HAWAIʻI INTERISLAND RENEWABLE ENERGY PROGRAM (HIREP)

BACKGROUND INFORMATION

Prepared for:

State of Hawaiʻi
Department of Business, Economic Development and Tourism
Strategic Industries Division

Prepared by:

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaiʻi 96813

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DISCLAIMER

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
BOEM	Bureau of Ocean Energy Management
C.F.R.	Code of Federal Regulations
CMP	Comprehensive Management Plan
CWA	Clean Water Act
DBEDT	Department of Business, Economic Development & Tourism
EIS	Environmental Impact Statement
GWh	gigawatt hours
HAR	Hawai‘i Administrative Rule
HCEI	Hawai‘i Clean Energy Initiative
HECO	Hawaiian Electric Company
HEPA	Hawai‘i Environmental Policy Act
HIREP	Hawai‘i Interisland Renewable Energy Program
HRS	Hawai‘i Revised Statutes
kW	kilowatt
MCBH	Marine Corps Base Hawai‘i at Kāne‘ohe Bay
MPL	Moloka‘i Properties Limited
MW	megawatt
NAGPRA	Native American Graves Protection & Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NREL	National Renewable Energy Laboratory
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHA	Office of Hawaiian Affairs
OPT	Ocean Power Technologies
OTEC	Ocean Thermal Energy Conversion
OWITS	O‘ahu Wind Integration and Transmission Study
PEIS	Programmatic Environmental Impact Statement
PUC	Public Utilities Commission
SHPD	State Historic Preservation Division
U.S.	United States
U.S.C.	U.S. Code
USDOE	U.S. Department of Energy
WEC	wave energy converter
WUDP	(County) Water Use and Development Plan
°C	degrees Celsius
°F	degrees Fahrenheit

LIST OF HAWAIIAN WORDS

Hawaiian Reference for Community Engagement Section

Ahupuaʻa – land division usually extending from the uplands to the sea

Hōʻihi – to respect or treat as sacred; respectful

Haʻahaʻa – humility, humble, modest

Hilinaʻi – to believe, to rely on; trust, confidence

Hoʻomau – to continue, keep on, persist, perpetuate, persevere

Iwi kūpuna – the bones of the dead, considered the most cherished possession

Koʻa, koʻa lawaiʻa – shrines, fishing shrine; fishing grounds

Kuleana – right, privilege, concern, responsibility

Kūpuna – ancestors, elders

Mahalo – thanks, gratitude, appreciation

Makana – gift, present

Mākia – aim, motto, purpose; to aim or strive for something; purposeful

Manaʻo – thought, idea, opinion, theory

Noʻonoʻo – to think, reflect, meditate, concentrate

Pono – goodness, morality, righteousness, virtue

Pule – prayer, blessing, grace

CHAPTER 1.0
INTRODUCTION

The State of Hawai‘i’s Department of Business, Economic Development and Tourism (DBEDT), has the lead role for Hawai‘i in energy planning and policy initiatives to benefit Hawai‘i’s economy and inhabitants. DBEDT and the United States (U.S.) Department of Energy (USDOE) entered into a Memorandum of Understanding in January 2008 to institute the Hawai‘i Clean Energy Initiative (HCEI). Through the HCEI, a number of actions have been taken to help Hawai‘i attain its goal of 70 percent clean energy by 2030.

This Hawai‘i Interisland Renewable Energy Program (HIREP) Background Information document may be useful for environmental review, at a programmatic level, of renewable energy generation and the interisland transfer of generated power through one or more undersea cables in the State of Hawai‘i. Chapter 2 of this document contains background information developed to date. A companion Reference Information document contains reference information intended for use in future environmental review and planning efforts specifically related to the implementation of an undersea cable system.

A programmatic-level discussion was selected in large part because no specific projects dealing with interisland power transfers were proposed at the time of this work. At the same time, interest was shown in moving the concept of interisland electricity transfers forward, to facilitate the understanding of future renewable energy transmission. Achieving the HCEI goal of 70 percent clean energy by 2030 would likely require addressing renewable power generation and delivery on a regional scale between two or more islands.

Chapter 3 (in combination with Appendix A) documents some of the preliminary activities of public outreach. This chapter also provides some “lessons learned” in the earlier outreach efforts, as well as some recommendations for public outreach in the future.

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CHAPTER 2.0
PROGRAM BACKGROUND

2.1 BACKGROUND REGARDING HAWAI'I'S ENERGY SITUATION

2.1.1 Hawai'i's Current Dependence on Imported Fossil Fuels

Hawai'i depends on imported fossil fuel (mostly oil) for over 85 percent of its energy for land, air, and sea transportation, and for the generation of electricity. Hawai'i has the highest energy dependence on imported oil of any state in the U.S. and is thereby the most vulnerable to price increases and changes in oil availability.

2.1.2 Transforming Hawai'i's Energy Systems

The State of Hawai'i has recognized that a new paradigm in energy sources and management is needed to ensure future economic and environmental health of all the islands. The HCEI has as its goal to decrease energy demand and accelerate the use of renewable, indigenous energy resources in Hawai'i so that a combination of efficiency and use of renewable energy resources will ultimately meet 70 percent of Hawai'i's energy needs by the year 2030, with 30 percent from efficiency measures and 40 percent coming from renewable sources (http://www.hawaiiclean energyinitiative.org).

HCEI is focused on meeting two objectives: (1) reducing energy use through efficiency; and (2) developing indigenous, renewable energy sources. Some goals for the overall renewable energy program (http://energy.hawaii.gov/) include:

- Improving energy security by reducing Hawai'i's dependence on imported oil,
- Protecting the environment by reducing greenhouse gas emissions,
- Providing a backbone for the future development of Hawai'i's electrical infrastructure and addition of more renewable energy,
- Bringing investment and jobs in construction of high technology resources, and
- Reducing the amount of money spent for purchases of fossil fuels ($6 billion statewide in 2011).

Hawai'i has embarked on an ambitious program to transition to a sustainable, clean, flexible, and economically vibrant energy future. The vision of the HCEI is "to serve as a global model for creating a sustainable, flexible, and economically vibrant energy future.

2.1.3 Renewable Energy Sources and HCEI Implementation

The State of Hawai‘i and USDOE are committed to investigating solutions to meet the HCEI goals. The State has adopted a comprehensive approach to move the electricity sector toward achieving the HCEI goals. Hawai‘i’s energy laws include a Renewable Portfolio Standard of 15 percent by 2015, 25 percent by 2020, and 40 percent by 2030 (see Hawai‘i Revised Statutes [HRS] Chapter 269-91 [2012] *et seq.*; HRS Chapter 196 [2012]) and an energy efficiency portfolio standard that calls for the statewide reduction in electricity use of 4,300 gigawatt hours (GWh) via efficiency measures by 2030 (HRS Chapter 269-96 [2012]).

Hawai‘i faces challenges to achieving the HCEI goals, including the fact that O‘ahu is the most densely populated island in Hawai‘i, with 70 percent of the population and the bulk of the demand for electricity (74 percent of state demand; NREL 2012) also on that island. Moreover, due to the limited amount of available land and limited viable renewable energy resources on O‘ahu, it is not possible to meet HCEI’s renewable energy goals with O‘ahu-based projects alone (NREL 2012; Scenario 7, Table 1). This “O‘ahu gap” represents approximately 35 percent of the current projected demands on O‘ahu in 2030 (NREL 2012). The 2012 National Renewable Energy Laboratory (NREL) study evaluated potential renewable generation not only on O‘ahu, but also on other islands, and identified interisland transmission as a means of meaningfully reducing petroleum fuel dependence.

Hawai‘i has abundant local renewable energy resources. Renewable energy is energy that comes from resources that are naturally replenished. Examples of renewable energy that are known to be abundant in Hawai‘i (http://www.hawaiicleanenergyinitiative.org/renewable-energy/index.html) and are available for development include:

- Wind
- Solar
- Geothermal
- Biomass/Biofuel
- Ocean Thermal Energy Conversion (OTEC)
- Hydroelectric generation
- Marine Hydrokinetic (including tidal and wave power)

It is estimated that Hawai‘i can potentially meet a substantial portion of its future energy needs from such sources (NREL 2012; also http://www.hawaiicleanenergyinitiative.org/objectives/index.html). However, achieving rapid utilization at a market scale would require substantive transformation of the financial, regulatory, legal, and institutional systems that govern energy planning and delivery within Hawai‘i. USDOE and DBEDT have led an ongoing review by other federal agencies and local stakeholders in identifying energy options that would push the transformation of Hawai‘i’s energy sector toward HCEI’s goals (HCEI Road Map, DBEDT 2011 Edition: http://www1.eere.energy.gov/deployment/pdfs/52611.pdf).

