

# Hawaii Green Business Program

**Gail Suzuki-Jones**

Energy Analyst

WSPPN – GBENN Webinar

September 10, 2014









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](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.

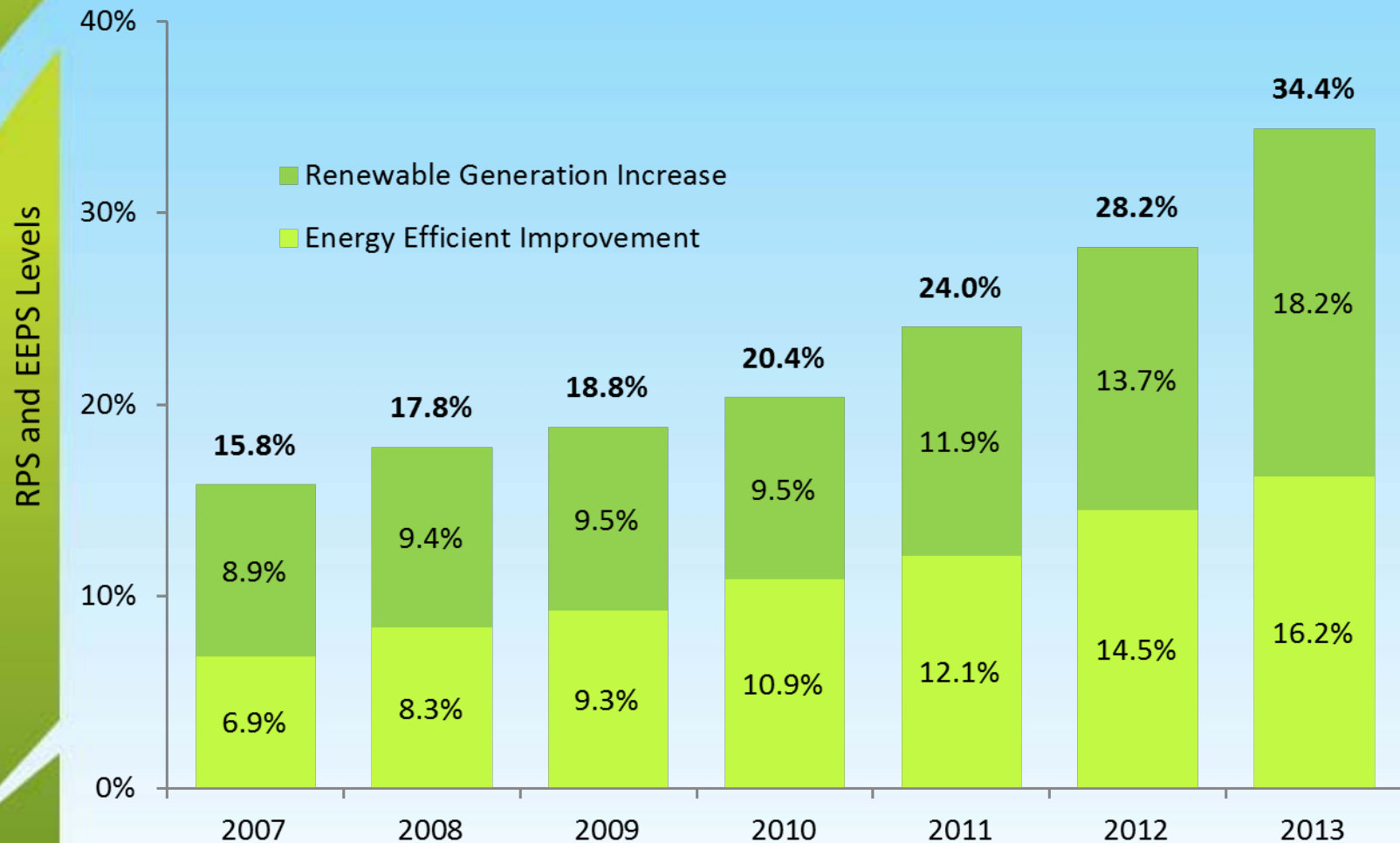


**40% RENEWABLE**  
**+ 30% EFFICIENCY**  

---

**= 70% CLEAN ENERGY**

# Renewable Energy & Energy Efficiency Portfolio Standards - 2007-2013





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

Cancer Centre  
Estate of  
Ameliese Le  
General Atla  
Corporation  
Henry H. & Co  
Wong Founda  
American Rea  
Association  
The Kirk A. &  
Landon Foun  
Victoria S. an  
L Geist Foun



# Hawaii Green Business Program

## QUESTIONS:

- How did the Hawaii Green Business program start up?
- What 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

2005-08 – 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 and Video

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](http://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.

