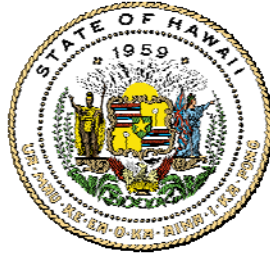


# State of Hawaii



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## Hawaii Economic Development Task Force Report To The Legislature

*Pursuant to*

**ACT 73 (10), SESSION LAWS OF HAWAII**

*Submitted to*

*The Twenty-Sixth State Legislature*

*Regular Session of 2011*

*By Governor Neil Abercrombie*

*January 20, 2011*

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# Hawaii Economic Development Task Force Membership

(15 members)

- **Mr. Richard C. Lim**, Interim Director  
DBEDT Director or designee (**Chair**)
- **Mr. Russel S. Kokubun**, Interim Chair  
Chair, Board of Agriculture or designee.
- **Ms. Mary Alice Evans** (Designee)  
Director, Office of Planning or designee.
- **Mr. William J. Aila, Jr.**, Interim Chair  
Chair, Board of Land and Natural Resources or designee.
- **Dr. Sylvia Yuen**, Interim Dean  
Dean, University of Hawaii College of Tropical Agriculture and  
Human Resources or designee.
- **Mr. Robin Campaniano, Mr. Garen Deweese,  
Mr. Jeff Mikulina**  
**Three members to be designated by the President of the  
Senate.**
- **Ms. Luella Costales, Mr. Mark Duda, Mr. Jeffrey Kissel**  
**Three members to be designated by the Speaker of the  
House.**
- **Ms. Jacqui Hoover, Mr. Pono Shim, Ms. Jeanne U. Skog,  
Ms. Mattie Yoshioka**  
**A representative from each county's private economic  
development board (4 total)**

## HAWAI`I ECONOMIC DEVELOPMENT TASK FORCE

### Executive Summary of the Report to the 2011 Hawai`i Legislature

The purpose of the Hawai`i Economic Development Task Force (Task Force) is to facilitate the accelerated adoption and completion of renewable-energy project, energy-efficiency programs, agricultural infrastructure and development and support public and private efforts to make Hawai`i energy- and food-self-sufficient, consistent with the "Hawai`i 2050 Sustainability Plan," "Hawai`i Clean Energy Initiative," and other government and community planning efforts. The Task Force was created by The Food and Energy Security Act 73(10), which took effect on July 1, 2010. This initial report meets statutory requirements of the Task Force to submit to the 2011 Hawai`i Legislature a copy of its findings and recommendations relating to its review of current food and energy security issues.

The *Hawai`i Clean Energy Initiative* has spawned statutory renewable energy and energy efficiency portfolio standards that serve as an unambiguous guide towards achieving energy security in Hawai`i. Likewise, the *Hawai`i 2050 Sustainability Plan* recommends setting **benchmarks to achieve sustainability goals**. However, no similar statutory provisions go beyond the *Hawai`i 2050 Sustainability Plan* in clarifying what is meant by food security or identifying measures to track progress towards specific sustainability goals.

This initial report offers preliminary observations to the Legislature regarding energy and food security in Hawai`i and presents a **work plan** for consultation and collaboration with private, nonprofit, community, and government stakeholders to **identify and fill gaps in food and energy security strategies, goals, and programs**. The timing of the initial report and the broad scope of the HEDTF's mission necessitates that critical assessments and findings that encompass and fully engage community stakeholders on energy and food security matters be fully investigated during 2011 and presented in a follow-up report prior to the 2012 legislative session. The Task Force plans to conduct meetings on O`ahu, Kaua`i, Maui, and the County of Hawai`i to fully investigate and analyze state and county planning documents and the **11 long-standing issues identified by the Department of Agriculture in growing agriculture** in Hawai`i.

Policy makers have long characterized Hawai`i's dependence on energy and food imports in mostly economic terms: the adverse impacts on balance of trade payments and consumer disposable income, as well as lost opportunities for income and jobs arising from locally based food and clean energy industries. The Task Force recognizes that achieving energy and food security has the potential for improving balance of trade payments in the billions of dollars annually, which will contribute to long term economic development opportunities for Hawai`i.

As such, the state's economic development boards and higher education institutions, with considerable experience and success in providing technical assistance to businesses and individuals, should be supported with a portion of the environmental response, energy and food security tax (EREFST) and state general funds to help Hawai`i businesses and individuals **build capacity** to achieve the state's energy and food security agenda. The specific recommended levels of support will be specified in the Task Force's 2011 follow-up report.

To improve food and energy security in Hawai`i, the Task Force recommends:

- Setting benchmarks for achieving food and energy security goals.
- Providing sustained public investments and support in retaining and maintaining agriculture infrastructure, such as water storage capacity, conservation, and irrigation systems and capital improvement for dams and reservoirs.
- Protecting the best of agricultural lands from development through Important Agricultural Lands (IAL) designation, necessary amendments to Chapter 205, HRS as it pertains to permissible uses on

designated IAL, permanent agricultural easements, assuring the use of agricultural subdivision only for the creation of real farms and not “gentlemen’s estates,” and using smart growth strategies to avoid urban sprawl.

- Developing a cross-agency electronic agricultural data system with soil, water, climate, economic, and other relevant data that can be used to make informed agriculture-related decisions and is supported and maintained with sustainable funds.
- Developing a new planning, program and budget paradigm that focuses on the synergy between food and energy to capitalize on addressing agricultural issues, such as the production of livestock feeds from the by-products of algae and other energy crops.
- Adopting innovations in workforce development and career choice options in agriculture and clean energy.
- Marketing and promoting the buying of locally grown foods and other local agriculture products.
- Building more alliances with large landowners for land and water use that have mutual benefits and advance the goals of increasing food and energy security.
- Ensuring that the Departments of Agriculture and Business, Economic Development and Tourism have sufficient personnel to provide the planning, implementation, and oversight necessary to advance the State’s food and energy goals and agenda.

The Task Force calls on the Legislature to provide the long term, sustained support of the food and energy security agenda through consistent state funding and by allocating the \$0.60 not allocated by Act 73.

Consistent with the legislative intent of Act 73, the Task Force recommends that the Legislature direct fifty percent (50%) of the non-allocated amount to the ‘Energy Security Special Fund’ and fifty percent (50%) to the ‘Agricultural Development and Food Security Special Fund.’

The 2012 follow-up report will seek to promote economic development options for local food and energy businesses while considering and evaluating each island’s unique food and energy security opportunities and challenges. With an integrated analysis of stakeholder input, potential strategic alliances, resources, and policy tools, the Task Force recommendations in the 2012 Report to the Legislature will pinpoint specific EREFST funding, guidance, and infrastructure to achieve a desired level of energy and food self-sufficiency and sustainability to the maximum extent feasible.

# HAWAI`I ECONOMIC DEVELOPMENT TASK FORCE

## Report to the 2011 Hawai`i Legislature

### Overview

The purpose of the Hawai`i Economic Development Task Force (Task Force) is to facilitate the accelerated adoption and completion of renewable-energy project, energy-efficiency programs, agricultural infrastructure and development and support public and private efforts to make Hawai`i energy- and food-self-sufficient, consistent with the “Hawai`i 2050 Sustainability Plan,” “Hawai`i Clean Energy Initiative,” and other government and community planning efforts. The Task Force was created by The Food and Energy Security Act 73(10), which took effect on July 1, 2010 in amendments to the Environmental Response Revolving Fund, Hawai`i Revised Statutes (HRS) Chapter 128D-2 and shall cease to exist on June 30, 2012.

The ten tasks mandated by the legislative act and the deadlines for reporting are numbered in parentheses in the Task Force Work Plan section below (A-J) and are also highlighted in Section 6 of the following link <http://Hawai`i.gov/dbedt/info/energy/HEDTF/index.html>.

This initial report meets statutory requirements of the Task Force to submit to the 2011 Hawai`i Legislature a copy of its findings and recommendations, along with any proposed legislation relating to its review of current food and energy security issues; alternative measures for funding and cooperation; alternative strategies, mechanisms, and processes for streamlining and promoting efficiencies; and evaluating the apportionment of the Environmental Response, Energy and Food Security Tax (EREFST). Prior to the 2012 legislative session, the Task Force shall submit a follow-up report to the legislature with an account of the activities funded by the EREFST, progress made toward energy and food self-sufficiency, and additional actions necessary to achieve energy and food self-sufficiency.

The questions raised by the Legislature on food and energy security come at a critical juncture.

The legislature has found that mass consumption of fossil fuels, driven by our dependence on food and energy imports, contributes to climate change and the deterioration of the environment, including severe storm events, less rainfall, warmer temperatures that favor invasive species, a rise in sea levels, and ocean acidification that hampers coral growth. These climate changes will likely impose significant inestimable costs and other adverse effects on Hawai`i's people and the natural capital we depend upon to support our lives in the middle of the Pacific Ocean.

With thousands of acres of productive agricultural-designated lands fallow or in transition, business interests and government are seeking ways to expand food and non-food agricultural capacity and reduce Hawai`i's imports of beef, fresh vegetables and fruits, milk, and other agricultural products. There are considerable risks and costs to Hawai`i's dependency on importing the estimated 90 percent of beef, 67 percent of fresh vegetables, 65 percent of fresh fruits, and more than 80 percent of all milk consumed in the state.

Although Hawai`i has available renewable resources like solar, wind, ocean, hydroelectric and geothermal energy, we as a community have not taken full advantage of alternative-energy and energy-efficiency solutions to make the state more energy-independent.

The legislature finds that it is in the best interests of Hawai`i's people to build the capacity the State needs to become self-sufficient in its energy and food needs and to protect the health and

vitality of our environment. As discussed in the *Hawai'i 2050 Sustainability Plan* and the *Hawai'i Clean Energy Initiative*, our State has all the necessary assets to significantly improve the its energy and food sustainability and independence over the next 20 years if appropriate personnel resources and funds are used wisely. To succeed, Hawai'i must ensure that its long-term strategy has focus, sufficient resources, and coordination among public and private sector stakeholders and interested parties.

In discussing energy- and food-self-sufficiency, Act 73 seeks consistency with the *Hawai'i 2050 Sustainability Plan*, and the *Hawai'i Clean Energy Initiative*, and these policies form the basis of the Task Force's understanding of what it means for Hawai'i to have food and energy security.

