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The Hawai'i Energy Policy Forum

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HAWAII ENERGY POLICY FORUM

**A Report to the Hawaii State Legislature
By
The Hawaii Energy Policy Forum**

**The Action Plan and Timeline for Implementing
the Ten Point Energy Plan
and
A Status Report on the Assessment of the
Feasibility of Hawaii's Participation in the Chicago
Climate Exchange**

December 31, 2006

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The Hawaii Energy Policy Forum ("HEPF" or the "Forum"), University of Hawaii, submits this interim report on the Forum's work to date, pursuant to Act 163, Session Laws of Hawaii 2006, which reconvened for the purpose of:

- (1) Developing a detailed action plan and timeline to implement the recommendations of the Forum's Ten Point Energy Plan to meet Hawaii's energy goals;
- (2) Developing tangible goals, objectives, desired outcomes, and actions to implement the Forum's energy vision and strategy;
- (3) Developing benchmarks for measuring outcomes of energy implementation strategies;
- (4) Further engaging Hawaii's business, government, labor, and community leaders and integrating them into the policy activities and discussions of the Forum;
- (5) Assessing the feasibility of the State becoming a participant in the Chicago Climate Exchange, specifically examining the advantages and risks in terms of advancing Hawaii's development and use of renewable energy;

- (6) Developing greater community and public awareness about Hawaii's energy needs and the goals and activities of the Forum; and
- (7) Seeking additional funding for statewide implementation of, and public education regarding, the recommendations and goals of the Forum.

The Forum worked diligently during the first quarter of FY 2006 to reconvene and reaffirm its vision and governance processes. It established six working groups to address the purposes of Act 163 and the goals of its Ten Point Energy Plan. What follows provides a status report on the work to date to achieve the purposes of Act 163:

(1) Development of a detailed action plan and timeline to implement the Forum's Ten Point Energy Plan.

Through its six working groups, the Forum, during the summer and fall of 2006, developed detailed action plans to address the following substantive areas: (1) renewable energy; (2) energy efficiency; (3) hydrocarbon futures and energy security; (4) regulatory reform; and (5) social and cultural impacts. A sixth working group, communication and outreach, was established to work with the other working groups to develop a communication and outreach plan for public education and outreach to major community and policy sectors on the various issues and programs developed by the Forum.

The Forum's working groups address various goals of the Ten Point Energy Plan. Attachment I describes each of the goals ("points") of the Plan and the working group responsible for the action plan to address these goals.

(2) Development of tangible goals, objectives, desired outcomes, and actions to implement the Forum's energy vision and strategy.

The detailed action plans, which include goals, objectives, and desired outcomes and actions, were developed by each of the working groups and are presented in Attachment II, specifically:

- Attachment II-A. Renewable Energy
- Attachment II-B. Energy Efficiency
- Attachment II-C. Regulatory Reform

- Attachment II-D. Hydrocarbon Future
- Attachment II-E. Social and Cultural Impact
- Attachment II-F. Communication and Outreach

Some of the working groups have begun to implement actions in furtherance of the goals, objectives and plans above. They are as follows:

(A) Renewable Energy:

To encourage development, production and use of biofuels (Point #9) and expand the Forum's outreach to other sectors (agricultural and business communities), the Renewable Energy Working Group (RE WG), in partnership with the Hawaii Agricultural Leadership Foundation, the Department of Business, Economic Development and Tourism (DBEDT), Hawaiian Electric Company, and the College of Tropical Agriculture and Human Resources at UH Manoa co-sponsored a workshop on biofuels development. The purpose of the workshop was to "objectively promote the production of bioenergy derived fuels by identifying the issues, challenges, and opportunities associated with related technologies infrastructure, and economics of bioenergy resources in Hawaii."

Attendance was higher than expected – approximately 135 people attended the one-day workshop. The morning session was devoted to various panel discussions which included such topics as: (i) The Demand for Bioenergy Now and in the Future, (ii) Resources to Meet the Challenge, and (iii) Hawaii Crop Production Opportunities. See Attachment III for a copy of the workshop program.

Presentations from the workshop are available for public viewing on the Forum's website at:
<http://www.hawaiienergypolicy.hawaii.edu/pages/reports.html>.
The afternoon was comprised of breakout sessions on: (i) Economic Analysis and Technical Feasibility, (ii) Business Partnering, and (iii) Production Resources.

HEPF's primary role in the workshop was to participate in developing the workshop agenda and organizing the speakers and facilitators. HEPF's RE WG is also drafting the report from the workshop's proceedings and will be using the outcomes of

the workshop to develop legislation requesting a state master plan for biofuels.

(B) Energy Efficiency

a. To increase the efficiency in public buildings (Point #2), the Energy Efficiency Working Group (EE WG) explored the monitoring the implementation of the energy efficiency legislation adopted during the past legislative session, meeting with the DBEDT and the Department of Education (DOE).

The EE WG also contacted the Director of the Guam Energy Office to gather information on its energy efficiency report card program as a possible tool for facilitating energy efficiency implementation measures.

b. To increase energy efficiency efforts both in public and private sectors, the EE WG initiated case studies to demonstrate the financial benefits of implementing energy efficiency projects in various sectors. Specifically, it developed its "Energy by Example" program to demonstrate energy efficiency opportunities and report on the potential savings from implementing energy conservation measures. The program features five preliminary energy assessments (PEAs) valued at \$20,000 each, and donated by Energy Industries, a Hawaii based energy services company.

The energy assessments are being conducted for the following buildings: (i) Hawaii State Capitol, (ii) Farrington High School, (iii) United Laundry, (iv) the University of Hawaii Saunders Hall, and (iv) an Affordable Housing project yet to be determined. A report will be prepared by the HEPF Communication Committee and circulated and presented at the HEPF briefing before the joint session of the energy committees.

c. The EE WG also organized the "Executive Energy Briefing" on August 23, 2006, at the Plaza Club for 56 top stakeholders of the business and government sectors. See Attachment IV for a copy of the program.

d. To improve energy efficiencies and options in transportation (Point # 7), the EE WG met with DBEDT and

Clean Cities to explore the development of indicator(s) to measure progress of an energy efficient vehicles program and the implementation of the alternative fuel standard.

