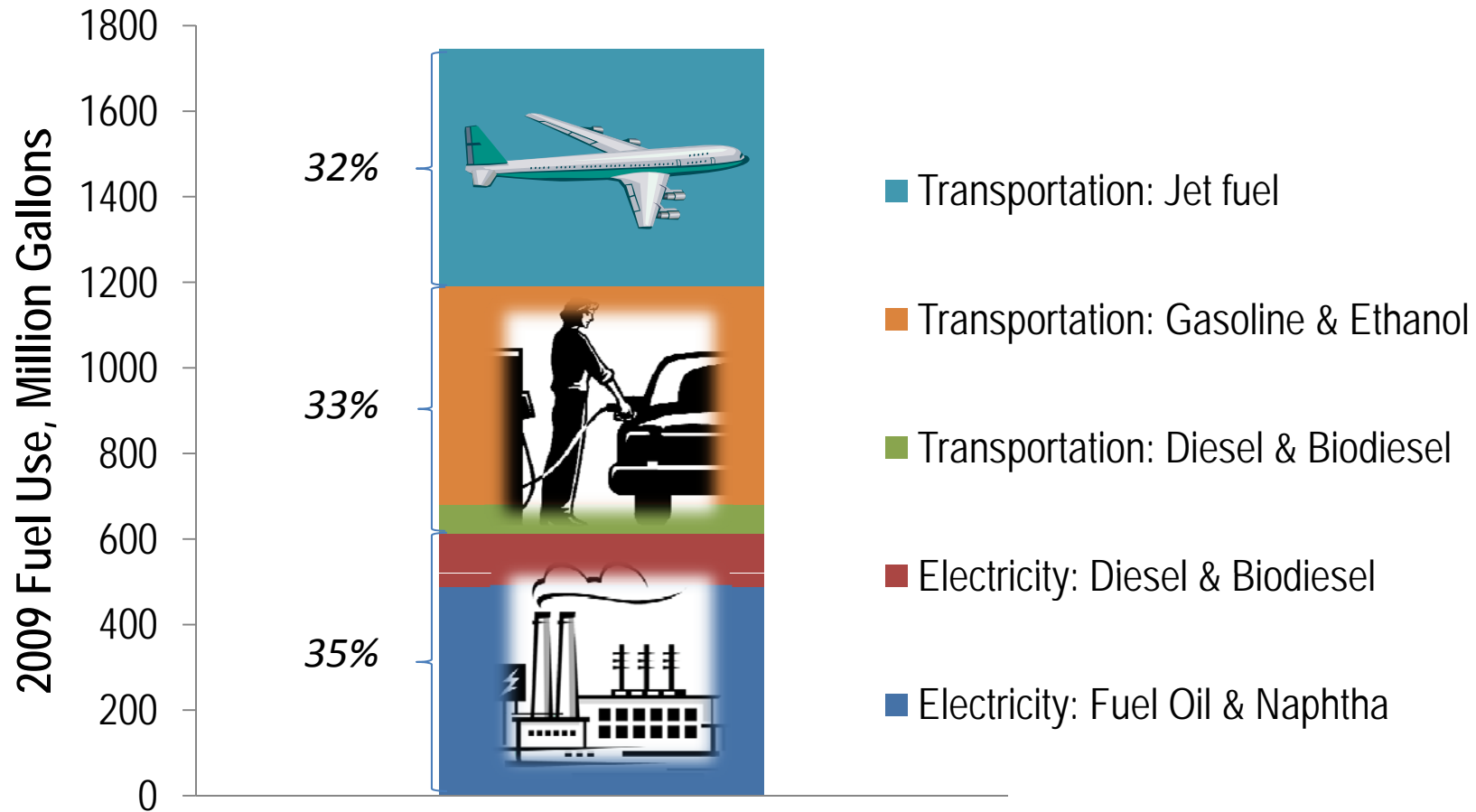




# Japan – United States Smart Grid Demonstration Project

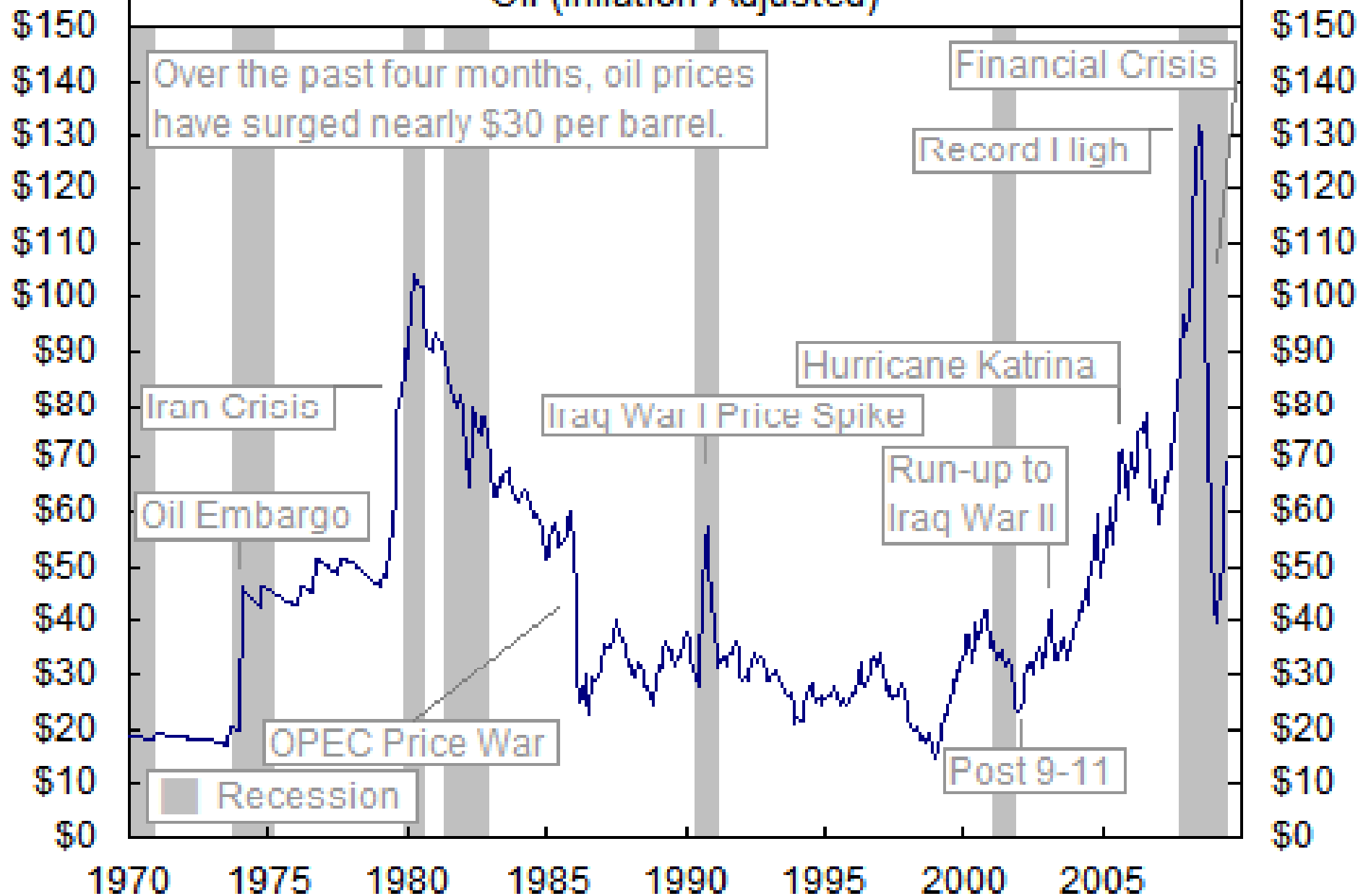
February 17, 2011  
Kawasaki, Japan

# Use of Petroleum in Hawaii



# Chart of the Day - [www.chartoftheday.com](http://www.chartoftheday.com)

## Oil (Inflation-Adjusted)



**The Hawaii Clean Energy Initiative was launched on January 28, 2008 with the signing of a Memorandum of Understanding between the State of Hawaii and the U.S. Department of Energy**