The State's first definition of sustainability, as defined by the *Hawai'i 2050 Sustainability Plan*, is a Hawai'i that achieves the following:

- Respects the culture, character, beauty and history of our State's island communities.
- Strikes a balance among economic, social and community, and environmental priorities.
- Meets the needs of the present without compromising the ability of future generations to meet their own needs.

The Hawai'i 2050 goals are characterized as integrated philosophies that express the sustainable future of Hawai'i as follows:

- Living sustainably is part of our daily practice in Hawai'i.
- Our diversified and globally competitive economy enables us to meaningfully live, work and play in Hawai'i.
- Our natural resources are responsibly and respectfully used, replenished and preserved for future generations.
- Our community is strong, healthy, vibrant and nurturing, providing safety nets for those in need.
- Our Kanaka Maoli and island cultures and values are thriving and perpetuated.

The *Hawai'i Clean Energy Initiative* has spawned statutory renewable energy and energy efficiency portfolio standards that serve as an unambiguous guide towards achieving energy security in Hawai'i. In 2004, the Hawai'i Legislature first established a renewable portfolio standard with adoption of Act 95 (HRS §196-41, HRS §269-92). Act 155 (2009) increased the RPS by amending HRS §269-92 to raise the RPS levels to 25 percent by 2020, and to establish a 40 percent RPS by 2030. The Act also sets a precedent for electrical utility clean energy portfolio standards by including a separate goal for energy efficiency, establishing an energy efficiency portfolio standard (EEPS) calling for the statewide reduction in electricity use of four thousand three hundred gigawatt-hours (4300 GWH) via efficiency measures by 2030.

The *Hawai'i 2050 Sustainability Plan* recommends setting benchmarks to achieve sustainability goals. Benchmarks 3 and 7 relate to food security and are summarized below:

**Benchmark 3**

Develop a sustainability ethic. (Goal 1, Strategic Action 1)

Why this matters:

- If Hawai'i's people understand and believe in sustainability, the goals of Hawai'i 2050 will be achieved. The result will be a change in consumer behavior by individuals as well as institutional users to conserve water and electricity, recycle, purchase biodegradable products, and buy local foods and products.

Where we are now:

- No benchmark data on this polling question is available yet. However, according to a 2007 Hawai'i 2050 public opinion poll, about 80 percent of the population favors a "triple-bottom line" or balanced approach to Hawai'i's future, a key component of sustainability.

2020 Suggested Benchmark:

- 85 percent of Hawai'i residents consider sustainability to be a "critically important" issue to our state.
- The Task Force also suggests setting benchmarks on various aspects of consumer behavior, including per capita water consumption; per capita alternative energy consumed; use of solar water heating sources; and participation rate in recycling programs.

### ***Benchmark 7***

Increase production and consumption of local foods and products, particularly agricultural products (Goal 2, Strategic Action 1).

Why this matters:

- Food self-sufficiency is one of the foundations of a sustainable community. Thriving local farms contribute to the economy, help preserve green spaces and a rural way of life, and make us less vulnerable to external catastrophes.

Where we are now:

- Only about 15 percent of the food we consume is grown locally, including about 35 percent of the fruits and vegetables consumed are grown locally.

2020 Suggested Benchmark:

- The UH College of Tropical Agriculture and Human Resources (CTAHR) estimates that it is reasonable that 30 percent of the food consumed in the State can be grown locally. CTAHR also estimates that 85 percent of the fruits and vegetables we consume can be grown locally.

There are no similar statutory provisions that go beyond the *Hawai'i 2050 Sustainability Plan* in clarifying what is meant by food security. For this reason, defining food security will be a principal focus of the 2011 Task Force agenda. One method that will be investigated closely is the Hawai'i 2050 recommendation to establish indicators that measure progress towards specific sustainability goals.

### **Task Force 2011 Work Plan**

In this report and our follow-up report to the 2012 Hawai'i Legislature, the Task Force intends to make a valuable contribution toward the broad purpose of The Food and Energy Security Act to:

- promote economic development for local food and energy businesses by providing necessary funding, guidance, and infrastructure;
- ensure Hawai'i is energy and food self-sufficient and sustainable to the maximum extent feasible; and
- help Hawai'i's natural resources and population adapt and be resilient to the inevitable challenges brought on by climate change caused by carbon dioxide and other greenhouse gas emissions from burning fossil fuels.

This initial report offers preliminary observations to the Legislature regarding energy and food security in Hawai'i and presents a work plan for consultation and collaboration with private, nonprofit, community, and government stakeholders to identify and fill gaps in food and energy security strategies, goals, and programs. The timing of the initial report and the broad scope of the HEDTF's mission necessitates that critical assessments and findings that encompass and fully engage community stakeholders on energy and food security matters be fully investigated during 2011 and presented in the follow-up report.

The work plan to achieve this has been prepared to specifically address the following ten sections (A-J) pursuant to Act 73:

Consultation with appropriate private, nonprofit, community, and government stakeholders to address energy and food security issues by:

- (A) Identifying and reviewing each state and county agency's policy objectives, mandates, organizational structure, and resources relevant to energy and food security issues;
- (B) Identifying all federal and private funds available to the State and counties for energy and food security issues;
- (C) Identifying effective measures for interagency cooperation, coordinate efforts with the counties, and promote public- and private-sector partnerships to achieve the objective of energy and food security;
- (D) Identifying existing programs and agreements addressing energy and food security that may be enhanced through legislation;
- (E) Investigating alternative institutional mechanisms to promote the efficient execution and implementation of a multi-year strategy to achieve energy and food security;
- (F) Investigating the streamlining of administrative processes to accelerate and achieve energy and food security;
- (G) Providing an appropriate forum for all affected or interested parties to address energy and food security issues;
- (H) Recommending appropriate legislation resulting from its findings to improve, accelerate, and achieve the objective of energy and food security;
- (I) Reviewing whether:



1. The apportionment of the environmental response, energy, and food security tax among the funds listed under section 243-3.5, Hawai'i Revised Statutes, is appropriate;
  2. The apportionment should be changed; and
  3. Any additional special, trust, or revolving fund should receive a share of the tax; and
- (J) Performing any other function necessary to effectuate enhanced energy and food security.

Attachments A through G track the progress to date on the 10 tasks (A)-(J), and should be considered a work in progress and not complete or exhaustive. The Task Force will begin work on tasks 5-6 and 8-9 in January of 2011 as data and input from stakeholders are collected and analyzed throughout 2011. During the final quarter of 2011, the Task Force will be primarily focused on preparation of the follow-up report to the 2012 legislature, which is intended to present a comprehensive summary of findings recommendations and supporting information on all 10 tasks above.

Consistent with section (G) of the work plan described above, outreach and community involvement are necessary components of carrying out the work plan. Accordingly, the Task Force plans to conduct meetings on O`ahu, Kaua`i, Maui, and the County of Hawai`i and will investigate state and county planning documents according to the following schedule:

1/18/11	<i>2010 Hawai`i Statewide Comprehensive Economic Development Strategy and HCEI Roadmap</i>
2/8/11	<i>Kaua`i Economic Development Plan and Policy Recommendations for Hawai`i's Energy Future (Rocky Mountain Institute, March 2009)</i>
3/1/11	<i>Maui County 2030 General Plan, Maui Island Plan, and 9 Community Plans</i>
3/15/11	<i>2009 County of Hawai`i Agricultural Development Plan and Kamehameha Schools Strategic Agricultural Plan (2010)</i>
4/5/11	<i>Hawai`i 2050 Sustainability Plan and Hawai`i State Plan (Chapter 226, HRS)</i>
4/26/11	<i>Kaua`i County Energy Sustainability Report, March 2010</i>
5/17/11	<i>Maui County Energy Alliance Renewable Energy Action Plan</i>
6/7/11	<i>Hawai`i County Energy Sustainability Plan, 2008</i>
6/28/11	<i>O`ahu General Plan, Nov. 8, 2010 and 8 Sustainable Communities Plans</i>
7/19/11	<i>Kaua`i General Plan 2000 and the County of Kauai`i Important Agricultural Lands (IAL) Study</i>
8/9/11	<i>County of Hawai`i Agriculture Development Plan, 2009</i>
8/30/11	<i>Hawai`i County Baseline Energy Analysis, 5/10/06-2/19/07</i>

Other reports shall be investigated, such as *Food and Nutrition Security in the United States-affiliated Pacific Islands* (George Kent, 2008), *Diversified, Localized and Sustainable Agriculture on*

*Kaua`i* (Malama Kaua`i, 2010), *Work Plan for Greenhouse Gas Emissions Reductions* (Greenhouse Gas Reduction Task Force, 12/30/09), and Hawai`i State Planning Act, Chapter 226, HRS.

The Task Force will also conduct outreach and analysis on the 11 long-standing issues identified by the Department of Agriculture in growing agriculture in Hawai`i: (1) land, (2) water, (3) workforce development, (4) public awareness/support, (5) marketing and competitiveness, (6) research and development, (7) transportation and energy, (8) food safety, (9) bio-security, (10) environment and (11) financing.

As the Task Force identifies effective measures for interagency and inter-organization cooperation, coordination and promotion of food and energy security programs, the list of relevant state and county agencies, and non-profit organizations (Attachment C) will be expanded. By sector, the initial list includes:

***Non-profit Sector (14):*** 4 Ag Hawai`i; Agribusiness Development Corporation; Blue Planet Foundation; Enterprise Honolulu; Hawai`i Crop Improvement Association; Hawai`i Farm Bureau Federation; ; Hawai`i Island Economic Development Board; Hawai`i Solar Energy Association; KAHEA; Kaua`i Economic Development Board; Maui Economic Development Board; Maui County Energy Alliance; The O`ahu, Tri-Isle, Big Island, and Garden Island Resource Conservation and Development Councils; Sierra Club Hawai`i Chapter; and Ulupono Initiative.

***Public Sector/Counties (4):*** City & County of Honolulu Department of Planning and Permitting; Kaua`i Planning Department; Maui Planning Department; Hawai`i County Planning Department.

***Public Sector/State (11):*** Hawai`i Forestry and Natural Resources Management - Hilo; Department of Agriculture; Department of Business, Economic Development & Tourism (a) Land Use Commission, (b) Office of Planning, (c) State Energy Office; Department of Commerce and Consumer Affairs; Department of Hawaiian Home Lands; Department of Land and Natural Resources; Hawai`i Public Utilities Commission; the College of Tropical Agriculture and Human Resources and the entire University of Hawai`i System- Manoa, Hilo, West O`ahu, and Community Colleges.