To further explore the feebate program introduced during the past session, the EE WG Chair convened a voluntary and informal Advisory Group on Energy Efficient Transportation, which included the DBEDT, Clear Cities, the City and County of Honolulu, Hawaii Transportation Association, Hawaii Center for Advanced Transportation Technologies, Rocky Mountain Institute (RMI), and the Hawaii Automobile Dealers Association. As there were concerns about the bill and its impact, HEPF will further explore the issue of energy efficiency in the transportation sector.

(C) Regulatory Reform

To preserve regulatory protections (Point #5), and, in particular, to protect the public interest while advancing Hawaii's energy strategy, the Regulatory Reform Working Group (RR WG) continued to monitor and support the reorganization and staffing efforts of the Public Utilities Commission and Consumer Advocate. It is also reviewing all state and county laws to assess the opportunities and barriers to encouraging and promoting energy efficiency and renewable energy development.

(D) Hydrocarbon Future

To ensure a secure system of fuel supply for transportation and electricity generation (Point #10), the Forum is: (i) assessing the impact of reducing Hawaii's dependence on petroleum under a subcontract with the Hawaii Natural Energy Institute (HNEI) and the U.S. Department of Energy (USDOE); and (ii) supporting DBEDT's efforts to update its Hawaii Energy Strategy.

(E) Social and Cultural Impacts

a. To invest in planning for sustainable communities (Point #6), the Social and Cultural Impacts Working Group (S&CI WG) explored various community-based demonstration projects.

b. To expand renewable energy opportunities (Point #1), the S&CI WG is exploring the updating of cultural maps developed previously

by the CANDO organization with the Office of Hawaiian Affairs to facilitate siting of renewable energy systems.

(F) Communication and Outreach

The Communication and Outreach Working Group (C&O WG) assisted in developing the HEPF brochure to further educate the public on its vision, goals, and activities (See folder for this report).

The C&O WG also assisted in publicizing the Executive Energy Briefing conducted by the EE WG in August 2006 (See description in the EE WG report in Section 2(B)).

(3) Development of Benchmarks.

The Forum is in the process of implementing projects identified by the working groups as important first steps in the development of benchmarks and strategies. Because the Forum reconvened in late summer and developed its goals and action plans during the fall 2006, it is not in a position to present benchmarks at this time. The Forum is anticipating preliminary benchmarks will be developed by October 2007 after consultation with the DBEDT and other major energy stakeholders.

(4) Further Engaging Hawaii's Business, Government, Labor, and Community Leaders

The Forum has added to its membership key stakeholders representing labor (Hawaii State AFL-CIO) and the federal government (USDA). See Attachment V for the HEPF membership list.

The Forum sought to engage the business sector by convening the energy efficiency briefing for 56 executives in the public and private sectors at its Executive Energy Briefing in August 2006.

The Forum also co-sponsored with the Hawaii Agricultural Leadership Foundation the Biofuels Workshop to further engage the agricultural and business sectors in October 2006.

The Forum meetings are open to the public and present various energy reports of interest to various sectors. Guest/visitor attendees have included representatives from various sectors, e.g., the Hawaii Environmental Council, the US DOE, World Business Academy,

Enterprise Honolulu, Life of the Land, Hawaii Seawater Air Conditioning, Clear Fuels.

(5) Assessing the Feasibility of the State's Participation in the Chicago Climate Exchange

The Forum contracted with the International Center for Climate and Society (ICCS), University of Hawaii at Manoa, to research the feasibility of the State becoming a participant in the Chicago Climate Exchange, specifically examining the advantages and risks in terms of advancing Hawaii's development and use of renewable energy.

The findings and preliminary recommendations were presented to the Forum at its September and December meetings. The Forum requested the ICCS to provide further information and, at the time of this report, the Forum determined that it was not advantageous to proceed until further information was provided. Once the additional work is completed, the Forum will submit its recommendations to the Legislature.

(6) Developing Greater Community and Public Awareness About Hawaii's Energy Needs and the Forum's Goals and Activities

The C&O WG worked on the Forum's brochure, which was completed in August 2006. It also assisted the EE WG in its Executive Energy Briefing in August 2006.

The C&O WG has also been exploring other ideas such as a video documentary or awards program that could extend the Forum's public education efforts.

Additionally, the C&O WG coordinated periodic press conferences and media opportunities to highlight the Ten Point Plan and the activities of the HEPF.

(7) Seeking Additional Funding for Statewide Implementation of, and Public Education Regarding, the Recommendations and Goals of the Forum.

In August 2006, the Forum obtained \$136,000 in funding from the U.S. Department of Education to work in partnership with the HNEI to communicate and inform community leaders and policymakers of promising and viable renewable energy technologies.

The Forum will continue to work on the studies and projects cited herein to implement the Plan and working group action plans, and intends to provide the 2008 Legislature with a report on its findings and recommendations.

**A Ten-Point Plan
To Meet Hawaii's Energy Goals¹
Adopted by the Hawai'i Energy Policy Forum
(December 1, 2006)**

1. Expand Renewable Energy Opportunities

Increase development and use of Hawaii's indigenous renewable energy resources

Action taken:

- Implemented Renewable Portfolio Standards (RPS)
- Implemented Net Metering
- Adopted temporary (sunset date) Renewable Energy Income Tax Credit (REITC)

Action to be taken:

- Improve Renewable Portfolio Standards
 - Review and amend definition of "renewable energy" to achieve renewable energy generation and energy efficiency (establish a separate energy efficiency portfolio standard)
 - Amend the language regarding utility profitability
- Expand and enhance Net Metering
- Amend the REITC to:
 - make it permanent (remove sunset date)
 - increase the caps for tax credits on installation
 - clarify tax credit for mixed use (commercial/residential) projects
- Clarify State/Federal deductions
- Encourage renewable distributed generation
- Develop Wind/Commercial Solar/Biomass/Geothermal/Hydro/Wave-Energy Subzones

2. Increase Energy Efficiency in Public Buildings

Encourage high performance buildings

Action taken:

- Adopted Act 77, SLH, that established energy efficiency objectives in State Facilities
- Efforts by the Counties in developing model energy codes

Action to be taken:

- Require that all buildings using public funds for new construction meet or exceed the Silver Leadership in Energy & Environmental Design (SLEED) minimum standards.
- Support and promote the efforts of the Hawaii BuiltGreen program, a partnership initiated by the Building Industry of America - Hawaii.
- Mandate new public buildings to meet or exceed SLEED standards

3. Increase the Use of Solar Water Heating and Energy Efficient Appliances

Action to be taken:

