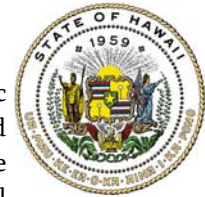


<http://www.hawaii.gov/dbedt/info/energy/efficiency/>



The Strategic Industries Division's (SID) mission is to support statewide economic efficiency, productivity, development and diversification by promoting, attracting, and facilitating Hawaii technology-based industries which engage in the sustainable development of Hawaii's energy, environmental, ocean, recyclable, and technological resources.

The Division also functions as Hawaii's State Energy Office and is responsible for applying for and administering Federal funds received under the U. S. Department of Energy's State Energy Program (SEP), other federal grants, and State funding. The State Energy Program Budget in 2006 was \$1.3 million. Selected programs are highlighted below.

### **Energy for Tomorrow**

Governor Linda Lingle's Energy for Tomorrow program is a comprehensive, integrated program designed to change Hawaii's energy future. The five objectives of the program—savings through efficiency, independence through renewable energy, fuels through farming, security through technology, empowering Hawaii's consumers, and preserving Hawaii's energy security were encapsulated in three progressive energy bills passed by the Hawaii State Legislature in 2006. Key aspects of the legislation include:

- ◆ The **Lead by Example** program for State facilities helps state agencies by providing training, workshops, and technical assistance to assist them with implementing LEED Silver requirements in new construction. A report summarizing the accomplishments of the program will be issued this year. State agencies are also required to purchase **Energy Star** products when cost effective. **Environmentally preferable products**, including those with Energy Star ratings and those with recycled content, are incorporated into the price and vendor lists used by the State Procurement Office..
- ◆ A greater emphasis on **renewable energy** resulted in an increase in the dollar caps for tax credits (now permanent) for solar thermal, photovoltaic, and wind installations. Support is also provided to biofuels projects and to support Hawaii's transition to a renewable hydrogen economy. The Renewable Portfolio Standard, calling for each electric utility to establish a standard of 20% of net electricity sales by 2020, was strengthened.

### **Alternative fuels--Ethanol**

Hawaii's gasoline dealers, obeying a legislative mandate, began statewide sales of E10-unleaded, a fuel blend containing 90% gasoline and 10% ethanol, in April 2006. Computer modeling of before and after situations found emissions reductions. Several private firms are now planning to produce ethanol from Hawaii-grown feed stocks such as sugarcane and cellulosic waste. A statewide alternative fuel standard, to reach 20% by 2020 and biodiesel purchasing preference for state vehicles are also being implemented.

### **Hawaii Energy Strategy (HES)**

The Hawaii Energy Strategy 2007 is a major revision of previous energy plans. The project has updated the ENERGY 2020 model of the Hawaii energy system and projected Hawaii's energy future under three possible scenarios. Strategic pathways and policy options are identified. A Biofuels Summit held in August 2006 was part of this process. Three public stakeholder meetings were held and a fourth meeting will be held in March 2007 to review and comment on a draft final report. The final strategy is expected to be issued later this year.

## **Rebuild Hawaii/Energy Performance Contracting**

The Rebuild Hawaii program, begun under the US Department of Energy (USDOE) Rebuild America Program, has proven an effective delivery platform for multi-agency programs and multi-partnership projects. The Hawaii role model—unique in involving federal, state, local governments, all utilities, the private sector, non-profits, and professional organizations has created an effective project development and information sharing network with more than 250 participants. Since 1997, SEP funds, including Special Projects, for Hawaii's Rebuild program have aggregated \$1.5 million. Rebuild Partners have provided another \$2.2 million in matching and leveraged funds. Overall, for every \$1 of USDOE funds received, Hawaii's Rebuild partners have provided \$1.50. Rebuild Hawaii projects for state and local government facilities, which include energy performance contracts, have an estimated annual energy savings of 47.4 MWH, valued at \$8.4 million. SID is providing technical assistance to the Hawaii Public Housing Authority (HPHA) to implement an energy performance contract for 5,363 federally-supported residential units in 68 projects.

## **Tropical Codes Project/Model Energy Code**

A USDOE Special Projects grant is funding the writing and promulgating of a Tropical Energy Code for Hawaii, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands. A key element of the project will be integrating high efficiency measures with hurricane-related building improvements. The main impact in Hawaii in commercial buildings will increase lighting efficiencies by about 25%. The estimated savings for air-conditioned buildings will be in the 10%-12% range. In the residential sector, the Code's insulation and window requirements are estimated to reduce energy use in air-conditioned homes by 20%-25%.

The SEP personnel budget for the Model Energy Code from inception in 1989 through 2006 was approximately \$685,000. Statewide building construction under the MEC will result in a total energy efficiency investment of \$98.8 million through 2022, or \$144 of energy efficiency investment for every \$1 of SEP funding.

## **Energy Emergency Preparedness (EEP) and Critical Infrastructure Program**

Utilizing SEP funds, SID coordinates Hawaii's statutory EEP functions and is Hawaii's lead organization for management of statewide energy security, including market-related energy disruptions. When Hurricane Katrina hit the Gulf Coast, SID staff provided technical and advisory support to the affected states through NASEO. SID also shared pertinent fuel shortage management plans. The State EEP plan is currently being updated.