A complete range of energy scenarios were considered or were already in development for O‘ahu and the other islands, including efficiency improvements, ocean/wave energy, generation using municipal solid waste, utility-scale solar projects, rooftop solar, wind projects on O‘ahu, and generation using biomass (NREL 2012). AECOM conducted an evaluation of renewable energy technologies that were considered economically and technically feasible within the implementation deadlines of HCEI (see Appendix B, Renewable Energy Technology Summary Evaluation). In that evaluation, the combined criteria of feasibility, scalability, and cost limited the potential for contributions of several of these options. To reach the HCEI goals of 70 percent clean energy by 2030, it will be necessary to develop the information resources needed to further evaluate and attract knowledgeable input on, and potentially investment toward, the most feasible, commercially scalable, and economic technologies available.

The following sections contain information on wind, solar, geothermal, and other resources found in Maui and Honolulu counties. For the purposes of discussion, the following definitions are used:

- Wind: Wind turbines convert the kinetic energy in the wind into mechanical power. This mechanical power can be used for specific tasks, or a generator can convert this mechanical power into electricity.
- Solar: Photovoltaic or concentrating solar power
    - In solar photovoltaic (PV) systems, solar cells convert the sun’s energy directly into electricity. A common example of a PV source is a solar cell on a solar-powered calculator.
    - In concentrating solar power systems, the energy from the sun is focused by mirrors onto a pipe or other point (receiver), using mirrors. This heats a fluid, which creates steam. The steam turns a turbine/generator, thus producing electricity.
- Geothermal: Geothermal resources include the heat retained in shallow ground, hot water, and rock beneath the earth’s surface, and extremely high temperature molten rock (magma) located deep in the earth, which heats subsurface water. This steam is accessed by drilling, is run through a heat exchanger, and is returned to the earth through reinjection wells. Above ground, fresh water heated through the heat exchanger becomes clean steam and is used to turn a turbine/generator, thus producing electricity.
- Other Renewable Energy Types: These include biofuels, biogas, biomass, hydroelectric, hydrogen, municipal solid waste, wave energy (hydrokinetic devices), and ocean thermal energy conversion (OTEC) resources.

The commercial use of the various renewable energy technologies is not mutually exclusive. Wind power and power generated from the other technologies listed above may be seen as a “menu” of potential future alternative energy options to meet demands on O‘ahu and the other

islands, not as a zero-sum game in terms of what can be implemented. The implementation of wind power, considered a commercially viable option for large-scale projects at present, will not take away the potential for implementing solar, geothermal, or other power types to contribute to Hawai‘i’s energy portfolio.

In a recent study (NREL 2012), the status and applicability of known renewable energy resources for O‘ahu were evaluated and projects were prioritized for implementation to achieve the HCEI goals. As discussed above, the available renewable energy resources on O‘ahu are not sufficient to meet the requirements for an anticipated 2,000 GWh-hours per year by the year 2020.

Wind Energy as a Viable Near-Term Commercial-Scale Technology to Meet HCEI Goals

Both Moloka‘i and Lāna‘i are known to possess significant undeveloped wind power resources (NREL 2012), and Maui has already begun development of wind resources on a commercial scale. As a source of energy to fill the identified “O‘ahu gap,” wind power from other islands was recognized as a potential source of significant power, and the challenge of transmitting the power to O‘ahu was also recognized.

Wind energy is a known power generation technology that can be sized to meet existing demands and easily expanded to meet future demands, and has a known cost of generation that is within the acceptable range for Hawai‘i’s planning criteria. The NREL study (2012) concluded that, in the near term, electricity generation from wind resources is viable for Hawai‘i on a commercial scale, and that Maui County (the islands of Maui, Lāna‘i, and Moloka‘i) has the most abundant wind resource close to O‘ahu. Other power types (and local, rather than interisland, wind power projects) would also contribute to the mix of power generation options for meeting the HCEI goals.

Wind Resources and the Components of a Viable Wind Power System

Hawai‘i has wind resources consistent with utility-scale power production. Good-to-excellent wind resource areas (as defined in NREL 2012) are distributed throughout the islands. The largest contiguous areas are located on the western parts of Moloka‘i and Lāna‘i, on the western and southern shores of Maui, and on the northern and southern tips of Hawai‘i (Figure 2-1). There are also localized high-wind resource areas on the islands of Kaua‘i and O‘ahu.

In general, the availability of wind resources has generated commercial interest in wind energy development and, specifically, there have been proposals for development of wind farms on Lāna‘i and Moloka‘i. According to the November 19, 2009, report of the Independent Observer to the Public Utilities Commission (PUC),[1]

[1] http://www.heco.com/vcmcontent/GenerationBid/HECO/IOFinalAwardReport111309publicFINAL.pdf.

As set forth in the Short List Report, bids were received by HECO in response to the RFP in September 2008. Of those bids, one bid was withdrawn since its small size (5 MW or less) allowed it to pursue a negotiated power purchase agreement with HECO without resort to competitive bidding. Another bid was rejected because it was submitted late, was incomplete and did not include a bid submittal fee.

Of the remaining bids, there were proposals to build wind farms on two neighboring islands that involved construction of a submarine cable to deliver the output of the proposed wind farms to Oʻahu, each having several hundred MW of nameplate generating capacity. Under the terms of the RFP, proposed contracts involving in excess of 100 MW of electrical output were non-conforming (although they would be considered under specified criteria). On October 20, 2008, HECO and its utility affiliates entered into an Energy Agreement with the Governor of Hawaiʻi, the State Department of Business, Economic Development and Tourism, and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs as part of the Hawaiʻi Clean Energy Initiative. Under the Energy Agreement, HECO committed with the assistance of the State of Hawaiʻi to integrate up to 400 MW of wind power into the Oʻahu electrical system that would be produced by one or more wind farms located on either the island of Lānaʻi or Molokaʻi and transmitted to Oʻahu via submarine cables. HECO also agreed to work with the developers of these "Big Wind" projects and the Commission to "bifurcate their project proposals from the ongoing Oʻahu RE RFP."

Following announcement of the Energy Agreement, HECO ceased evaluation of the proposed neighbor island or "Big Wind" projects in the context of this RFP since, pursuant to the Energy Agreement, these bids would be evaluated in a separate process. On March 16, 2009, HECO submitted to the Commission in this docket, a confidential agreement between HECO and the two developers of the Big Wind projects that sets forth the agreement between the parties, which includes the undertaking of technical studies pertinent to these projects. As part of the agreement, the two developers and HECO agreed that each would develop 200 MW on each of the two islands, and, if one of them failed, the other would get most of MW contemplated under the agreement.

In this letter, HECO stated that it had determined it should bifurcate these non-conforming bids from the conforming bids. It also stated that:

> Any of the conforming bids projects that result in approved Power Purchase Agreements ("PPAs") will have curtailment priority over any resulting Big Wind projects. In effect, the conforming projects are being considered first, and Interconnection Requirements Studies are being initiated for the short-listed bids as soon as they provide the required project data for these studies.

The availability of wind energy resources, the State's commitment to the HCEI, and the demonstrated interest of potential wind power project developers prompted more detailed analyses of the feasibility, economics, and benefits of such an interisland development.

O‘ahu Wind Integration and Transmission Study (OWITS)

Under the energy agreement signed between the State of Hawai‘i and Hawaiian Electric Company (HECO) in October 2008 as part of the HCEI, HECO committed to increasing renewable energy statewide by 1,100 megawatts (MW) (to provide 40 percent of the total grid demand) by 2030. A major piece of this objective was expected to be fulfilled by 400 MW of the so-called "Big Wind" project, proposed (at that time) by Castle & Cooke (Lāna‘i) and First Wind (Moloka‘i), to be added to O‘ahu's grid from wind power development on Lāna‘i and/or Moloka‘i and, transmitted by way of an undersea cable. (As of spring 2012, these projects have not come to fruition.)

