



# 2008 Corporate Sustainability Report



**Hawaiian Electric Company**

The background of the image is a dense, misty forest. Large, weathered tree trunks with thick bark stand prominently, their branches reaching out through the fog. The forest floor is covered in a thick layer of green ferns and other tropical foliage. The overall atmosphere is mysterious and damp.

King David Kalakaua sanctioned the first demonstration of electricity in Hawaii on July 21, 1886 on the grounds of the Iolani Palace. Soon after, Hydropower from Nuuanu Valley was pursued to illuminate the streetlights of Honolulu. Over 120 years later, Hawaiian Electric Company, which was chartered by King Kalakaua, strives to make a clean break from imported oil and move toward an energy future powered by indigenous, renewable energy.



## Aloha

Hawaiian Electric Company is pleased to provide our second corporate sustainability report. We created this report to share our new ‘bottom line’ – a commitment to sustainable operations and development – and offer the opportunity to monitor our progress.

Since our first report for 2007, the Hawaiian Electric companies – including our subsidiaries Maui Electric Company and Hawaii Electric Light Company – have become partners with the State of Hawaii in the Hawaii Clean Energy Initiative. This ambitious, far-sighted plan calls for Hawaii to reach 70 percent clean energy for ground transportation and electricity by 2030, clearly setting our state apart as a national leader.

It is early in that effort, but many initiatives are underway to lay the foundation for our goal, including: work at the Public Utilities Commission on initiatives ranging from ways to get more renewable energy on our grids more quickly to a potential new way of calculating electric rates to encourage energy efficiency and distributed generation; and many projects for renewable energy from a variety of clean resources.

But our sustainability efforts don’t stop there. We’re working to “walk the talk” in the way we run our company daily, for example, with increased use of electric and hybrid vehicles. And it’s reflected in our commitment to community partnerships such as with the State Department of Hawaiian Home Lands on sustainable housing that can be a model for home development across the islands.

We invite you to see what our companies have been doing in the last year, and to see how we can work together to achieve our sustainability goals for our state.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard M. Rosenblum".

Richard M. Rosenblum  
President & Chief Executive Officer



Our islands are blessed with an abundance of clean, renewable energy sources such as the sun, the wind, the land, and the ocean. As we increase the electricity we produce from each of these sources, we reduce our dependence on oil. Getting more energy from these local sources also creates jobs, revitalizes the agriculture industry, and keeps more of our hard-earned dollars in Hawaii.

Kaheawa Wind Farm on Maui

# Hawaii's Energy Future

## Clean Energy Agreement

In 2008, the Hawaiian Electric companies reached a landmark energy agreement with the State as part of the Hawaii Clean Energy Initiative (HCEI) to move Hawaii toward getting 70% of its energy for electricity and transportation from clean, renewable sources by 2030.

The agreement covers a wide range of initiatives, including:

- A requirement that 40% of electric power sales come from renewable resources by 2030. This goal, which doubles the former Renewable Portfolio Standard, has been confirmed in a law passed by the 2009 Hawaii State Legislature.
- A commitment to reduce the use of fossil fuels for transportation by becoming an early adopter of plug-in hybrid vehicles and electric vehicles in our utility fleets and helping to promote the hybrid and electric vehicle market.
- Encouraging increased distributed solar electricity production through a Photovoltaic (PV) Host program to make it easier to install PV on Hawaii rooftops.
- An agreement by the Hawaiian Electric companies to conduct comprehensive generation and transmission analyses every three years, taking into consideration: state renewable portfolio standards; federal and state greenhouse gas emissions limits; and impacts to local natural resources, the local economy, and electric utility customers.



L to R: Shai Agassi founder and CEO of Better Place, Governor Linda Lingle, and Robbie Alm, Hawaiian Electric Company's Executive Vice President agree to a plan to encourage the use of electric vehicles on Oahu.

## Smart Meters

After two years of rigorous field testing, Hawaiian Electric Company entered into a 15-year agreement for mass deployment of Advanced Meters which will enable customers to better understand and manage their own energy use. An application for the Advanced Metering Infrastructure Project has been filed with the Public Utilities Commission. Deploying smart meters and developing a smart grid are important steps in achieving the goals of the Hawaii Clean Energy Initiative.

## Green Transportation

Hawaiian Electric signed a Memorandum of Understanding with Better Place Hawaii to collaborate on the infrastructure to power a network of electric vehicle battery swapping stations and charging stations using renewable energy. Maui Electric is also part of the agreement and uses Phoenix Motorcars' electric pick-up trucks in their company's fleet.

