

Office of Energy Efficiency and Renewable Energy
Office of Electricity Delivery and Energy Reliability

Hawaii Clean Energy Initiative

Executive Summary and Plan Forward



Prepared for
Congressional Staff
by
The DOE Hawaii Integration Team
April 8, 2008



The Hawaii Clean Energy Initiative (HCEI) was launched on January 28, 2008 with the signing of a Memorandum of Understanding

“...the Department of Energy will help Hawaii lead America in utilizing clean, renewable energy technologies.”

Governor Lingle

“Hawaii’s success will serve as an integrated model and demonstration test bed for the United States and other island communities globally...”

Assistant Secretary Karsner

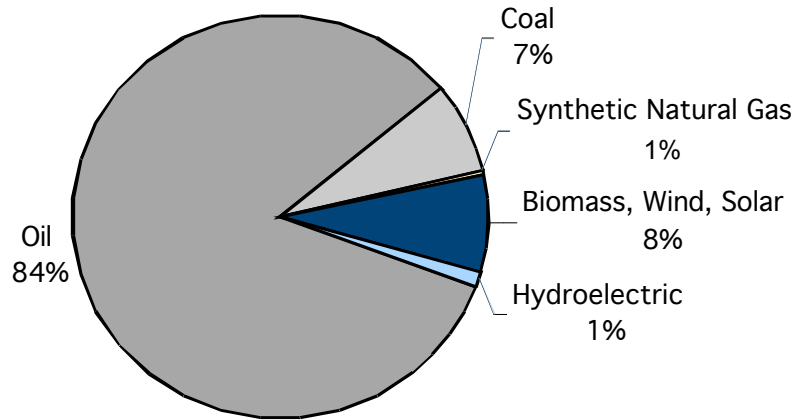


Goal: Put Hawaii on a path to supply 70% of its energy needs with clean energy by 2030

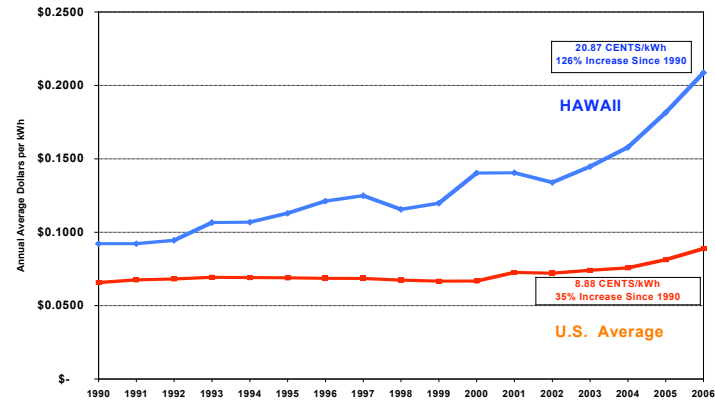


Oil supplies about 90% of Hawaii's total energy and 84% of its electricity generation

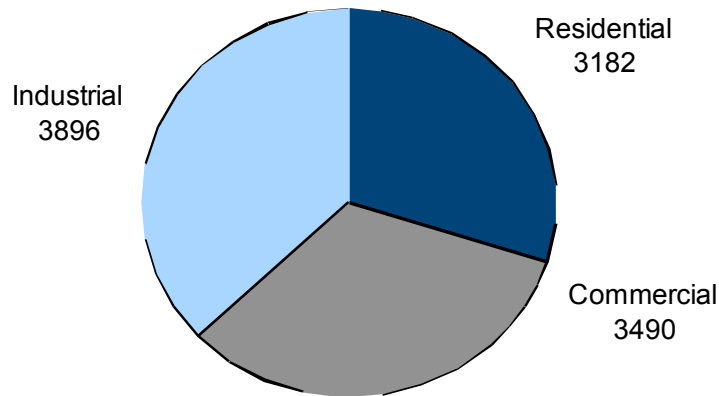
In 1992, Hawaii's non-US oil imports equaled 55%
 In 2006, Hawaii's non-US oil imports equaled 99%
 (of a total 51 million bbls per year).



