determining and implementing sound energy policies in the regulation of energy utilities.

Specific Forum Actions:

- (Action underway) Commission a methodical study to examine existing policies and regulations and recommend amendments to promote efficiency and renewable resource implementation (August 2006 – August 2007)
 - Examine and catalogue existing relevant policies and regulations
 - Determine which policies are and are not consistent with promoting energy efficiency and renewable resources
 - Determine what amendments or options are feasible to improve policies and regulations
 - Formulate recommendations for implementing amendments and/or options

- (Action ongoing) Monitor the implementation of recently adopted laws regarding energy utility regulation and actions to be implemented by the PUC and DCA (July 2006 – July 2008)
 - Implementation of Renewable Portfolio Standards
 - Implementation of a Public Benefits Fund and “Third Party” DSM administrator by the PUC
 - Greenhouse gas emission limits
- (Action Ongoing) Coordinate with other Forum working groups regarding matters pertaining to the PUC and DCA (July 2006 – July 2008)
- (Action Taken) Determine, evaluate and promote recommendations for legislation for the 2007 legislative session.
- (Action Ongoing) Determine, evaluate and promote recommendations for legislation for the 2008 legislative session.
- Ensure that the PUC and DCA have the necessary resources to timely and fairly address regulatory issues. (July 2006 – July 2008)
 - (Action Ongoing) Continue dialogue with the Governor’s office to emphasize the importance of sufficient staffing of these agencies
 - (Action Ongoing) Monitor the progress of agency reorganization plans and support the agencies’ plans and funding in the 2007 legislature

**HAWAII ENERGY POLICY FORUM
SOCIAL AND CULTURAL IMPACT WORKING GROUP
ACTION PLAN**

TEN POINT PLAN POINTS #6 & 9

**#6 - Encourage Culturally Appropriate and Sustainable Energy Planning
#9 - Support Sustainable Development and Use of Biofuels**

Goal(s):

- Develop strategy and procedures to identify cultural sites in which new energy production facilities should not occur, and an appropriate methodology for communicating such information to energy production facility planners and developers, policymakers and the public.
- Advocate for establishment of a model, community-based biofuel production & distribution system to displace non-indigenous (imported) energy sources
- Identify proven indigenous models that might be used to introduce less expensive energy to Hawaii's urban centers and remote rural communities.
- Provide incentives to involve Native Hawaiians and Native Hawaiian communities as stakeholders in efforts to redevelop idled urban and plantation era lands into productive use within the energy production business chain.
- Encourage no-development areas that promote energy conservation by reducing the demand for energy.
- Address sustainable community energy requirements.

Background:

Native Hawaiian and other less affluent communities have historically been “burdened” with the placement in their neighborhoods of large power generating, and water, sewage and waste treatment facilities. Two issues of concern to the Forum are:

- Options to be considered usually feature conventional technologies that use disproportionate amounts of energy to operate, or are more expensive on a life-cycle basis.
- Finding a location for new such facilities is often a difficult and divisive process that often pits more populous, affluent communities with less affluent communities.

Hawaii, with its wealth of smart, proven, indigenous technologies, should be leading a change in energy production towards innovative, energy efficient options as well as options that have life cycle savings over conventional practices. The placement of energy production facilities should also not disturb culturally sensitive sites and avoid creating “burdened” communities.

HECO's recent approach to working with the Kapolei and Waianae communities as “burdened communities” with respect to the construction of five power plants in their district serves as an excellent model in terms of devising an action plan.

Development of indigenous renewable energy resources in Hawai'i creates opportunities to combine economic development and renewable energy policy objectives. Given that many of these resources are located or may be efficiently developed on Native Hawaiian lands, cooperative ventures with ali'i trust and other Hawaiian organizations are encouraged. Some of these lands hold significant cultural value to the Native Hawaiian community and their development may not be supported, and, in fact, opposed by the Native Hawaiian community.