Integrating large amounts of variable renewable energy such as wind into an electrical grid is challenging because of the variability of the power output. Previous "wind integration" studies have been performed to examine the technical aspects of integrating large amounts of wind power into the bulk electrical grids in the U.S. and Europe (NREL 2011). The methodologies and lessons learned from these studies were applied to a study of the O‘ahu grid, which is even more challenging because it has a significantly smaller load. The OWITS study (NREL 2011) was composed of several smaller studies and was sponsored jointly by HECO, DBEDT, and USDOE. The scope of the OWITS work included the following:

- Identify the technical requirements and configuration for an undersea interisland cable to transmit electricity from large wind generators on Moloka‘i and Lāna‘i to O‘ahu;
- Identify the ancillary services and potential mitigation measures to offset the variable availability of planned wind and solar power generation;
- Evaluate potential modifications to the utilities' existing conventional generating units to offset the variable nature of wind and solar energy; and
- Change some of the utilities operational practices and procedures, including an evaluation of the potential benefits of wind forecasting, required to operate the island grids while integrating interisland wind power into O‘ahu's supply.

The scenarios studied in OWITS included 200 MW of wind generation on both Moloka‘i and Lāna‘i, with an additional assumed 100 MW of wind and 100 MW of commercial solar somewhere on those islands (NREL 2011). Small amounts of the Moloka‘i and Lāna‘i wind power were assumed available for local consumption on those islands, but the vast majority of the wind power would be used to supply the much larger O‘ahu electrical load. The OWITS scenarios did not include all the potential solar energy power generation envisioned for O‘ahu under the HCEI, but rather an amount that could be technically integrated into the study

methodology within the budget and timeline of the OWITS project. Future integration studies could more specifically address integrating solar energy on O‘ahu and other Hawaiian Islands by building off the results and methodologies of OWITS.

The conclusion of the OWITS analysis of the “Big Wind” and undersea cable initiatives under the HCEI agreement was that bringing 400 MW of wind to O‘ahu with an undersea cable, although challenging from both an engineering and environmental permitting aspect, was technically feasible and could be pursued as an important part of the 40 percent renewable HCEI goal.

Technology Evaluation Building on the OWITS Conclusions

Since this type of project had never before been proposed for implementation in the State of Hawai‘i, and the project potentially involved the participation of multiple state and federal agencies and stakeholder groups, a comprehensive regulatory and management approach was sought for dealing with the environmental and permitting issues. This led to the proposed programmatic approach to the environmental compliance process.

As part of the technology evaluation and public interaction aspects of the technology evaluation, zones of suitable wind energy, from NREL data, were mapped to define areas on the Maui County islands that could support a commercial-scale wind power installation (see Reference Information document Appendix A).

Solar Power as a Viable Near-term Commercial-Scale Technology to Meet HCEI Goals

Three types of solar power were initially evaluated (NREL 2012): rooftop solar on commercial buildings, rooftop solar on residential buildings, and commercial-scale solar. Rooftop solar is not a viable option for a utility-scale project on either Lāna‘i or Moloka‘i, due to the low populations and limited number of residential and commercial building rooftops available. Such an implementation could theoretically be more feasible on Maui. A ground-mounted commercial-scale solar development could be implemented by an individual developer on a larger area of land for connection to the interisland grid.

In the NREL study (2012), the threshold for commercial-scale solar energy generation facility was defined to be a minimum of 500 acres to support a 100-MW installation.

NREL (2012) identified only 8 MW of solar generating capacity on Maui (mostly as rooftop installations), and none on Lāna‘i or Moloka‘i. For inclusion and consideration in the Reference Information document, the islands in Maui County were analyzed for general suitability for commercial-scale solar energy development (see Reference Information document Appendix A). Similar to the discussion above for wind energy, suitability of concentrated solar technologies was determined by the presence of large contiguous parcels of suitable land use

with suitable site characteristics. Criteria for consideration included contiguous terrain with a slope of 5 percent or less for optimal solar farm construction, operations, and management, and a minimum of 500 acres to support a 100-MW facility.

It was determined that Molokaʻi, Lānaʻi, and Maui all possess adequate open lands of suitable land use and topography to support facilities as described. Therefore, sufficient suitable areas are available on Molokaʻi, Lānaʻi, and Maui to support the development of commercial-scale solar energy facilities.

Geothermal Power as a Viable Near-term Commercial-Scale Technology to Meet HCEI Goals

Geothermal is considered as a consistent "baseload" source of generated power that can help fill the gaps in power availability of wind or solar installations, which are more periodic due to times of low wind or when the sun is down. Of the islands in Maui County, only the island of Maui has a designated geothermal resource subzone.

In "Assessment of Energy Reserves and Costs of Geothermal Resources in Hawaiʻi" (GeothermEx 2005) two commercially viable geothermal development areas were identified on Maui: the Haleakalā Southwest Rift Zone and the Haleakalā East Rift Zone. The combined capacity was estimated to be 38 MW (minimum) and 139 MW (likely). The two zones are roughly the same size—the Haleakalā Southwest Rift Zone is assumed to be the area most likely to be developed based on proximity to existing infrastructure in central and western Maui. The actual area developed would be contingent on the results of future exploratory drilling. NREL (2012) assumed a power potential of 140 MW for geothermal resources on Maui.

Other Renewable Energy Resources as Potential Contributors to Meet HCEI Goals

Other renewable energy sources evaluated as potential contributors to meeting the HCEI goals were identified from NREL (2012) and HRS Chapter 269 Part V, as well as inputs at public scoping meetings held for the renewable energy program environmental process. These technologies included:

- Biofuels
- Biogas
- Biomass
- Hydroelectric (with and without pumped storage)
- Hydrogen
- Municipal solid waste
- Ocean energy (hydrokinetic devices)
- OTEC
- Solar – rooftops

- Wave energy
- Wind – airborne power generation devices
- Wind – offshore

Brief summaries of the potential for these technologies are included below. Each of these technologies is currently considered less likely than wind, concentrating solar, or geothermal as a source of significant generation of electricity for interisland transmission.

Biofuels

Biofuels are liquid or gaseous fuels produced from biomass. Most biofuels are used for transportation, but some are used as fuels to produce electricity. The availability of biofuels is directly related to the availability of biomass feedstocks (see below; Biomass). The NREL report (2012) allocated biofuels to the transportation sector only.

There are many unknown issues regarding the implementation of biofuels, including whether it would be more likely for biofuels to be used closer to the load, to provide grid support, or to generate electricity remotely for transmission through the undersea cable.

Biogas

Biogas, primarily methane, is most commonly produced by biological breakdown of organic materials in the absence of oxygen. The gases can be used as a fuel. The availability of biogas, which includes landfill and sewage-based digester gas, is not quantified in the NREL study (2012).

Biomass

Biomass resources include any plant-derived organic matter that is available on a renewable basis. These materials are referred to as feedstocks. Biomass feedstocks include dedicated energy crops, agricultural crops, forestry residues, aquatic crops, biomass processing residues, municipal waste, and animal waste.

The NREL study (2012) identified only local biomass for on-O‘ahu generation use, generating approximately 25 MW.

Hydroelectric Power Generation

Hydropower technologies use flowing water to create electricity. Both large- and small-scale power producers can use hydropower technologies to produce clean electricity. NREL identified 3 MW of hydropower potential on Maui (NREL 2012).

Hydroelectric Pumped Storage (in conjunction with wind power)

Most large-scale hydropower projects use a dam and a reservoir to retain water from a source. When the stored water is released, it passes through and rotates turbines, which spin generators to produce electricity. Water stored in a reservoir can be accessed quickly for use during times when the demand for electricity is high.

A pumped-storage concept requires two reservoirs at appropriate elevations, pipelines, pumps, and electricity-generating facilities. The need for two reservoirs represents a substantial dedicated land requirement.

Hydrogen

To generate electricity using hydrogen, pure hydrogen must first be extracted from a hydrogen-containing compound. Generally, this would require electricity as an input to the electrolysis of water. The production and use of hydrogen is generally considered an energy storage technique. The round-trip energy efficiency of the process is one of the factors to be considered in comparing this energy storage approach to other forms of energy storage, such as batteries or pumped hydro systems.

Once the hydrogen has been produced, it can be used in a fuel cell or in an engine. The recent NREL approach (2012) was to treat hydrogen generated from renewable energy sources as an alternative transportation fuel, and not as a renewable energy resource.

Municipal Solid Waste

Residential, commercial, and institutional post-consumer waste contains a significant proportion of plant-derived organic materials that constitute a renewable energy resource. Waste paper, cardboard, wood waste, and yard waste are examples of biomass resources in municipal waste. Currently, a sufficient volume of municipal solid waste to support an electricity production facility is available on Maui, potentially capable of generating approximately 8 MW.

