

Hawaii Green Business Program

Gail Suzuki-Jones

Energy Analyst

WSPPN – GBENN Webinar

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The Hawai'i Clean Energy Initiative is leading the way in relieving our dependence on oil by setting goals and a roadmap -

To achieve 70% clean energy by 2030

30% from efficiency measures, and 40% from locally generated renewable sources.



http://www.capitol.hawaii.gov/hrscurrent/Vol03_Ch0121-0200D/HRS0196/HRS_0196-0010_0005.htm



Hawai'i Clean Energy Initiative




More independent and less reliant on fossil fuel and other economies.

Achieve greater energy security.

Help Hawai'i become more economically stable by keeping an estimated \$6 billion in state, that would otherwise go toward foreign oil investments.

Establish a new, green economic sector will help to balance our reliance on tourism and the military.

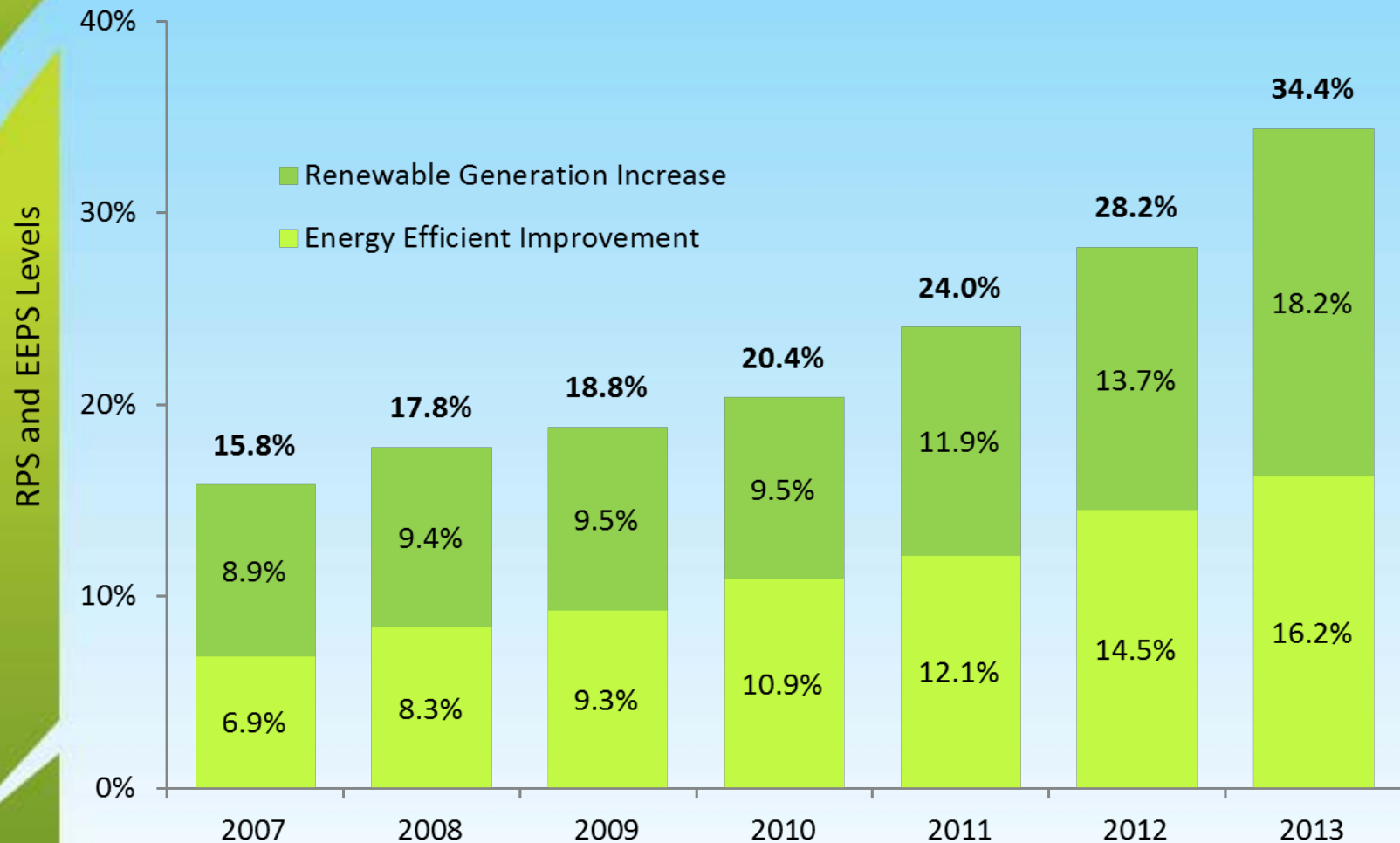
Position Hawai'i as a worldwide leader in the clean energy arena and attract more business and expertise to the region.