***Public Utilities (3):*** Hawaiian Electric companies; Kaua`i Island Utility Cooperative; The Gas Company; Board of Water Supply; other private power generators and water suppliers.

### **Preliminary Findings**

Policy makers have long characterized Hawai`i's dependence on energy and food imports in mostly economic terms: the adverse impacts on balance of trade payments and consumer disposable income, as well as lost opportunities for income and jobs arising from locally based food and clean energy industries. The Task Force recognizes that achieving energy and food security has the potential for improving balance of trade payments in the billions of dollars annually, which will contribute to long term economic development opportunities for Hawai`i. As such, the state's economic development boards and higher education institutions, with considerable experience and success in providing technical assistance to businesses and individuals, should be supported with a portion of the environmental response, energy and food security tax (EREFST) and state general funds to help Hawai`i businesses and individuals build capacity to achieve the state's energy and food security agenda. The specific recommended levels of support will be specified in the Task Force's 2011 follow-up report.

The Department of Agriculture and the State Energy Office have identified programs and initiatives that would support the food and energy security agenda. Attachment H is a draft estimate of costs per fiscal year for Agricultural Development and Food Security Special Fund projects organized by allowable uses for fiscal years 2012 through 2015. The combined total of these projects is \$43,816,230. Attachment I provides the estimated costs for potential State Energy Office appropriate to be funded by the Energy Security Special Fund.

Because collections of the EREFST began in July of 2010, a complete accounting of available and estimated EREFST funds will be included in the 2012 follow-up report. It is clear, however, that the combined budgets for pursuing the entire group of programs described in Attachments H and I is beyond the capacity of the EREFST to support. It is essential, then, for state planners to present a clear estimate of the benefits and costs to food and energy consumers and the public at large when targeting resources to improve food and energy security.

In reviewing the federal and private investment in Hawai'i agriculture, the Task Force noted substantial federal expenditures in research based on information provided by Hawai'i's congressional delegation. Over the past decade, approximately \$128 million in federal funds were provided in support of applied and basic agricultural research in Hawai'i, with funding concentrated on four research centers: Pacific Basin Agricultural Research Center, Hawai'i Agricultural Research Center, University of Hawai'i Manoa, University of Hawai'i Hilo, and the Oceanic Institute. These initiatives have provided the knowledge-base crucial to advancing the State's agriculture. In addition, other initiatives funded by State and private sources have contributed to the vitality of the agricultural industry.

However, the lack of overall State benchmarks and goals make it difficult to assess the progress Hawai'i has made towards achieving food self-sufficiency.

The Task Force also notes that Hawai'i faces considerable challenges in producing the quantity, quality and diversity of food as cheaply as it obtains imports. Achieving 100 percent self-sufficiency is not practicable, but food security in Hawai'i requires an appropriate balance of imports and locally produced food, which is not characteristic of the current situation.

Further, the agricultural sector needs to be considered as a whole, not just food production for local consumption, because the entire sector is interdependent in assuring the availability of support services, workforce training and opportunities, value-added facilities and import substitution for all locally grown agricultural products for Hawai'i's economic development and to reduce the risk of importing hitch-hiking invasive species.

Likewise, Hawai'i has secured \$118.3 million to support a broad range of clean energy projects, from energy efficiency and the smart grid to wind power, biofuels and expanding a skilled workforce to support these projects. The \$118.3 million includes:

- \$25.9 million of American Recovery & Reinvestment Act grants through the State Energy Program.
- \$4 million through the Weatherization Assistance Program.
- \$5.5 million to KIUC for smart meters and communications infrastructure.
- \$15 million from the Energy Efficiency and Conservation Block program and distributed as follows: State Energy Office of Hawai'i (\$9,593,500); City and County of Honolulu (\$3.9 million); Hawai'i County (\$737,800); Maui County (\$605,300) and Kaua'i County (\$267,900).

- \$750,000 from the U.S. Department of Energy to the Hawaiian Electric Company for the development of wind power initiatives through the Hawai`i Utility Integration Initiative.
- \$5.3 million to Hawai`i Electric Company to upgrade its electrical grid as part the Smart Grid technology program.
- \$1.23 million for a State-run rebate program for consumer purchases of new ENERGY STAR qualified home appliances
- \$10.6 million to the Hawai`i Natural Energy Institute
- \$6 million to the Pacific International Center for High Technology Research
- \$6 million to the DLIR-Workforce Development Council for workforce development training

In 2010, DBEDT surveyed 161 private and public businesses/institutions to gauge energy investment within the State. The results of the survey indicated that investments for 2009 amounted to \$345 million, for 2010 is projected as \$917 million, and for 2011 is projected to reach \$1.2 billion. Meanwhile, an estimated 11,145 green current jobs in Hawai`i have been created by private industry, much of it associated with the State's initiatives for a transformation to clean energy. (Source: Hawai`i's Green Workforce: A Baseline Assessment, State of Hawai`i - DLIR, November 2010, p. 14.)

Although the renewable and energy efficiency portfolio standards goals have been established as previously discussed, there needs to be a greater focus on accurately measuring economic impact of these policies to include, but not be limited to income, electricity costs to consumers, permanent job creation, balance of trade, and revenue estimates to the State of Hawai`i. There also needs to be better analysis in advance of projects to compare estimated impacts among competing clean energy projects and strategies to ensure that public funds are leveraged and deployed most efficiently to achieve the State's energy security goals.

Based on our unique, isolated geographical location, Hawai`i must look to innovative solutions and alliances to achieve our energy and food security agenda. For example, much of the United States has policy instruments such as the Clean Air Act to provide the impetus for significant improvements in energy and transportation systems vis-à-vis a carefully constructed network of mandatory requirements and financial incentives. These mechanisms have had positive impacts on improving energy security as an important secondary goal. However, a comparable mechanism for agriculture does not currently exist.

Hawai`i has the good fortune of not being in violation of National Ambient Air Quality Standards under the Clean Air Act. Consequently, it is ineligible for federal Congestion Mitigation – Air Quality funds to subsidize installation of approved air pollution control strategies that can also improve energy security.

Hawai`i has proactively established energy security and self-sufficiency goals as a primary objective, and over time these goals have evolved into a mandatory framework of renewable and energy efficiency portfolio standards. For locally produced food production, there is no similar voluntary or compulsory framework. The Hawai`i Clean Energy Initiative (HCEI) developed a roadmap and goal setting process. Learning from that process, the Task Force will investigate what framework will serve best the overall quest for food and energy security.

## Recommendations

To improve food and energy security in Hawai`i, the Task Force recommends:

- Setting benchmarks for achieving food and energy security goals.
- Providing sustained public investments and support in retaining and maintaining agriculture infrastructure, such as water storage capacity, conservation, and irrigation systems and capital improvement for dams and reservoirs.
  - ✓ Statutory Source: Chapter 226, HRS, Part III, Priority Guidelines, Section 103(d) (3) Encourage public and private investment to increase water supply and improve transmission, storage, and irrigation facilities in support of diversified agriculture...
- Protecting the best of agricultural lands from development through Important Agricultural Lands (IAL) designation, necessary amendments to Chapter 205, HRS as it pertains to permissible uses on designated IAL, permanent agricultural easements, assuring the use of agricultural subdivision only for the creation of real farms and not “gentlemen’s estates,” and using smart growth strategies to avoid urban sprawl.
  - ✓ Statutory Source: Chapter 226, HRS, Part III, Priority Guidelines, Section 104(b)(1) “Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as the protection of important agricultural land...”
  - ✓ Statutory Source: Chapter 205, Hawai`i Revised Statutes, Part III, Section 41, Declaration of Policy. “It is declared that the people of Hawai`i have a substantial interest in the health and sustainability of agriculture as an industry in the State. There is a compelling state interest in conserving the State’s agricultural land resource base and assuring the long-term availability of agricultural lands for agricultural use to achieve the purposes of: (1) Conserving and protecting agricultural lands; (2) Promoting diversified agriculture; (3) Increasing agricultural self-sufficiency; and (4) Assuring the availability of agriculturally suitable lands, pursuant to article XI, section 3, of the Hawai`i state constitution.”
- Developing a cross-agency electronic agricultural data system with soil, water, climate, economic, and other relevant data that can be used to make informed agriculture-related decisions and is supported and maintained with sustainable funds.
- Developing a new planning, program and budget paradigm that focuses on the synergy between food and energy to capitalize on addressing agricultural issues, such as the production of livestock feeds from the by-products of algae and other energy crops.
- Adoption innovations in workforce development and career choice options in agriculture and clean energy.
- Marketing and promoting buying locally grown foods and other local agriculture products.
- Building more alliances with large landowners for land and water use that have mutual benefits and advance the goals of increasing food and energy security.

- Ensuring that the Departments of Agriculture and Business, Economic Development and Tourism have sufficient personnel to provide the planning, implementation, and oversight necessary to advance the State’s food and energy security agenda.

The Task Force calls on the Legislature to provide the long term, sustained support of the food and energy security agenda through consistent state funding and by allocating the \$0.60 not allocated by Act 73. Consistent with the legislative intent of Act 73, the Task Force recommends that the Legislature direct fifty percent (50%) of the non-allocated amount to the ‘Energy Security Special Fund’ and fifty percent (50%) to the ‘Agricultural Development and Food Security Special Fund.’ The Task Force also understands that part of Hawai`i’s clean energy agenda is the investigation of locally grown bio-fuels for power generation and transportation purposes. This has resulted in a healthy discussion on the appropriate mix of agricultural lands to produce “food and fuel” in Hawai`i and that discussion will continue in the course of the Task Force’s deliberations towards synergy rather than competition.

The 2012 follow-up report will seek to promote economic development options for local food and energy businesses while considering and evaluating each island’s unique food and energy security opportunities and challenges. With an integrated analysis of stakeholder input, potential strategic alliances, resources, and policy tools, the Task Force recommendations in the 2012 Report to the Legislature will pinpoint specific EREFST funding, guidance, and infrastructure to achieve a desired level of energy and food self-sufficiency and sustainability to the maximum extent feasible.