- Implement "Pay As You Save" programs

¹ The Hawaii Energy Policy Forum adopted a preferred energy vision for Hawaii of achieving "*Smart energy solutions to sustain a healthy prosperous, and secure Hawaii.*"

4. Maintain Policies and Regulations to Encourage Energy Efficiency and Renewable Resources

Action taken:

- Implemented energy efficiency programs
- Developed renewable energy sources, with one of the highest levels of penetration in the Nation
- Implemented Integrated Resource Planning (IRP) process
- Enacted Act 95, SLH 2004, relating to utility ratemaking to provide incentives for cost-effective renewable energy resources to meet the renewable portfolio standards
- Public Utilities Commission initiated policymaking proceedings to consider distributed generation, energy efficiency, competitive bidding, and interconnection standards

Action to be taken:

- Develop recommendations to amend policies and regulations, including state statutes, county ordinances, county and state administrative rules, case law and agency decisions and orders, based upon a careful and comprehensive review of the current law, policies and regulations.
- Assess energy pricing, including cost adjustment charge to utility ratepayers.

5. Preserve Regulatory Protections

Action to be taken:

- Adopt policies and reforms to support the PUC and the Consumer Advocate in their progressive and aggressive efforts to protect the public's interest and implement the State's energy strategy
- Ensure that the PUC has the resources to timely and fairly address regulatory issues regarding technological advances and operational efficiencies that encourage balanced growth and investment and ensure system reliability.

6. Invest In Planning for Sustainable Communities

Action to be taken:

- Revitalize urban centers and our rural plantation communities to promote healthy living environments and strong economies by rebuilding and upgrading local infrastructure so people can afford to live where they work.
- Expand the redevelopment of idled urban and plantation era "brownfield" lands into productive use.
- Maintaining and expand the amount of "greenbelts" (that preserve from development certain undeveloped natural areas that would be dedicated to agriculture and/or park space.

7. Improve Energy Efficiencies and Options in Transportation

Action to be taken:

- Support the production and use of indigenous fuels, including bio-fuels
- Encourage, support, and offer innovative transportation options
- Encourage use of renewables to power mass transit systems
- Create incentives for the use of efficient vehicles
- Implement a fee-bate system (fee for inefficient cars/rebate for efficient cars)
- Evaluate use of plug-in electric hybrids to increase vehicle mpg and to provide peak power to the utility grids

8. Support research and development of alternative fuels (hydrogen, wave energy, etc.)

Action taken:

- Supported establishment of a hydrogen fuel cell test facility and support for commercial fuel cell development

Action to be taken:

- Recognize Hawaii as a premier demonstration site for the deployment of the hydrogen economy.
- Invest in long term research and development of alternative renewable energy resources such as hydrogen fuel cell technology , wave energy, etc
- Seek funding for development of an ongoing energy strategy for renewables/hydrogen economy and match for the state's portion of grants, including exploring funding sources such as use of .25% per gallon liquid fuel tax
- Identify sites for demonstration of hydrogen production, distribution and use in both stationary and vehicle fuel cell applications

9. Encourage development, production, and use of biofuels

Action taken:

- Adopted statewide use of 10% ethanol blend in gasoline
- Adopted tax credits for biofuel production

Action to be taken:

- Support current use of biodiesel derived locally from waste cooking oils and grease
- Study and provide recommendations for possible paths for expansion of statewide ethanol and biodiesel production Study long range implications and impacts from increased use of biofuels in Hawaii
- Encourage public procurement of biofuels for government vehicles
- Adopt renewables fuels standard

10. Ensure a secure system for fuels and electric utility grids

Action to be taken:

- 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 to allow recovery of utility investments that improve grid security.

10 Point Plan Assignments to the HEPF Working Groups

Recommendation "Point"	Working Group	WG Chair(s)	Email Address
1. Expand Renewable Energy Opportunities	Renewables	Mitch Ewan Warren Bollmeier	ewan@hawaii.edu wsb@lava.net
2 Energy Efficiency in Public Buildings	Energy Efficiency	Darren Kimura Stephen Meder	darren.kimura@energy-industries.com smeder@hawaii.edu
3. Increase Solar Water/Energy Efficient Appliances	Renewables	Ewan/Bollmeier	ewan@hawaii.edu wsb@lava.net
4. Maintain Policies & Regulations to Encourage Energy Efficiency & Renewable Resources	Regulatory Reform	Carl Freedman	jcfm@hawaiiintel.net
5. Preserve Regulatory Protections	Regulatory Reform	Freedman	jcfm@hawaiiintel.net
6. Invest in Planning for Sustainable Communities	Social & Cultural Impacts	Shad Kane Paula Helfrich Mark Glick	kiha@hawaii.rr.com , paula.helfrich@edahawaii.org markg@oha.org
7. Improve Energy Efficiency & Options in Transportation	Energy Efficiency	Kimura/Meder	darren.kimura@energy-industries.com smeder@hawaii.edu
8. Support Research & Development of Alternative Fuels	Renewables	Ewan/Bollmeier	ewan@hawaii.edu wsb@lava.net
9. Encourage Development, Production & Use of Biofuels	Renewables	Ewan/Bollmeier	ewan@hawaii.edu wsb@lava.net
10. Ensure Secure System for Fuel and Electric Utility Grid	Hydrocarbon Future	Al Chee Steve Golden	AlChee@chevron.com sgolden@hawaiiigas.com

**Renewable Energy Working Group Goals and Action Plan
2006 – 2007**

Adopted September 13, 2006

Co-Chairs: Mitch Ewan & Warren Bollmeier

Ten Point Plan Action Area(s):

- Ten Point Plan #1 – Expand Renewable Energy Opportunities
- Ten Point Plan #3 - Increase the Use of Solar Water Heating and Energy Efficient Appliances
- Ten Point Plan #8 - Support research and development of alternative fuels (hydrogen, wave energy, etc.)
- Ten point Plan #9 - Encourage development, production, and use of biofuels

TPP #1: Expand Renewable Energy Opportunities

Goals:

- Increase development and use of Hawaii's indigenous renewable energy resources to increase the use of renewable energy to 20% of electrical energy use in Hawaii by 2020.