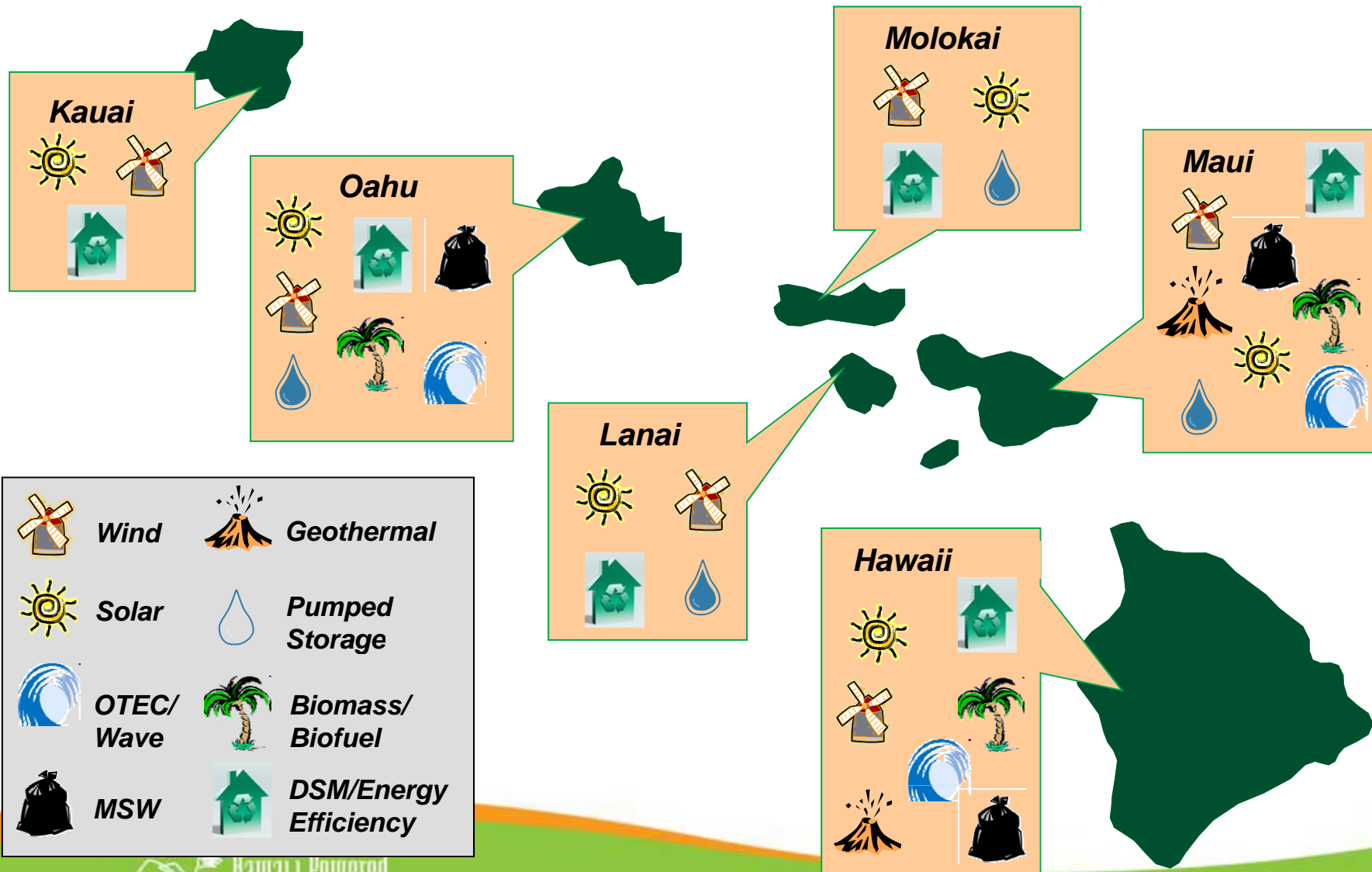
- **70% clean energy by 2030**
  - **40% Renewable Gen**
  - **30% Efficiency**

# Act 155

(HRS 269-91)

- Energy Production Portfolio Standards
  - 10% by 2010
    - Utility met 10% requirement that included Energy Efficiency
  - 15% by 2015
    - Energy Efficiency no longer counted in 15% requirement
  - 25% by 2020
  - 40% by 2030
- EE Portfolio Standards
  - 4,300 GWh reduction by 2030
  - Third Party EE program administrator

