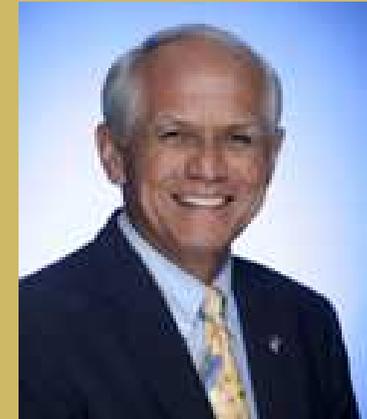


# SESSION 3: LEGISLATIVE ENERGY EFFICIENCY UPDATE Q4 REBUILD HAWAI'I CONSORTIUM

SENATE ENERGY AND ENVIRONMENT COMMITTEE CHAIR, SENATOR MIKE  
GABBARD



# SETTING THE STAGE



- 46.3 million barrels of petroleum were imported for Hawai'i's total energy use over the last year.
- Electricity consumes about 30% of Hawai'i's imported oil.
- 11.3 million barrels of petroleum were burned by the Hawai'i utilities last year to make electricity.
- Average residential meter in Hawai'i uses 615 kWh/month.

(Source: Hawai'i Energy)

# OUR GOALS



- Roadmap to achieve *70% clean energy by 2030* with *30% from efficiency* measures.
- Achieve 4,300 gigawatt-hours of electricity use reduction statewide.

# KEY ENERGY EFFICIENCY POLICY 2008

## Act 204

- Mandate to require solar water heaters to be installed on all new single-family homes starting on January 1, 2010.
- First policy of its kind in the nation.
- Restricts tax credit to retrofits.
- Exemptions if impractical or cost-prohibitive, if substitute renewable energy technology is used, or gas water heater is installed.

# KEY ENERGY EFFICIENCY POLICIES 2009

## Act 155

- Directed the PUC to establish energy-efficiency portfolio standards to achieve 4,300 gigawatt-hours of electricity use reduction statewide by 2030 with intermediate goals.
- Required benchmarking of existing public buildings larger than 5,000 square feet or using more than 8,000 kilowatt-hours of electricity.

## Act 156

- Required all public, private and government parking facilities that are available for use by the general public and have at least one hundred parking spaces shall designate 1% of its parking spaces exclusively for electric vehicles by December 31, 2011.
- Intended to stimulate market for electric vehicles.

# KEY ENERGY EFFICIENCY POLICIES 2010

## Act 186

- Prohibits prevention of installing an electric vehicle charging station on or near the parking stall of any multi-family residence or townhouse.

## Act 201

- Requires every private homeowners association or entity to revise rules by July 1, 2011, that shall not impose conditions or restrictions that render a solar energy device more than 25 per cent less effective; increase the cost of installation, maintenance, and removal of a solar energy device by more than 15 per cent; or until June 20, 2015, require an encumbrance on title because of the placement of the solar energy device.

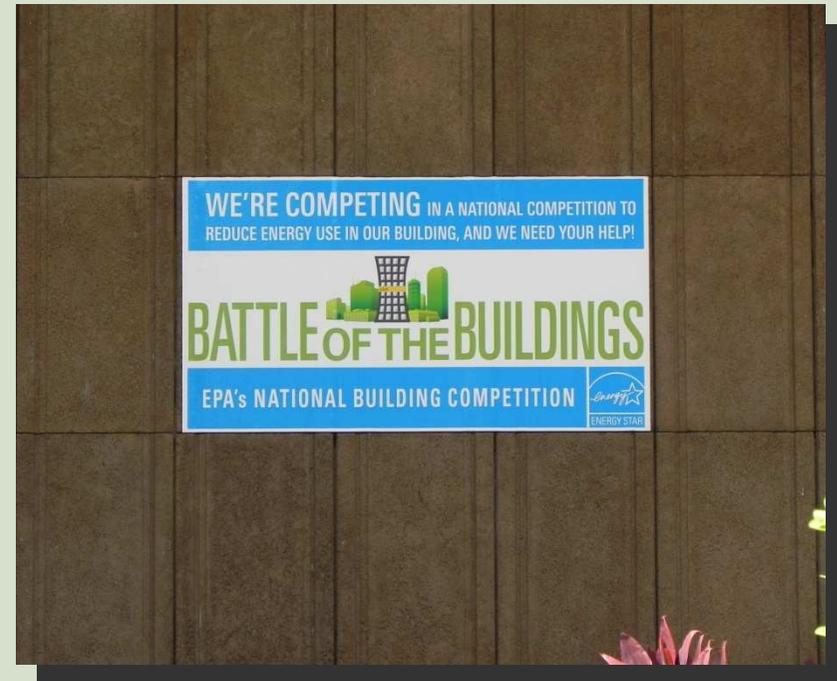
# KEY ENERGY EFFICIENCY POLICES 2011

## Act 204

- Directs PUC to investigate the viability of establishing an on-bill financing program through which utility customers could finance the purchase of renewable energy systems and repay through assessment added to customers' electric utility bill.

