

HAWAI'I Clean Energy Programmatic EIS (PEIS)

PUBLIC SCOPING MEETINGS - September 11-20, 2012



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U.S. Department of Energy (DOE)

Cooperating Agencies:

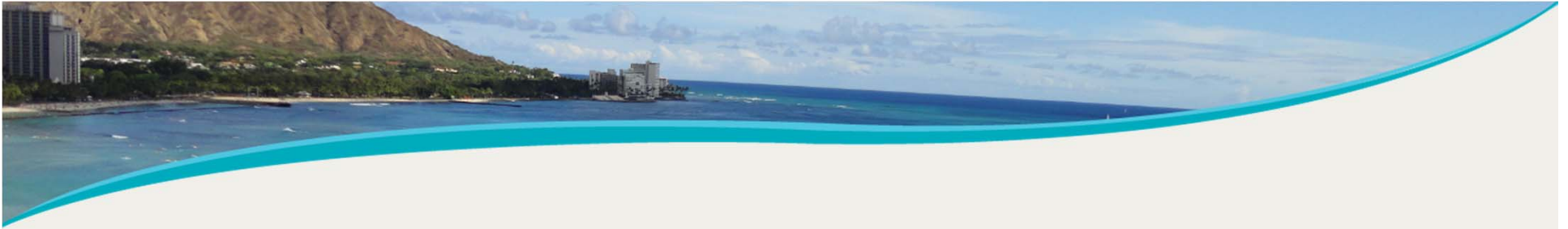
State of Hawai'i
Bureau of Ocean Energy Management
Environmental Protection Agency



HAWAI'I CLEAN ENERGY PEIS

Scoping Meeting Agenda:

- Introductions
- Hawai'i Clean Energy PEIS Presentation
- Questions and Answers
- Break
- Opportunity to Comment on Scope of PEIS



HAWAI'I CLEAN ENERGY PEIS

- For a broad range of energy efficiency activities and renewable energy technologies
 - Evaluate potential environmental impacts and benefits
 - Identify potential mitigation measures and best practices
 - Incorporate public input
- Opportunity to inform decision-making
- Informational resource

WHY A HAWAI'I CLEAN ENERGY PEIS?

- State of Hawai'i and DOE partnership – January 2008 Memorandum of Understanding (MOU)
- Hawai'i Clean Energy Initiative (HCEI): 70% clean energy by 2030
- Past DOE assistance to Hawai'i to support clean energy
- Potential future DOE funding or other actions to support HCEI goal



HAWAI'I CLEAN ENERGY INITIATIVE (HCEI) IN CONTEXT

- 1974: Hawai'i's Energy Resources Coordinator established (HRS 196-3)
- 1978: Hawai'i's energy policies established:
Energy self-sufficiency; dependable, economical, efficient energy systems
- 2001: First Renewable Portfolio Standard (RPS)
- 2008: HCEI Memorandum of Understanding (MOU) between the State of Hawai'i and the U.S. Department of Energy: technical/policy analysis of resources/technologies/costs
- 2010: State law adds HCEI program; other policies, regulations, activities



Department of Business,
Economic Development & Tourism

HAWAI'I CLEAN ENERGY INITIATIVE

ELECTRICITY (70%)

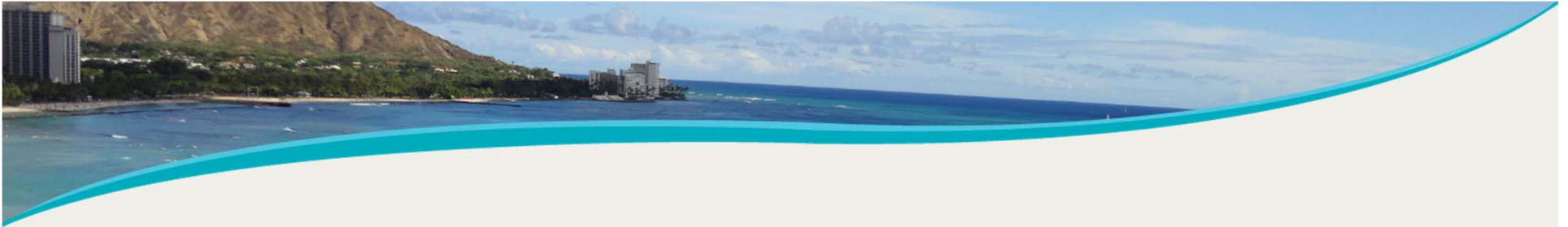
Energy Efficiency Portfolio Standard: ~30%