# Recognizing Hawaii's Wealth of Renewable Potential



# Renewable Energy Resource Opportunities *Today*

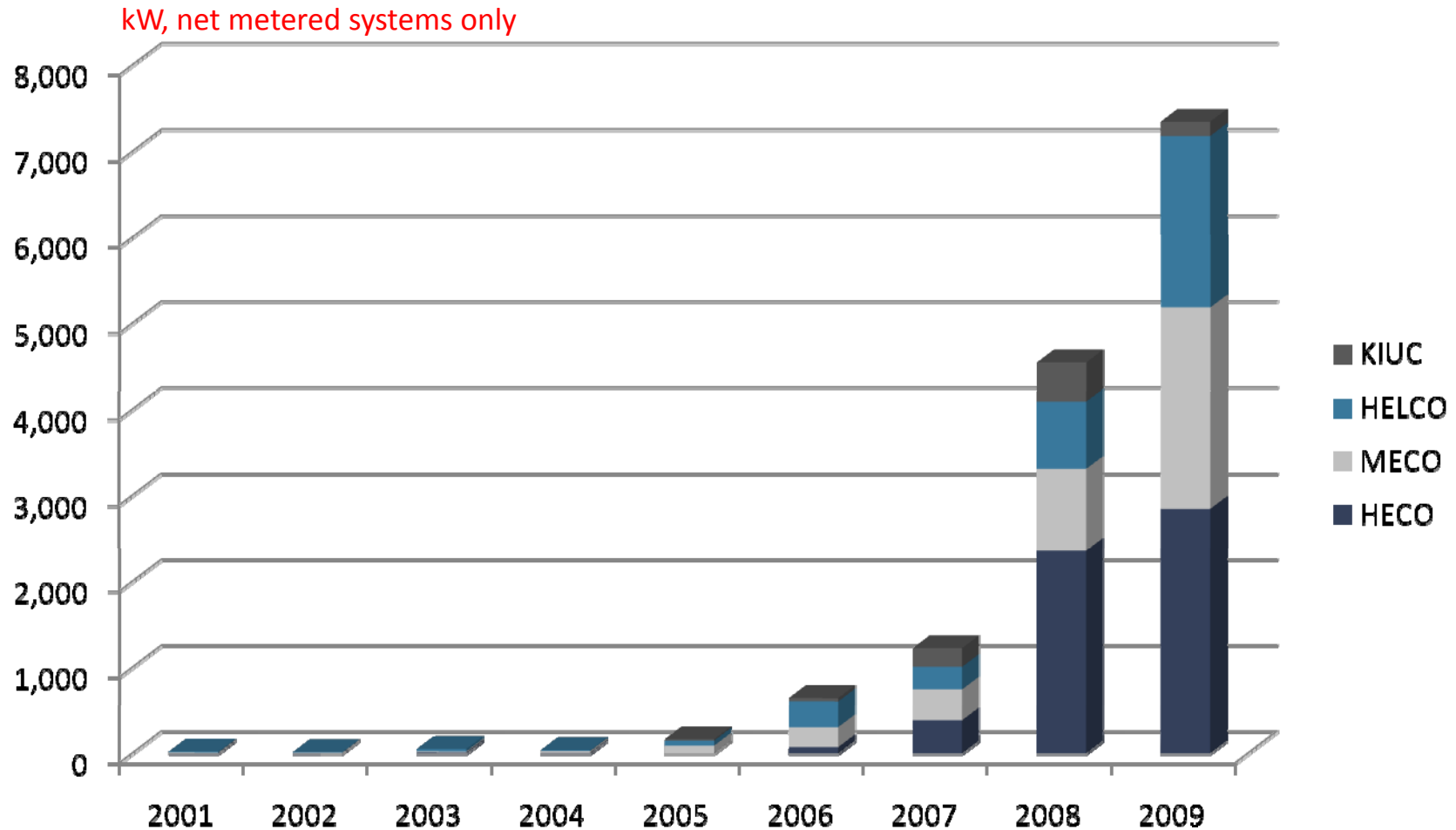
## Wind



## Solar



# PV Market is Growing



Note: Net metered installs are only a portion of the total. In 2009 total installs were 14 MW indicating about only half of installs were NEM.  
Source: HECO Companies Net Energy Metering Annual Status Report 2009 for HECO/MECO/HELCO, personal communication with KIUC staff for KIUC. KIUC had 93.1 kW installed prior to 2005.



# Recent Progress for Hawaii in Transportation Energy

- Nissan announces LEAFs for Hawaii
- \$4M from America Reinvestment and Recovery Act
  - Accelerate the deployment of Electric Vehicles and Chargers
  - \$1M for individual EV and charger grants
  - \$3M for integrated EV system deployment projects



# Benefits of Japan – U.S. (Hawaii) Collaborative Demonstration Project on Islands

## Our Opportunity to Lead

- Hawaii's isolation – distinct from large interconnected grids
- We need a unique electricity strategy
  - Economic necessity
  - Security necessity
  - Environmental necessity
- Hawaii is ideal 'lab' to prove concepts and learn lessons about renewable integration, biofuels, electric vehicles and more



Thank you for your attention