It is recommended that the Forum create strategic alliances with organizations like the Office of Hawaiian Affairs (OHA), Kamehameha Schools – Bishop Estates (KSBE), and the Department of Hawaiian Home Lands (DHHL) to identify appropriate resources by building on current State Historical Preservation Department (SHPD) listings, current reviews, development of a list of undocumented sites (with appropriate technical support) and eventually determine “go/no go” areas for infrastructure development via a Cultural Inventory of Traditional and Energy Resources (CITER) Model.

In keeping with the original Cultural Issues Working Group (2003 and 2005), priority must be given to involvement of Native Hawaiian values and community leaders in site selections of industrial infrastructure in burdened communities, and how to commence discussion and empowerment. This will be accomplished by developing a demonstration project in a burdened community for culturally appropriate and environmentally responsible technologies with support from the community, Native Hawaiian groups and stakeholders.

Objectives and Desired Outcomes:

- Formulate policies and procedural frameworks to include an evaluation of social and cultural impacts of energy issues.
- Establish a community benefits process (such as one used by HECO re: a proposed energy installation near Nanakuli) to address concerns of “burdened communities”.
- Engage Hawaiian and broader community in selection of culturally appropriate sites for energy production and distribution
- Establish a process which defines cultural energy issues, and facilitates making more informed decisions regarding the protection of “traditional and customary” practices and resources impacted by land use and shoreline projects related to energy projects.
- Empower surrounding communities as stakeholders in new technology and energy self-sufficiency by successful demonstration projects.
- Forum becomes energy member of the 2050 Sustainability Plan group

Indicators / Metrics:

- “Burdened communities” are identified and charted.
- Areas in which energy production facilities should not be placed are identified and appropriately charted.

- A “white paper” is prepared that identifies and summarizes how energy conservation and production can best occur in Hawai`i under several successful indigenous models of sustainability (i.e., ahupua’a).
- A community outreach plan is developed.
- A “white paper” is prepared in ways that indigenous communities can be major stakeholders in new technology and opportunities for energy production and energy conservation.
- CITER Model for potential “positive” sites.

Specific Forum Actions:

- Actions to be Taken/Underway
 - Begin preliminary meetings to develop strategic alliance with OHA
 - Convene working group with OHA to cross check West Oahu sites and development options statewide;
 - Conduct teleconference meetings with local utilities, OHA, SHPD and other Hawaiian organizations, and private sector partners. Minimal cost - should be absorbed by strategic alliance partners.
- Actions Taken
 - Preparation of LNG Study

**HAWAII ENERGY POLICY FORUM
HYDROCARBON WORKING GROUP
ACTION PLAN**

TEN POINT PLAN POINT #10

Ensure the security and reliability of energy supply and distribution

Goals:

- Ensure policies, laws and regulations are consistent in promoting infrastructure to support the security and reliability of energy supply and distribution.
- Promote policies to support appropriate cost recovery for utility companies for prudent investments to protect the security and reliability of energy generation, supply and distribution systems.
- Protect our transportation and electricity infrastructure by developing systems that have endurance, hardening resistance and can overcome vulnerabilities to potential acts of terrorism and natural disasters such as hurricanes and tsunamis and fuel supply disruptions
- Support policies, laws and regulations that facilitate the integration of biofuels into the energy infrastructure in a manner that does not compromise the security and reliability of the state's overall energy supply and distribution.

Background:

In recent years Hawaii has become increasingly concerned about the need to lessen its dependence upon hydrocarbons to run its economy and to maintain the lifestyles of its residents and visitors. Bold legislative initiatives have been passed to support and incent greater use of renewable resources and energy conservation. The transformation to renewable energy based economy will take many years and we need to ensure that during this transition that additional investments and ongoing maintenance of hydrocarbon facilities are continued to ensure the security and reliability of the state's overall energy supply and distribution system.

It is important that the State's laws and regulations encourage, rather than impede continued investment and maintenance of hydrocarbon facilities and distribution systems to ensure their continued security and reliability.