40% RENEWABLE
+ 30% EFFICIENCY

= 70% CLEAN ENERGY

Renewable Energy & Energy Efficiency Portfolio Standards - 2007-2013



Sidney & Minnie Kosasa
Barry & Virginia Weinman
Honeywell International Inc.

Cancer Centre
Estate of
Anneliese Le
General Atla
Corporation
Henry H. & Co
Wong Founda
American Rea
Association
The Kirk A. &
Landon Foun
Victoria S. an
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Hawaii Green Business Program

QUESTIONS:

- How did the Hawaii Green Business program start up?
- What is does the program require?
- Who are the champions, mentors and interns?
- When to partner with public and private sector?
- How to expand via training & outreach?



Hawaii Green Business Program

State of Hawaii – DOH and DBEDT



2000-2001 - DOH P2 Coordinator – Attended WRPPN Conf.

Introduced to the Bay Area Green Business Program and Checklist – Reviewed and Revised to apply to Hawaii



Early 2000 - Researched San Francisco and other local government Programs and Checklists



2002 – First Hawaii Green Business Award Ceremony

Mid 2000 – Expanded from Hotel/Resort to Office/Retail to Restaurant/Food Service and Government Sectors



Hawaii Green Business Program



What – Program that recognizes businesses that go beyond compliance to green their facilities, O&M, and events

Why – Receive TA , realize savings, and promotion for efforts +
For hotels and resorts, we send travel advisory groups our lists

Where – <http://energy.hawaii.gov/green-business-program>

How – Complete checklist / site visit / and agree to mentor

When – Recognition Ceremony – July 11, 2014

Who – Partners – DBEDT, DOH, BWS, & Chamber of Commerce.



Hawai'i Green Business Hotel & Resort Recognition



Annual Press/Media Event Recognition Ceremony at the Governor's Office

Expanded Program from Hotels and Resorts, to Office/Retail and Restaurant/Food Service

Lead by Example – Green Government Checklist

Green Events Checklist

List with Case studies and Map online

Recognized over a dozen businesses and over 10 events this Summer

Launching a new checklist for Grocery Stores/ Supermarkets

New awards from reclaimed kamani wood from UHM by www.foundwood.com

Hawaii Green Businesses Hotels and Resorts



Oahu Hotels

Aqua Aloha Surf Waikiki Hotel
Aqua Bamboo Hotel
Hale Koa Hotel
Hawaii Prince Hotel Waikiki
Hilton Hawaiian Village
Holiday Inn Waikiki Beachcomber
Hyatt Regency Waikiki
JW Marriott Ihilani, Ko Olina
Kahala Hotel & Resort
Ko Olina Marriott Beach Club
Moana Surfrider
Sheraton Princess Kaiulani
Sheraton Waikiki
Turtle Bay Resort
Waikiki Beach Marriott
Wyndham at Waikiki Beach Walk

Maui Hotels

Fairmont Kea Lani
Grand Wailea Resort
Hyatt Regency Maui Resort & Spa
Marriott Maui Ocean Club
Maui Prince Hotel
Ritz-Carlton Kapalua
Wailea Beach Marriott Resort & Spa
Westin Kaanapali Ocean Resort Villas

Kauai Hotels

Grand Hyatt Kauai Resort & Spa
Kilauea Lakeside Estate
Marriott Waiohai Beach Club
Sheraton Kauai Resort

Big Island

Hilton Waikoloa Village
Mauna Lani Bay Hotel & Bungalows





2013-2014 Hawaii Green Business Awardees



Aqua Bamboo Waikiki
Aqua Kauai Beach Resort
Grand Hyatt Kauai
Hawaii Island Retreat
Marriott's Maui Ocean Club
Outrigger Reef on the Beach
The Equus Hotel
The Ritz-Carlton, Kapalua
Wyndham at Waikiki Beach Walk

Blue Hawaii Lifestyle at Ala Moana
Honeywell Smart Grid Solutions
Monkeypod Kitchen at Ko'olina
The Limtiaco Consulting Group





AQUA
Bamboo
WAIKIKI

Energy Management and in-room keycard system and gas hot water heater monitoring and control system to save energy;

Reducing electricity use by 24,428 kWh and lowering gas use by 660 therms from 2012 to 2013 saving the hotel roughly \$22,000;

Green team serves as a sustainability information hub for guests and associates; and