Hawaiian Electric and Maui Electric are each testing a Toyota Prius that has been converted to a plug-in hybrid vehicle (PHEV) in an advanced vehicle program of the Idaho National Laboratory. These converted vehicles have a plug for power and larger battery systems to boost the electric drive train. Through this program, Hawaiian Electric hopes to learn and share with the public as much as possible about PHEV and EV technologies.

Hawaiian Electric and Hawaii Electric Light Company each has a hybrid diesel-electric bucket truck in operation, and as Hawaiian Electric adds to its passenger vehicle fleet, it is committed to purchasing only hybrid vehicles. The Hawaiian Electric companies also use B20 or B30 fuel (diesel fuel with 20 or 30 percent biodiesel) in all diesel-fueled trucks and associated refueling stations.



Students get up-close to PV panels on Castle & Cooke's solar farm. Maui Electric Company will purchase renewable energy from the farm to provide electricity to homes and businesses on Lanai.

## Renewable Portfolio Standards

In 2008, Hawaiian Electric companies achieved a consolidated Renewable Portfolio Standard (RPS) of 18%. This is an increase from the 16.1% achieved in 2007 and is primarily the result of demand-side management (DSM) added in 2008.

Barring unforeseen circumstances, the Hawaiian Electric companies will likely meet the 2010 RPS of 10% required by Hawaii law. Achieving higher RPS percentages beyond that however may be challenging. Act 155, passed and signed into law in the 2009 Legislative Session, increases the 2020 RPS target from 20% to 25%; establishes a 40% RPS target for 2030; and creates a separate energy efficiency portfolio standard.

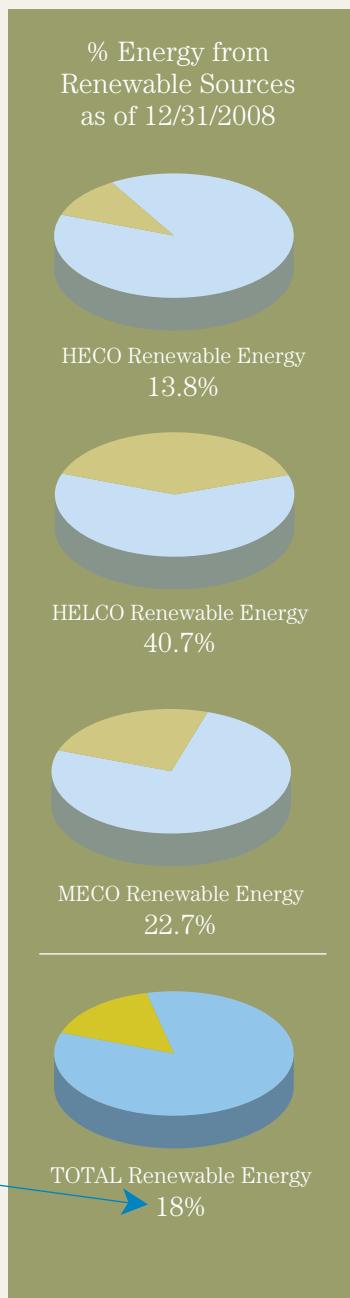
While the Hawaiian Electric companies remain committed to meeting the revised goals, it will take a concerted effort by all stakeholders to achieve the State's renewable energy and energy efficiency portfolio standards. Integrating large amounts of intermittent renewable energy such as wind and solar power needs to be balanced to allow for the delivery of stable, dependable, high quality power on Hawaii's small, isolated island grids. Concerns about the siting of renewable facilities, including wind farms and large-scale solar farms, will need to be addressed.

Federal tax credits, state tax credits, and other incentives will continue to be critical to encourage the development of renewable energy projects. And on the demand side of the meter, customers will benefit from more energy efficiency projects and conservation.

## 2008 Renewable Portfolio Standard Report (in Gigawatt Hours)

	HECO	HELCO	MECO	TOTAL	Percent
<b>Electrical Energy Generated Using Renewable Energy Sources</b>					
Biofuel			1.5	1.5	
Biomass	359		55.1	414.1	
Geothermal		234		234	
Hydro		36	5.9	42	
Photovoltaic Systems				0	
Wind		128	109	237.2	
<b>Subtotal</b>	<b>359</b>	<b>398.5</b>	<b>171.5</b>	<b>929</b>	<b>51.9%</b>
<b>Electrical Energy Savings Using Renewable Displacement Technologies</b>					
Photovoltaic Systems	4	5	2	11	
Solar Water Heating	76	14	27	117	
<b>Subtotal</b>	<b>80</b>	<b>19</b>	<b>29</b>	<b>128</b>	<b>7.2%</b>
<b>Electrical Energy Savings Using Energy Efficiency Technologies</b>					
Pre-2008 Participants	415	44	69	528	
2008 Participants	189	3	12	204	
<b>Subtotal</b>	<b>604</b>	<b>47</b>	<b>81</b>	<b>732</b>	<b>40.9%</b>
<b>TOTAL</b>	<b>1,043</b>	<b>465</b>	<b>282</b>	<b>1,789</b>	<b>100%</b>
<b>TOTAL SALES (GWh)</b>	<b>7,556</b>	<b>1,141</b>	<b>1,239</b>	<b>9,936</b>	
<b>RPS PERCENTAGE</b>	<b>13.8%</b>	<b>40.7%</b>	<b>22.7%</b>	<b>18%</b>	