# BATTLE OF THE BUILDINGS

- EPA competition that featured 245 buildings around the country to reduce energy use and cost
- Hawai'i State Capitol was only state capitol in competition, ranked in the top 15% of similar buildings nationwide, beat out 100 other buildings
- Winner – parking garage on the main campus of the University of Central Florida



# GREEN GOVERNMENT CHALLENGE

THE HAWAII STATE SENATE



- Recognized on April 20, 2011 as part of the Green Business Hawai'i Program
  - Phase One - Paperless Chamber Sessions
  - Phase Two - Paperless Committee Hearings
  - Phase Three - Complementary Senate "Green Office" Practices
  - Phase Four - Green Government Challenge

# CAPITAL 10 ENERGY CHALLENGE

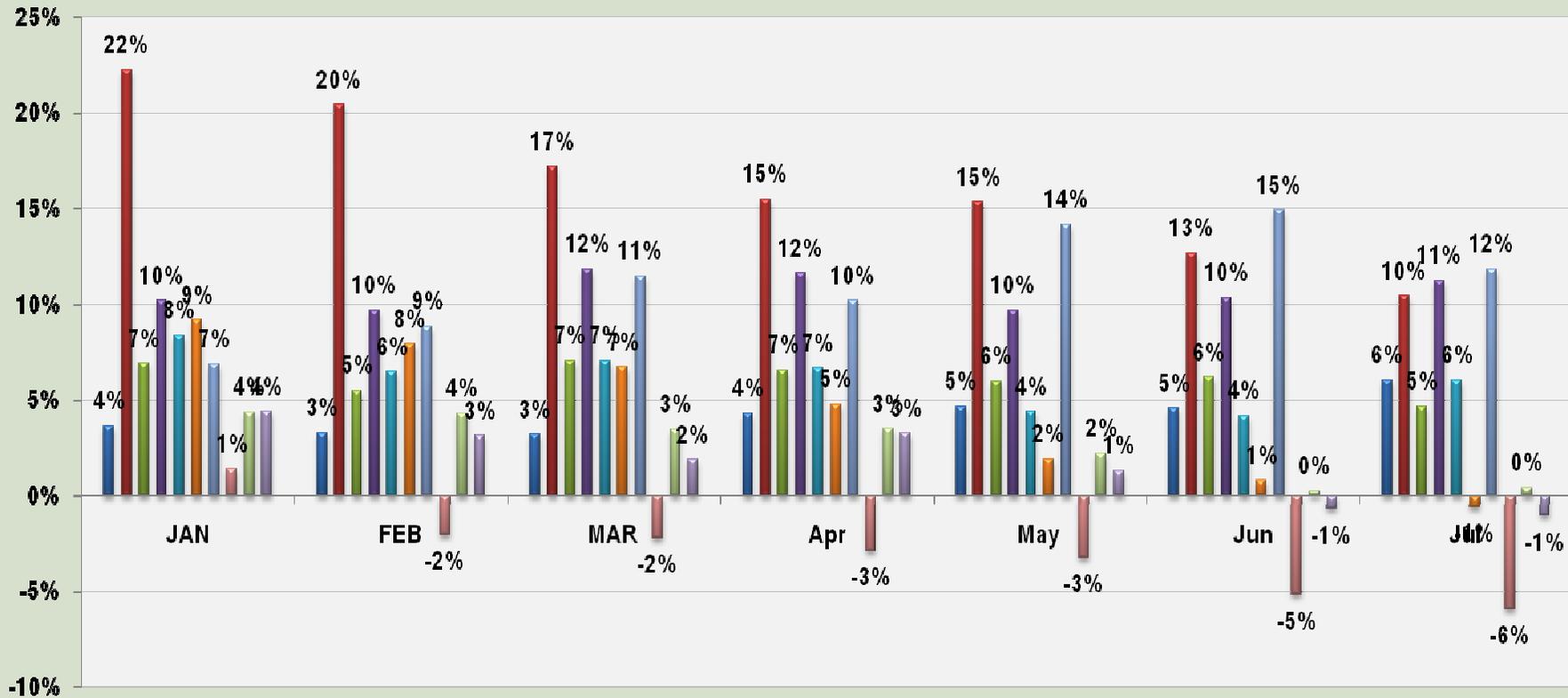
- Energy Reduction Challenge
- Overview:
  - *Goal:* 2% Reduction of Behavior Related Energy Consumption
  - *Length:* Jan – Dec 2012
  - *Change Agents:* 50+ iConserve Green Champions
  - *Reports:* Monthly progress at [www.hawaii.gov/green](http://www.hawaii.gov/green)
- Keep focus on how state employees can save energy.
- Official Kickoff: Stay Tuned...