All of the environmentally related measures implemented at the hotel have helped to **simultaneously lower the property's operational costs and its ecological impacts.**





- **Retrofit of 919 fixtures from CFL to LED** in all hotel floor corridors and installation of an INNCOM system which adds comfort and control to each guest room's temperature and humidity;
- An option to shift to an energy-conserving mode while guests are not in the room. The hotel also installed an OTIS compass system in all elevators;
- Established **partnership with a local nonprofit family service agency Parents and Children Together (P.A.C.T.), through Reynolds Recycling to recycle bottles and cans, then donate a portion of the proceed to P.A.C.T.**



Hawaii Green Business Program – Green Hotel and Resort

Remodel

- Glass flower planters with drought tolerant plants
- Move towards farm to table
- Increased natural lighting

Lighting

- 6,000 LED bulbs

Reuse and Recycling

- Old furniture sold to employees at reduced rates
- Recycling a source of income for housekeepers
- In room recycling bins

Cultural Awareness

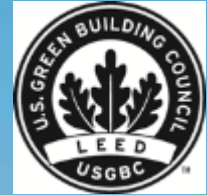
- Full time cultural ambassador
- Aloha Friday presentations

Green Banquets

- No bottles of water
- No notepad for each person
- Reusable ware



LEED Certified New Hotels/Resorts and Others EB O+M in Hawaii



New Construction Projects – LEED Certified

Disney's Aulani at Ko Olina – Oahu

Andaz Wailea – Maui

Existing Buildings – Operations and Maintenance – In progress

Moana Surfrider – Oahu

Others – Maui Marriott Ocean Club and Hyatt Maui

USGBC and LEED in Hawaii



LEED CERTIFIED
RESIDENTIAL UNITS

246



MEMBER
ORGANIZATIONS

87



LEED CERTIFIED K-12 AND
HIGHER ED PROJECTS

20



STATE RANK: TOTAL LEED
COMMERCIAL BLDGS.

32nd



LEED CERTIFIED
COMMERCIAL BLDGS.

80



LEED CERTIFIED
SQUARE FEET

3 MILLION



LEED
PROFESSIONALS

1,192



USGBC CHAPTER
VOLUNTEERS

431





Green Business Program: Step-by-Step

1. Contact Us.

The first step is to contact us.

2. Complete Entire Checklist.

Applicants must implement measures within this application which apply to their business.

3. Site Visit and Verification.



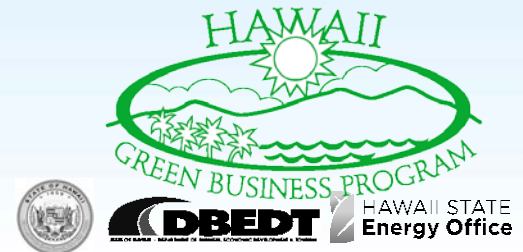
Green Business Program: Process

4. Recognition.

After the first three steps are complete, applicants will be eligible for recognition. Annual Ceremony in the Governor's Office.

5. Maintaining Recognition.

Improving the efficiency of your facility, helping improve the environment, employee morale, and conserving our resources.



Green Interns - 2011-2012

This project contributes to the State's Hawai'i Clean Energy Initiative (HCEI) goal of achieving 70% clean energy by 2030.

The Hawaii Green Business Program (HGBP) has met its goal of reducing water use by 3,400,000 gallons and is working on accomplishing its energy goals and certifying 81 businesses as Hawai'i Green Businesses.

As a result of the combined efforts of HGBP staff and interns the following reductions in water, energy, and GHG emissions have been achieved:

3,858,141 kWh saved

10,772,337 gallons of water saved

2,904.69 tons of GHG emissions averted



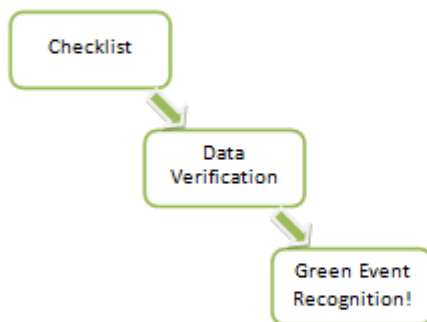
Pollution Prevention Green Interns



Hawaii Green Events



Hawai'i Green Events Checklist



DBEDT
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM



II. Energy & Water Efficiency	Yes	No
1. Use naturally lighted/natural ventilation meeting space or space that uses CFL or LED lighting		
2. There is signage to encourage staff and guests to turn off lights and electrical equipment when not in use and/or signage for water conservation in restrooms		
3. Event is hosted in an Energy Star, HESF, or LEED certified building		
4. Review past event energy usage and waste generation to establish baseline. Devise ways to improve upon the baseline and track your results of the current event		
5. Plan your event properly (looking at numbers, duration, size of venue and number of rooms required) then select the right venue to fit, so you use minimum energy and resources		
6. Work with the venue to ensure lights and air conditioning are switched off when not in use		
7. Venue site has occupancy sensors installed		
8. A renewable energy source is used to power part of event (e.g. solar panels on building)		
9. Venue site has green roof/green wall/drought tolerant plants		
10. Facility has low flow fixtures (faucets, toilets, etc.)		
11. Equipment used is Energy Star, EPEAT, WaterSense, etc. certified		