Year	Mandated % from renewable energy sources	Hawaiian Electric RPS	Exceeds Goal
2010	10%		
2008	8%	18% 	10% 
2007	8%	16.1%	8.1%
2006	8%	13.8%	5.8%
2005	8%	11%	3%



## Demand-Side Management Programs Energy & Environmental Impacts 1996-2008

	HECO	HELCO	MECO	TOTAL
Customer Rebates Paid	\$69,466,009	\$9,594,713	16,448,219	\$95,508,941
Demand Avoided (MW)	177.8	11.5	18.9	208.1
Annual Energy Savings (MWh)	759,732	66,856	114,031	940,619
Annual Barrels of Oil Avoided (kWh/barrel)	1,266,220	111,427	190,051	1,567,699
Annual Emissions Avoided (tons)				
Carbon Dioxide (CO <sub>2</sub> )	696,674	76,350	96,071	869,095
Sulfur Dioxide (SO <sub>2</sub> )	1,519.5	668.6	342.1	2,530
Nitrogen Oxides (NO <sub>x</sub> )	1,139.6	133.7	456.1	1,729
Particulate Matter 10 (PM <sub>10</sub> )	151.9	36.8	39.9	229

## Impact of Demand-Side Management Programs 1996-2008

Demand-side management programs help customers use energy wisely and efficiently. Over the past 12 years, the Hawaiian Electric companies have paid out over \$95 million for energy efficiency projects for businesses and residents, reducing demand by more than 208 MW and avoiding the use of more than 1.5 million barrels of oil each year.

Hawaii ranks 3rd in renewable energy.

U.S. Department of Energy, Energy Information, EIA-906, 2006, excluding hydro-electric power

## Direct Load Control Program

The EnergyScout™ program offers a \$3 monthly electric bill discount to Oahu residential customers and helps Hawaiian Electric to respond to system emergencies. Customers who participate in the program allow the utility to install a switch that remotely turns off equipment such as water heaters and air conditioners for up to a few hours during a power emergency.

Since the program began in 2005, more than 36,000 switches were installed. The result is almost 24 MW when a reduction in demand is needed most, with even greater potential as more customers take advantage of the program. A similar program for businesses garnered 24 MW of potential demand reduction by the end of 2008.



Hawaii's solar water heating rebate program is one of the largest and most successful in the nation. By the end of 2008, the Hawaiian Electric companies paid almost \$36 million in rebates to support the installation of almost 50,000 systems since the utilities' program began in 1996.

## Integrated Resource Plan (IRP)

In 2008, Hawaiian Electric submitted its IRP-4 which proposed a 20-year plan of bold initiatives to transition to a clean energy future while maintaining reliable electric service. The IRP preferred plan called for:

- all new utility-scale generation to be renewable;
- conversion of Hawaiian Electric-owned generating units to co-fire biofuels;
- continuing aggressive demand-side management programs; and
- encouraging significant amounts of customer-sited renewable generation.

As part of the Hawaii Clean Energy Agreement reached in 2008, IRP was replaced with a new Clean Energy Scenario Planning (CESP) process. With PUC approval, the Hawaiian Electric companies will coordinate the timing of the CESP plans for all three companies and develop high-level scenarios that will help to identify future options under various conditions.

On July 1, 2009, the Hawaii Public Utilities Commission transferred responsibility for the energy efficiency programs formerly run by the Hawaiian Electric companies to the new Hawaii Energy Efficiency Program. To learn more, visit [www.HawaiiEnergy.com](http://www.HawaiiEnergy.com) or call 808-537-5577 on Oahu or 1-877-231-8222 toll free from the Neighbor Islands.

Hawaiian Electric will continue to operate and expand the EnergyScout™ load control programs for commercial and residential customers. For details on these programs, call 94-POWER (947-6937) or visit [www.heco.com](http://www.heco.com)

Hawaiian Electric has played a vital role in Hawaii by providing electric services for almost 120 years. Hawaiian Electric Company along with its subsidiaries, Hawaii Electric Light Company and Maui Electric Company, service about 95 percent of the people of Hawaii.