(4300 gigawatt-hours by 2030)

Renewable Portfolio Standard: 40%

TRANSPORTATION (70%)

Goal: Reduce petroleum demand of the ground transportation sector by 2030 70%



FEDERAL ENVIRONMENTAL REVIEW PROCESS

- National Environmental Policy Act (NEPA)
 - Federal decision-making informed by environmental review
 - Federal process with public involvement
 - Cooperating agency involvement
- Programmatic EIS (PEIS)
 - Analyzes environmental impacts of broad agency actions
- Hawai'i Clean Energy PEIS is a planning study for possible future programs or projects
 - No specific projects are proposed in this PEIS
 - No specific locations or sites are proposed in this PEIS
- This PEIS does not eliminate need for project-specific environmental review

HOW DID WE GET HERE?

- Hawai'i Interisland Renewable Energy Program Environmental Impact Statement: Wind (HIREP: Wind Phase)
 - Notice of Intent (NOI) – December 14, 2010
 - Public Scoping meetings – February 1-5, 2011
- Received many comments
- Public comments led to re-scoping



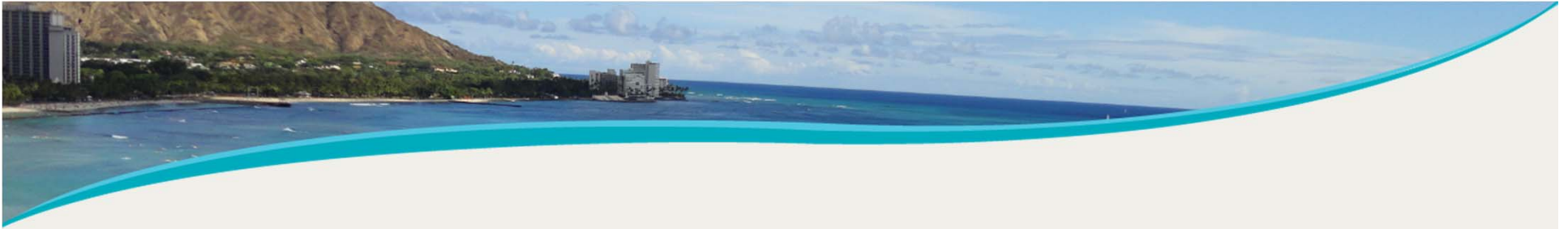
HAWAI'I CLEAN ENERGY PEIS

- New Proposal: DOE proposes to develop guidance that DOE can use in making decisions about future funding or other actions to support Hawai'i in achieving the HCEI goals
- New Scope: Broader range of renewable energy and energy efficiency activities and technologies
- New Area: Six Hawaiian islands (O'ahu, Maui, Moloka'i, Lāna'i, Kaua'i, and Hawai'i)
- New Notice of Intent: Programmatic environmental review
 - No specific projects or locations identified for analysis
 - Future projects subject to specific environmental review

ENVIRONMENTAL RESOURCE AREAS AND POTENTIAL IMPACTS

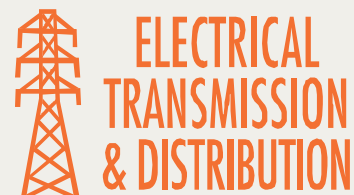
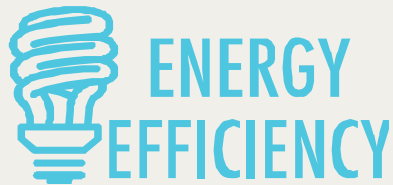
The PEIS will evaluate a range of potential impacts, for example:

- Cultural and historical resources
- Threatened and endangered species
- Water resources
- Socioeconomics
- Air quality
- Visual resources
- Land use



SCOPE OF HAWAI'I CLEAN ENERGY PEIS

- Five clean energy categories:



Energy Efficiency

Refers to using less energy when performing the same activities, such as heating, cooling, or lighting