## Attachment A

### HEDTF TASK 1

(Section A on Page 5)

**Identifying and reviewing each state and county agency's policy objectives, mandates, organizational structure, and resources relevant to energy and food security issues.**

<b>A</b>	<b>Agribusiness Development Corporation (ADC)</b>
	POLICY OBJECTIVE - Facilitate and provide direction for the transition of Hawai'i's agriculture industry from a dominance of sugar and pineapple to one composed of a diversity of different crops.
	MANDATE - To acquire, and manage in partnership with farmers, ranchers, and aquaculture groups, selected high-value lands, water systems, and infrastructure for commercial agricultural use and to direct research into areas that will lead to the development of new crops, markets, and lower production costs.
	ORGANIZATIONAL STRUCTURE - Board of directors consisting of eight private-sector members appointed by the governor and three ex-officio members to include Chairperson of HDOA, Chairperson of the Department of Land and Natural Resources (DLNR) and Director of the Department of Business, Economic Development and Tourism (DBEDT).
	RESOURCES - Exemptions from Hawai'i Revised Statutes Chapter 171 regarding land use, as well as PUC regulations and civil service laws; the ability to issue bonds; and to form subsidiaries to manage programs. However, ADC faces challenges on (1) having limited resources, and (2) duplicating efforts of other state agencies or non-profit organizations.
	<b>Source:</b> ADC
<b>B</b>	<b>City &amp; County of Honolulu</b>
	POLICY OBJECTIVE - To maintain the viability of agriculture. In energy; to (1) maintain an adequate, dependable, and economical supply of energy for O`ahu residents, (2) conserve energy through more efficient management, (3) fully utilize proven alternative sources of energy, (4) develop and apply new, locally available energy resources, and (5) establish a continuing energy information program.
	AGRICULTURE MANDATE - (1) Assist the agricultural industry to ensure the continuation of agriculture as an important source of income and employment, (2) Support agricultural diversification in all agricultural areas on O`ahu, (3) Support the development of markets for local products, particularly those with the potential for economic growth, (4) Provide sufficient agricultural land in Ewa, Central O`ahu, and the North Shore to encourage the continuation of sugar and pineapple as viable industries, (5) Maintain agricultural land along the Windward, North Shore, and Waianae coasts for truck farming, flower growing, aquaculture, livestock production, and other types of diversified agriculture, (6) Encourage the more intensive use of productive agricultural land, (7) Encourage the use of more efficient production practices by agriculture, including the efficient use of water, and (8) Encourage the more efficient use of non-potable water for agricultural use.

<b>Attachment A continued</b>	
	<p>ENERGY MANDATE - (1) Develop and maintain a comprehensive plan to guide and coordinate energy conservation and alternative energy development and utilization programs on O`ahu, (2) Establish economic incentives and regulatory measures which will reduce O`ahu's dependence on petroleum, (3) Support programs and projects which contribute to the attainment of energy self-sufficiency, (4) Promote and assist efforts to establish adequate petroleum reserves, (5) Give adequate consideration to environmental, public health, and safety concerns, to resource limitations and to relative costs when making decisions concerning alternatives for conserving energy and developing natural energy resources, (6) Work closely with the State and Federal governments in the formulation and implementation of all city and County energy-related programs.(7) Ensure that the efficient use of energy is a primary factor in the preparation and administration of land use plans and regulations, (8) Provide incentives and where appropriate mandatory controls to achieve energy-efficient siting and design of new developments, (9) Carry out public, and promote private programs to more efficiently use energy in existing buildings and outdoor facilities, (10) Promote the development of an energy-efficient transportation system, (11) Encourage the use of commercially available solar energy systems in public facilities, institutions, residences, and business developments, (12) Support the increased use of operational solid waste energy recovery and other biomass energy conversion systems, (13) Support and participate in research, development, demonstration, and commercialization programs aimed at producing new, economical, and environmentally sound energy supplies from: (a) solar isolation, (b) biomass energy conversion, (c) wind energy conversion, (d) geothermal energy, and (e) ocean thermal energy conversion. (14) Secure State an federal support of City and county efforts to develop new sources of energy, (15) Supply citizens with the information they need to fully understand the potential supply, cost, and other problems associated with O`ahu's dependence on imported petroleum, (16) foster the development of an energy conservation ethic among O`ahu residents, (17) Keep consumers informed about available alternative energy sources and their costs and benefits, and (18) Provide information concerning the impact of public and private decisions on future energy use.</p>
	<p>ORGANIZATIONAL STRUCTURE - Community Based Economic Development program within the Office of Economic Development.</p>
	<p>RESOURCES - <b>COUNTY ARRA GRANT:</b> \$3,863,700 for Honolulu County for energy efficiency and renewable energy projects in accordance with individual county needs and their individual applications subject to approval by the Department of Energy.</p>
	<p><b>Source:</b> City and County of Honolulu</p>
<b>C</b>	<b>County of Hawai`i</b>
	<p>POLICY OBJECTIVE - Provide pro-active leadership, enhancing the quality of life, and sustainability of Hawai'i Island communities through programs related to: agriculture, energy, tourism, economic development, community development, and film.</p>



<b>Attachment A continued</b>	
	<p>MANDATE - Role of the Department of Research and Development is to:</p> <ol style="list-style-type: none"> <li>1. Collect and develop data necessary for managerial and legislative decision making, and program and policy-making.</li> <li>2. Provide staff leadership for public and private development programs, enterprises and plans, including economic, social and cultural proposals, which enhance improvement of the county community.</li> <li>3. Coordinate informational and regulatory knowledge of all federal and state grant in-aid participation programs which affect the county.</li> </ol>
	<p>ORGANIZATIONAL STRUCTURE - Department of Research and Development within the County of Hawai'i.</p>
	<p>RESOURCES –</p> <ol style="list-style-type: none"> <li>1. Provides grant awards to non-profit organizations for initiatives that improve the quality of life for the people of Hawai'i County through responsible and sustainable economic, societal and environmental practices in agricultural research that is innovative or urgent in nature.</li> <li>2. COUNTY ARRA GRANT: \$737,800 for Hawai'i County for energy efficiency and renewable energy projects in accordance with individual county needs and their individual applications subject to approval by the Department of Energy.</li> <li>3. \$70,920 in State (Federal) funds from DBEDT to support Hawai'i County's energy program.</li> </ol>
	<p><b>Source:</b> County of Hawai'i</p>
<b>D</b>	<b>County of Kaua'i</b>
	<p>POLICY OBJECTIVE - To keep the rural character of our island by preserving open space and access to our natural resources and fostering balance between our cultural past and the future.</p>
	<p>MANDATE – Kaua'i County Code, Section 7-3.6 (Ordinance No. 461) states that "Programs shall be developed which will make the County more self-sufficient in producing energy and less dependent on imported energy sources."</p>
	<p>ORGANIZATIONAL STRUCTURE – Kaua'i Energy Extension Service and Agriculture Support program within the Office of Economic Development.</p>
	<p>RESOURCES (Current): 1. \$267,900 in ARRA direct formula block grant funds that will be used for a 27.5 kW PV system for the Kaiakea Fire Station in Kapa'a. 2. \$379,000 in County funds for a 85 kW PV system for the Lihu'e Civic Center3. \$1 M to be used for an approximately 125-150 kW PV system for the Police/CD/Prosecutor Facility4. \$72,269 in State (Federal) funds from DBEDT to support Kaua'i's energy program.5. \$276,259 in EV-Ready grant funds from DBEDT (contract being prepared now)</p>
	<p><b>Source:</b> Kaua'i Office of Economic Development</p>

<b>Attachment A continued</b>	
<b>E</b>	<b>County of Maui</b>
	POLICY OBJECTIVE - Promote and nurture sustainable economic development within Maui County consistent with the community's needs and priorities.
	MANDATE - Work in partnership with the community, business and government sectors to: (1) Strengthen and diversify the economy by supporting existing businesses, and (2) Assisting in the attraction, development and expansion of new businesses.
	ORGANIZATIONAL STRUCTURE - Agricultural partnerships with the Maui County Farm Bureau and the Maui Flower Grower Associations via the Mayor's Office of Economic Development (OED). Energy Management Program within the Department of Management. Energy Commissioner within OED: Victor Reyes.
	RESOURCES - <b>COUNTY ARRA ENERGY GRANT:</b> \$605,300 for Maui County for energy efficiency and renewable energy projects in accordance with individual county needs and their individual applications subject to approval by the Department of Energy.
	<b>Source:</b> County of Maui
<b>F</b>	<b>Dept. of Accounting &amp; General Services</b>
	POLICY OBJECTIVE - Implementation of energy and conservation initiatives and measures, which reduce operational costs of state facilities.
	MANDATE - Adoption of Chapter 3-181, Hawai'i Administrative Rules entitled "State Energy Conservation Code," as required by section 107-25 Hawai'i Revised Statutes for the design and construction of buildings for the effective use of energy and is intended to provide flexibility to allow the use of innovative approaches and techniques to achieve the effective use of energy.
	ORGANIZATIONAL STRUCTURE - Interface on energy and conservation measures are the following DAGS Divisions: Central Services Division, Land Survey Division, Public Works Division, and Building Code Council.
	RESOURCES - Memorandums of Agreement (MOA) with DBEDT using ARRA funds as follows: \$3M for PV in State buildings; \$475,500 for alternative fueled vehicles and infrastructure; and \$700,000 for an undersea cable subject matter expert.
	<b>Source:</b> DAGS
<b>G</b>	<b>Dept. of Agriculture (DoA)</b>
	POLICY OBJECTIVE - Works to support, enhance and promote Hawai'i's agriculture and aquaculture industries. Identify and plan for the maintenance of a strategic agricultural land resource base that can support a diversity of agricultural activities and opportunities that expand agricultural income and job opportunities and increase agricultural self-sufficiency for current and future generations.
	MANDATE - increase food security by growing more food locally and having consumers make conscious decisions to buy locally whenever possible.