Ocean Energy – Hydrokinetic Devices

Hydrokinetic technologies produce renewable electricity by harnessing the kinetic energy of moving water. The technologies developed to generate energy from waves and currents, called hydrokinetic energy conversion devices, are generally categorized as either wave energy converters (WECs) or rotating devices.

WECs utilize the motion of two or more bodies relative to each other. One of these bodies, called the displacer, is acted on by the waves. The second body, the reactor, moves in response to the displacer. While a number of designs and configurations of WECs exist, the four

most commonly discussed are the oscillating water column wave energy converter; point absorber wave energy converter; attenuator, also known as heave-surge devices; and overtopping devices.

Rotating devices capture the kinetic energy of a flow of water, such as a tidal stream, ocean current, or river, as it passes across a rotor. The rotor turns with the current, creating rotational energy that is converted into electricity by a generator. Rotational devices used in water currents are conceptually akin to, and some designs look very similar to, wind turbines.

NREL (2012) did not identify any capacity for hydrokinetic ocean energy devices as contributors, within the scale or timeframe required, for HCEI implementation.

Ocean Thermal Energy Conversion

OTEC uses the heat energy stored in Earth's oceans to generate electricity. OTEC works best when the temperature difference between the warmer, top layer of the ocean and the colder, deep ocean water is about 36 degrees Fahrenheit (20 degrees Centigrade). These conditions exist in tropical coastal areas, roughly between the Tropic of Capricorn and the Tropic of Cancer. To bring the cold water to the surface, ocean thermal energy conversion plants require an expensive, large-diameter intake pipe, which is submerged a mile or more into the ocean's depths. Some energy experts believe that if ocean thermal energy conversion can become cost-competitive with conventional power technologies, it could be used to produce billions of watts of electrical power.

Although all major U.S. OTEC experiments have taken place in Hawai‘i, no permanent facility exists. A 1-MW facility has been proposed by the Natural Energy Laboratory of Hawai‘i Authority. Currently, cooled seawater is used to air condition the administration and laboratory buildings. The seawater provides about 50 tons of air conditioning, offsetting the equivalent of 200 kilowatts (kW) of peak electrical demand.

NREL (2012) did not identify any capacity for OTEC devices as contributors, within the scale or timeframe required, for HCEI implementation.

Solar – Rooftops

Solar (generally photovoltaic) panels mounted on rooftops of commercial buildings are used to generate electricity. This approach is called "distributed" solar. The potential capacity is up to 111 MW on Maui (NREL 2012).

Solar panels mounted on rooftops of residential buildings could generate up to 80 MW on Maui (NREL 2012).

Wave Technology

Wave energy technologies extract energy directly from surface waves or from pressure fluctuations below the surface. Wave energy can be converted to electricity by offshore or onshore facilities. A wide variety of technologies and designs are under development. The testing and development of one type of wave energy device (Ocean Power Technologies [OPT]) has been taking place in waters off O'ahu's windward coast, near Marine Corps Base Hawai'i (MCBH) at Kāne'ohe Bay, since 2004. In 2010, OPT's third experimental buoy became the first ocean energy device in the U.S. to generate electricity to the grid (40 kW). An Australian company, Oceanlinx, has proposed a wave energy project for Maui. Originally planned for 2.7 MW, the 0.5-MW project is the only ocean energy initiative in Hawai'i to have received a preliminary permit from the Federal Energy Regulatory Commission as of 2010.

Wind – Airborne Power Generation Devices

Airborne wind power generation devices have been proposed for operation up to 2,000 feet or higher to capture the steadier, more efficient wind currents and convey energy to land-based processing centers through an attached tether. This technology was not evaluated in the 2012 NREL study.

Wind – Offshore Platforms

Offshore wind facilities are situated in bodies of water to generate electricity from wind. Offshore wind facilities were not evaluated in the 2012 NREL study.

Non-Renewable Energy Resources

Other energy sources were proposed at public scoping meetings. These technologies included liquefied natural gas and nuclear power, neither of which is a renewable energy source.

2.2 PROGRAMMATIC APPROACH

2.2.1 Overview

A programmatic approach was selected because the environmental review focused not on a specific project on a single island, but rather on implementation of a larger program addressing renewable power generation and delivery on a regional scale between two or more islands.

2.2.2 Example of a Comprehensive Management Plan Approach under HEPA

The Hawai'i Environmental Policy Act (HEPA) has no specific guidelines for preparing programmatic-level environmental documents. However, a programmatic approach, providing a

framework for the evaluation of future tiered projects, is similar to that used in preparing the University of Hawai'i's Comprehensive Management Plan (CMP) for the Mauna Kea Science Reserve in 2009 (Ku'iwalu 2009). In that instance, the University of Hawai'i prepared a CMP that identified cultural, environmental, biological, physical, and natural resources of the entire Mauna Kea Science Reserve, and required that all future actions, including telescope development, commercial uses, recreational, and cultural use be consistent with the CMP, as well as complying with applicable federal and/or state environmental laws. The University of Hawai'i also prepared an environmental assessment for the CMP (Pacific Consulting Services 2009) to comply with the requirements of HEPA. The Mauna Kea Science Reserve is situated on conservation-zoned lands, so the CMP was evaluated and approved under HEPA by the Department of Land and Natural Resources' Board of Land and Natural Resources. After the CMP was approved, the Thirty Meter Telescope Observatory Project prepared an [Hawai'i] EIS **(**Parsons Brinckerhoff, et al. 2010) tiering from and consistent with the approved Mauna Kea Science Reserve CMP. Community and regulatory agencies were provided various opportunities to participate in the CMP public engagement process. As a result of this comprehensive approach to reserve planning and management, and the focus on interaction and participation with regulatory agencies and the community, no legal challenges occurred on the Mauna Kea Science Reserve CMP or the TMT EIS.

2.2.3 Analysis of "Tiered" Specific Projects under a Programmatic Environmental Evaluation

While programmatic environmental evaluation documents are relatively common on the federal level, there has been limited experience with this type of process in Hawai'i. A future renewable energy programmatic evaluation could be designed to provide agencies and the public an overview of potential development consistent with the requirements and goals of the HCEI. A programmatic evaluation would not grant any rights or privileges to a specific project; rather, such an evaluation would establish policies and identify required conservation measures so that a project-specific applicant would have approved guidelines that would allow a more focused environmental review and permitting process, and comment by the public and reviewing agencies.

Subsequent projects submitted under the framework of a programmatic evaluation would be evaluated under the guidelines set forth in the programmatic evaluation. Under the umbrella of the programmatic requirements, each project-specific application would still be subject to individual environmental review and compliance, as well as discretionary permit approvals by applicable agencies.

The regulations implementing NEPA encourage agencies to use the "tiering" approach—tiering helps the lead agency focus on the issues that are ripe for decision and exclude from consideration issues already decided or not yet ripe (Title 40 Code of Federal Regulations [C.F.R.] Part 1508.28). Council on Environmental Quality guidance encourages the use of

programmatic documents and tiering to facilitate systematic informed decision making and reduce unnecessary paperwork, repetition, and delay (Title 40 C.F.R. Part 1500.4(i), 1502.4(b,d).

2.3 POTENTIAL LOCATIONS FOR RENEWABLE ENERGY DEVELOPMENT

The focus of this work is on the potential for renewable energy generation on the islands of Maui, Lānaʻi, and Molokaʻi and the transmission of the power produced on these islands to the island of Oʻahu. Maui is also included in the analysis as a producer or recipient of renewable generated power. General information on renewable energy technologies and potentially affected resources are discussed in a manner applicable statewide.

2.4 BACKGROUND ENVIRONMENTAL EVALUATION

An analysis of the program would involve the completion of an assessment of the potential positive and negative environmental, social, economic, and cultural impacts; discussion of relevant mitigation measures to address impacts, including cumulative impacts; and identification of appropriate conservation and construction measures. Analysis of impacts would focus on the likely potential regions where renewable energy projects could be implemented, likely suitable corridors for placing undersea interisland power transmission cable(s), and the general nature of electric system infrastructure upgrades (Navigant 2011).

The focus of this work is to provide programmatic-level information to support a number of analytic elements for renewable energy and undersea cable development in Hawaiʻi. The analysis does not evaluate project-specific issues and impacts associated with individual renewable energy projects.