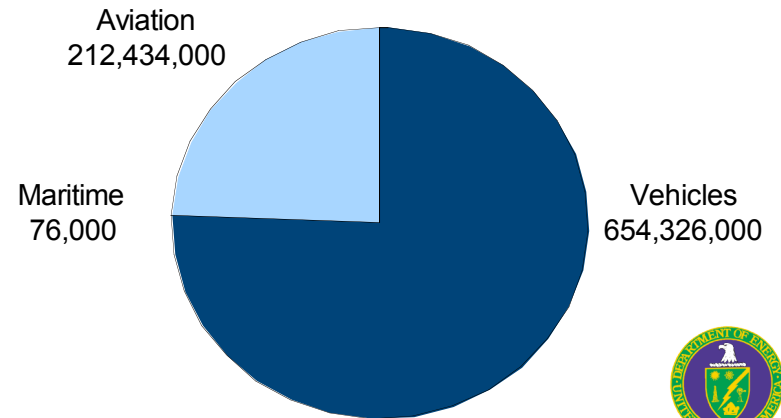
Hawaii has the highest electricity prices in the nation
 (average 22¢, with some islands as high as 40¢ /kWh)



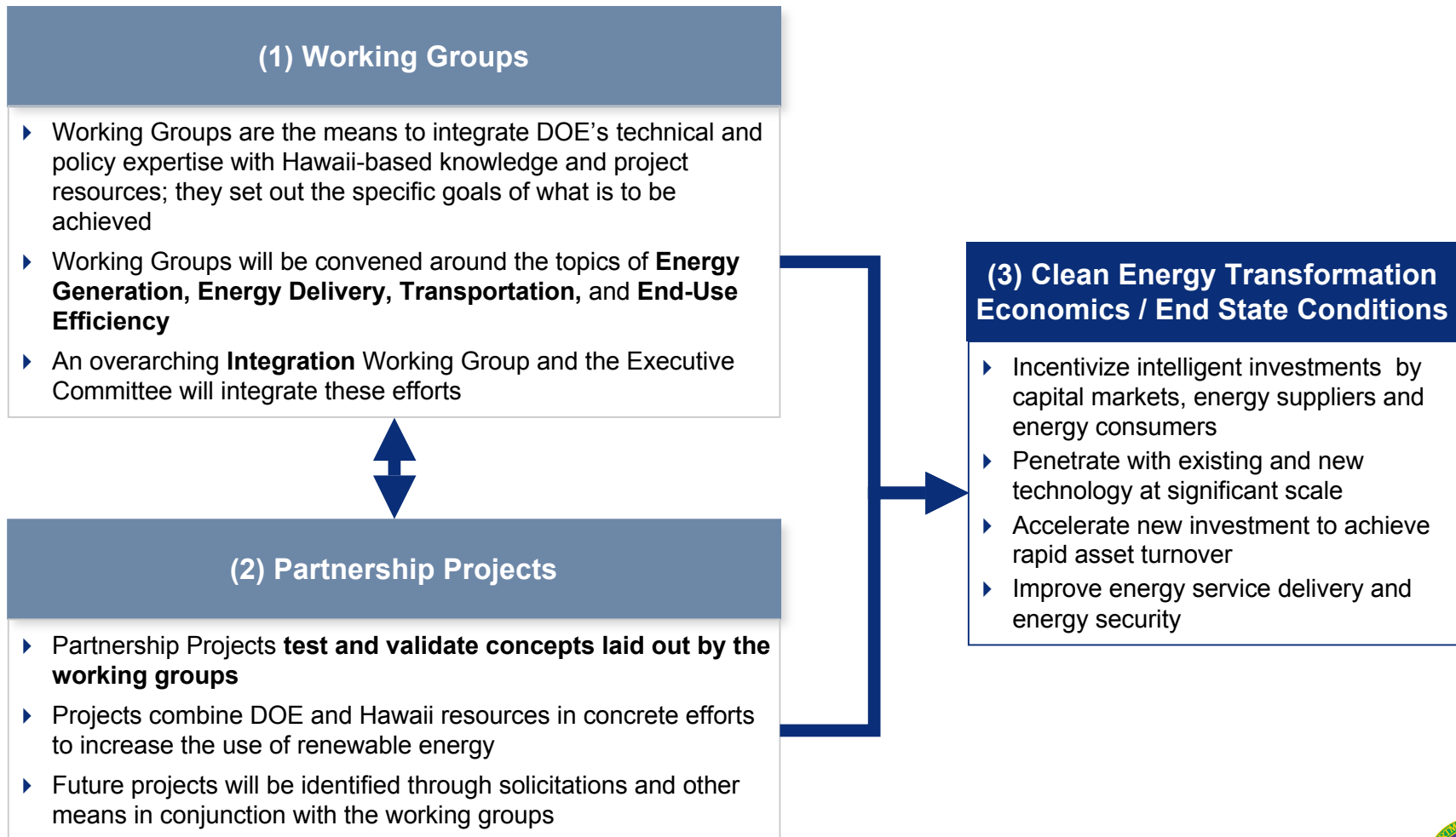
Electricity consumption is roughly equal parts residential (29%), commercial (34%), and industrial (36%) (thousand MWh)