Photovoltaic panels on  
the rooftop of the Kapolei  
Costco on Oahu

# Electricity in Hawaii

## Electricity Production in Hawaii

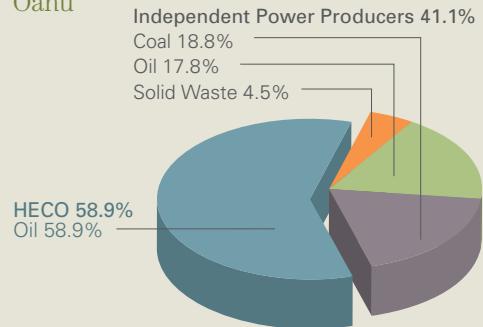
The table below shows electricity produced in Hawaii by company and fuel source. In addition to electricity produced by Hawaiian Electric Company, Hawaii Electric Light Company and Maui Electric Company, other companies known as Independent Power Producers (IPPs) generate electricity and sell it to the utility to be distributed to its customers.

### Electricity Produced in Hawaii by Fuel Source (Gigawatt Hours) as of 12/31/08

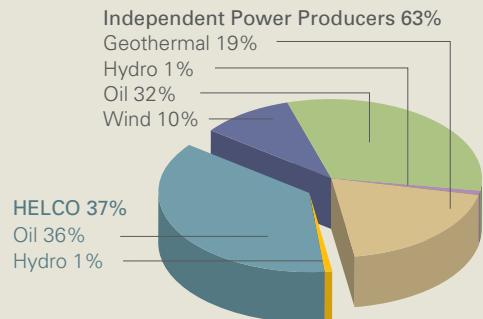
	HECO	HELCO	MECO
Hawaiian Electric Companies			
Biofuel			2
Hydro		18	
Oil	4,684	446	1,112
Wind		0	
Total Internal	4,684	464	1,114
	59%	37%	85%
HECO/HELCO/MECO Consolidated Total			60%
Independent Power Producers			
Biomass			54
Coal	1,496		30
Geothermal		234	
Hydro		18	6
Oil	1,412	400	1
Solid Waste	359		2
Wind		128	109
Total IPP	3,266	781	201
	41%	63%	15%
IPP Consolidated Total			40%

