

# Hawaii Renewable Energy Development Venture (HREDV)

a program of the Pacific International Center for High Technology Research  
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**Program Update**  
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# HREDV Update

- Hawaii Energy Programs—where we stand
- Hawaii Renewable Energy Development Venture
  - Co-Investment Program
  - Interest Areas
  - Anticipated Activities
  - Today's Agenda

# Hawaii Energy Initiatives— Where Do We Stand?

- HCEI
- Electricity Regulatory Model
- County based plans
- ARRA
- Project Development Efforts

# So What's Changed?

- Hawaii's oil dependency more troublesome
- Mindful of \$150/bbl oil in July 2008
- Oil prices are again on an upward trajectory
- State economic picture still uncertain
- Economic recovery affected by energy prices
- Electricity business model slow to evolve
- People are still looking for answers

# Seeking Solutions

- Energy efficiency near term
- Customer-sited renewable energy
- Development of PV market
- Grid-connected renewable energy
- Address storage

# Possible Leverage Points

- Strategic deployment of ARRA funding
  - ✓ Discretionary state/county funds
  - ✓ Competitive solicitations
- Integrate county energy plans with enablers such as renewable energy development zoning and permit facilitation
- Emergence of DOD as a major driver
- Ally consumer education and outreach with UH, DOE, NGO activity

# Hawaii Renewable Energy Development Venture

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Leveraging and Catalyzing Activity

# Hawaii Renewable Energy

## Development Venture, HREDV

- Year 1—July 08 through Dec 09
  - ✓ \$1.2 Million
  - ✓ Phase 1—assessment, outreach, roadmap
  - ✓ Phase 2—co-investment and company support
- Year 2—October 09 through December 11
  - ✓ \$3.8 Million
  - ✓ Technical consultation, co-investment, company support

# Co-Investment Program

- Initiated upon completion of HREDV Roadmap and DOE approval
- NTP expected ca. October 09
- BAA/RFP expected to follow immediately
- Combines '08 and '09 dollars: \$2.3 million

# Project Funding

- Testing and Evaluation
  - ✓ Applied research and development
  - ✓ 20% non-federal cost share
- Sustainable Implementation
  - ✓ Pre- commercial Demonstration and Deployment
  - ✓ 50% non-federal cost share
- Anticipate 4 +/- awards; at least 1 deployment

# Emerging HREDV Interest Areas

- Energy Efficiency: federal facilities, tech. assist., smart building controls
- Renewable Energy
  - ✓ Enablers to accelerate RE utilization
  - ✓ Advanced T and D systems, smart grids, storage, RE integration
  - ✓ Sustainable energy systems for Hawaii Ag
- Alternative Transportation
  - ✓ Dev. tropical bio-oils for fuel replacement for DOD
  - ✓ Electricity storage via battery electric vehicles
- Education and Outreach: WF Dev, P-20 Educ. Prog., consumer ed.

# HREDV Activities to Date

- Outreach—support to HCEI, Counties, EDBs
- Consultations with USDOE and Labs
- ARRA—support industry initiatives
- Technical assistance to clean tech sector
- Technical advice to Senator Inouye's office
- Coordination/facilitation

# Anticipated Activities

- Project Development Assistance
  - ✓ Impartial “broker” for project development
  - ✓ Facilitate “linkages” to DOE and N. Labs
- Education and Training
  - ✓ Government contracting, competitive proposals, accounting and HR, best practices
- Authorizations for commercial demonstrations

# What to Expect from HREDV

- Developing a more significant renewable energy industry in Hawaii
- Offering tangible support to achieve HCEI goals
- Facilitate introduction of new technology to Hawaii
- Help drive industry interest to clean energy
- Facilitate partnership development
- Strategic co-investments (FY10 Commercial Demos and Evaluations)

# HREDV: Focus

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Industry Development: Emerging  
Technology, Competitive Advantage,  
Capital Investment, Market  
Transformation

# Briefings to Follow

- Rick Rocheleau, HNEI, HREDV Program Assessments
- Andy Trenka, Viex2 Consulting, DOE representative
- George Kailiwai, PACOM
- Clif Ching, ONR Energy Programs
- Industry Panel: Dual Use/Energy Convergence

Mahalo for your  
attention

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