<b>Attachment A continued</b>	
	ORGANIZATIONAL STRUCTURE - Comprised of the following Divisions: Administrative Services Office, Agricultural Development, Agricultural Loan, Agricultural Resource management, Aquaculture Development Program, Animal Industry, Quality Assurance, and Plant Industry.
	RESOURCES - <b>ACT 73(10) - AGRICULTURAL DEVELOPMENT AND FOOD SECURITY SPECIAL FUND:</b> 15 cents of the tax on each barrel shall be deposited into the agricultural development and food security special fund established under section 141.
	<b>Source:</b> HDOA; Act 73(10)
<b>H</b>	<b>Dept. of Budget and Finance</b>
	POLICY OBJECTIVE - Regulates energy commerce in Hawai'i. Develops near- and long-term financial plans and strategies for the State, and provides programs for the improvement and management of State agencies.
	MANDATE - ECONOMIC DEVELOPMENT MANDATE: (1) Assist in maintaining the agricultural sector of the State's economy...by providing policies, services, loans, subsidies, environmental protection, land and water operations, facilities, advice, coordination, and information so as to achieve appropriate rates of growth. (2) to achieve growth, diversification and long-term stability of the state's economy by facilitating the sustained development of Hawai'i's clean energy resources. GOVERNMENT-WIDE SUPPORT MANDATE: undertake comprehensive land use and coastal zone planning, management, and implementation; by undertaking strategic and regional planning to address areas of critical state concerns related to social, economic, or physical conditions; and by promoting programs and capital improvement projects which further State policies.
	ORGANIZATIONAL STRUCTURE - Monitors and regulates the energy utilities and petroleum industry through the Public Utilities Commission (PUC).
	RESOURCES - New and expanded Hawai'i Energy, Efficiency Programs operated under contract by the PUC and paid for by electric utility ratepayer fees. MOA with DBEDT using ARRA funds to implement a government and residential efficiency program; \$6.2M.
	<b>Source:</b> B&F
<b>I</b>	<b>Dept. of Business, Economic Development and Tourism (DBEDT)</b>
	POLICY OBJECTIVE – Hawai'i's energy policy seeks to ensure dependable, efficient, and economical energy; increased energy self-sufficiency; greater energy security; and reduction of greenhouse gas emissions.
	MANDATE - increase energy security and transition to a clean energy economy by way of the Hawai'i Clean Energy Initiative.

<b>Attachment A continued</b>	
	ORGANIZATIONAL STRUCTURE - The <b>Office of Planning</b> works to maintain an overall framework to guide the development of the State through a continuous process of comprehensive, long-range, and strategic planning to meet the physical, economic, and social needs of Hawai'i's people, and provide for the wise use of Hawai'i's resources in a coordinated, efficient, and economical manner. The <b>High Technology Development Corporation</b> through its <b>Hawai'i Center for Advanced Transportation Technologies</b> focuses on commercial transportation applications that contribute to improving economic competitiveness and to decreasing dependence on imported fossil fuels. The <b>Land Use Commission</b> preserves and protects Hawai'i's lands and encouraging those uses to which lands are best suited. The State Energy Office within the <b>Strategic Industries Division</b> provides energy policy oversight to enable clean energy transformation.
	<b>RESOURCES - ARRA ENERGY GRANTS</b>
	DBEDT was awarded more than \$9.5 million in Energy Efficiency and Conservation Block Grant (EECBG) funds from the U.S. Department of Energy. These stimulus funds are intended to help improve energy efficiency/conservation in government and non-profit buildings, and public housing.
	DBEDT was awarded \$25.93 million in State Energy Program funds for increasing energy generation from renewable sources; reducing green house gas emissions; and saving energy.
	Enhancing State Government Energy Assurance Capabilities and Planning for Smart Grid Resiliency (formula): \$318,196
	Efficient Appliance Rebate Program (formula): \$1,236,000
	<b>RESOURCES - ACT 73(10) - ENERGY SECURITY SPECIAL FUND:</b> 15 cents of the tax on each barrel shall be deposited into the energy security special fund established under section 201-12.8.
	<b>Source:</b> DBEDT
<b>J</b>	<b>Dept. of Commerce and Consumer Affairs (DCCA)</b>
	<b>POLICY OBJECTIVE</b> - Protects and advances the interests of Hawai'i's consumers of regulated public utilities.
	<b>MANDATE</b> - Emphasizes keeping rates low while ensuring that the utility provides safe, reliable, and adequate service to consumers. Beyond this, Division of Consumer Advocacy also plays an active role in promoting and advancing the state's energy policies.
	<b>ORGANIZATIONAL STRUCTURE</b> - Division of Consumer Advocacy (DCA) within DCCA
	<b>RESOURCES</b> - MOA with DBEDT using ARRA funds for a transportation energy diversification program utilizing rebates; \$4M.
	<b>Source:</b> DCCA
<b>K</b>	<b>Dept. of Education</b>
	<b>POLICY OBJECTIVE</b> - implementation of vocational agriculture education program and photovoltaic, net energy metered pilot project.
	<b>MANDATE</b> - Legislative
	<b>ORGANIZATIONAL STRUCTURE</b> - project implementation via Complex Area Superintendents
	<b>RESOURCES</b> - Legislative Appropriations
	<b>Source:</b> DOE

<b>Attachment A continued</b>	
<b>L</b>	<b>Dept. of Hawaiian Home Lands</b>
	POLICY OBJECTIVE - To manage the Hawaiian Home Lands trust effectively and to develop and deliver lands to native Hawaiians.
	MANDATE - Partner with others towards developing self-sufficient and healthy communities.
	ORGANIZATIONAL STRUCTURE - development of homestead land under the Land Development Division and non-homestead land under the Land Management Division.
	RESOURCES - MOA with DBEDT using ARRA funds for Homestead Energy Program; \$2.9M.
	<b>Source:</b> DHHL
<b>M</b>	<b>Dept. of Health</b>
	POLICY OBJECTIVE - To protect and improve the health and environment for all people in Hawai'i.
	MANDATE - To prevent pollution and promote and preserve a clean, healthy and natural environment.
	ORGANIZATIONAL STRUCTURE - Oversees food safety and environmental permit compliance via Environmental Health Administration.
	RESOURCES - MOA with DBEDT using ARRA funds for on-line permitting system; \$375,000.
	<b>Source:</b> DOH
<b>N</b>	<b>Dept. of Labor and Industrial Relations</b>
	POLICY OBJECTIVE - Responsible for ensuring and increasing the economic security, well-being, and productivity
	MANDATE - Assist Hawai'i's low-income, immigrant and refugee populations to overcome and eliminate workforce barriers to economic self-sufficiency via an array of community-based programs and services.
	ORGANIZATIONAL STRUCTURE - Weatherization Assistance Program via Office of Community Services
	RESOURCES - MOA with DBEDT using ARRA funds for supplemental Weatherization Assistance Program funding; \$500,000; \$ 6 million ARRA funds to DLIR – Workforce Development Council for workforce development training.
	<b>Source:</b> DLIR
<b>O</b>	<b>Dept. of Land and Natural Resources (DLNR)</b>
	POLICY OBJECTIVE - To seek, develop, and implement cost-effective strategies for the long-term sustainable management, maintenance, protection and utilization of existing and potential ocean, land, natural and cultural resources of Hawai'i.
	MANDATE - Enhance, protect, conserve and manage Hawai'i's unique and limited natural, cultural and historic resources held in public trust for current and future generations of visitors and the people of Hawai'i in partnership with others from the public and private sectors.
	ORGANIZATIONAL STRUCTURE - Office of Conservation and Coastal Lands (OCCL) oversees private and public lands that lie within the State Land Use Conservation District. In addition, OCCL is responsible for overseeing beach and marine lands out to the seaward extent of the State's jurisdiction. to privately and publicly zoned Conservation District lands,
	<b>Source:</b> DLNR

<b>Attachment A continued</b>	
<b>P</b>	<b>Dept. of Taxation</b>
	POLICY OBJECTIVE - Administer the tax laws for the State of Hawai`i.
	MANDATE - Administer tax laws in a consistent, uniform, and fair manner.
	ORGANIZATIONAL STRUCTURE - District offices in each County.
	RESOURCES - Renewable Energy Technologies Income Tax Credit and Environmental Response, Energy, and Food Security tax assessment via Act 73(10).
	<b>Source:</b> DoTax
<b>Q</b>	<b>Dept. of Transportation</b>
	POLICY OBJECTIVE - Manage and operate a statewide commercial transportation system that facilitates the efficient movement of people and goods to, from and between the Hawaiian Islands.
	MANDATE - To promote sustainability by empowering projects, fostering collaboration, and communicating progress through education and outreach.
	ORGANIZATIONAL STRUCTURE - Water Transportation Facilities and Services Program of the Harbors Division serves as an interface with U.S. Department of Agriculture to safeguard the State against the introduction of biological pests and invasive species.
	<b>Source:</b> DOT
<b>R</b>	<b>Office of Hawaiian Affairs (OHA)</b>
	POLICY OBJECTIVE - Protect Hawai'i's people and environmental resources and OHA's assets, toward ensuring the perpetuation of the culture, the enhancement of lifestyle and the protection of entitlements of Native Hawaiians.
	MANDATE - Administer revenues generated from ceded lands for public education; the betterment of conditions of native Hawaiians; development of farm and home ownership; making of public improvements; and the provision of lands for public use.
	ORGANIZATIONAL STRUCTURE - OHA is a State agency and trust under the policy direction of 9 statewide elected trustees pursuant to Chapter 10 HRS.
	RESOURCES - OHA financial assistance program serves primarily the native Hawaiian community. Ag-energy-related community-based projects targeting the native Hawaiian community may qualify for funding.
	<b>Source:</b> OHA
<b>S</b>	<b>University of Hawai`i System: Manoa, Hilo, West O`ahu, Community Colleges</b>
	<p><u>POLICY OBJECTIVE:</u></p> <ul style="list-style-type: none"> <li>• CAFNRM - Hilo prepares students in the field of agricultural sciences.</li> <li>• CTAHR - Manoa conducts research and educational programs supporting tropical agricultural systems that foster viable communities, a diversified economy, and a healthy environment.</li> <li>• HNEI coordinates and undertakes the development of non-polluting natural energy sources for Hawai`i.</li> </ul>

<b>Attachment A continued</b>	
	<p><b>MANDATE:</b></p> <ul style="list-style-type: none"> <li>• CAFNRM - Hilo provides students a basic understanding of factors involved in agricultural production, management, processing, distribution, marketing, sales, and services.</li> <li>• CTAHR seeks to help Hawai'i diversify its economy, ensure a sustainable environment, strengthen its communities, and to serve as the premier resource for tropical agricultural systems and natural resource management in the Asia-Pacific region.</li> <li>• HNEI provides needed visibility, focus, and encouragement for energy-related activities directed toward converting Hawai'i's natural resources into viable energy systems.</li> </ul>
	<p><b>ORGANIZATIONAL STRUCTURE:</b></p> <ul style="list-style-type: none"> <li>• College of Tropical Agriculture and Human Resources (CTAHR - Manoa);</li> <li>• College of Agriculture, Forestry and Natural Resource Management (CAFNRM - Hilo);</li> <li>• Hawai'i Natural Energy Institute (HNEI - Manoa)</li> </ul>
	<p><b>RESOURCES - ACT 73(10) - ENERGY SYSTEMS DEVELOPMENT SPECIAL FUND:</b> 10 cents of tax assessment on each barrel of petroleum to be deposited into the energy systems development special fund established under section 304A-2169; with spending authority by HNEI.</p>
	<p><b>Source:</b> University of Hawai'i</p>