### Electricity by Fuel Source as of 12/31/08

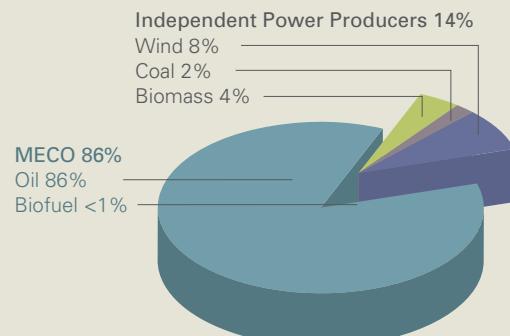
#### Oahu



#### Hawaii Island



#### Maui County

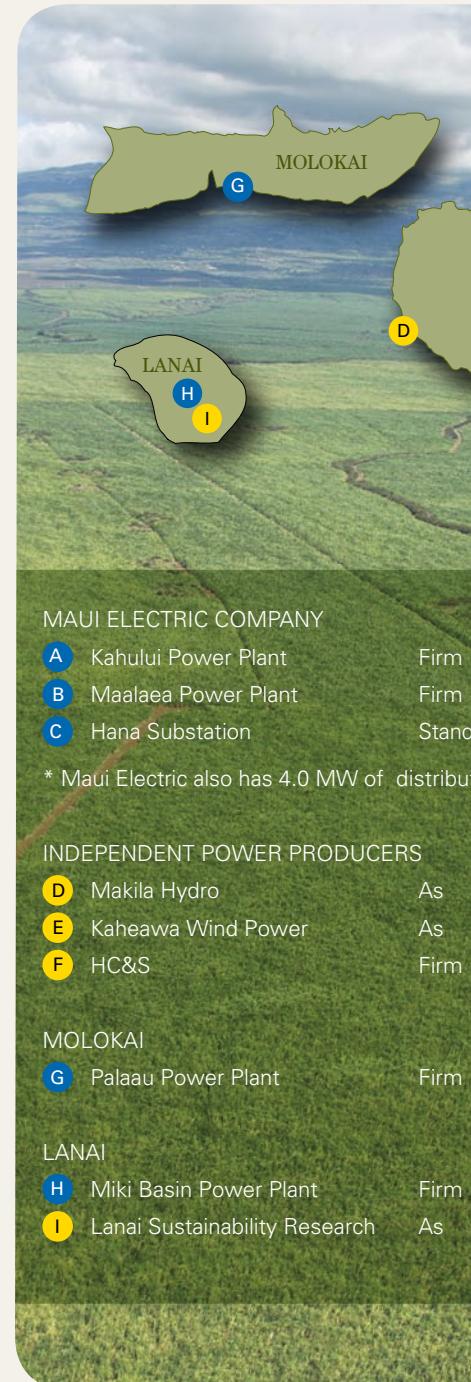
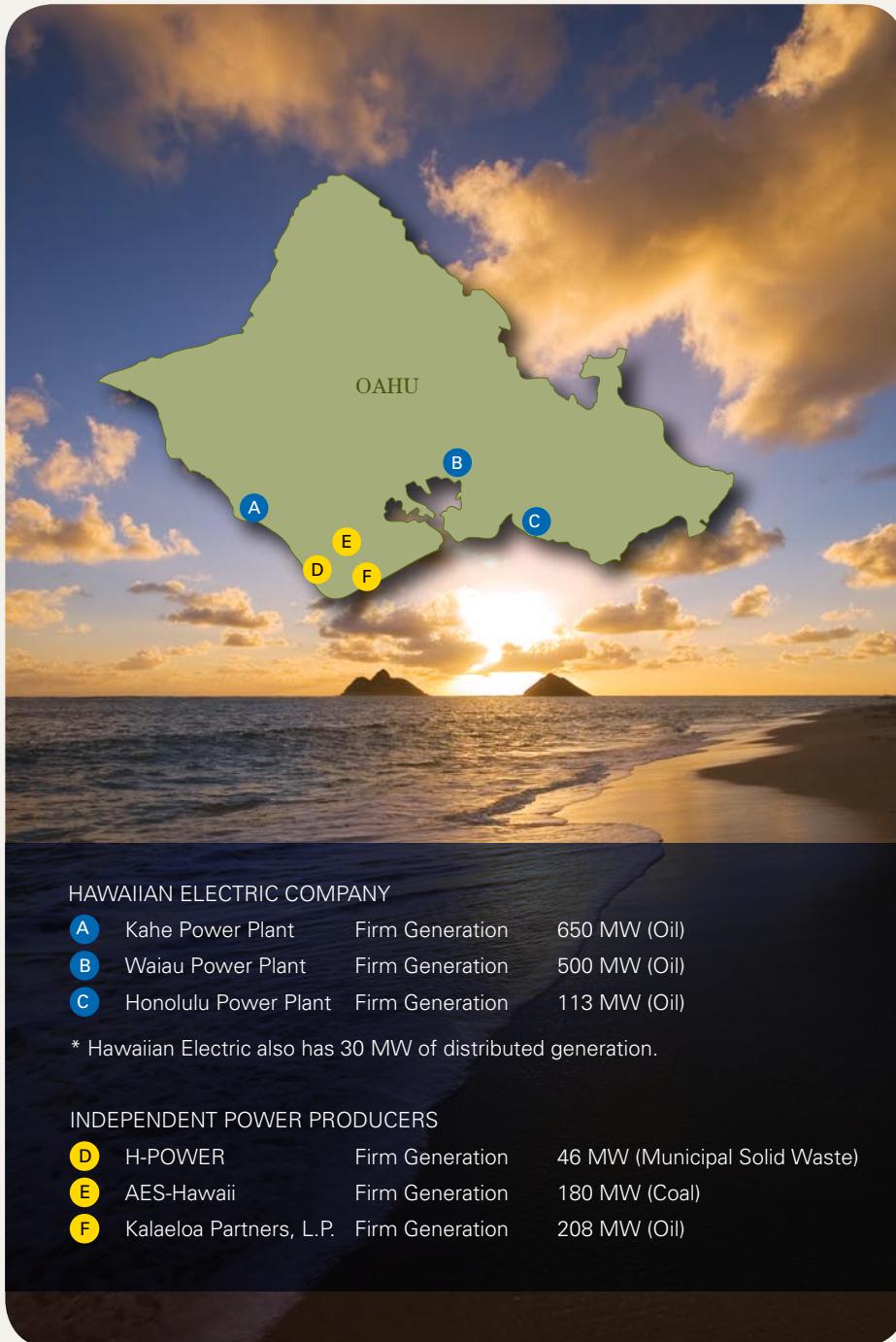


## Electricity Generation in Hawaii, as of 12/31/08

● Hawaiian Electric Company, Maui Electric Company, Hawaii Electric Light Company