Background:

The REWG would like first to summarize briefly the current status of renewables in Hawaii:

1. Wind development: two windfarms with a total of 40 MW capacity were installed in 2006 and another 20 MW is planned in 2007; and a number of other projects are under consideration. It is estimated that roughly 10% to 20% of net-metered systems are small wind turbines.
2. Solar development: there are no large solar farms at the present time. However, there are on the order of 90,000 to 100,000 solar hot water systems installed statewide with 3,000 to 4,000 new installations a year; and there are over a 100 net metered PV systems and approximately 700 kW commercial, non-net-metered PV systems statewide.
3. New biomass projects are under consideration: Kauai Island Utility Cooperative has selected to 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.

4. Puna Geothermal Ventures is planning to increase their 30 MW capacity by 8 MW (don't have a timeline yet).
5. MECO is investigating the feasibility of a pumped-hydro storage facility on Maui.
6. Two or more ethanol facilities will be under construction next year, including one on Kauai, and one or more on Oahu and Maui.
7. 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 island.
8. A local firm, Honolulu Seawater Air Conditioning, LLC, has begun to develop 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 challenge now lies in taking advantage of the momentum already gained in the market, in part, implementing these incentives and monitoring the rate of "take up" by the market to determine how well they are working. It would therefore be useful to measure the number of systems installed. It would be useful if the HREA could collect these numbers from its membership and provide them to the Forum on a monthly or quarterly basis. Using the HREA data would be faster than waiting for the tax department to collect data.

It would be useful for the Forum to work with the DOE and DBEDT to monitor implementation of the DOE PV program. It is recommended a contract be issued to HNEI to collect and analyze data from these pilot installations. HNEI is conducting a similar monitoring function with the Navy's Ford Island installation and could apply its expertise to the school project.

The Forum should try to identify promising new renewable energy technologies (such as solar thermal electric, SWAC, solar air conditioning and wave energy) and incorporate these technologies into State energy policy and proposed legislation.

Action Plans:

1. Report Card: work with the HREA and DBEDT to monitor the effectiveness of the tax incentives and produce a monthly/quarterly report card in each of the renewable energy areas:
 - a. Develop metrics:
 - i. New wind power;
 - ii. New net metering accounts;
 - iii. New solar hot water heaters.
2. Program "Tune-up" - identify barriers to the effective implementation of the program – can we make them better?
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 Communications WG.
6. Develop a relationship with the DOE solar pilot project manager and involve the Forum/HNEI in monitoring the results.
7. Work to add additional schools to the program.
8. Work with developers of promising new technologies to characterize the performance of such technologies and their contributions to Hawaii's energy system.
9. Incorporate new technologies into State energy plans.
10. Conduct a side-by-side analysis of various renewable energy technologies and the contributions that each technology can provide in the near term (0 – 5 years), mid-term (5 – 10 years), and long term (10 – 20+ years). Note: While this is a worthy objective, we currently don't have the financial resources to do this.
11. Provide assistance to new renewable energy technologies through public education and legislative and regulatory support.

TPP #3 - Increase the Use of Solar Water Heating and Energy Efficient Appliances

Goals :

- Seek innovative ways to finance the cost to install energy savings devices.

Background

SB2957, Section 13 establishes the solar hot water heating "Pay as You Save" (PAYS) pilot program.

Objective:

The challenge now lies in the implementation of these incentives and monitoring the rate of "take up" by the market to determine if they are working. The Forum shall closely monitor the implementation of this program. The Forum shall work with HECO, HREA, and the PUC/DCA to monitor the progress of implementation and the level of acceptance by consumers. Progress will be communicated in the form of a report card, Opeds, and as a component of the Forum's communications plan.

Action Plans:

1. Report Card: work with the HECO, HREA, and the PUC/DCA to monitor the effectiveness of the tax incentives and produce a monthly/quarterly report card.
2. Program "Tune-up" - identify barriers to the effective implementation of the program – can we make it better?

TPP #8 - Support research and development of alternative fuels (ethanol, biodiesel, hydrogen, etc.)**Goals :**

- Recognize Hawaii as a premier demonstration site for the deployment of the hydrogen economy.
- Conduct R&D on Hawaii's renewable energy sources as potential sources to produce hydrogen.
- Leverage state funds to attract federal programs that will assist in the development of Hawaii's renewable energy sources.

Background

The 2006 legislature passed SB2957 to establish the Hawaii renewable hydrogen program (RHP) as follows:

- Section 6 – establishes the Hawaii Renewable Hydrogen Program (RHP);
- Section 7 – establishes the Hydrogen Investment Capital Special Fund
- Section 10 – appropriates \$10,000,000 to the Hydrogen Investment Capital Special Fund
- Section 12 – appropriates \$100,000 for a hydrogen system program manager at the Hawaii Natural Energy Institute

The Hydrogen Investment Capital Special Fund will be administered by DBEDT and the Hawaii Strategic Development Corporation however, the Forum has not yet been apprised of the state's plans for its implementation.

Objectives

To coordinate and work with the state energy office in the planning and implementation of the RHP. The Forum shall monitor progress in the development of the program to determine if it is meeting the intent of the legislation and make progress reports. The Forum can also participate in helping DBEDT to develop the program administrative procedures.

Action Plans:

1. Request a presentation of state's plans for the RHP.
2. Assess areas where the Forum can provide support.
3. Define specific support tasks.
4. Implement approved support tasks.
5. Provide policy recommendations as appropriate.
6. Report Card: - work with DBEDT to monitor progress in the development of the Renewable Hydrogen Program.

TPP #9 - Encourage the development, production, and use of biofuels

Goals :

- The overall goal is to increase the utilization of biofuels in Hawaii's energy mix;
- Support efforts to encourage increased biofuel production;
- Document the current biofuels utilization in Hawaii:
 - Set a biofuels baseline against which to measure progress;
 - Document organizations using biofuels and amount.
- Document state agency implementation. Have each state agency report on its monthly utilization;
- Document existing and planned biofuel production;
- Identify barriers to production of biofuels;
- Identify status of biofuel production technologies;
- Identify areas for Hawaii R&D requirements and opportunities.

Background

The Forum has spent varied amounts of time and effort reviewing, evaluating and proposing policies to support renewable electricity technologies (RETs) and renewable displacement technologies (RDTs). In contrast, very little of our effort has been directed to renewable fuels. The 2006 legislature passed SB2957 to encourage the use of biofuels in Hawaii as follows:

- Section 4 – establishes a biofuels preference with state agencies;
- Section 8 – appropriates \$200,000 to conduct a statewide multi-fuel biofuels assessment of potential feedstocks and technologies, the economics of the various renewable fuel pathways, and the potential for ethanol, biodiesel, and renewable

hydrogen production to contribute to Hawaii's near, mid, and long-term energy needs.