III. Catering	Yes	No
1. Water is provided upon request or in pitchers and/or large dispensers		
2. Donate excess food waste for animal food or composting		
3. Donate excess food to a charitable organization		
4. Vegetarian and vegan options are provided		
5. Attendance is tracked and type (e.g. vegetarian) and amount of food is tailored according to final numbers		
6. Information is provided on the sustainable qualities of the food		
7. Serve buffet style meals instead of boxed lunches		
8. Serve finger foods that are not individually wrapped and do not require utensils		
9. The caterer has a Green Policy (see resource page for example)		
10. Select fish from certified sustainable fishing methods (see resource page for more info)		
11. Food is purchased from local and/or organic vendors _____%		
12. Have your food & beverage service provider use bulk dispensers for sugar, salt, pepper, cream and other condiments		
13. Ensure food and beverage packaging is recyclable and that it will be recycled		
14. House of surplus food from own supply or from organizations like Aloha Harvest or Food Bank		
15. Use organic food from own garden or farm		

Please provide product names here or give examples of other noteworthy accomplishments:

E.g. - What charitable organization did you donate excess food to?



DBEDT
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

HAWAII STATE
Energy Office

Green Events Checklist

•Increase Alternate Transportation

- EV/Fuel Efficient Vehicle
- Carpool
- Bicycle
- Bus

There were 320,105 meeting and convention goers that flew into Hawaii in 2012 according to the Hawaii Tourism Authority

<http://www.hawaiitourismauthority.org/research/reports/annual-visitor-research/>

•Decrease Waste

- Recycle
- Donations
- Reuse

A 2006 study of 25 different venues and events in California reported that 2.44 pounds of waste on average is generated per visitor, per day.

(Link to Report: <http://www.calrecycle.ca.gov/publications/Documents/Disposal%5C34106006.pdf>)



Recent Events

Travel2Change



TEDx Salon #4



Hawaii Build & Buy Green 2013



BBG Conf. and Expo Results 2013 vs. 2012

2013

Type of Vehicle	Respondents
Single Occupant Vehicle	34
Bicycle	4
Bus	5
Low Emissions Vehicle	7
Moped/Motorcycle	3
Carpool	19
Walk/Run/Jog	7
Total Alternate	45
Total Responses	79
Response Rate	41%
Total Alternate Rate Observed	57%

Type of Waste	Weight in lbs.
Cardboard	16.8
White Paper	48.3
Bottles & Cans	7.5
Standard Trash	119.5
Total Weight	192.1
Weight per person	1.0
Diverted Weight	72.6
Diversion %	38%

2012

Type of Vehicle	Respondents
Single Occupant Vehicle	36
Bicycle	2
Bus	10
Low Emissions Vehicle	11
Moped/Motorcycle	4
Carpool	22
Walk/Run/Jog	5
Total Alternate	54
Total Responses	90
Response Rate	28%
Total Alternate Rate	60%

Type of Waste	Weight (lbs)
Cardboard	28.6
White Paper	34.7
Bottles & Cans	3.1
Standard Trash	357
Total Weight	423.4
Weight per person	1.3
Diverted Weight	66.4
Diversion %	16%



Industry-wide accepted certifications:

ENERGY STAR – a joint program between the US EPA & DOE to certify products and buildings that are EE have relatively low energy consumption.



WaterSense - sponsored by the EPA to help consumers identify water efficient products and programs.



Green Seal – takes a life cycle assessment approach to certify products that are of little or no impact to human health and the environment



Top 10 Ways to Save

- **Energy Conservation**

- Replace interior incandescent lamps w/CFLs or LEDs
- Purchase ENERGY STAR equipment and products
- Benchmark using ENERGY STAR Portfolio Manager



- **Water Conservation**

- Install 'High Efficiency' aerators and fixtures
- Offer linen & towel reuse option for guests
- Use energy & water efficient washers



- **Solid Waste Reduction & Recycling**

- Purchase 50% to 100% RC tissues & toilet paper
- Recycle paper, cardboard, metal, glass, plastic
- Provide recycling containers



- **Pollution Prevention**

- Use green cleaning products and hard surface finish material / furniture



What are Certified Products?