**32<sup>nd</sup>**



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.



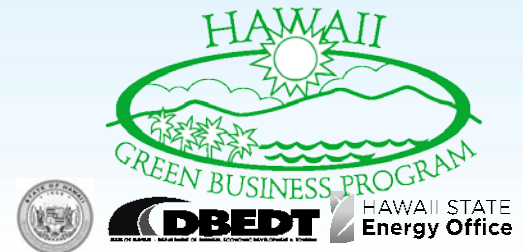
# Green Business Program: Process

## 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

Checklist

Data  
Verification

Green Event  
Recognition!



**DBEDT**  
DEPARTMENT OF  
BUREAU OF ENERGY DEVELOPMENT & TECHNOLOGY



**HONOLULU BOARD  
OF WATER SUPPLY**

| 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, HOSFP, 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  
BUREAU OF ENERGY DEVELOPMENT & TECHNOLOGY

**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



# Hawaii Build & Buy Green 2013

# TEDx Salon #4



# 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           |
| <b>Total Alternate</b>               | <b>45</b>   |
| <b>Total Responses</b>               | <b>79</b>   |
| <b>Response Rate</b>                 | <b>41%</b>  |
| <b>Total Alternate Rate Observed</b> | <b>57%</b>  |

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

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           |
| <b>Total Alternate</b>      | <b>54</b>   |
| <b>Total Responses</b>      | <b>90</b>   |
| <b>Response Rate</b>        | <b>28%</b>  |
| <b>Total Alternate Rate</b> | <b>60%</b>  |

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





# 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](http://www.greenseal.org) - [www.ecologo.org](http://www.ecologo.org) - [www.epa.gov/dfe](http://www.epa.gov/dfe) - [www.greenguard.org](http://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<br>UH Cancer Center - Sullivan Conf. Center |                              |                                   |
|                 | Welcome  | Jason Selley                 | USGBC Hawaii                      |
| 8:15 AM         | <b>Keynote: Getting to Net Zero</b>  | Ralph Di Nola                | <i>New Buildings Institute</i>    |
| 9:15 AM         | <b>Case Study Projects - Opportunities and Challenges</b>                          |                              |                                   |
|                 | 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        | <b>Break - 15 mins</b>   |                              |                                   |
| 10:30 AM        | <b>Living Futures - The Net Positive Impact Program &amp; Projects</b>             |                              |                                   |
|                 | 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        | <b>"There's An App For That"</b>   |                              |                                   |
|                 | 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 | <b>Lunch</b>   |                              |                                   |
| 1:30 - 2:30 PM  | <b>Shared Spaces and Programs</b>  |                              |                                   |
|                 | 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  | <b>Sharing Case Studies in Green Building</b>                                      |                              |                                   |
|                 | 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>                     |
|                 | <b>Break</b>   |                              |                                   |
| 3:30 - 4:30 PM  | <b>USGBC UH Community Mission - Crowd Sourcing Installations</b>                   |                              |                                   |



# Hawaii Green Business Green Hotel Forum



Thursday, September 18, 2014

from 8:30 - 11:30 am

*Co-sponsored by Hawai'i Lodging  
& Tourism 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
- Ritz-Carlton, Kapalua



# Mahalo



## Gail Suzuki-Jones

808-587-3802

[gsuzuki@dbedt.hawaii.gov](mailto:gsuzuki@dbedt.hawaii.gov)



[energy.hawaii.gov](http://energy.hawaii.gov)



HAWAII STATE  
Energy Office