2.5 PUBLIC INVOLVEMENT

Materials from the scoping meetings, including the written comment letters and recorded oral comments received at the scoping meetings, are contained in the HIREP Scoping Report (AECOM 2011). The topics of interest identified during the scoping process are addressed throughout that report, with supplementary information provided in Chapter 3, below.

2.6 INTERGOVERNMENTAL COORDINATION

As part of the NEPA compliance process in future evaluations of proposed renewable energy projects in Hawaiʻi, coordination and consultation with appropriate government agencies would be initiated to obtain regulatory input and guidance related to a specific proposed action. The purpose of this intergovernmental coordination is to ensure that all applicable laws, rules, regulations, and policies have been identified and that a proposed action has been duly

analyzed in light of these considerations. These statutes and regulations may include, but are not limited to, those listed in Table 2-1.

Any such proposed action may also require the following decisions and approvals from federal and state agencies.

2.6.1 Endangered Species Act, Section 7 Consultation

Consultation with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries) is required under the federal Endangered Species Act (Title 16 United States Code [U.S.C.] Sections 1531 *et seq*. [1973]) if a proposed action may affect federally threatened and/or endangered plant and animal species.

2.6.2 Clean Water Act, Section 404

Pursuant to Section 404 of the Clean Water Act (CWA) (Title 33 U.S.C. Section 1251 *et seq*. [1972]), the U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into wetlands and other "waters of the U.S." A Section 404 permit requires a CWA Section 401 Water Quality Certification from the Hawai'i Department of Health Clean Water Branch.

CWA Section 402 sets forth regulations that prohibit the discharge of pollutants into waters of the U.S. from any point source without obtaining a National Pollutant Discharge Elimination System (NPDES) permit. If the total area of land disturbance during construction activities would be over 1 acre, an NPDES General Permit for "Storm Water Activities Associated with Construction Activities," pursuant to Hawai'i Administrative Rules (HAR) Title 11 Chapter 55 Appendix C, would be required for storm water associated with the construction activities. The NPDES General Permit would be obtained prior to the commencement of construction activities. In addition, a NPDES General Permit for "Authorizing Discharge of Storm Water Associated with Industrial Activities," pursuant to HAR Title 11 Chapter 55 Appendix B, may be required.

2.6.3 National Historic Preservation Act Section 106 Compliance

The National Historic Preservation Act (NHPA; 16 U.S.C. 470 *et seq*. [1966]) requires federal agencies to consider the preservation of historic and prehistoric resources. Under the NHPA, the Secretary of the Interior is authorized to expand and maintain a National Register of Historic Places (NRHP). Section 106 of the NHPA mandates that all federal agencies take into account the effects of their undertakings (actions) on historic/prehistoric resources and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to review and comment on any action that may affect properties that are listed, or are eligible for listing, in the NRHP. Under Section 101 of the NHPA, a State Historic Preservation Office was established in each state and a State Historic Preservation Officer was given the responsibility of reviewing

and commenting on any action affecting NRHP properties, or properties eligible for listing in the NRHP.

2.6.4 Clean Air Act General Conformity Rule

The U.S. Environmental Protection Agency published "Determining Conformity of General Federal Actions to State or Federal Implementation Plans; Final Rule" (Federal Register, Volume 58, page 62235, Nov. 24, 1993; Title 40 C.F.R. Parts 93.150 through 93.160) regarding Conformity Determination requirements under Section 176(c) of the Clean Air Act (42 U.S.C. Sections 7401–7671q). Federal regulations state that no department, agency, or instrumentality of the federal government shall engage in, support in any way, provide financial assistance for, license to permit, or approve any activity that does not conform to an applicable implementation plan. It is the responsibility of the federal agency to determine, before federal action is taken, whether the action conforms to the applicable implementation plan (40 C.F.R. Part 51.850(a)).

2.6.5 Coastal Consistency Determination

The federal Coastal Zone Management Act (Title 16 U.S.C. Sections 1451 through 1456), as amended, requires that federal actions that affect any land or water use or natural resources of a state's coastal zone be consistent, to the maximum extent practicable, with the enforceable policies of a federally approved state coastal zone management plan.

2.6.6 Marine Mammal Protection Act

The federal Marine Mammal Protection Act (Title 16 U.S.C. Sections 1361 through 1407), as amended, established a federal responsibility to conserve marine mammals. Informal consultation would be undertaken with NOAA Fisheries regarding the potential for impacts to cetaceans and pinnipeds, with formal consultations taking place only if potential adverse impacts to marine mammals are foreseeable.

2.6.7 Federal, State, and County Reviews and Coordination

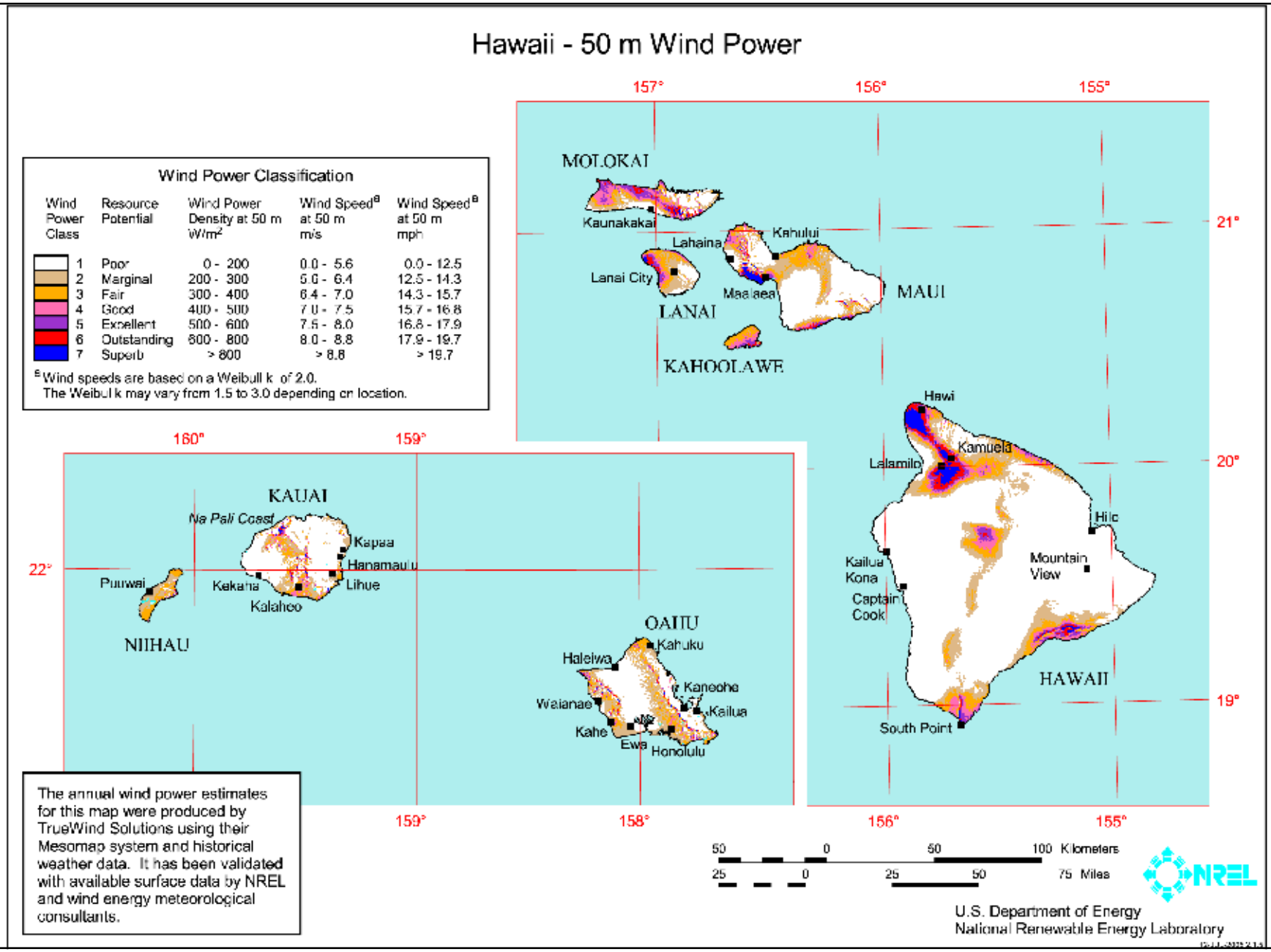
Because of the overlapping agency jurisdictions and responsibilities, the renewable program for the State of Hawai'i would involve federal, state, and county reviews; approvals; and permits. Permits would apply to the tiered projects, which are proposed later under the umbrella of an approved program. A listing of such potential permits and approvals is provided in the HIREP Reference Information document, Appendix C.

