

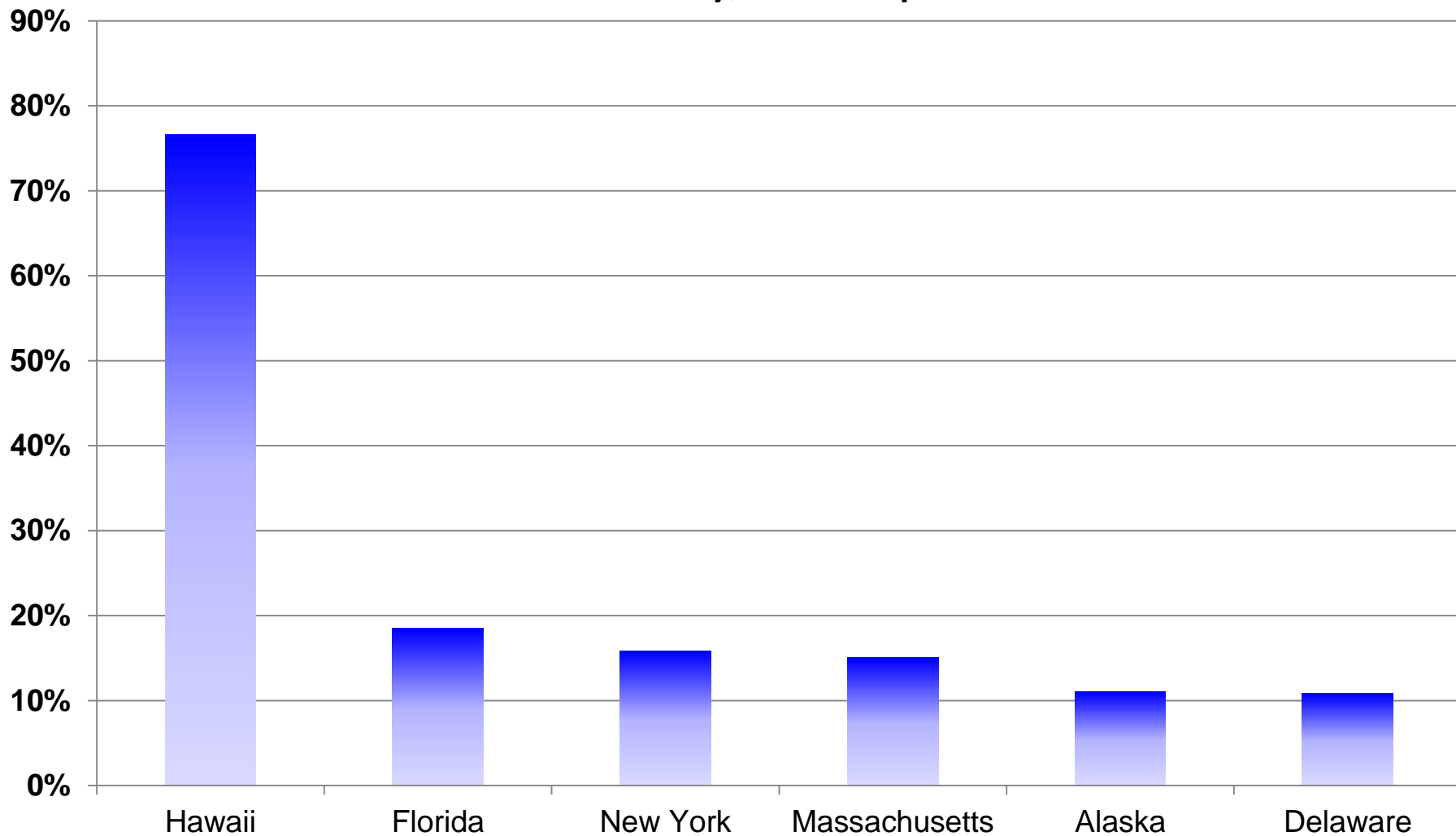
Hawaii Renewable Energy Financial Investments – Overview