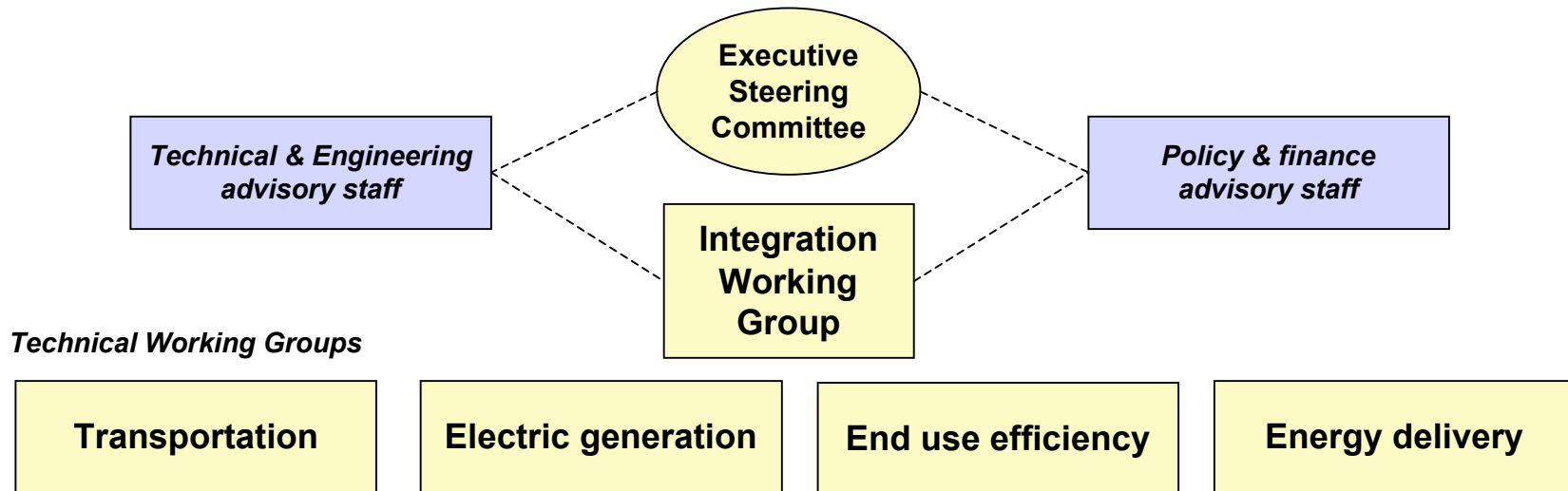
More than 75% of Hawaii's transportation fuel is consumed by vehicles (gallons)



The approach to HCEI is based on three areas of effort: (1) Working Groups, (2) Partnership Projects leading to (3) Transformation Economics



Working Groups will be small collaborative teams focused on long-term, intelligent solutions



▶ **Executive Steering Committee**, comprised of State government and DOE reps, will oversee the Working Groups to ensure alignment between actions (both policy and project) and the overall goal of the partnership.

▶ **Integration Working Group**, comprised of DOE and Hawaii representatives, will review the recommendations of the Technical Working Groups to ensure that a systematic approach is developed without “crossed wires” regarding incentives and resources.

▶ **Technical Working Groups**, comprised of Hawaii stakeholders (e.g., Hawaii DBEDT, HECO) as well as DOE and DOE National Laboratories, will provide technical advice.