Future specific projects may require this full range of coordination as well. An environmental analysis would also outline the range of permits that may be required for future projects and how best to phase them to facilitate regulatory compliance.

Table 2-1. Applicable Federal Laws and Regulations Considered

Title	Citation
Archaeological Resources Protection Act of 1979	16 U.S.C. §§ 470aa–470mm
Clean Air Act	42 U.S.C. §§ 7401–7671q
Clean Water Act (1972, as amended)	33 U.S.C. §§ 1251–1387
Coastal Zone Management Act (1972, as amended)	16 U.S.C. §§ 1451–1466
Comprehensive Environmental Response, Compensation, and Liability Act (1980)	42 U.S.C. §§ 9601–9675
Endangered Species Act (1973, as amended)	16 U.S.C. §§ 1531–1544
Energy Policy Act (2005)	42 U.S.C. §§ 15801 - 388
EO 12372 (Intergovernmental Review of Federal Programs) (1977, 1983, and 1984)	47 Federal Register 30959
EO 12898 (Environmental Justice) (1994)	59 Federal Register 7629
EO 11988 (Floodplain Management) (1977)	42 Federal Register 26951
EO 13045 (Environmental Justice for Children) (1997)	62 Federal Register 19885
EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) (2007)	72 Federal Register 3919
EO 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) and Migratory Bird Treaty Act	66 Federal Register 3853, 16 U.S.C. §§ 703–712
EO 11990 (Protection of Wetlands) 1977	42 Federal Register 26961
Marine Mammal Protection Act (1972, as amended)	16 U.S.C. §§ 1361–1407
National Historic Preservation Act of 1966, as amended (1994)	16 U.S.C. §§ 470–470x-6
National Register of Historic Places (1977)	36 C.F.R. § 60
Pollution Prevention Act of 1990	42 U.S.C. §§ 13101–13109
Resource Conservation and Recovery Act (1976)	42 U.S.C. §§ 6901–6992k
Rivers and Harbors Appropriation Act of 1899, Section 10	33 U.S.C. § 403
Safe Drinking Water Act	42 U.S.C. §§ 300f–300j-26

EO = Executive Order
U.S.C. = United States Code



Overview of Wind Power Zones in Hawai‘i *

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* This map was developed by the National Renewable Energy Labratory (NREL) and is available online at: http://www.nrel.gov/gis/wind.html

Date: 4/26/2012
Data Sources: NREL, AECOM, 2012

CHAPTER 3.0
INFORMAL PUBLIC OUTREACH AND COMMUNITY INVOLVEMENT EFFORTS

3.1 OVERVIEW

DBEDT and USDOE sought public comments on the proposed HIREP program (see the HIREP Reference Information document, Chapter 1), and this section documents some of the preliminary activities and processes of the public outreach effort. A summary of the formal scoping activities for the HIREP program and the Scoping Report are presented in AECOM (2011).

3.2 PUBLIC OUTREACH AND SCOPING

A common theme that emerged from informal as well as formal public comments during the public outreach period was the desire to expand the interisland renewable energy program beyond wind alone and to consider other options for renewable energy generation beyond the Maui County islands originally identified. Such an approach would be consistent with several new developments that have taken place since this analysis began in 2010, including a State administration change and instructions to the local electric utility by the PUC.

3.2.1 Community Engagement Process

This section describes the informal community engagement process undertaken to involve the community in the joint state/federal Programmatic Environmental Impact Statement (PEIS) for the Hawai‘i Interisland Renewable Energy Program – Wind (HIREP Wind EIS). Additionally, it explains the principles used throughout the consultation process, including those based upon fundamental Hawaiian cultural values.

Basis for Consultation

To prepare a thorough community outreach for the joint state/federal HIREP Wind EIS, AECOM retained the consulting firm Ku‘iwalu to assist in the community engagement process. Ku‘iwalu’s past experience with issues sensitive to Hawaiian communities showed that a community outreach with key constituencies would be a critical component to the successful completion of a comprehensive HIREP Wind EIS. By employing the proactive approach that Ku‘iwalu used, communication was opened with the community. This communication allowed the community to effectively contribute to the discussion of the important environmental, cultural, and social issues to be addressed to ensure that the HIREP Wind EIS appropriately and sensitively covered environmental and cultural issues. The outreach process was used to address

misinformation and provide current and accurate information to the community and the appropriate regulatory agencies.

Consultation Principles

To build community involvement in the consultation process, Kuʻiwalu attempted to establish meaningful relationships with the community members, especially those that may be directly impacted by implementation of a renewable energy program. As with any relationship, shared commitments and values are central to its health and longevity. Therefore, the community consultation process implemented by Kuʻiwalu was grounded in several principles that were similarly central to the Hawaiian and "local" communities whose opinions were being sought. These principles, common in most cultures, are especially important in a Hawaiian context and allowed for a solid foundation on which to build sustaining relationships with the community.

Purposeful or *Mākia*

Kuʻiwalu acknowledged that the time and attention of the community are valuable and should be respected with thorough preparation. Accordingly, each consultation was undertaking with a specific purpose and objective in mind, in order for it to be meaningful. The overarching purpose of each consultation was to listen, discuss, understand, and identify appropriate concerns regarding the HIREP Wind EIS and to develop shared strategies to address those concerns.

Respectful or *Hōʻihi*

Kuʻiwalu understood the importance of a genuine dialogue with the community. To open this type of communication, it was important to ask for permission before acting and to be grateful for the opportunity to discuss important issues with community members and representatives. The act of requesting permission displayed an understanding of core Hawaiian values. It conveyed the respect with which the consultation process was performed and was in accordance with the spirit of the community engagement process. This approach was respected in turn by the community and made for a more open and genuine dialogue.

Humility or *Haʻahaʻa*

Kuʻiwalu recognized that the community consultation process must be performed with the intention of fostering long-term relationships with the community. It was, therefore, imperative to listen to each consulted party with attention, respect, and compassion. By humbly seeking the contributions of the community, Kuʻiwalu was able to foster future consultations.

Trustful or *Hilina‘i*

Trust is a fundamental component of any relationship. Ku‘iwalu committed to being truthful, open, and honest. When this consultation principle breaks down, relationships with the community can be difficult to rebuild. Ku‘iwalu understood that honesty is required to foster long-term relationships, even when the information may not be received favorably.

Thoughtful or *No‘ono‘o*

The process was developed and prepared in a thoughtful manner that best reflected the spirit and interests of the community. The community members understood that their input mattered. Notwithstanding that members of the community may have had differing opinions; it was critical and essential that the general interests of the community were taken into account.

Consistency or *Pono*

Ku‘iwalu understood that it was important to include the information gathered during the consultation process in the analysis. The community was provided consistent and accurate information to ensure transparency in the community engagement process. These practices not only enhanced the validity of the process but also reinforced the importance of each consulted party’s contribution. This reinforcement strengthened the relationships formed with the community during the engagement process.

Continuity or *Ho‘omau*

Ku‘iwalu acknowledged that the community consultation process was part of the development of a long-term relationship between the community, developers, landowners, and relevant government agencies. The continuation of these relationships was and will continue to be important to maintaining and sustaining the resources involved.

Responsibility or *Kuleana*

Ku‘iwalu was committed, once it took on the responsibility of engaging the community and preparing the document, to providing the most accurate and current information to stakeholders so that they could make the most knowledgeable decisions. Likewise, the community accepted responsibilities as well. They committed to active participation in the process as well as timely and informed decision making based on the best available materials. These responsibilities were mutual and reciprocal.

Appreciation or *Mahalo*

Kuʻiwalu recognized that for many in the community, especially the Hawaiian community, participating in a very public process was uncomfortable. This was the case especially for many cultural practitioners and *kūpuna* (elders). Thus, Kuʻiwalu was very appreciative for those who took the time to "talk story" or attend the public meetings. It is important to acknowledge their time as valuable by sharing food or a small *makana* (gift), which generally included note cards or manapua (Chinese pastry) from Oʻahu. It is important to demonstrate gratitude that community members take the time to speak candidly and share their *manaʻo* (thoughts).