● Yellow Independent Power Producer

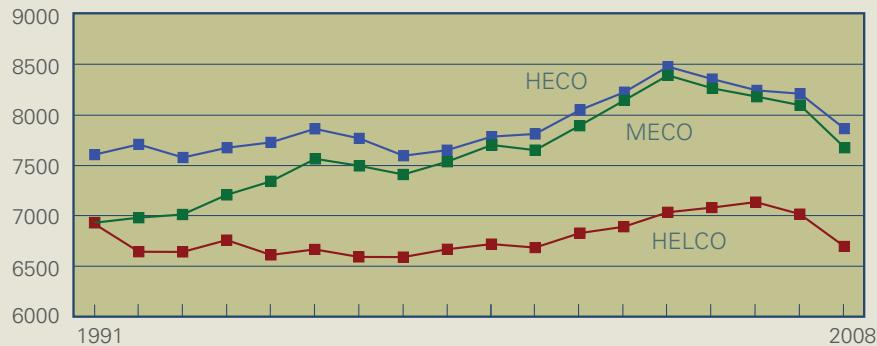
\*Distributed generation - small power generators at utility sites across the community



**Firm Generation** – electricity from a source that is available and reliable on demand, whenever needed.  
**As Available Generation** – electricity from a source that is not accessible all the time. Renewable energy sources such as solar and wind are good examples of “as available” power since they only provide electricity when the sun shines or the wind blows.



### Average Annual kWh Use Per Residential Customer



### Energy Use in Hawaii

Since 2003, the average annual use of electricity by residential customers has steadily declined, due to a variety of factors, such as the weather, electricity prices, and increased energy conservation and efficiency efforts.

Out of 50 states, Hawaii ranks 47th in per capita electricity use and 42nd for per capita total energy consumption.

### Total Energy Consumption Per Capita

Rank	State	Million Btu
1	Alaska	1112.2
2	Wyoming	937.9
3	Louisiana	896.1
4	North Dakota	644.1
5	Texas	501.7
6	Kentucky	468.7
7	Alabama	466.3
8	West Virginia	458.5
9	Indiana	454.1
10	Montana	453.2
42	Hawaii	259.8

Source: Energy Information Administration, State Energy Data 2006

## Customer Education

### POWER TO SAVE

In response to 2008's skyrocketing electricity prices, Hawaiian Electric increased its efforts to assist customers in managing their electric bills by consolidating practical energy conservation recommendations into compact, handy guides – Power to Save and 101 Ways to Save. These complimentary publications are available in print for customers and can also be downloaded at [www.heco.com](http://www.heco.com).



### Energy Awareness Month

Hawaiian Electric Company celebrates National Energy Awareness Month every October with a family-friendly festival to encourage customers to 'live energy lite,' or to conserve electricity and use energy wisely.

**Home Energy Challenge**  
  
Mililani Mauka Elementary School  
received \$10,000

for their students' efforts to reduce their home energy use in Hawaiian Electric's inaugural 2007-2008 Home Energy Challenge. More than 1,100 families from 13 elementary schools across Oahu participated. Combined, all participants conserved over 178,000 kilowatt-hours and saved almost \$46,000 on home electricity bills. Applications for the Home Energy Challenge are sent to Oahu public elementary schools each summer. Interested schools may also log on to [www.heco.com](http://www.heco.com) for more information.





At Hawaiian Electric, we remain committed to taking direct action to mitigate the contributions to global warming from electricity production. Such action has and will continue to include promoting aggressive energy conservation and transitioning to clean, efficient and eco-effective energy production in all markets that we serve.

- Excerpt from Hawaiian Electric Company's Position on Global Warming, January 2007

# Greenhouse Gases and Global Warming

## The Greenhouse Gas Effect

The “greenhouse effect” is the heating of the earth due to the presence of greenhouse gases (GHG). It is named this because of a similar effect produced by the glass panes of a greenhouse. Many chemical compounds found in the earth’s atmosphere act as a greenhouse gas. When sunlight strikes the earth’s surface, some of it is reflected back towards space as infrared radiation (heat). GHGs absorb this heat and trap it. GHGs

naturally blanket the earth, keeping it warmer than if these gases were not in the atmosphere.

Some GHGs such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other GHGs, such as aerosols, are created and emitted only through human activities.

Below is a listing of principal greenhouse gases and their sources.

Greenhouse Gas and Symbol	Common Sources
Carbon Dioxide $\text{CO}_2$	Burning of fossil fuels (oil, natural gas and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g. manufacture of cement). Can be removed from the atmosphere (or sequestered) when absorbed by plants as part of the biological carbon cycle.
Methane $\text{CH}_4$	Production and transport of coal, natural gas and oil. Livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
Nitrous Oxide $\text{N}_2\text{O}$	Agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
Chlorofluorocarbons, Hydrofluorocarbons, Perfluorocarbons and Sulfur Hexaflouride CFCs 11 and 12, HFCs, PFCs and $\text{SF}_6$	A variety of industrial processes as well as refrigeration, air conditioning, aerosols, foam blowing, solvents.
Ozone and other trace gases $\text{O}_3$	Photochemical processes, cars, power plants, solvents.