## Attachment B

### HEDTF TASK 2

(Section B on Page 5)

<b>Identifying all federal and private funds available to the State and counties for energy and food security issues.</b>
<b>Kolohala Ventures, LLC</b>
Kolohala Hydrogen & Renewable Energy Fund supports the increased use of Hawai'i-based renewable energy resources with pathways to using hydrogen as an energy carrier. Kolohala manages the Fund on behalf of the Department of Business, Economic Development & Tourism (DBEDT).
<b>Source:</b> Kolohala Ventures
<b>Hawai'i Angels</b>
Non-profit providing seed-level private equity investment, expertise, and due diligence in start-up companies; with Chapters on O'ahu, Maui, and the Big Island. The focus of Hawai'i Angels is start-up companies with strong teams, proprietary technology, and large potential markets. Hawai'i Angels reviews both Hawai'i and mainland opportunities.
<b>Source:</b> Hawai'i Angels
<b>Manoa Venture Partners</b>
Fund targets creative technologies and innovative companies primarily located in Hawai'i that have revolutionary potential. The Fund focuses on investing in early and growth stage companies in the Cleantech (Environmental/Energy), Life Sciences, and Information Technology sectors in Hawai'i.
<b>Source:</b> Manoa Venture Partners
<b>RSF Social Investment Fund (San Francisco, California)</b>
Investment funds to support innovative social enterprises in Food & Agriculture. Focus is on exploring new economic models that support sustainable food and agriculture, while raising public awareness of the value of organic and Biodynamic farming.
<b>Source:</b> RSF Social Finance
<b>Sennet Capital of Honolulu</b>
A merchant bank providing strategic financial and advisory services and private equity financing to mid-market and renewable energy companies and projects.
<b>Source:</b> Sennet Capital
<b>The Hawaiian Investment Company</b>
Investing in local industry to increase Hawai'i's local production of major staples and by providing opportunity through loans, grants and affordable housing.
<b>Source:</b> Hawaiian Investment
<b>Ulupono Initiative</b>
The Ulupono Initiative is a Hawai'i-focused social investment organization. Its mission is to improve the quality of life for island residents in three areas: more renewable energy, more locally produced food, and less waste.
<b>Source:</b> Ulupono



<b>Attachment B continued</b>
<b>United Fund Advisors, LLC (Portland, Oregon)</b>
A financial services company that provides tax-advantaged investment capital and advisory services for community development and renewable energy projects. All investments and services are driven by the firm's triple bottom line mission "to create opportunities for profitable investments which enhance social and environmental yields."
<b>Source:</b> United Fund
<b>U.S. DEPARTMENT OF AGRICULTURE</b>
<p><b>1. <u>Cooperative State Research, Education, and Extension Service (CSREES) Grant:</u></b> Western Region Sustainable Agriculture Research and Education (WSARE): The goal of this subtitle is to encourage the research and education designed to increase our knowledge concerning integrated systems of plant and animal production practices having both a site specific and regional application that will over the long-term improve food sources, the environment, efficient use of renewable resources, enhance economic and social wellness.</p>
<p><b>2. <u>Farm Service Agency (FSA):</u></b> The farm Service Agency runs a multi-facet program that comprises farm credit programs and natural disaster related programs, the later subject to the US President or the Secretary of Agriculture designations as such:</p> <ul style="list-style-type: none"> <li>a. <b>Agricultural Credit Programs:</b> Available to ag-enterprises including nursery, orchard, vegetable, agro-forestry, aquaculture, and livestock. Direct Loans are limited to \$200,000, and guaranteed loans through private institutions, \$899,000.</li> <li>b. <b>Commodity Loan programs:</b> For wheat, corn, grain sorghum, barley, oats, rye, oilseeds, rice, tobacco, peanuts, milk, cotton, sugar, and honey.</li> <li>c. <b>Disaster and Emergency Payment Assistance:</b> For rehabilitation of farms on a cost sharing basis for emergency conservation practices.</li> <li>d. <b>Conservation Reserve Program (CRP):</b> Helps farmers to substitute crops grown on erosion prone farmland for permanent vegetative covers. In return the farmer receives an annual payment through a multi-year contract.</li> <li>e. <b>Emergency Conservation Program (ECP):</b> Assists farmers and ranchers to return back to operation including clean up and restoration caused by a natural disaster.</li> <li>f. <b>Environment Quality Incentive program (EQIP):</b> Addresses locally identified natural resource concerns including soil erosion, water quality and quantity, and grazing land. Cost Sharing may reach 75% of certain conservation practices. Contractual agreement last 5 to 10 years.</li> <li>g. <b>Biomass Crop Assistance Program:</b> Provides financial assistance to owners and operators of agricultural and non-industrial private forest land who wish to establish, produce, and deliver biomass feedstocks.</li> </ul>
<p><b>3. <u>Federal-State Marketing Improvement Program (FSMIP):</u></b> Provides matching funds to state departments of agriculture to assist in exploring new market opportunities for U.S. food and agricultural products, and to encourage research and innovation aimed at improving the efficiency and performance of the U.S. marketing system.</p>
<p><b>4. <u>Rural Development:</u></b> USDA Rural Development agency comprises three services: Rural Business-Cooperative Service (RBS), Rural Housing Service (RHS) and Rural Utilities Services (RUS). The field offices at the state and local levels administer the programs. Most relevant to rural agribusiness, is RBS which mission is to build competitive rural businesses and cooperatives. There is also (a) The USDA Rural Development's Business &amp; Industry (B&amp;I) Loan program that had, so far, served aquaculture, nurseries, and forestry businesses, meat processing and distribution projects. (b) The Rural Development's rural</p>

<b>Attachment B continued</b>
Business Enterprise Grant (RBEG) funding had included agribusinesses project. (c) The Rural Development's Intermediary Re-lending Program (subject to RD Instruction 4274-D) provides funding support also.
<b>Source:</b> USDA
<b>U.S. DEPARTMENT OF COMMERCE</b>
<b>Economic Development Administration (EDA):</b> Public Works and Economic Development investments intend to help the Nation's most distressed communities revitalize, expand and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies and generate or retain long-term private sector jobs and investments.
<b>Source:</b> USDOC
<b>U.S. DEPARTMENT OF ENERGY (USDOE)</b>
<b>1. Energy Efficiency And Conservation Block Grant Program:</b>
The program provides financial and technical assistance to assist State and local governments create and implement a variety of energy efficiency and conservation projects to: reduce fossil fuel emissions created as a result of activities within the jurisdictions of eligible entities; reduce the total energy use of the eligible entities; and improve energy efficiency.
<b>2. Energy Efficiency and Renewable Energy (EERE):</b>
Invests in clean energy technologies to strengthen the economy, protect the environment, and reduce dependence on foreign oil. EERE's primary funding vehicle for businesses, industries, universities and others is a grant, mostly awarded on a competitive basis. EERE solicits applications in specific program areas and makes selections based on merit. EERE financial assistance opportunities are listed in the financial opportunities database and on Grants.gov, the government's Web site of all federal grant opportunities.
<b>3. Renewable Energy Research and Development:</b>
To conduct balanced research and development efforts in the following energy technologies: solar, biomass, hydrogen, fuel cells and infrastructure, wind and hydropower, hydrogen, and geothermal. Grants will be offered to develop and transfer to the nonfederal sector various renewable energy technologies on a competitive basis.
<b>4. State Energy Program:</b>
The program provides financial and technical assistance to State governments to create and implement a variety of energy efficiency and conservation projects in order to provide leadership to maximize the benefits of energy efficiency and renewable energy through communications and outreach activities, technology deployment, and accessing new partnerships and resources across the geographic panorama of the United States and its territories. The program's objectives are to: <ul style="list-style-type: none"> <li>• Reduce fossil fuel emissions created as a result of activities within the jurisdictions of eligible entities;</li> <li>• Reduce the total energy use of the eligible entities; and</li> <li>• Improve energy efficiency in the transportation, building, and other sectors.</li> </ul>
<b>Source:</b> USDOE

<b>Attachment B continued</b>
<b>U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)</b>
Provides Community Development Block Grant (CDBG) funds to cities. CDBG funds are provided as loans, grants, and technical assistance for economic development projects that benefit low- and moderate-income people. Funded projects have included rural economic, and agricultural development projects.
<b>Source:</b> HUD
<b>U.S. SMALL BUSINESS ADMINISTRATION (SBA)</b>
<b>1. <u>Financial Assistance Referral (FAR) Program:</u></b>
The Financial Assistance Referral Program allows participating banks' officials to refer credit worthy entrepreneurs to SBA for assistance. An SBA Economic Development Specialist of the Business Information and Counseling Center (BICC) will help the business owner to prepare a viable and complete loan package. Still, the participating bank has to approve the SBA guaranteed loan.
<b>2. <u>Small Business Innovation Research Program (SBIR) Grant:</u></b>
This program invites science-based small business firms to submit research proposal for funding. Topic areas include Forests and Related Resources, Plant Production and Protection, Animal Production and Protection, Air, Water and Soils, Food science and Nutrition, Rural and Community Development, Rural and Community Development, Aquaculture, Industrial Applications, and Marketing and Trade.
<b>Source:</b> SBA

## Attachment C

### HEDTF TASK 3

(Section C on Page 5)

**Identifying effective measures for interagency cooperation, coordinate efforts with the counties, and promote public- and private-sector partnerships to achieve the objective of energy and food security.**

Interest  
Groups:

