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

- Hawaii
- Florida
- New York
- Massachusetts
- Alaska
- Delaware
Residential Price of Electricity By Island – 1st Half 2008

Average U.S. Residential Price: 11.3¢/KWH

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

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

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

Source: State Energy Office

Source: 2010 HECO Companies, KIUC Net Energy Metering Status
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 water heater 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