October 6, 2011

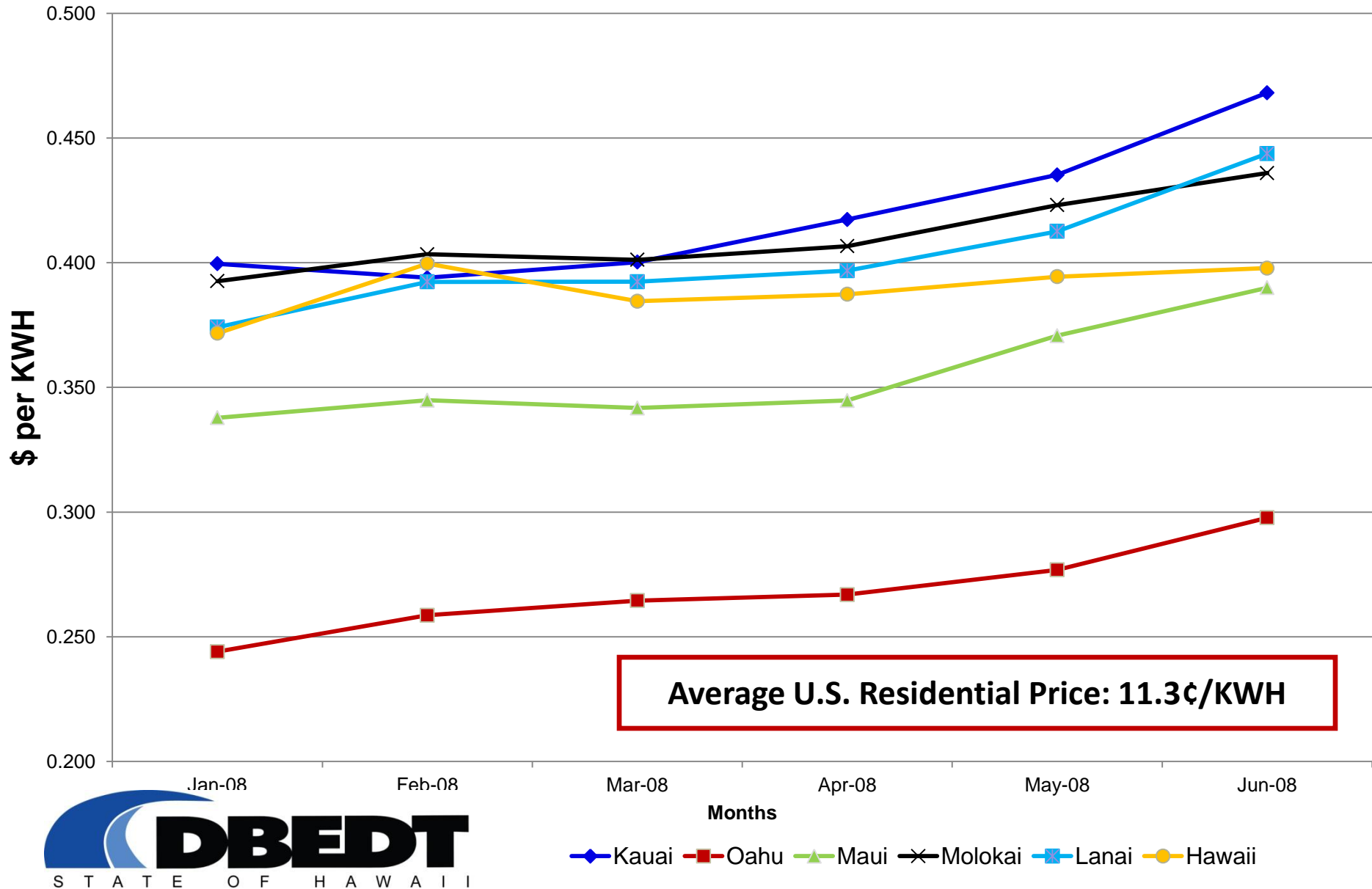
Hawaii State Energy Program
Estrella A. Seese



As a Result: Percent Petroleum Dependence for Electricity, Six Top States



Residential Price of Electricity By Island – 1st Half 2008



Source: Monthly Electric Utility Reports Submitted to the Hawaii Public Utilities Commission

HAWAII'S ENERGY GOALS

- Reduce dependence on imported oil by at least 70% by 2030.
- Electricity – almost 80% dependent on imported fuel:
 - RPS = 40%
 - EEPS = 30%
- Transportation – 100% dependent on imported fuel

HAWAII'S CLEAN ENERGY ACTIVITIES

- **Surpassed 2010 RPS Goal**
 - **2010 Goal = 10% Achieved = 20.32%**
- **Second in the nation in cum PV watt capacity per capita**
- **NEM DGs increased 386% in two years**
- **Second in the nation in amount spent on performance contracting per capita**
- **Monitoring 66 Renewable Energy projects**