	Agribusiness Development Corporation; Blue Planet Foundation; Counties (City & County of Honolulu - Dept. of Planning and Permitting; Forestry and Natural Resources Management - Hilo; Kaua`i Planning Department; Maui Planning Department); Department of Agriculture; DBEDT - Land Use Commission, Office of Planning, State Energy Office.; Dept. of Commerce and Consumer Affairs; Dept. of Hawaiian Home Lands; Dept. of Land and Natural Resources, Enterprise Honolulu; Hawaiian Electric Industries; 4 Ag Hawai`i; Hawai`i Crop Improvement Association; Hawai`i Farm Bureau Federation; Hawai`i Island Economic Development Board; Hawai`i Solar Energy Association; Kaua`i Economic Development Board; Kaua`i Island Utility Cooperative; Maui Economic Development Board; Maui County Energy Alliance; Big Island, Tri-Isle, Garden Isle and O`ahu Resource Conservation and Development Councils; Public Utilities Commission; Sierra Club; The Gas Company; Ulupono Initiative; Univ. of Hawai`i - College of Tropical Agriculture and Human Resources; Univ. of Hawai`i at Hilo - College of Agriculture
A	Effective planning for food and energy security must encompass three major elements: availability, access, and utilization.
B	People need to understand food and energy security issues; and to care enough about it to demonstrate consumer preference in the marketplace as they make everyday choices. Outreach campaigns should be utilized to develop strong community connections to security issues, increase demand, visibility, consumption, and familiarity with locally produced/developed food and energy products and increase sustainability.
C	Both the Maui Economic Development Board and Maui County with the assistance of Sandia National Laboratory are developing complementary system dynamic models as a tool to assess intended and unintended impacts of scenarios on the economy, the environment, and society. Energy represents one of the sectors in the model.
D	Resource Conservation and Development (RC&D) Councils Their mission is to improve the quality of life by promoting sustainable communities through the management and conservation of natural, human, cultural and economic resources. RC&D's are located on O`ahu, Maui, Kaua`i, and the Island of Hawai`i.
E	Examine agriculture and energy initiatives reflected in 'current' planning documents:
	a. 2010 Hawai`i Statewide Comprehensive Economic Development Strategy
	b. HCEI Roadmap, Policy Recommendations for Hawai`i's Energy Future
	c. Kaua`i Economic Development Plan 2005-2015
	d. Maui County 2030 General Plan, Maui Island Plan, and 9 Community Plans
	e. 2009 County of Hawai`i Agricultural Development Plan
	f. Kamehameha Schools Strategic Agricultural Plan
	g. Hawai`i 2050 Sustainability Plan, Hawai`i State Plan
	h. Kaua`i County Energy Sustainability Report, March 2010
	i. Maui County Energy Alliance Renewable Energy Action Plan, June 2009
	l. Hawai`i County Energy Sustainability Plan, 2008
	k. O`ahu General Plan, 8 Sustainable Communities Plan
	l. Kaua`i General Plan 2000, County of Kaua`i Important Agricultural Lands (IAL) Study
	m. County of Hawai`i Agriculture Development Plan, 2009
	n. Hawai`i County Baseline Energy Analysis, May 10, 2006 / February 19, 2007

**Attachment D**  
**HEDTF TASK 4**  
(section D on Page 5)

**Identifying existing programs and agreements addressing energy and food security that may be enhanced through legislation.**

LUC	<b>AGRICULTURAL DISTRICT</b>
	<p>The Agricultural District includes lands for the cultivation of crops, aquaculture, raising livestock, wind energy facility, timber cultivation, agriculture-support activities (i.e., mills, employee quarters, etc.) and land with significant potential for agriculture uses. Golf courses and golf-related activities may also be included in this district, provided the land is not in the highest productivity categories (A or B) of the Land Study Bureau’s detailed classification system.</p>
	<p>Uses permitted in the highest productivity agricultural categories are governed by statute. Uses in the lower-productivity categories – C, D, E or U - are established by the Commission and include those allowed on A or B lands as well as those stated under Section 205-4.5, Hawai`i Revised Statutes.</p>
	<p>The Commission establishes the district boundaries for the entire State. The Commission acts on petitions for boundary changes submitted by private landowners, developers and State and county agencies. The Commission also acts on requests for special use permits within the Agricultural and Rural Districts.</p>
DLNR	<b>CONSERVATION DISTRICT</b>
	<p>Conservation lands are comprised primarily of lands in existing forest and water reserve zones and include areas necessary for protecting watersheds and water sources, scenic and historic areas, parks, wilderness, open space, recreational areas, habitats of endemic plants, fish and wildlife, and all submerged lands seaward of the shoreline. The conservation District also includes lands subject to flooding and soil erosion.</p>
	<p>Conservation Districts are administrated by the State Board of Land and Natural Resources and uses are governed by rules promulgated by the State Department of Land and Natural Resources.</p>
DLNR	<b>DAM &amp; RESERVOIR SAFETY</b>
	<p>Increased fees and additional operation and maintenance requirements for dams and reservoirs could significantly impact the financial viability of local agribusinesses (Proposed Hawai`i Administrative Rules, Title 13, Subtitle 7, Chapter 190.1 as Required by the “Hawai`i Dam and Reservoir Safety Act of 2007,” Chapter 179D HRS - Dams and Reservoirs).</p>

**Attachment E**  
**HEDTF TASK 5-6**  
(Sections E-F on Page 5)

**NOTE: Work not yet begun - analysis and recommendations to be formulated during 2011.**

**Task 5: Investigating alternative institutional mechanisms to promote the efficient execution and implementation of a multi-year strategy to achieve energy and food security.**

Exploring the possibility of establishing an Energy Authority to conduct policy making and regulatory authority over energy project implementation.

Exploring the possibility of establishing an Agriculture Portfolio Standard to provide product and investment targets for and holdings in agriculture.

Agriculture - Energy cluster development via the 'Comprehensive Economic Development Strategy' process.

Other alternative institutional mechanisms to be identified by the Task Force.

**Task 6: Investigating the streamlining of administrative processes to accelerate and achieve energy and food security.**

Restructure the land use regulatory system to distinguish between important agricultural land and marginal agricultural land. Distinctions should be made for evaluative criteria in considering zone changes, permitted uses, minimum lot size requirements, and subdivision development standards.

**Attachment F**  
**HEDTF TASK 7**  
(section G on Page 5)

**Providing an appropriate forum for all affected or interested parties to address energy and food security issues.**

PRIORITIES

**AGRICULTURE:**

- Hawai'i produces only 15% of its own food. CTAHR estimates that it is reasonable to: locally grow 30% of foods consumed and 85% of fruits and vegetables consumed. Since 100% food self-sufficiency is impractical are these the targets Hawai'i should achieve?
- Basic resources required by agriculture; namely land, labor, and water. Add energy and transportation.
- Accelerating Hawai'i's agricultural transformation and food security agenda supported in part by the recommended 50 percent of the unallocated \$0.60 EREFST.
- Develop land and water allocations that acknowledge the importance of food production.
- Farm viability requires managing the rising cost of inputs (fertilizer, feed, electricity, transportation, labor, and water); adopting technology to ensure food safety and regulatory requirements; addressing threats from invasive species; and developing best practices.
- Should non-food and export agriculture be treated the same as food self-sufficiency agriculture?
- The food price effect (cost) of direct and indirect (nitrogen and pesticide) energy inputs?
- How can livestock be raised in a manner that is not harmful to our environment while playing a vital role in Hawai'i's economy?
- When there are competing uses for agriculture and energy development, what should be the basis for balancing priorities?

**ENERGY:**

- Basic resources required for renewable energy development; namely siting, skilled workforce, and transmission infrastructure.
- Accelerating Hawai'i's energy transformation and security agenda supported in part by the recommended 50 percent of the unallocated \$0.60 EREFST.
- Banks accounting for energy costs within home mortgages.
  - Implementation of a fossil-fuel ban on the construction of any new utility plant not operating on clean energy.
  - Storage tax credit for wind and solar facilities.

BIOSECURITY

- Multi-dimensional program to prevent the entry of invasive species and address established pests.
- Management information systems and databases for efficient deployment of resources, risk assessments, rapid response
- Joint inspection facilities, treatment facilities, pre-clearance programs
- Biocontrol, develop new tools, partnerships
- Outreach and public education

<b>Attachment F continued</b>	
ENVIRONMENT	Farmers must apply best management practices for crop, pest and waste management; soil conservation and environmental stewardship.
	<ul style="list-style-type: none"> <li>• Make needed tools available</li> </ul>
	<ul style="list-style-type: none"> <li>• Integrated pest management</li> </ul>
	<ul style="list-style-type: none"> <li>• Training, conservation plans</li> </ul>
FINANCING	Need long term leases to secure loans
	<ul style="list-style-type: none"> <li>• Educate commercial lenders</li> </ul>
	<ul style="list-style-type: none"> <li>• Alternative financing</li> </ul>
	<ul style="list-style-type: none"> <li>• Implementing a Clean Energy Bond/Property Assessed Clean Energy (PACE) Program and loan loss reserve to increase user participation.</li> </ul>
FOOD SAFETY	Impending regulations and consumer demands for food safety are driving changes in production, processing and distribution systems.
	<ul style="list-style-type: none"> <li>• Employ technology and develop systems for food safety</li> </ul>
	<ul style="list-style-type: none"> <li>• Train, encourage and assist adoption of food safety practices</li> </ul>
	<ul style="list-style-type: none"> <li>• Educate everyone; Food Safety is the responsibility of all</li> </ul>
	<ul style="list-style-type: none"> <li>• Developing and maintaining quality standards.</li> </ul>
INFRASTRUCTURE	Need to maintain irreplaceable irrigation infrastructure.
LAND	Agricultural land values have risen beyond their value for agricultural purposes. The high cost of agricultural land reflects non-agricultural uses and values rather than the value that may be attributed to land if it were used as a resource for food and fiber production. The growth of agriculture requires the availability of affordable, arable lands in appropriate lot sizes with long term leases and required infrastructure needed for a successful enterprise.
	Must protect and take the development pressure off the best lands. Apart from growing crops, related agricultural land uses include the packing, processing and manufacturing of products, which may be more industrial in character, but are nevertheless agricultural and need to be provided for.
	Siting renewable energy projects in the Islands has been problematic due to lands being locked-up in long-term commitments. There should be established 'Renewable Energy Opportunity Zones' similar to the State Agricultural Parks, which makes land available at reasonable cost with long-term tenure.
	<ul style="list-style-type: none"> <li>• Permanent Ag/Conservation easements; purchase land; IAL</li> </ul>
	<ul style="list-style-type: none"> <li>• Tighten/enforce regulations for illegal uses and fake agricultural subdivisions</li> </ul>
	<ul style="list-style-type: none"> <li>• Live-work-play communities; Rethink planning and design; Stop sprawl</li> </ul>
	<ul style="list-style-type: none"> <li>• Implement County zoning to preserve important agricultural land from urban encroachment.</li> </ul>
MARKETING AND COMPETITIVENESS	Global competition affects both local and export markets
	<ul style="list-style-type: none"> <li>• Promotion for local products, events</li> </ul>
	<ul style="list-style-type: none"> <li>• Remove barriers to export - bring new money into our economy; bigger market with alternatives helps stability</li> </ul>