Certified products are products that have been verified by an **independent third party** to meet established environmental standards. The following are the ones **most commonly used in association with green cleaning**:



www.greenseal.org - www.ecologo.org - www.epa.gov/dfe - www.greenguard.org

Training and Outreach



- Webinars – WSPPN 2014 and 2014 Green Leaders Programs and promote ENERGY STAR and Water Sense
- Forums – Green Hotel Forum & HLTA Engineers Council and Hotels and Presentations at IEHA and TMC
- Conferences and Expos – Build and Buy Green and Pacific Building Trade Expo – Co-sponsor with USGBC Hawaii, AIA, CSI, BIA, GCA, ULI, and others

Partners:

State of Hawaii, C&C of Honolulu – DOH/DBEDT, BWS, C&C Recycling and Chamber of Commerce of Hawaii, and BOMA
Others - Building, Design and Engineering, Development +



UH Cancer Center LEED Gold Facility – 2014 Build & Buy Green Conf.



2014 BBG PROGRAM

Time	Agenda	Speaker	Organization
7:45 - 8:15 AM	Registration and Continental Breakfast UH Cancer Center - Sullivan Conf. Center		
	Welcome	Jason Selley	USGBC Hawaii
8:15 AM	Keynote: Getting to Net Zero	Ralph Di Nola	<i>New Buildings Institute</i>
9:15 AM	Case Study Projects - Opportunities and Challenges		
	LEED ND in Kakaako	Katrina Morgan	<i>Fermata Consulting</i>
	UH Cancer Center	Kevin Luoma	<i>WSP Hawaii</i>
	Ka Hei	Brian Kealoha	<i>Chevron Energy Solution</i>
10:15 AM	Break - 15 mins		
10:30 AM	Living Futures - The Net Positive Impact Program & Projects		
	Cultural Planning for Ward Village	Malia Kaaihue	<i>OHA</i>
	Obama Presidential Center	Robert Perkinson	<i>UHM American Studies</i>
	UH Living Bldg. Challenge Projects	Martin Despang	<i>UHM Architecture</i>
	ILFI - Net Positive - Bullitt Center	Katrina Morgan	<i>Fermata Consulting</i>
11:30 AM	"There's An App For That"		
	People Power	Gene Wang	<i>People Power</i>
	Civic Tech	Alex Bergo	<i>Livesift.com</i>
	Mapping	Royce Jones	<i>Esri</i>
12:30 - 1:30 PM	Lunch		
1:30 - 2:30 PM	Shared Spaces and Programs		
	BoxJelly	Rechung Fujihira	<i>BoxJelly</i>
	Kaka`ako Agora	Wei Fang	<i>Interisland Terminal</i>
	Impact HUB	Shanah Trevenna	<i>Impact HUB</i>
	Multi-Modal Transportation Options	Asia Yeary	<i>US EPA Region IX</i>
2:30 - 3:30 PM	Sharing Case Studies in Green Building		
	Architecture for Humanity	Mike Hill & Russel Wozniak	<i>UHM School of Architecture</i>
	LEED Community Projects	Karen Shishido	<i>Trinity Management Group</i>
	Existing Building LEED O+M Project	Greg Wong & Ryan Rutenschroe	<i>USGBC Hawaii Chapter</i>
	Tally App	Yoshi Honda	<i>US CAD</i>
	Break		
3:30 - 4:30 PM	USGBC HI Community Mission - Crowd Sourcing Installations		

Hawaii Green Business Green Hotel Forum



Thursday, September 18, 2014

from 8:30 - 11:30 am

*Co-sponsored by Hawai'i Hotel &
Lodging Assn's Engineers Council
& Hawaii Green Business Program*

Hosted @ the Outrigger Reef on
the Beach in Waikiki, Oahu

w/ Hawaii Energy and the
Food Recovery Challenge

Presenters-Recent awardees:

- Aqua Bamboo Waikiki
- Outrigger Reef on the Beach
- The Equus Hotel
- Wyndham Waikiki Beach Walk
- Monkeypod Kitchen Ko Olina
- Aqua Kauai Beach Resort
- Grand Hyatt Kauai
- Hawaii Island Retreat
- Marriott's Maui Ocean Club
- Ritz-Carlton, Kapalua
- Hawaii Island Retreat



Mahalo



Gail Suzuki-Jones

808-587-3802

gsuzuki@dbedt.hawaii.gov



energy.hawaii.gov



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