Consulted Stakeholders

The size and scope of the programmatic review suggested that anyone who lived on the affected four major islands, specifically Molokaʻi, Lānaʻi, Maui, and Oʻahu, may have had an interest in the program. As a result, Kuʻiwalu primarily reached out to members of the community on each of these islands. These community stakeholders included Hawaiians, cultural practitioners, *kūpuna*, and resource gatherers. Additionally, elected officials and government agencies in the affected communities were also consulted. These discussions were performed in a confidential and respectful manner through small talk-story sessions that allowed the interviewees an informal environment in which they would be most comfortable. It had been the experience of Kuʻiwalu that this culturally sensitive method was most productive and conducive to effective information gathering. The individuals/small groups were identified and contacted in a manner that would ensure representation from interest groups on Molokaʻi, Lānaʻi, Maui, and Oʻahu.

Cultural Stakeholders

Hawaiians were consulted who have direct cultural practices in the area and/or are familiar with the practices of people who have constitutionally and legislatively protected traditional and customary rights and whose practices may be affected by the proposed programmatic review. Included were members from organizations like the ʻAha Kiʻole; Hawaiian Civic Club members; and cultural practitioners from Molokaʻi, Lānaʻi, Oʻahu, and Maui, including Hawaiian fishermen, hunters, and gatherers.

Community Leaders

Leaders of local organizations and/or opinion leaders as well as people with knowledge of the area's resources and the concerns associated with those resources were consulted. Included were trustees from the Office of Hawaiian Affairs (OHA), Executive Director and Moku (Island) representatives from the ʻAha Kiʻole, Officers from various Hawaiian Homestead Associations, Members of the Island Burial Councils, Cultural Liaison for the County of Maui, Members from the Maui County Cultural Resources Commission, Administrators with the Department of

Hawaiian Home Lands, Executive Director of the Kahoʻolawe Island Reserve Commission, Division Director for the Local Unions, Key Officers from the Lanaians for Sensible Growth, and Members of Koʻolaupoko Hawaiian Civic Club and Kailua/Waimānalo Hawaiian Civic Club.

Molokaʻi Community

Extensive community outreach occurred on Molokaʻi because a commercial-scale proposed wind development and associated landing site had been proposed for the island and were therefore being considered as part of the programmatic review. Meetings were held with the following Molokaʻi community groups: the ʻAha Kiʻole, Molokaʻi Chamber of Commerce, Molokaʻi Education Center, Department of Hawaiian Lands, Molokaʻi Properties Limited, Kalamaula Hawaiian Homestead Association, Molokaʻi Land Trust, Molokaʻi Enterprise Community, Molokaʻi Veterans Caring for Veterans, Molokaʻi Community Service Council, Ahupuaʻa Mokupuni O Molokaʻi, Hui Mālama O Moʻomomi, Hui Hoʻo Pakele ʻĀina, the Society for Molokaʻi Archaeology, and cultural practitioners.

Lānaʻi Community

Similarly, extensive community outreach occurred on Lānaʻi because a commercial-scale project and landing site areas were being considered as part of the programmatic review. Meetings were held with the following Lānaʻi community groups: Lanaians for Sensible Growth, ʻAha Kiʻole, Lānaʻi Hawaiian Homestead Association, Lānaʻi Company, Friends of Lānaʻi, Castle & Cooke, Lānaʻi Native Species Recovery Program coordinator, Lānaʻi Cultural and Arts Center Director, Lānaʻi ILWU leadership, Kanepuʻu Restoration crew, several Lānaʻi youth representatives, and cultural practitioners.

Maui Community

Community engagement in the Maui community occurred because undersea cable landing site areas near Kahului Harbor and Kapalua were being considered as part of the programmatic review as were potential additional wind generation facilities on the island. Meetings were held on Maui with the following individuals or organizations: Maui and Kahoʻolawe ʻAha Kiʻole, Maui County Environmental Coordinator, Maui County Cultural Resources Commissioner, Maui/Lānaʻi Island Burial Council Chair; Leeward Haleakalā Watershed Restoration Partnership, Director of Maui Arts and Cultural Center, ILWU Division Director, several Maui archaeologists, Cultural Advisor for the Ritz Carlton and Wailea Hotels, Royal Order of Kamehameha, Maui National Parks Service, Kuleana Kuʻikahi LLC, and cultural practitioners.

Oʻahu Community

Community engagement in the Oʻahu community occurred because cable landing site areas near MCBH at Kāneʻohe Bay and Pearl Harbor/Honolulu Harbor were being considered as part

of the programmatic review. Meetings were held on O‘ahu with the following individuals or organizations: OHA trustees and staff, Department of Hawaiian Home Lands Chair and staff, ‘Aha Ki‘ole Executive Director and Moku representative, Ko‘olaupoko Hawaiian Civic Club, Kailua/Waimānalo Hawaiian Civic Club, Hi‘ipaka Staff of Waimea Valley, Native American Graves Protection and Repatriation Act (NAGPRA) claimants from MCBH at Kāne‘ohe Bay, and cultural practitioners.

Native Hawaiian Organizations

Organizations focused on the betterment of Hawaiians were consulted. These organizations included OHA, various Hawaiian Civic Clubs, Hawaiian Homestead Associations specifically on Moloka‘i and Lāna‘i, Island Burial Councils, Kaho‘olawe Island Reserve Commission, and the ‘Aha Ki‘ole.

Environmental and Preservation Groups

Leaders in environmental groups with particular interests in and knowledge of the programmatic review’s topical area (i.e., alternative energy) and proposed projects, who are likely to directly participate in or influence participation in the review process, were consulted. These included the Historic Hawai‘i Foundation, Blue Planet, Protect Kaho‘olawe ‘Ohana, the Nature Conservancy, the Sierra Club, Conservation Council of Hawai‘i, Ti Leaf Group, Earthjustice, Solar Energy Association, and Kahea.

Elected Officials

Federal, state, and county elected officials were consulted, especially those whose districts are affected by the proposed programmatic reviews and/or whose subject matter expertise or committee leadership may be sought or involved in policy issues closely related to the renewable energy program.

Agencies with Jurisdiction or Expertise

Officials within DBEDT and USDOE, as well as agencies with a review or regulatory role in the renewable energy program, were consulted. The specific agencies that were given briefings on programmatic review included Department of Land and Natural Resources, State Historic Preservation Division (SHPD) on O‘ahu and Maui, Department of Transportation, Office of Environmental Quality Control, PUC, ACHP, NOAA, and the Bureau of Ocean Energy Management (BOEM), with the latter being a cooperating agency.

Potential Wind Developers

Landowners and wind companies within the potential landing site areas were briefed. These included Castle & Cooke, Molokaʻi Ranch, Pattern Energy Group, and First Wind.

Consultation Process and Methods

Following the identification of stakeholders to be consulted, Kuʻiwalu selected specific individuals to be interviewed based on existing relationships and their connections to the cultural resources or leadership role in their communities. While a few preferred to discuss the programmatic review later in the process, an overwhelming majority of those contacted appreciated the early outreach efforts and provided great *manaʻo*. Over 110 consultation sessions were held. Appendix A Attachment 1 is a list of individuals and groups that were consulted.

Interviews were informally structured with the intent of allowing interviewees to freely identify any concerns they had. Questions or concerns raised by interviewees regarding the programmatic review were submitted to AECOM and DBEDT for inclusion in the Frequently Asked Questions (or FAQs) that would be posted on the HIREP website and other documents. In cases where answers to these questions were provided, the information was relayed to those interviewed. The purpose of the early outreach was to identify resources that may be impacted by the proposed programmatic review in order to appropriately consider these impacts in the drafting of the environmental documents, in particular the cultural impact assessment. To ensure their true and most candid *manaʻo*, interviewees were ensured that their specific concerns would not be directly attributed to them. Rather, the concerns would be offered as representative of the community's concerns when included in the environmental review documents.

Individual and Small Talk-Story Sessions

For many Hawaiians who had great *manaʻo* to share but had previously dissociated themselves from community dialogues, requests were made to meet in a more culturally appropriate, informal, one-on-one setting. Similarly, elected officials and government agencies were given individualized briefings. For various Hawaiian families, cultural practitioners, and resource gatherers, requests were made for smaller talk-story sessions where the discussion could be more intimate and confidential. Following Hawaiian values and the consultation principles, Kuʻiwalu was extremely respectful and sensitive in their approach to these stakeholders and asked permission before speaking with them. These meetings not only consisted of a dialogue regarding potential concerns, but also a sharing of information.