- Buildings (new construction and retrofits)
- Energy Conservation
- Initiatives and Programs (e.g., incentives and rebates)
- Ground Source Heat Pumps
- Sea Water Cooling
- Solar Water Heating



Distributed Renewables

Include a variety of small-scale generating technologies located and operated near the point of energy use

- Biomass (small systems)
- Hydroelectric (small systems)
- Hydrogen Fuel Cells
- Solar Photovoltaic Systems
- Wind (small systems)



Utility-Scale Renewables

Designed to generate large quantities of electricity for delivery to an electrical grid and to multiple electricity users

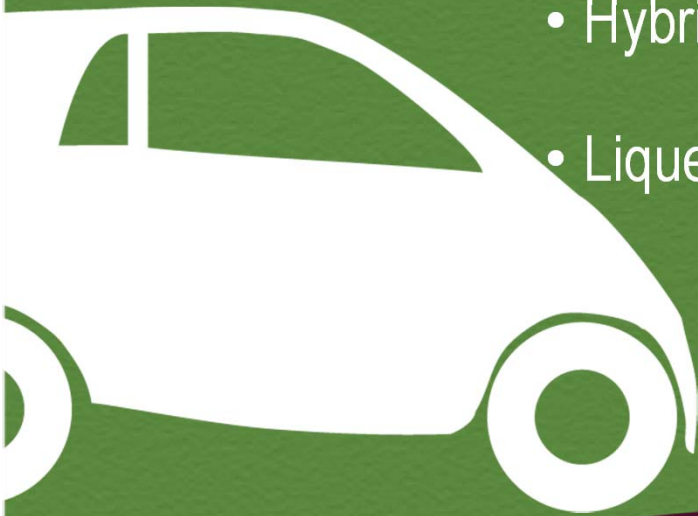
- Biomass
- Hydroelectric
- Ocean Energy (wave, current, and tidal)
- Solar Photovoltaic Systems
- Wind (land-based and offshore)
- Geothermal
- Municipal Solid Waste (including landfill gas)
- Ocean Thermal Energy Conversion
- Solar Thermal Systems



Alternative Transportation Fuels and Modes

Technologies to replace or minimize petroleum-based fuels and reduce dependence on foreign oil

- Biofuels
- Hybrid Electric Vehicles
- Liquefied Natural Gas
- Electric Vehicles
- Hydrogen
- Mass Transportation

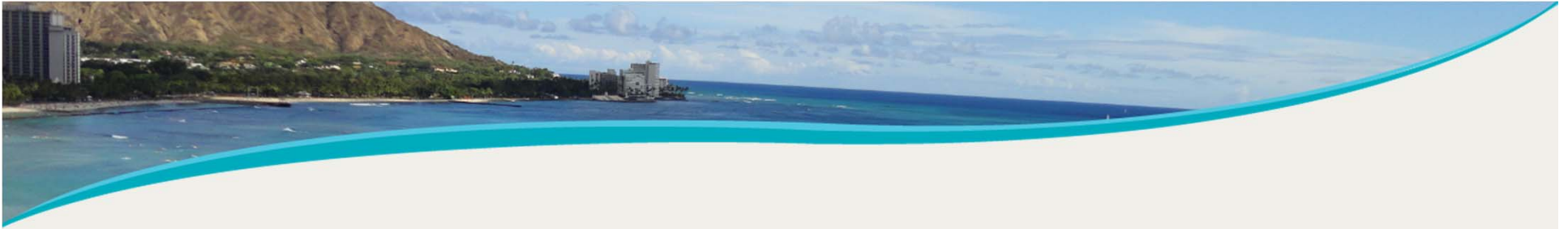


Electrical Transmission and Distribution

Systems to efficiently deliver electrical energy to end users

- On Island Transmission
- Land/Sea Cable Transition Sites
- Undersea Cable Corridors
- Smart Grid
- Energy Storage