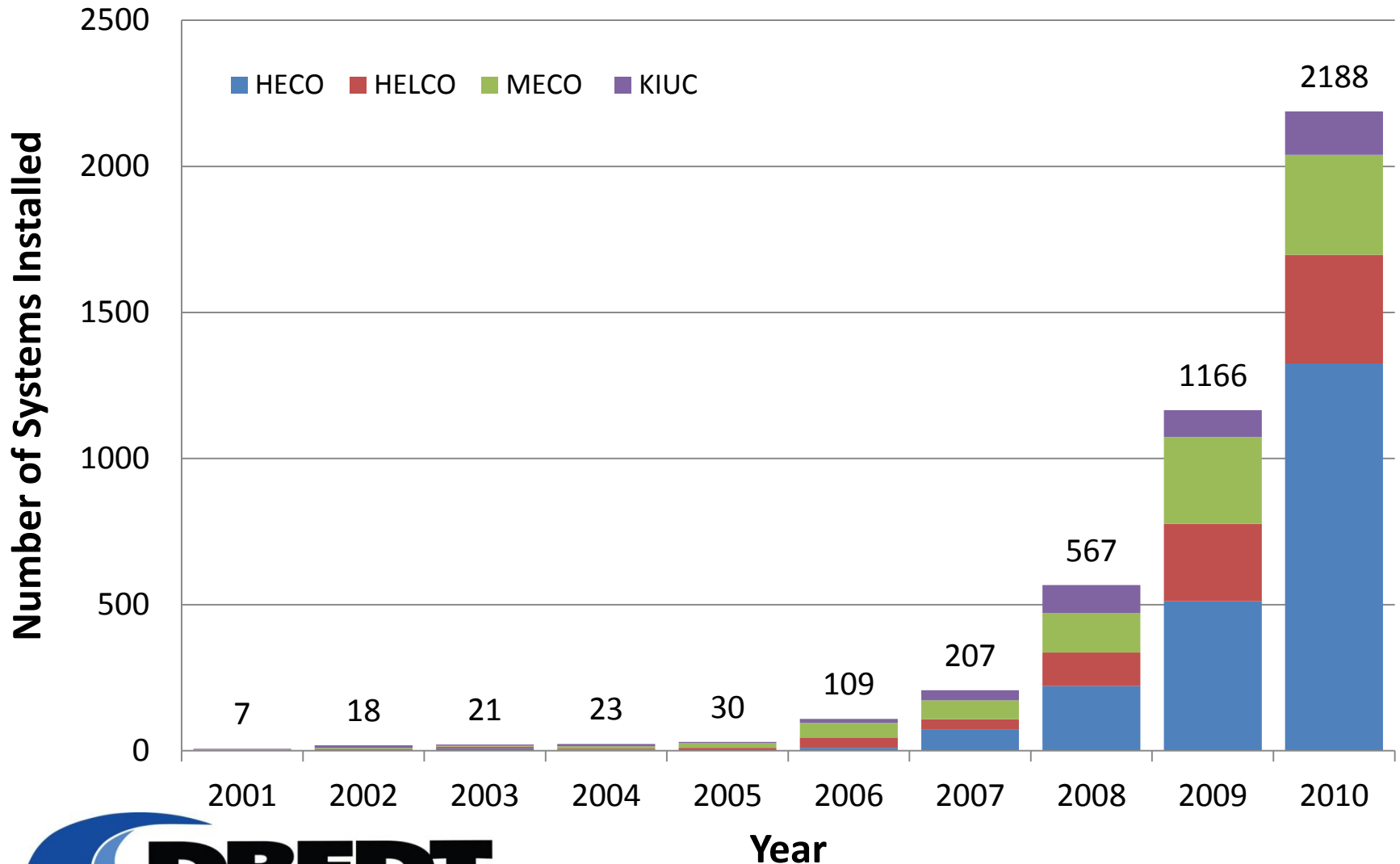
Renewable Energy Investments in Hawaii

Entities	2009 Expenditures	2010 Expenditures	2011 Expenditures (Projected)
Private Companies	\$ 188,961,485	\$ 441,503,536	\$ 598,790,774
Government Agencies	\$ 71,977,111	\$ 213,759,898	\$ 252,853,383
Others*	\$ 101,671,469	\$ 174,698,204	\$ 413,268,330
State total	\$ 362,610,064	\$ 829,961,638	\$ 1,264,912,487