- Section 9 – appropriates \$150,000 as matching funds to the agricultural community for assistance in developing energy crops or agricultural waste streams.

The biofuels program is to be administered by DBEDT.

Objectives

To review and evaluate the production of renewable fuels in Hawaii, including the status of technologies and approaches proposed for Hawaii, and recommend further policy actions to support the increased use of renewable fuels in Hawaii. The Forum shall work closely with DBEDT to monitor progress in its implementation and where desirable, take actions to improve the program and/or remove barriers. The Forum will also work with DBEDT to augment the program through policy initiatives and/or funding to implement the intent of the program. One important function the Forum can play is to monitor the progress that state agencies and others are making in substituting biofuels for petroleum products and develop a monthly report card for the public.

Action Plans:

1. Report Card: - work with DBEDT to monitor progress in the development of the biofuels program;
2. Coordinate with DBEDT on an educational outreach activity to local agricultural landowners regarding opportunities in farming energy crops for local biofuel production;
3. Provide support to DBEDT for the Agricultural Biofuels Workshop planned for 27 October 2006 as follows;
 - a. Assistance to develop the program;
 - b. Identify issues, barriers, and potential solutions raised by workshop participants;
 - c. Prepare a workshop outcomes report;
 - d. Develop an action plan to address barriers.
4. Recommend policy actions to the legislature.

**Energy Efficiency Working Group (EE WG)
Goals and Action Plan
2006 - 2007**

Adopted September 13, 2006

Co-Chairs: Stephen Meder & Darren Kimura

Energy Policy Forum Ten Point Plan Action Area(s):

EE WG Areas of Primary Focus

- Ten Point Plan #2 – Increase Energy Efficiency in Public Buildings
- Ten Point Plan #7 – Improve Energy Efficiencies and Options in Transportation

EE WG Areas of Secondary Focus

- Ten Point Plan #3- Increase the Use of Solar Water Heating and Energy Efficient Appliances
- Ten Point Plan #4- Maintain Policies and Regulations to Encourage Energy Efficiency and Renewable Resources
- Ten Point Plan #6- Invest in Planning Sustainable Communities

Our energy independence, will be built from a foundation of an energy efficiency economy. Doing more with less is the overall objective of the Energy Efficiency Working Group.

TPP #2: Increase Energy Efficiency in Public Buildings

Goals :

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

Hawaii has been at 50% of the national average in energy efficiency despite have the highest energy costs. The 2006 legislature passed HB2175 which establishes policies for the design and building of high performance buildings, and the installation of energy

savings devices in existing buildings. An important service the Forum can provide is to monitor the progress in implementing the legislation, and to work with the administration and legislature to identify and dismantle barriers that arise as implementation proceeds (or does not proceed). The specific measures taken by the legislature this past session are as follows:

Section 4 – sets energy efficiency and environmental standards for state facilities, motor vehicles and transportation fuels;

Section 10 – appropriates \$500,000 to carry out the purposes of the act regarding energy efficiency for state facilities and equipment;

Section 11 – requires the Department of Accounting & General Services (DAGS) and Department of Education (DOE) to identify energy efficiency projects to be funded through general obligation bonds and report back to the 2007 legislature;

Section 12 – establishes one (1) full time energy coordinator position in the DOE;

Section 13 – establishes two (2) full-time energy coordinator positions in DBEDT

Action Plans:

1. Develop indicator(s) to measure energy efficiency progress.
2. State Government Energy Efficiency Report Card: work with DBEDT to monitor the effectiveness of energy efficiency implementation actions in state departments and produce a departmental energy efficiency report card similar to that produced by the Guam Energy Office. Include all departments and state-funded entities for which state funds are used to pay the monthly energy bill.
3. State Government New Building Energy Efficiency Report Card – identify all new state building construction projects and determine if the mandated energy efficiency standards are being applied in the design criteria.
4. Work with DBEDT to monitor implementation of energy efficiency legislation;
5. Work with the DOE energy efficiency coordinator to gain an understanding on the progress being made by the DOE.
6. Identify barriers and amend existing legislation or submit new legislation to make progress in implementing the legislative intent of the legislature.
7. Develop case studies showing the financial benefits of implementing energy efficiency projects in state buildings.
8. Work with the Communications WG to provide periodic reports for dissemination to the public.

9. Outreach to industry leading firms to gather existing case studies for the potential repurpose and sharing of information.

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.

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.

Therefore transportation efficiency is an area where the Forum needs to make a more concentrated effort in the 2007 legislative session, in particular developing a feebate system “Hummers Pay for Hybrids”. 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.

Action Plans:

1. How do we know if we are making progress? Develop indicator(s) to measure progress of an energy efficient vehicles= program and the implementation of the alternative fuel standard. .
2. 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;

3. Develop the "Hummers Pay for Hybrids" feebate program and introduce legislation for the 2007 legislative session.
4. Conduct survey of current activities in this industry sector.

TPP #3: Increase the Use of Solar Water Heating and Energy Efficient Appliances

Goals :

1. Increase the use of energy efficient and equipment and appliances in all state facilities
2. Increase the use of energy efficient and equipment and appliances in private sector facilities
3. Couple purchase of EE equipment and appliances with reuse, recycling and disposal considerations

Action Plans:

1. Increase the use of energy efficient and equipment and appliances in all state facilities
 - provide educational outreach to state facilities on the benefits of Energy Star and energy efficient equipment and appliances
 - develop EE equip and appliance demonstration projects
 - assist in establishing a bulk purchase EE equipment and appliance system
 - Establish state level purchasing agreements with FF&E suppliers with take-back policies
2. Increase the use of energy efficient and equipment and appliances in private sector facilities
 - provide educational outreach to large scale private sector users on the benefits of Energy Star and energy efficient equipment and appliances
 - develop EE equip and appliance demonstration projects in private sector
3. Couple purchase of EE equipment and appliances with reuse, recycling and disposal considerations
 - Establish state level purchasing agreements with FF&E suppliers with take-back policies
 - Create opportunities for private sector to coat tail with public sector purchasing and take back agreements

TPP #4: Maintain Policies and Regulations to Encourage Energy Efficiency and Renewable Resources

Goals :

1. Continually improve the EE and RE regulations until energy self-sufficiency is achieved for the State of Hawaii

Action Plan:

- Evaluate program and provide feedback to legislature
- Survey current activities by Hawaii organizations to learn of their activities and philosophies.