# CAPITAL 10 ENERGY CHALLENGE

THE HAWAII STATE SENATE

## Energy Usage Intensity % Reductions: YOY CAP 10



■ Kalanimoku 
 ■ Archives 
 ■ Keliikalani 
 ■ Kekuaanaoa 
 ■ Keoni Ana 
 ■ Kinau Hale 
 ■ Liliuokalani 
 ■ Hemmeter 
 ■ State Capitol 
 ■ State Office Tower

# LOOKING AHEAD – SOLAR WATER HEATERS



- More than an estimated 90,000 residential solar water heating systems are in operation statewide.
- Hawai'i leads the nation in the number of solar heating systems on a per capita basis.
- Protect solar water heater tax credit of 35% of actual cost up to caps:
  - \$2,250 per system for single-family house,
  - \$350 per unit per system for multi-family residential (condo, townhouse),
  - \$250,000 per system for commercial property.

# LOOKING AHEAD - ELECTRIC VEHICLES



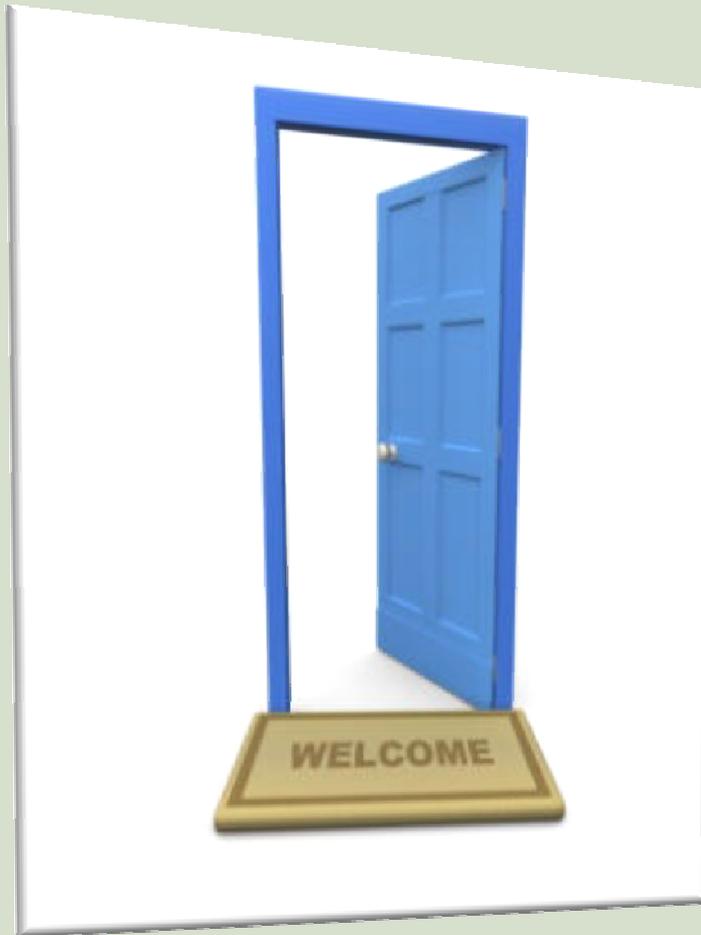
- Electric motors convert 75% of the chemical energy from the batteries —internal combustion engines (ICEs) only convert 20% of the energy stored in gasoline. (USDOE)
- As of October 2011, there are 527 electric cars in the state (half of those are highway-ready, there are between 200-300 Leafs in the state)
- Tweaking Act 290 (1997) – Currently allows electric vehicle owners to have special license plate, free parking at gov't lots, use of HOV lanes with single passenger
- Looking to codify Act 290 in HRS, possibly limit amount of free time at meters, and define EVs
- Tweaking Act 156 (2009) - Currently requires businesses to set aside 1% of parking places for EVs in lots with more than 100 spaces
- Looking to make it clear provision applies to lots that offer parking to the public, require only one space/charger, and add penalty provision

# INNOVATIVE APPROACHES – ENERGY EFFICIENCY CREDIT TRADING PROGRAM

## SB 1480

- Introduced by Senator Mike Gabbard in 2011
- Directs the PUC to establish an innovative, market-based energy efficiency credit trading program
- Four states, Connecticut, Massachusetts, Nevada, and Pennsylvania, already have these types of programs.
- The basic idea is to create a market for energy efficiency where companies that are quick to adopt energy efficiency measures could sell credits to those companies that are slow in order to make money.
- The basic unit for the program would be one energy efficiency credit would be equivalent to one megawatt hour of energy savings.
- Looking to introduce legislation to direct the PUC to open a docket on a energy efficiency credit trading program

# DOOR IS ALWAYS OPEN



custompaperpoint.blogspot.com

- Please contact me with any ideas for energy efficiency legislation
  - 586-6830
  - [sengabbard@capitol.hawaii.gov](mailto:sengabbard@capitol.hawaii.gov)