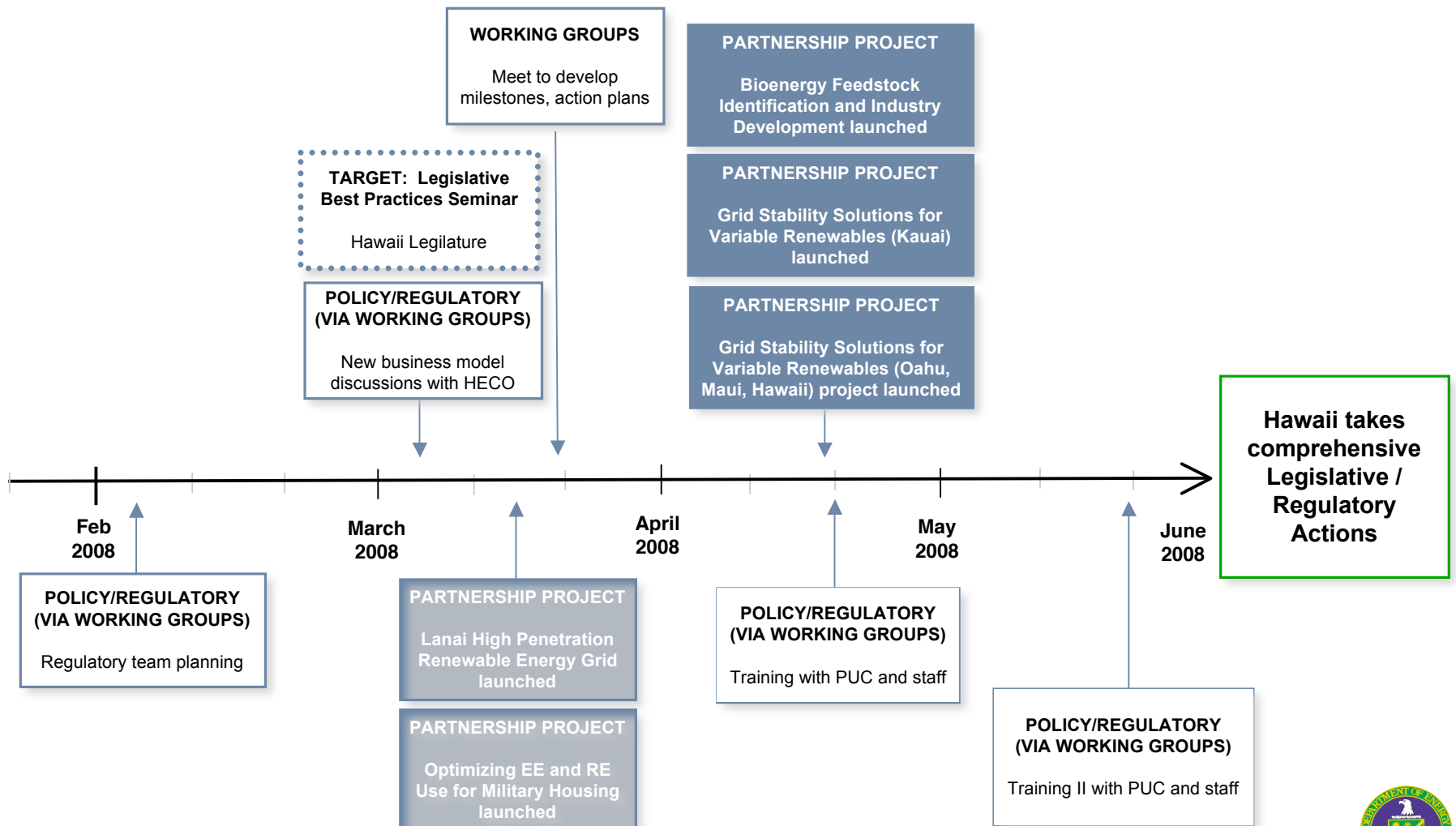


Partnership Projects will focus on a number of strategic technology opportunities

- ❑ Maximize efficiency of energy use
- ❑ Solve integration, financing, and acceptance challenges for wind, solar and geothermal
- ⬅ Accelerate In-State biofuels production
- Transform to Smart Grid and Micro Grid operations
- Facilitate emerging clean energy technology applications



Momentum over the next 120 days will be executed both at the project level and with the working groups



DOE Role in Partnership

- **Resources** – Overcoming challenges to scaling clean energy deployment in Hawaii aligns with many program mission areas in Energy Efficiency and Renewable Energy (EE) and Electricity Delivery and Energy Reliability (OE), and is being integrated into program plans for funding priorities in FY08 and beyond.

- **World class expertise** – DOE staff, National Laboratories, and private partners, provide expertise of R&D in renewable energy, energy efficiency, and electricity delivery – and importantly, in the emerging area of system level integration of clean energy technologies critical to success in Hawaii.

- **Third party objectivity** – DOE is uniquely capable of convening and facilitating public and private sector collaboration to move beyond polarized positions in the State on renewable and efficiency technology advancement

<u>DOE FY08 Support:</u>	<u>EE</u>	<u>OE</u>
New program funding	\$1.75 million	\$800,000
Personnel	Dedicated HQ staff	Senior staff already in HI (1)
Congressionally directed	\$3.7 million (applicability likely)	