TPP #6: Invest in Planning Sustainable Communities

Goals :

1. University of Hawaii campuses and other new developments and existing communities maximize resource conservation, energy conservation, energy efficiency and renewable energy opportunities while improving the quality of life on those campuses and in and around those communities.

Action Plans:

- Assist UH in planning new campuses to maximize opportunities for emissions reduction, energy efficiency and renewable energy opportunities at the single building, aggregate building, transportation and campus planning scale.
- Assist UH to develop best practice planning models that will demonstrate energy solutions to the larger community
- Work with private sector developers to lower energy demand at single family, multi family and commercial building types while providing greater levels of comfort to occupants thereby reducing need for more air conditioning and other forms of energy demand.
- Work with private sector developers to create communities that are pedestrian friendly, safe, comfortable and are less reliant on cars as the only transportation option
- Survey current activities by Hawaii organizations to learn of their activities and philosophies.

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

Adopted September 13, 2006

Chair: Carl Freedman

The Regulatory Reform Working Group has principal responsibility for “points” number four and five in the Ten Point Plan:

Point #4: Maintain Policies and Regulations to Encourage Energy Efficiency and Renewable Resources.

Point #5: Preserve Regulatory Protections

For each of these Ten Point Plan areas of responsibility the Regulatory Working Group proposes a Two Year Action Plan (attached) which identifies goals, objectives, desired outcomes, actions, benchmarks and a corresponding budget.

Ten Point Plan Point #4

Maintain Policies and Regulations to Encourage Energy Efficiency and Renewable Resources.

Goal:

Ensure policies and regulation, including state statutes, county ordinances, county and state administrative rules, case law and agency decisions and orders, are consistent in promoting efficiency and renewable resources.

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
 - Propose and promote specific amendments to policies, ordinances, rules and legislation

Specific Actions:

- 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
- Monitor the implementation of the recently adopted laws passed in the 2006 Legislature regarding energy utility regulation and actions to be implemented by the PUC and DCA (July 2006 – July 2008)
 - Implementation of Renewable Portfolio Standards
 - Consideration of a Public Benefits Fund by the PUC
 - Evaluation of the electric utilities' fuel price adjustment clauses by the PUC
 - Implementation of “de-linked” pricing in renewable energy power purchase agreements
- Coordinate with other Forum working groups regarding matters pertaining to the PUC and DCA (July 2006 – July 2008)
- Determine, evaluate and promote recommendations for legislation for the 2007 and 2008 legislative sessions (November 2006 – May 2007 and November 2007 – May 2008)

Benchmarks:

- 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.

Ten Point Plan Point #5:

Preserve Regulatory Protections

Goal:

Ensure 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 the State's energy strategy.

Objectives and Desired Outcomes:

- 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
- Appreciation by government leaders and legislators of the crucial importance of regulatory agency capability and productivity to implement sound state energy policies.

Specific Actions:

- Ensure that the PUC and DCA have the necessary resources to timely and fairly address regulatory issues. (July 2006 – July 2008)
 - Continue dialogue with the Governor's office to emphasize the importance of sufficient staffing of these agencies
 - Commission a study by an authoritative national organization to review PUC and DCA agency resource needs for staff positions and recommend appropriate commensurate salaries in order to support agency reorganization proposals in the 2007 Legislature.
 - Monitor the progress of agency reorganization plans and support the agencies' plans and funding in the 2007 legislature
- Determine, evaluate and promote recommendations for legislation for the 2007 and 2008 legislative sessions (November 2006 – May 2007 and November 2007 – May 2008)

Benchmarks:

- Government leaders informed and appreciative of the importance of regulatory agency capability and productivity
- Support and passage of regulatory agency reorganization plans to provide energized agency capability and productivity
 - Sufficient and appropriate agency staff positions
 - Sufficient agency staff salaries
 - Sufficient agency budgets

Hydrocarbon Working Group Action Plan

Adopted September 13, 2006

Co-Chairs: Steve Golden, Gas Company & Al Chee, Chevron

Members: Mitch Ewan, Hawaii Natural Energy Institute
 Terry Surles, Hawaii Natural Energy Institute
 Warren Bollmeier, Hawaii Renewable Energy Association
 Melissa Pavlicek, Western States Petroleum Association

➤ Primary Focus:

- HEPF Energy Plan Point #7: Improve Energy Efficiency and Options in Transportation – *Support policies and regulations that increase efficiency and cut fossil fuel dependence for ground, sea and air transportation.*
- HEPF Energy Plan Point #10: Ensure a secure system for fuels and electric utility grids – *Harden our transportation and electricity networks to resist future natural disasters, terrorism and fuel supply disruptions.*

➤ Secondary Focus:

- HEPF Energy Plan Point #1: Expand renewable energy opportunities – *Use Hawaii's indigenous energy resources.*
- HEPF Energy Plan Point #4: Maintain Policies to Encourage Energy Efficiency and Renewable Resources – *Ensure state & county policies and regulations promote energy efficiency and renewable resources.*
- HEPF Energy Plan Point #5: Preserve regulatory Protection – *Support the Public Utilities Commission and Consumer Advocate to protect the public interest while advancing Hawaii's energy plan.*
- HEPF Energy Plan Point #8: Support Research and Development of Alternative Fuels – *Make Hawaii a premier demonstration site for development of the hydrogen economy.*
- HEPF Energy Plan Point #9: Encourage Development, Production and Use of Biofuels – *Promote agricultural energy to increase self-reliance, keep the landscape green and the environment clean, and to create economic opportunity.*

➤ Background:

Nearly 90% of Hawaii's energy is derived from fossil fuels. In recent years, the state has adopted several policies to enable the advancement of various alternative and renewable initiatives to encourage development of energy alternatives to lessen the dependency on fossil fuels while supporting Hawaii's economy and future growth. Several studies covering a broad range of energy related subjects have been

completed. Many have highlighted Hawaii's uniqueness when compared to other parts of the country, the geographic isolation and the relatively small energy market to name a few. Additional analysis will need to be completed to better understand a feasible viable path, and the associated challenges.