Hawaii's Greenhouse Gas Emissions Reduction Law of 2007, Act 234, aims to cost-effectively reduce greenhouse gas (GHG) emissions to or below the State's 1990 GHG emissions by January 1, 2020. In 2008, in response to the requirements of the law, the state Department of Business and Economic Development and Tourism (DBEDT) hired ICF International, a consulting firm based in Virginia, to update the Inventory of Hawaii's Greenhouse Gas Emissions for 1990.

Using this data, DBEDT, along with the other members of the Hawaii Greenhouse Gas Task Force, is creating a work plan and regulatory scheme for the State to reduce its emissions.

As the federal government works to regulate greenhouse gas emissions across the country, Hawaii's unique energy use and emissions profile should be considered:

- Hawaii is not able to transfer electricity between islands, much less between states or regions
- Hawaii has been largely dependent on imported oil, using relatively little coal and no natural gas for electricity production
- Hawaii has short commuting distances and mild weather
- Hawaii is economically dependent on tourism and the military – major users of energy
- Hawaii has little or no “heavy” manufacturing
- Hawaii has a very fragile ecosystem
- Hawaii has a greater need to address early adaption measures like sea level rise than other states



- Carbon offset projects would be more expensive in Hawaii than elsewhere but might provide most benefits outside the state
- A federal carbon cap auction system would likely increase the flow of money out of Hawaii

On a per person per day basis... visitors account for higher petroleum demand than residents by a factor of 4.5. On a per capita per annum basis, visitors generate 4.4 times more carbon dioxide, 6.5 times more methane and 5.4 times more nitrous oxide.

University of Hawaii Economic Research Organization 2008

## Hawaii Greenhouse Gas Inventory (MMTCO<sub>2</sub>Eq)

MMTCO<sub>2</sub>Eq = million metric tons of carbon dioxide equivalents

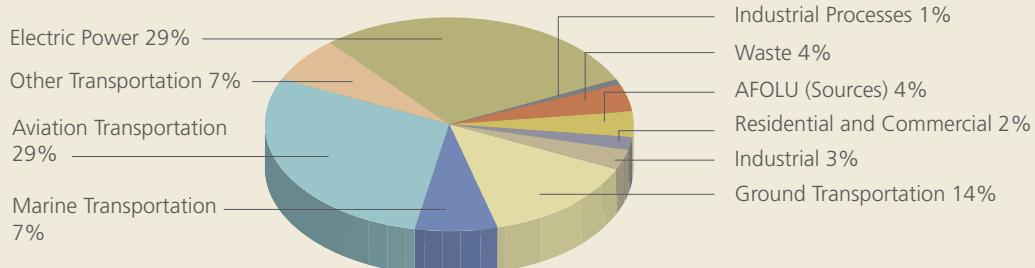
SECTOR/SOURCE	1990	2007	% Change 1990-2007
Residential and Commercial Energy	0.41	0.31	-32%
Industrial Energy	0.70	0.18	-289%
Ground transportation	3.23	4.47	28%
Marine transportation	1.65	2.16	24%
Aviation transportation	6.80	4.83	-41%
Other transportation	1.53	1.13	-35%
Electric Power*	6.79	8.76	22%
Industrial Processes	0.18	0.54	67%
Waste	0.85	1.07	21%
AFOLU (Sources)	0.98	0.83	-18%
TOTAL Emissions (Excluding Sinks)	23.13	24.27	5%

\*Includes emissions by Hawaiian Electric Company and Independent Power Producers such as AES Hawaii and HPOWER.

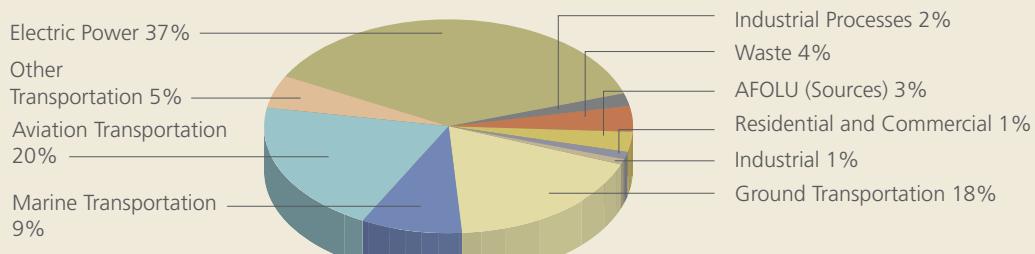
Source: ICF International, December 31, 2008

### Hawaii Greenhouse Gas Emissions by Sector

1990



2007



**Sustainability means to:**

- Respect the culture, character, beauty and history of our state's island communities;
- Balance economic, social and community, and environmental priorities; and
- Meet the needs of the present without compromising the ability of future generations to meet their own needs.