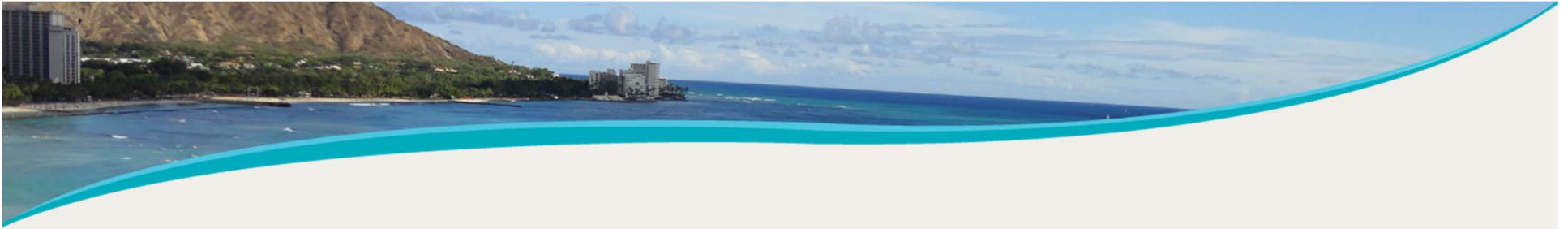


PEIS ANALYTICAL APPROACH

- The PEIS will analyze a range of potential environmental – including cultural and socioeconomic – impacts associated with implementing clean energy activities and technologies on the islands of Hawai‘i, Kaua‘i, Lāna‘i, Maui, Moloka‘i, and O‘ahu
 - Describe potential activities and technologies
 - Describe potential affected environment on island-by-island basis
 - Analyze potential environmental, including cultural and socioeconomic, impacts
 - Identify potential mitigation measures

DOE'S PROPOSED ACTION: DEVELOP GUIDANCE

- Guidance could be used to ensure future DOE decision-making considers environmental, including cultural and socioeconomic, impacts
 - DOE grant programs, future site-specific projects

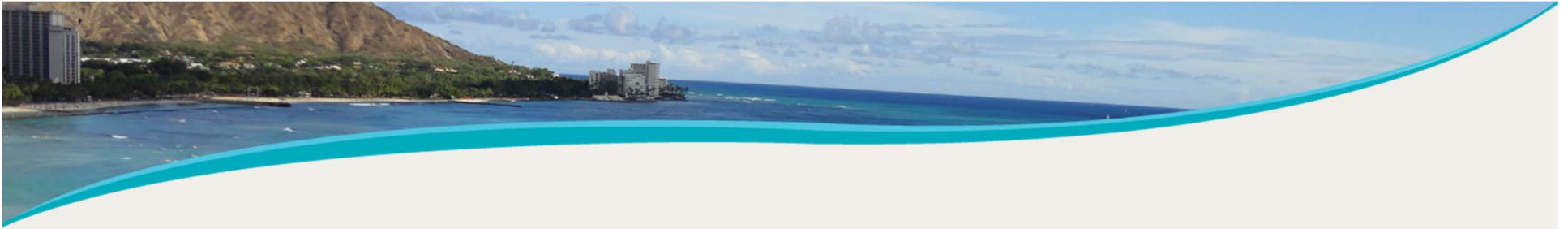


GET INVOLVED

- DOE seeks comments on the scope of the PEIS
 - Are there additional energy efficiency and renewable energy activities and technologies that should be considered?
 - Do you have information about potential environmental, including cultural and socioeconomic, impacts that may be shared?
 - What types of guidelines would you like included if DOE develops guidance?

HOW DO I COMMENT?

- SCOPING: Please submit comments on scope of PEIS by October 9, 2012
 - Email to hawaiicleanenergypeis@ee.doe.gov
 - Electronic comments via the PEIS Web site at <http://www.hawaiicleanenergypeis.com>
 - Facsimile (fax) to (808) 541–2253, Attn: Hawai'i Clean Energy PEIS
 - U.S. mail to Jim Spaeth, U.S. Department of Energy, 300 Ala Moana Blvd., P.O. Box 50247, Honolulu, HI 96850-0247
 - Make your comment during the formal commenting session, which will be transcribed by a court reporter
- DRAFT PEIS: Comment period and public hearings after issuance of Draft PEIS (expected in mid- to late-2013)



MAHALO

Next:

- Questions and Answers
- Break
- Opportunity to Comment on Scope of PEIS

Additional information about the PEIS may be found at DOE's PEIS Web site:

<http://www.hawaii-clean-energy-peis.com>