



COLLEGE OF SOCIAL SCIENCES

HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAI'I AT MĀNOA

Energy Policy Forum

**Dialogue Sessions on
HCEI Strategies**



Dialogue on Four Strategies

- **Lanai and Molokai Wind Farms and Seabed Cable**
- **Distributed Generation Solar**
- **Biomass and Biofuels**
- **Geothermal**



Dialogue Questions

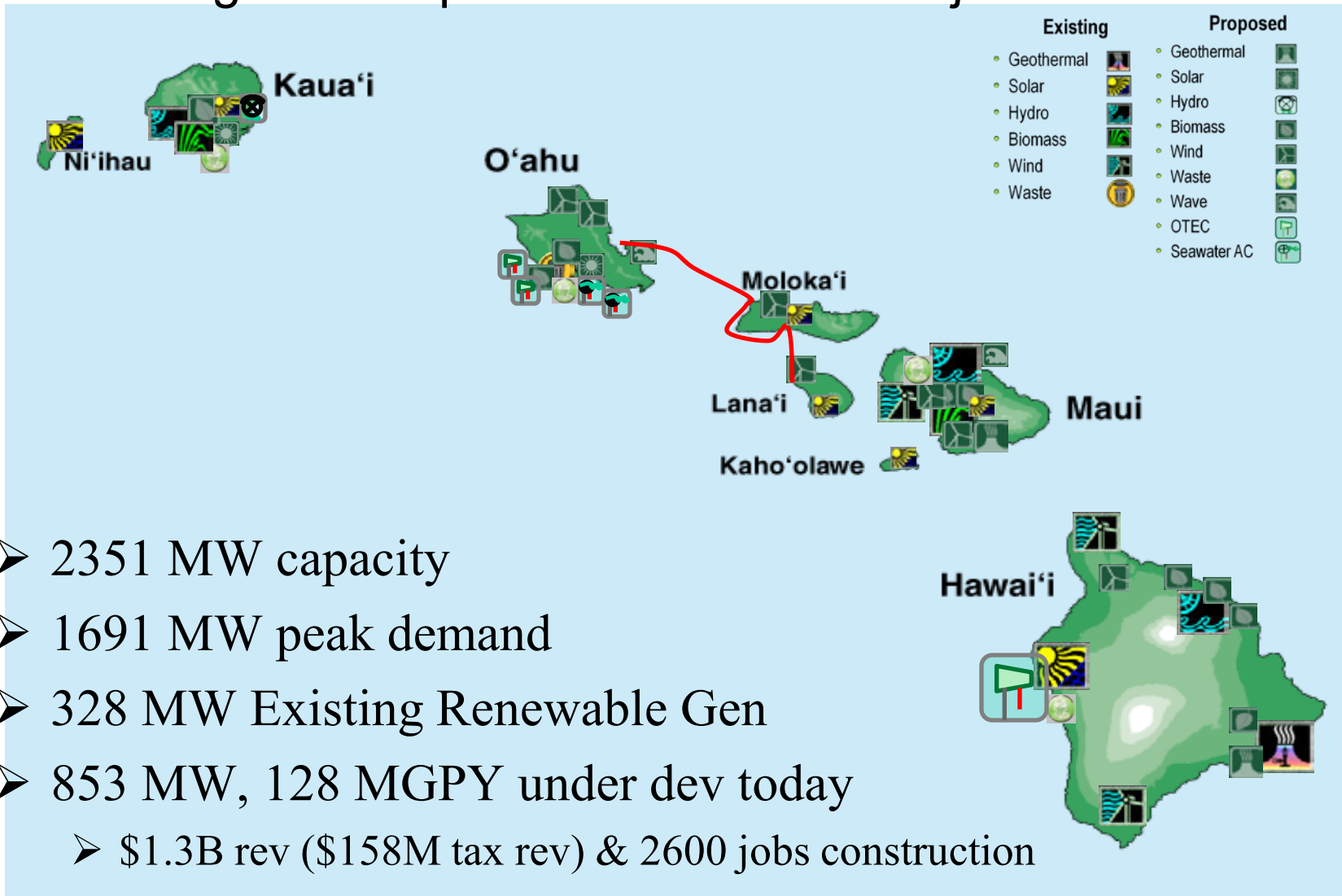
- **1. Contribution to meeting goal of 40% clean energy by 2030?**
- **2. Capital and operating costs including the cost of firming intermittent power?**
- **3. How will it be financed?**
- **4. Who will own and manage generation and transmission equipment?**
- **5. How long will it take to implement?**
- **6. What major obstacles need to be overcome?**
- **7. What are the next steps?**



Conclusions January 14

- **Progress has been made on HCEI**
 - **Options and costs for neighbor island wind and seabed cable much better known**
 - **Agreement signed between HECO and C&C for Lanai**
 - **Cable is feasible**
 - **Costs will be reasonable \$0.13 kWh for wind ~\$0.08 kWh cable**
 - **DG Solar holds much promise and projects are operating, planned, seeking permits, and/or financing on all islands**

Existing and Proposed Renewable Projects



- 2351 MW capacity
- 1691 MW peak demand
- 328 MW Existing Renewable Gen
- 853 MW, 128 MGPY under dev today
 - \$1.3B rev (\$158M tax rev) & 2600 jobs construction
 - \$220M rev (\$12M tax rev) & 500 jobs sustained

Source: DBEDT HCEI



Conclusions January 14

- **62 New Renewable Energy Projects planned, seeking sites and/or financing, applying for permits, or under construction**
- **Wind, Solar, Biomass, Geothermal, Ocean Energy, Waste to Energy should not be in competition:**
 - **We need them all**
 - **We must facilitate their development**
 - **Energy Office is doing that with planning tools and permitting assistance**
 - **Energy Office, PUC, and CA need support**