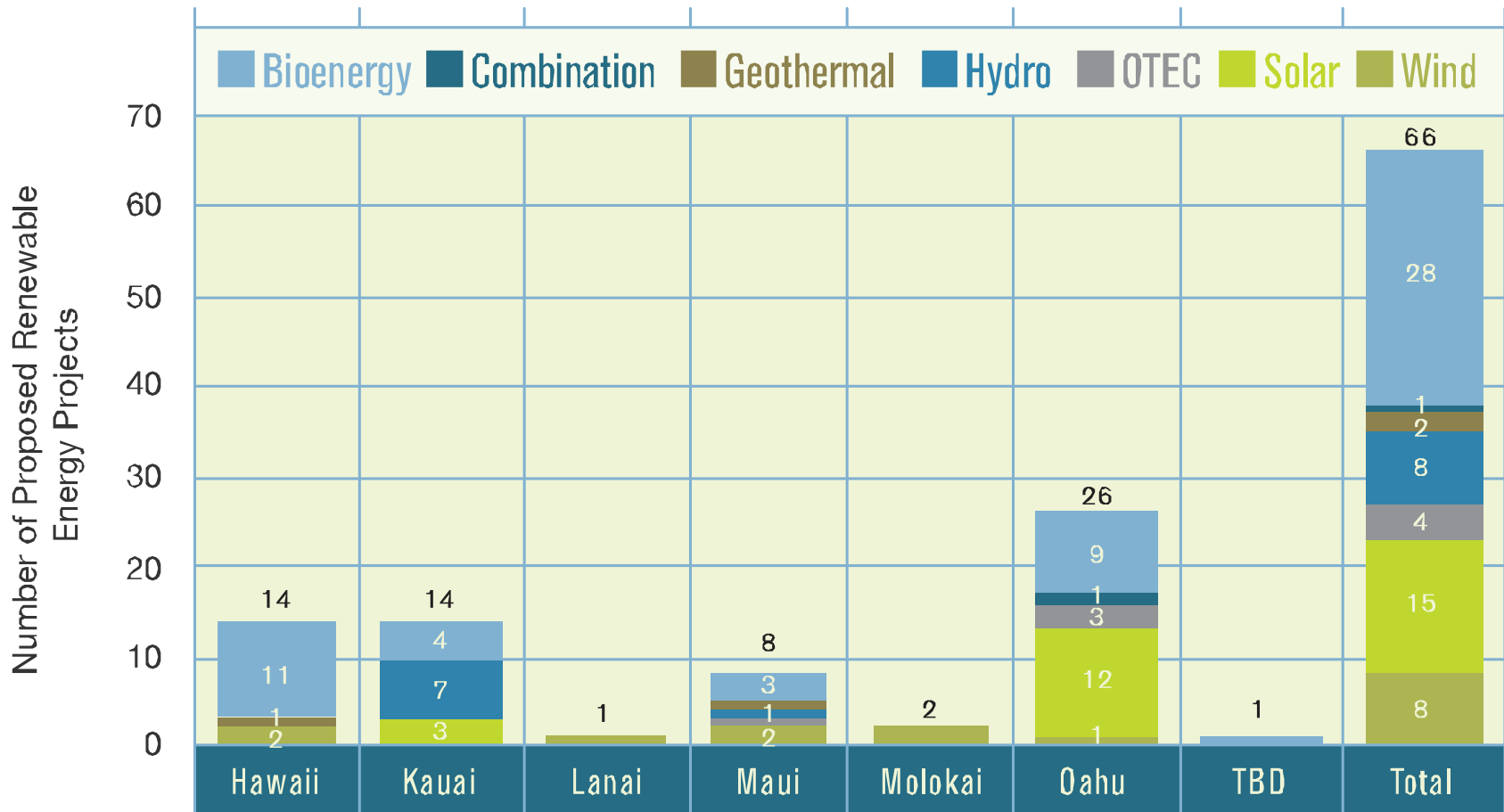
*Includes investments in commercial and residential photovoltaic systems and solar water heaters

Source: State Energy Office

Distributed Renewable Energy Systems Installed in Hawaii (2001-2010)



Currently Proposed Renewable Energy Projects in Hawaii



Source: Department of Business, Economic Development and Tourism, August 2011

STRATEGY FOR HAWAII'S ENERGY FUTURE

- **Enabling Policies – regulatory, legislature**
- **Public-Private Partnerships**
 - **Energy Agreement between State & Utilities**
- **Infra-structure**
 - **Smart grid**
 - **Energy storage battery (17 projects)**
 - **Undersea cable to interconnect the islands**
 - **EV Charging stations**
- **Facilitate siting and permitting of renewable**

Changes in Regulatory Framework

- **Adopted decoupling mechanism**
- **Implemented Feed-in Tariffs**
- **Established Clean energy scenario planning**
- **Established Renewable Infra-structure Cost Recovery Surcharge**
- **Adopted Time of Use rates including a special EV TOU rate**
- **Re-evaluating Interconnection Standards and Procedures**
- **Open dockets on Intra-governmental wheeling, on-bill financing, mid-term EEPS goals**

Legislative Energy Policies

- **RPS and EEPS**
- **Public Benefits Fee**
- **Renewable Tax Credits**
- **Net Energy Metering Program**
- **Solar waterheater mandate for new residential construction (Jan 2010)**
- **Explicit mandate to PUC and CA to consider RE**
- **Delinking purchased power rates from price of oil**
- **Explicit mandate to PUC and CA to consider RE**