<b>Attachment F continued</b>	
PUBLIC AWARENESS AND SUPPORT	<p>The majority of people are generations removed from the farm and connection with where their food comes from.</p> <ul style="list-style-type: none"> <li>• Reconnect people with agriculture so they know how to support it.</li> <li>• On-farm experiences and farmers’ markets help to raise awareness</li> <li>• High profile advocates such as chefs</li> </ul>
RESEARCH AND DEVELOPMENT	<p>Continuous improvement of production systems, crops and varieties, post harvest handling and value-added processing are needed.</p>
	<ul style="list-style-type: none"> <li>• Solve problems, create new products, increase efficiency</li> <li>• Feasibility studies, economic analysis, systems development</li> </ul>
TRANSPORTATION AND ENERGY	<p>Transportation and energy costs impact inputs, production, processing and moving products to market.</p>
	<ul style="list-style-type: none"> <li>• Reduce costs – transportation and energy drive up the cost of fertilizers, feeds, supplies, production, processing, post-harvest handling, storage and distribution.</li> <li>• On-farm renewable energy systems</li> </ul>
WATER	<p>Agriculture is dependent on adequate availability of irrigation water reliably delivered at a reasonable rate.</p>
	<ul style="list-style-type: none"> <li>• Repair, maintain, build agricultural irrigation systems (public and private)</li> <li>• Increase storage capacity; capture storm runoff; recycling water</li> <li>• Best management practices for water conservation, efficiency</li> </ul>
WORKFORCE DEVELOPMENT: LABOR, FARM MANAGEMENT, NEW FARMERS, PROFESSIONALS	<p>Cost of labor is a concern. However, people at all levels from farm labor to professionals are needed for the long term growth of agriculture.</p>
	<ul style="list-style-type: none"> <li>• Agricultural education, youth programs, start young – career choice</li> <li>• Workforce development training, internships</li> <li>• Prisoner and transitional training</li> <li>• Agricultural Worker Housing</li> </ul>

**Attachment G**  
**HEDTF TASK 8-9**  
(sections H and J on Page 5)

**NOTE: Work not yet begun - analysis and recommendations to be formulated during 2011.**

**Task 8: Recommending appropriate legislation resulting from its findings to improve, accelerate, and achieve the objective of energy and food security.**

Provide definitions within the Hawai'i Revised Statutes to reflect a common understanding of what is termed "food and energy security."

**Task 9: Reviewing whether: (a.) The apportionment of the environmental response, energy, and food security tax among the funds listed under section 243-3.5, Hawai'i Revised Statutes, is appropriate; (b.) The apportionment should be changed; and (c.) Any additional special, trust, or revolving fund should receive a share of the tax.**

## Attachment H

### Estimated Cost Per Fiscal Year for All Agricultural Development & Food Security Special Fund Projects Organized by Allowable Uses (HRS Ch. 141)

	2012	2013	2014	2015
<b>A. The awarding of grants to farmers for agricultural production or processing activity</b>				
Livestock Feed Reimbursement program (2 yrs)	2,000,000	2,000,000		
Grants to farmers to address pest issues, alternative energy	TBD			
Irrigated pasture	\$370,000	110,000	110,000	110,000
<b>B. The acquisition of real property for agricultural production or processing activity</b>				
Acquire private agriculture lands or ag. easements	1,000,000	1,000,000	1,000,000	1,000,000
<b>C. The improvement of real property, irrigation systems and transportation networks necessary to promote agricultural production or processing activity</b>				
County IAL mapping	200,000	200,000	200,000	200,000
Private irrigation systems serving IAL -matching funds for CIP **	\$4,000,000	4,000,000	4,000,000	4,000,000
Pipe Schofield R-1 wastewater for agriculture use in Kunia	TBD			
Well infrastructure renovation in Ka'u	TBD			
Water tunnel renovations and distribution pipelines on Kaua'i	TBD			
Assist with costs for dam safety certification	TBD			
Fund additional irrigation workers for state irrigation systems	TBD			
Value added facilities, certified kitchens	TBD			
Consolidation and marshalling facilities at the ports	TBD			
Improvements to Kula Vacuum Cooling Plant	TBD			
Subsidize transportation costs	TBD			
<b>D. The purchase of equipment necessary for agricultural production or processing activity</b>				
Establish Mobile slaughterhouse and processing unit	400,000			
Fund Kamuela Vacuum Cooling Plant repairs	TBD			
Funding to renovate aging processing facilities	TBD			
Fumigation chamber for export crops	TBD			
<b>E. The conduct of research on and testing of agricultural products and markets</b>				
New Varieties of Coffee (Appendix B #1)	45,000	45,000	45,000	45,000
Selection of vegetable varieties (App.B #2)	63,000	53,000	49,000	49,000
Coffee flower synchronization (App B #3)	45,000	45,000	45,000	45,000
PBARC Coffee research (Appendix B #4)	105,000	105,000	105,000	105,000
Rust-resistant coffee cultivars (App B #5)	80,000	80,000	80,000	80,000
Coffee processing improvements (App B #6)	30,000	30,000	30,000	30,000
Annual research funding for ag and aquaculture	1,000,000	1,000,000	1,000,000	1,000,000
Improvement of food security and reduction of food safety problems (Appendix B #7)	50,000	100,000	100,000	200,000
Farm level water and produce testing (Appendix B #8)	35,000	65,000	120,000	220,000
Controlling Seasonal Production and Fruit Quality Problems in Pineapple (Appendix B #9)	90,105	89,105	89,105	0
Sustainable Tropical Vegetable Production Systems (Appendix B #10)	106,500	106,500	106,500	0
Taro Acridity (App B #11)	93,100	82,100	82,100	0
Microbial And Pesticide Concerns With Leafy Vegetables (App B #12)	144,500	132,500	132,500	0
<b>F. The funding of agricultural inspector positions within the department of agriculture. (Statutory language should be expanded to include all biosecurity-related positions and activities in HDOA.)</b>				
<b>Funding of PQ and commodities inspector positions</b>	<b>1,018,456</b>	<b>1,018,456</b>	<b>1,018,456</b>	<b>1,018,456</b>
Additional HDOA positions requested by industry	TBD			
<b>Continue Invicta database development</b>	<b>200,000</b>	<b>200,000</b>		
Maui Biosecurity harbor infrastructure improvements	TBD			
<b>G. The promotion and marketing of agricultural products grown or raised in the state</b>				
Developing a Hawai'i Grown Tea Industry (Appendix B #13)	114,504	117,654	122,332	128,350
Hawai'i Coffee Growers Association Trade Shows (Appendix B #14)	40,000	40,000	40,000	40,000
Hawai'i House in Shanghai	50,000	50,000	50,000	50,000
Public education, marketing and promotion	TBD			
Agricultural Education in schools	TBD			
Permanent locations to showcase agriculture	TBD			
<b>H. Any other activity intended to increase agricultural production or processing that may lead to reduced importation of food, fodder, or feed from outside the state.</b>				
<b>Funding of Entomologist positions</b>	<b>255,995</b>	<b>255,995</b>	<b>255,995</b>	<b>255,995</b>
<b>Energy &amp; Food Security Planners **</b>	<b>214,286</b>	<b>214,286</b>	<b>214,286</b>	<b>214,286</b>
New Plant Distribution Center (Appendix B #15)	198,675	200,675	200,675	190,675
Coffee berry borer fumigation station	50,000	0	0	0
Sanitation measures to reduce coffee berry borer (App B #16)	127,000	127,000	127,000	127,000
Hawai'i Master Beef Producers (Appendix B #17)	198,868	198,868	198,868	198,868
Farm Food Safety Coaching(Appendix B #18)	237,568	234,618	236,689	238,780
Workforce Expansion	12,000	12,000	12,000	12,000
State-Level Food Ombudsman	TBD	TBD	TBD	TBD

<b>Total Expenditures</b>	<b>12,574,557</b>	<b>11,912,757</b>	<b>9,770,506</b>	<b>9,558,410</b>
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Note: Priorities for HDOA operations are shown in bold.

Note: \*\* denotes funding from both the Agricultural Development & Food Security and Energy Security special funds.

Note: Appendix B contains any proposals that were submitted. The numbers in parenthesis in the table above indicate the proposal # in Appendix B.

## Attachment I

### Cost Estimates for Projects that may be funded by the Energy Security Special Fund

DESCRIPTION	2011	2012	2013	2014	2015
Energy Program Support	237,334	2,500,000	4,200,000	4,200,000	4,200,000
Grants to Counties	290,000	290,000	290,000	350,000	350,000
Grants to EDBs	300,000	300,000	300,000	400,000	400,000
Task Force	50,000	50,000			
Education		500,000	400,000	200,000	200,000
Energy efficient buildings program		-	100,000	200,000	200,000
Energy project expansion		200,000	500,000	100,000	100,000
Demonstrations/pilot projects for State buildings		300,000	600,000	200,000	250,000
Building Data Collection and Analyses		-	200,000	50,000	50,000
Transportation Energy Diversification		300,000	300,000	100,000	100,000
DOH Online Permitting Project Support	150,000	50,000	50,000	50,000	50,000
Wind Energy Program Support	350,000	200,000	200,000	100,000	100,000
NREL / OP GIS layers for REZ	100,000	-	-	50,000	
DLNR - Permitting	10,757	-	-		
Additional Permitting Support	50,000	-	-		
201-N Facilitator		50,000	50,000	50,000	50,000
Inter-Island Cable	500,000			600,000	600,000
- additional legal services		200,000	200,000		
- additional support from subject matter experts		700,000	700,000		
- community survey		100,000	100,000		
- additional ocean floor surveys		300,000	300,000		
- additional EIS support		200,000	200,000		
Cost Match for Grants & Demonstration Projects	200,000	1,800,000	1,200,000	1,500,000	1,500,000
State Energy Plan - consultant		150,000	50,000		
Estimate Cost of Clean Energy Transformation		100,000	50,000		
Dynamic energy modeling of O`ahu		50,000	100,000		
Dynamic energy modeling of Hawai`i County		50,000	50,000		
Electricity Commercial End-Use Data Survey, HECO		100,000	100,000		
Electricity Commercial End-Use Data Survey, KIUC		50,000	50,000		
Other administrative expenses		41,667	250,000	250,000	250,000
Solar program support				500,000	500,000
Loan loss reserve incremental funding				1,400,000	1,400,000
Workforce development project				100,000	100,000
<b>Total</b>	<b>2,238,091</b>	<b>8,581,667</b>	<b>10,540,000</b>	<b>10,400,000</b>	<b>10,400,000</b>