Photo courtesy of Castle & Cooke Hawaii, developer of the La Ola Solar Farm on Lanai.

# Stewardship

## Compact Fluorescent Light (CFL) recycling

In 2008, Hawaiian Electric distributed over 1,000 Consumer CFL Recycling Kits to Oahu customers to pack and mail used CFL bulbs through the US Postal Service to a U.S. mainland recycler.

Since then, Home Depot, as part of the retailers' nationwide CFL recycling program, began accepting expired, unbroken CFLs at select locations. For more information on recycling and handling CFLs, visit [hawaiisenergyfuture.com](http://hawaiisenergyfuture.com).



## Grow Hawaiian Festival

In April 2008, Hawaiian Electric Company celebrated Earth Day by sponsoring the first Grow Hawaiian Festival at Bishop Museum. At this family-friendly event, Hawaiian Electric employees volunteered to share the important message of preserving Hawaii's unique environment through renewable energy, energy conservation and efficiency, and sustainability. Organizations such as Malama Learning Center and Ka`ala Farm participated with displays on food security and native forest restoration.

## Arbor Day

Every year, in honor of Arbor Day in Hawaii, the Hawaiian Electric companies give away thousands of trees on Maui, Hawaii island, and Oahu to educate the public on the value and proper care of trees. The popular giveaway is a partnership with many other organizations including Kaulunani Urban & Community Forestry Program and the Oahu Urban Garden Center.

## Environmental Monitoring

In 2008, quarterly monitoring documented baseline fish population in the waters off Campbell Industrial Park, Ko Olina, Kahe and parts of Nanakuli. A copy of the 2008 fish monitoring report is available at [www.heco.com](http://www.heco.com).

Three new air quality monitoring stations are also operating in Waianae, Nanakuli and at Camp Timberline. Current, real-time data from these stations is available to the public at [www.westoahuair.com](http://www.westoahuair.com).

## Reducing Water Use

In 2008, Hawaiian Electric broke ground for a four-mile pipeline to transport reclaimed reverse osmosis water to Kahe Power Plant, allowing Hawaiian Electric to conserve precious water for the Leeward Coast and reduce its potable water consumption by approximately 140,000 gallons daily or about 93 percent of its industrial usage.

# Dedication to the Community



Nanaikapono Elementary School received a handcrafted koa ukulele and ten keiki ukulele as a donation from Hawaiian Electric to support their Hawaiian culture programs.

## Bill Payment Assistance

The state's Low Income Home Energy Assistance Program (LIHEAP) accepts applications during the month of June for a one-time credit on electric bills for households with incomes and assets below a certain level. To find out about qualification criteria, contact your nearest Honolulu Community Action Program office.

## Energy Conservation Program

In 2008, Hawaiian Electric provided free energy-efficient equipment to qualified low-income residential customers. Administered by the Honolulu Community Action Program, the program was designed to help families who would benefit most by reducing energy usage and lowering utility bills.

Equipment included compact fluorescent light (CFL) bulbs, faucet aerators, low-flow showerheads, and water heater temperature set-backs. Hawaiian Electric's residential low-income program was available for up to 2,000 qualified households.

## Charitable Giving and Matching Grants Program

Through our charitable foundation, along with individual company support, Hawaiian Electric Company and its subsidiaries (Maui Electric Company and Hawaii Electric Light Company) provided monetary and in-kind donations to over 200 organizations. Through a matching grants program, our employees provided support to an additional 90 organizations.





## Hawaiian Electric Company

[www.heco.com](http://www.heco.com)

### Environmental Benefits Statement

This report is printed on 100 percent postconsumer waste material. It is Forest Stewardship Council™ certified, processed chlorine free, alkaline pH, and meets the credibility of American National Standards Institute (ANSI) for longevity.

By using this paper, Hawaiian Electric Company saved the following resources:

Trees	Water	Energy	Solid Waste	Greenhouse Gases
23 fully grown*	8,310 gallons	16 million BTU	1,375 pounds	2,535 pounds

The savings are based on a quantity of 3000 reports.

Environmental impact estimates were made using the Environmental Defense Paper calculator.

For more information, visit <http://www.papercalculator.org>.

\* Fully matured at 25 years.



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