In August 2006, DBEDT held a Biofuels Summit that brought together a broad range of biofuels stakeholders to identify existing barriers and related solutions. The summit was facilitated by Rocky Mountain Institute (RMI).

Currently, DBEDT, assisted by RMI, is undertaking the 2006 Hawaii Energy Study (HES) which is slated to be completed early in the second quarter of 2007. This comprehensive effort is expected to explore various near and long term energy scenarios and provide policymakers with a "roadmap" to illuminate the choices and related consequences.

The Hawaii Natural Energy Institute (HNEI) has begun an analysis required by the 2005 National Energy Policy Act section 355 to study the impacts to the local refining industry that may result from various shifts in the local energy supply and demand balance. The report is planned to be completed in December 2006.

➤ **Actions:**

1. Support development of the 2006 Hawaii Energy Strategy being conducted by DBEDT and RMI. This task includes encouraging HEPPF members to engage in the process, respond to requests for information, attend meetings, and provide feedback and comments to study findings.
2. Support study by HNEI to satisfy requirements of Section 355 of the 2005 National Energy Policy Act relating to analyzing the impacts on local refinery industry of displacing petroleum with renewable energy.
3. Community outreach and education to be determined.
4. Legislative proposals where appropriate to be determined.

**Social and Cultural Impact Working Group Goals and Action Plan
2006 – 2007**

Adopted September 13, 2006

Co-Chairs: Shad Kane, Paula Helfrich & Mark Glick

Ten Point Plan Action Area(s):

- **Action item #6 - Investing in Planning for Sustainable Communities**
- **Action item#9 - Encourage development, production, and use of biofuels**

Goals :

- Address subject areas in of the Ten Point Plan as follows:
 - Revitalizing urban centers and our rural plantation communities to promote healthy living environments and strong economies by rebuilding and upgrading local infrastructure so people can afford to live where they work.
 - Provide incentives for redevelopment of idled urban and plantation era lands into productive use.
 - Maintaining and expanding the amount of “greenbelts” (that preserve from development certain undeveloped natural areas that would be dedicated to agriculture and/or park space.)
 - Identifying appropriate sites & developing model biofuel production & distribution systems to displace non-indigenous (imported) energy sources
- Address overall community social & cultural issues relating to energy to include the following:
 - Formulating policies and procedural frameworks to include an evaluation of social and cultural impacts of energy issues.
 - Establishing a community benefits process (such as HECO’s) to address concerns of “burdened communities”.
 - Engage Hawaiian and broader community in selection of culturally appropriate sites for energy production and distribution
 - Establishing 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.
- Address sustainable community energy requirements
 - Forum becomes energy member of the 2050 Sustainability Plan group

Background: Waste & Energy Community Impact

Native Hawaiian and other less affluent communities have historically been “burdened” with the placement of large power generating, and water, sewage and waste treatment

facilities. When new such facilities are planned, more often than not the difficult discussions ultimately come down to siting. As long as facilities continue to be approved in areas such as the Waianae Coast there will never be any motivation to find other technologies (or locations) to eliminate or treat waste in a manner that is not intrusive nor invasive and compromising of our environment. Often, such conventional technologies use disproportionate amounts of energy to operate. Hawaii, with its wealth of smart, proven, indigenous technologies, should be leading a change in the business-as-usual “garbage dump” paradigm and investigate smarter waste-handling sustainability model options that look at waste as a resource that can be economically exploited to the benefit of the community. On the basis of energy efficiency alone, the Forum should investigate and promote these proven technologies.

HECO’s recent approach to working with the Kapolei and Waianae communities as “burdened communities” with respect to the construction of 5 power plants in their district serves as an excellent model in terms of devising an action plan.

1. Identify “burdened communities” and models of successful sustainability. Structure facilitative informational community meetings and tours of innovative technology using ahupua’a concept.
2. Solicit community benefit package from impacted “burdened” communities and hear community concerns through an evaluation process.
3. Empower the community as a major stakeholder in new technology and opportunity, involved in sustainable practices which changes trash into treasure.... practical on-site demonstration models.
4. Put to vote proposed “community benefit package” by the community.
5. Facilitate discussions regarding package until consensus can be reached.

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 team with OHA to identify appropriate resources by building on current SHPO listings, current reviews, development of a list of undocumented sites (with appropriate technical support) and eventually determine “go/no go” areas for infrastructure development through development of a Cultural Inventory of Traditional and Energy Resources (CITER) Model.

Action Plans:

1. 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.

This will also include follow-on community tours and education of other model sites, such as Campbell waste treatment system, Makiki Living Machine, Ala Wai akulikuli project and other examples of ahupua'a sustainability.

Tasks:

- 1.1 Develop public education/outreach and schedule tours of appropriate technologies-- modern and ancient.
- 1.2 Identify a demonstration project area adjacent to Kahe Pt. Power Plant
- 1.3 Convene/reinvite original working group (subject to discussion)

Shad Kane	Hawaiian Civic Clubs
Mark Glick	OHA Director of Economic Development
Lynette Cruz	Ahupua'a Action Alliance
David Wong	Bishop Museum
Kai Markell	OHA Acting Director, Native Rights, Land & Culture Hale
Puanani Burgess	Waianae Community Leader
Eric Enos	Waianae Community Leader (MA'O)
Jan Dill	facilitator, Tutu & Me
Paula Helfrich	EDAH

2. In keeping with the CIWG Final Report (2005), encourage more stakeholder involvement in burdened communities. The priority value is respect for the ahupua'a system and lands, and community-wide education on success of that system in ancient and modern times, integrating ancient and modern technology. An example could be education on the referenced SHPO sites, as well as additional community-based work on undocumented historic and cultural sites.

The working group in section 1 above would advise the Cultural Working Group and the Forum on preferred areas of renewable energy development, and identification of areas where such infrastructure would be inappropriate. A model would be developed to identify such sites in a culturally appropriate way (CITER Model). An example of information resources used in the study to arrive at desirable and undesirable locations for siting energy facilities are ancient chants, digital newspaper translations, and GIS mapping as well as the SHPO records on designated historic and burial sites.