For the state's energy utilities, the Public Utilities Commission and the Division of Consumer Advocacy oversee their operations and capital investments. In addition the Department of Business Economic Development and Tourism is responsible for energy planning and through the Energy Council coordinates responses to emergencies concerning energy shortages caused by natural disasters or other supply disruptions. These agencies play central and essential roles in determining and implementing the State's energy policies.

Objectives and Desired Outcomes:

- Develop systems that have endurance, hardening resistance, and can overcome vulnerabilities to potential acts of terrorism and natural disasters such as hurricanes and tsunamis.

- Provide guidance to PUC on the recovery of utility investments that encourage investments to improve hydrocarbon fuel system manufacturing, transmission and distribution systems security and reliability.
- Improve county and state policies and regulations to ensure the security and reliability of energy supply and distribution.
 - Determine existing policies and regulations that present barriers to promoting the security and reliability of energy supply and distribution
 - Identify solutions and opportunities to make state and county policies and regulations supportive of the security and reliability of energy supply and distribution
 - To ensure the continued security and reliability of the county's/state's energy supply and distribution, offer expertise/commentary on proposals designed to supplant fossil fuels with renewable forms of energy.

Indicators / Metrics:

- All pertinent county and state ordinances, statutes, administrative rules and agency policies reviewed for consistency with enabling and promoting security and reliability of energy supply and distribution.
- Specific solutions and opportunities identified to make policies and regulations more conducive to security and reliability of energy supply and distribution.
- Specific amendments proposed and promoted to improve county and state policies and regulations.
- Government leaders informed and appreciative of the importance of security and reliability of energy supply and distribution.
- Support and passage of legislation that promote security and reliability of energy supply and distribution.
- PUC and DBEDT effectively determining and implementing sound energy policies to support the security and reliability of energy supply and distribution.

Specific Forum Actions:

1. Develop indicator(s) to measure progress in developing secure and safe energy system.
2. Develop information on issues/options for communication/outreach
3. Provided partial funding for FACTS to prepare the report entitled, "Evaluating Natural Gas Import Options for the State of Hawaii," which updated their previous study on the feasibility of importing LNG. This study was used in part to satisfy Section 355 requirements of the 2005 National Energy Policy Act

relating to analyzing the impacts on the local refinery industry of displacing petroleum with renewable energy or liquefied natural gas.

4. Support the development of the 2006 Hawaii Energy Strategy being conducted by DBEDT & RMI, which is scheduled to be completed in 2007
5. (Action Taken) Determine, evaluate and promote recommendations for legislation for the 2007 legislative session. Monitor legislation and testify on bills that the Forum has reached a consensus on:
 - a. HB 250, HD 2, SD2, CD1 (Act 127) which would establish a formal agreement between the Aloha Tower Development Corporation and DOT-Harbors to work jointly on Honolulu harbor infrastructure projects (passed)
 - b. HB 791, HD1, SD1, CD1 (Act 130) (monitor and work with renewable subcommittee) requires distributors to report to the department of business, economic development, and tourism on the distribution and availability of gasoline that does not contain ethanol. Requires report to legislature.
8. (Action ongoing) Monitor the implementation of recently adopted laws regarding energy utility regulation and actions to be implemented by the PUC and DCA (July 2006 – July 2008)
 - o Implementation of Petroleum Industry Monitoring, Analysis and Reporting (PIMAR) law
9. (Action Ongoing) Determine, evaluate and promote recommendations for legislation for the 2008 legislative session.
10. (Action ongoing) Support advance preparedness for energy shortage emergencies due to oil market disruptions or natural or manmade disasters by securing delivery of electric and gas services and protecting production and storage of fuel and fuel feedstocks for utility and transportation (ground, air, and marine) uses.
11. (Action ongoing) Keep abreast of the efforts of the Hawaii Harbors User Group and the State Harbors to work together on a statewide Harbor Modernization Plan which is designed to implement and aggressive infrastructure upgrade of the harbors in order to ensure that there is adequate harbor capacity to avoid disruption in the delivery of hydrocarbon and biofuels as well as other cargos.