Tasks:

- 2.1 Convene working group with OHA to cross check West Oahu sites and development options statewide;
 - 2.2 Conduct teleconference meetings with local utilities, OHA, SHPO and other Hawaiian organizations, and private sector partners. Minimal cost - should be absorbed by local business partners and OHA if possible –
 - 2.3 Deliverables: CITER Model for potential “positive” sites.
3. Together with the Energy Efficiency Working Group, explore development of a project in Waianae to demonstrate energy efficiency in collaboration with DOE’s priority listing of NANAKULI HIGH SCHOOL as a model building using technology based on traditional practices. This will engage cultural and community leaders in a practical collaboration for success in new technology.

Tasks:

- 3.1 Work with HEPF Energy Efficiency Working Group on joint project re: Nanakuli School project to receive energy audit and follow-up work by DOE.
4. Team with ali’i trusts and other Hawaiian organizations to develop and distribute biofuels, and other renewable energy sources to achieve multiple policy goals in a culturally appropriate manner (reduce imported energy, encourage entrepreneurship, create jobs, increase equity ownership and wealth among Hawaiians.)

Tasks:

- 4.1 Once Working Group has started some projects it will gain credibility, and can proceed to address siting and community benefit packaging issues;
5. Work with the federal, state and local government to develop protocols in planning that make a priority of conserving natural resources and insuring environmental responsibility in stream handling. An example is the design and construction of roadways to control run off and, where appropriate, collect and passively clean run off water for reuse.

Tasks:

- 5.1 Report to legislature in January 2007 on actual progress, and identify key federal and state programs which could support further sustainability modeled on the ahupua’a system in burdened communities. Ensure participation by legislators and presentations by local project volunteers and committee participants

Hawai'i Energy Policy Forum

Communications & Outreach Working Group Action Plan

Adopted September 13, 2006

Co-chairs: Peter Rosegg & Bill Kaneko

PURPOSE

The purpose of this Committee is to conduct public education and outreach activities to support the Hawaii Energy Policy Forum; to highlight the achievements of HEPF; and to educate and engage key stakeholders and the general public about ways to create a sustainable and energy efficient Hawaii.

KEY ACTIONS:

- I. HEPF Brochure & Informational Packet (DONE, August 2006)**
 - A. Summary of Legislative Energy Package (SLH 2006)**
- II. CEO Energy Workshop w/ Hawaii Business Roundtable (DONE, August 26)**
 - A. Energy Efficiency**
 - B. Offering of Complimentary Energy Audits (See Item IV)**
- III. HEPF Public Affairs Forums**
 - A. Collaboration with Hawaii 2050 Sustainability Task Force**
- IV. Energy Audit Pilot Program (IN PROGRESS, August 2006 to current)**
 - A. For-profit, Non-profit, Government Sectors**
 - B. Five (5) Energy Audits valued at \$20,000 each**
- V. HEPF Renewable Energy Awards Program**
- VI. KHON Public Affairs Series on Renewable Energy (DISCUSSION IN PROGRES, JULY 2006)**
- VII. Hawaii Energy Video Documentary**
 - A. Student documentary contest**

VIII. Go Green Hawaii Television Series

IX. On-going public relations and stakeholder meetings on regular basis (IN-PROGRESS)

HAWAII AGRICULTURE BIOENERGY WORKSHOP
Hilton Hawaiian Village
October 27, 2006 (Friday)

AGENDA

- 8:25 am** **Welcome** - Emcee: Mae Nakahata (Hawaii Farm Bureau Federation, HC&S)
- 8:30 am** **Ted Liu** – *Governor's message/welcoming remarks*
- 8:35 am** **Opening Message:** “*The Case for Bioenergy*”
E. Alan Kennett – Gay & Robinson
- 8:50 am** **Panel: The Demand for Bioenergy Now and Future**
Moderator – Maurice Kaya (DBEDT)
HECO – Karl Stahlkopf
KIUC – Jeff Deren
Pacific Biodiesel - Bob King
HC&S - Lee Jakeway
Aloha Petroleum – Larry Adams
- 10:15 am** **Break**
- 10:30 am** **Panel: Resources to Meet the Challenge**
Moderator – None required
Financing and cooperative models- Tim O'Connell (USDA)
Energy policies, incentives, and information - Maria Tome (DBEDT)
- 11:15 am** **Panel: Hawaii Crop Production Opportunities: *What grows, what flows, what burns***
Moderator – Andrew Hashimoto (CTAHR)
Charles Kinoshita -- CTAHR
Scott Turn – HNEI
Mike Poteet – HARC
- 12:15 pm** **Recommendations for Development & Conversion of Fuel Crops (HCR 195 Report)**
Lena Hansen – RMI
- 12:30** **Networking Lunch**
- 1:45 pm** **Breakout Sessions:**
- *Economic Analysis and Technical Feasibility (Session co-chairs: Scott Turn/Charles Kinoshita)*
 - *Business Partnering (Session chair: Tim O'Connell)*
 - *Production Resources (Session chair: Mae Nakahata)*
- 3:00 pm** **Plenary**
Breakout session summaries
Discussion
- 4:00 pm** **Conclusion and Close**



COLLEGE OF SOCIAL SCIENCES
HAWAII ENERGY POLICY FORUM
UNIVERSITY OF HAWAII AT MĀNOA

EXECUTIVE ENERGY BRIEFING:

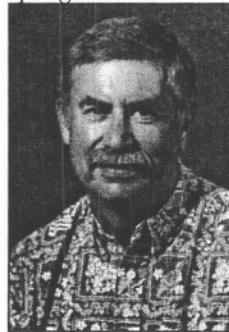
LEARN HOW TO LEAD YOUR COMPANY IN THE NEW ENERGY ERA...

- ❖ Learn how to finance energy projects from savings
- ❖ Hear how other Hawaii businesses are benefiting from energy efficiency
- ❖ Participate in the new “Energy by Example” program



Miles Kubo
Energy Economics

Mr. Kubo is a recognized expert on the concept of “Energy Economics.” This concept enables businesses to become energy efficient with no up front costs.



David Waller
Hawaiian Electric Rebate Program

Mr. Waller is a Vice President at Hawaiian Electric and will be presenting HECO’s new double rebate program for energy efficiency.



Mel Okada
Central Pacific Bank

Mr. Okada is a leader in energy project financing and will discuss how he helped utilize energy economics to assist a key customer in an energy systems upgrade that made them money.



Dennis Teranishi
Hawaiian Host

Mr. Teranishi is the Chief Executive Officer of Hawaiian Host and will share his experiences from his recent lighting retrofit project and building energy efficiency efforts.

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