Kuʻiwalu also met with organizations such as the ʻAha Kiʻole on Molokaʻi, as many members of the Molokaʻi community identified the ʻAha Kiʻole as the culturally appropriate forum to engage

the Hawaiian community there. Similarly on Oʻahu, presentations were made to the Koʻolaupoko and Kailua/Waimānalo Hawaiian Civic Clubs, per their requests. Essentially, Kuʻiwalu recognized that nontraditional public hearing formats had to be utilized to genuinely engage the community and, in particular, the Hawaiian community, who in many instances did not feel comfortable providing their *manaʻo* at a podium in a large public venue. Thus, the challenge was to employ a variety of engagement processes that were appropriate for the community to ensure maximum community participation.

Molokaʻi Survey

To independently gauge the Molokaʻi community's understanding and sentiment of the cultural, environmental, and technological issues related to potential wind energy development and an undersea cable on Molokaʻi, an islandwide telephone survey was conducted in July 2010. A total of 301 interviews were conducted to measure respondents' perception and awareness of the HIREP. The survey also produced information regarding the level of community support or opposition for a proposed wind farm and undersea cable project and attempted to identify community benefits that could make such a project more acceptable. In general, the Molokaʻi community overwhelmingly objected to a proposed large-scale project on Molokaʻi that was intended to transmit energy to Oʻahu through an undersea cable. However, 70 percent of respondents said it was possible or very possible to compromise and build a project and undersea cable on Molokaʻi provided that Molokaʻi residents obtained sufficient community benefits and that most sacred cultural and natural resources were protected. The results of this survey are contained in Appendix A Attachment 2. Similar surveys were not conducted on Lānaʻi, Maui, or Oʻahu.

Establishment of a Website

A website was established for the programmatic review at *www.hirep-wind.com*. The website was dedicated solely to the programmatic review and included the schedule for public scoping meetings and informational updates. The website engaged users by allowing them the ability to submit questions, comments, and concerns electronically. For those interested in submitting written comments, the website also provided contact information in the form of a mailing address, fax number, and email address. Additionally, the site provided a detailed description of the programmatic review process with a list of frequently asked questions to encourage a full understanding of the document and its purpose. The available programmatic review documents along with up-to-date maps, tables, and figures were posted on the website so that they could be accessed by the community. The website was updated to include transcripts and the attendance sheets of all the public scoping meetings per request by several attendees at the public scoping meetings. Appendix A Attachment 3 is a copy of the information posted on the website.

Media Coverage

Information was provided to the media through the assemblage of media kits that contained a fact sheet and other relevant background material. Appendix A Attachment 4 is a sampling of these materials. Editorial boards were provided an overview of the programmatic review process so that they had accurate information as they prepared the print media stories, including editorial (op-ed) pieces, in their publications about the programmatic review process. Members of the media attended the first public scoping meeting on O‘ahu at McKinley High School and reported on the public scoping meeting.

In addition to print media, DBEDT participated in OHA’s *Nā ‘Ōiwi ‘Ōlino* radio broadcast. This was a live broadcast on KINE-AM 940 on January 24, 2011, a week before the public scoping meetings. DBEDT provided an overview of HCEI, the programmatic review process, and the public scoping process. The radio broadcast allowed the audience to phone in with questions and receive responses.

3.2.2 Public Scoping Meetings

DBEDT and USDOE held four public scoping meetings on the islands of O‘ahu, Maui, Moloka‘i, and Lāna‘i between February 1 and February 5, 2011, as part of the federal scoping process. The meetings were hosted by staff from DBEDT and USDOE. Staff from AECOM, its subconsultant (Ku‘iwalu-Dawn Chang), and a representative from BOEM were also present at each meeting. This summary contains more detailed information on the meetings not included in the formal scoping summary (AECOM 2011)

The scoping meeting process was intended to introduce the HIREP Wind EIS concept to stakeholders, explain the environmental review process, and outline how the public could participate. The emphasis of the scoping meetings was to gain input and feedback from the public. Attendance at each of the meetings ranged from approximately 60 to 100 people. Participants at the meetings included stakeholders, property owners, representatives of community organizations, concerned citizens, students, businesspeople, and elected officials.

Scoping comments were due by March 1, 2011. All comments received via transcripts, post mailings, comment forms, emails, and the HIREP website were gathered, reviewed, and categorized into approximately 12 subject matters of concern for further review. DBEDT, USDOE, and BOEM, discussed the issues and analyzed approaches to moving forward and addressing the comments within the programmatic review. A scoping summary report was completed and made publicly available.

General Issues

Each island's concerns varied slightly and there were some recurring areas of concern at all of the meetings. The three most consistent themes of concern are summarized and paraphrased below:

- Siting Impacts: "Placing wind farms on our islands will negatively and permanently impact our way of life and the culture of our island/community. In addition to negatively impacting our life, there are no benefits to our communities in exchange for accepting this negative impact."
- Equity: "Why doesn't O'ahu produce its own electricity instead of producing it and shipping it from the islands of Maui County? Why does O'ahu not cut back electrical use and implement conservation? There are no benefits to our communities from the wind farms."
- Alternatives: "Why aren't all types of renewable energy being considered in the EIS and why is only wind being considered at this time? The HIREP Wind EIS needs to look at more than just "big wind;" consider other alternatives as outlined by the requirements of the NEPA process."

The comments accomplished the purpose of the scoping process by identifying areas or topics of concern that the community would like to see further analyzed or where the HIREP Wind EIS analysis should be emphasized.

Island-Specific Issues

O'ahu (February 1, 2011)

Approximately 70 members of the public were in attendance. Many commented that the State must explore alternative technologies, such as OTEC or nuclear energy, in addition to wind. Residents of Lāna'i and Moloka'i were also present at the meeting and testified to the harm the wind generators would cause their home islands. Comments were also received emphasizing that O'ahu needs to do more to meet its own island's energy needs before asking Maui County to take on the proposed renewable energy development.

Maui (February 2, 2011)

At the scoping meeting, approximately 60 members of the public were present and most were Maui residents. Some of the speakers included representatives from the Maui County Mayor's office as well as the former Maui County Energy Coordinator. The issues brought up at the public scoping meeting were specific to the island of Maui, including a discussion of the amount of renewable energy the island of Maui was already producing and the various alternative

energy projects currently on the island. Maui County provided DBEDT and USDOE with detailed comments before the comment period closed on March 1, 2011. General support was voiced for Molokaʻi and Lānaʻi residents who were opposed to the proposed specific wind projects that might be implemented under the program.

Molokaʻi (February 3, 2011)

Approximately 100 members of the public were present at the public scoping meeting. Speakers included representatives from Maui County, including a member of the Molokaʻi Planning Commission. Comments focused on the anticipated social and cultural impacts, both from construction and operation through decommissioning of a potential project. Aesthetic concerns were raised including the cultural landscape impacts on the island and the views between islands. Concerns were expressed that no benefit would accrue to the local populations and that the social/cultural impacts would be too great to overcome. The comment that wind was specifically an island cultural resource and not a resource for "export" was raised by several people who provided oral comments. As with the other meetings, questions were raised over why Oʻahu needed support from other islands to meet their own renewable energy goals. This tied into concerns over why other renewable technologies were not being considered in addition to wind.

Lānaʻi (February 5, 2011)

Approximately 100 members of the public were present. Several Maui residents were present, but most speakers were residents of Lānaʻi. The primary focus of the comments was on the cultural impact of taking a significant portion of the island and turning it into a purported "industrial level" project. There was also concern regarding Castle & Cooke (landowner of 98 percent of the island) and their failure to keep promises of community benefits during past development projects. Speakers were concerned that wind generators would not require a large workforce and, while the residents of Lānaʻi would have to live with the wind generators, no substantive number of jobs would result to provide an economic benefit. The potential adverse impacts to the cultural value of the area on Lānaʻi where the wind generators might be located were a recurring concern. It was noted by some speakers that some area residents were disinclined to appear at the scoping meeting for fear of retribution from Castle & Cooke, by whom most residents of the island are employed.

The detailed Final Scoping Report (AECOM 2011) was placed online (http://www.hirepeis.com/scoping-documents).

3.2.3 The Ongoing Nature of Consultation and Current Findings Regarding Clean Energy in Hawai‘i

Commitment to Ongoing Consultation Regarding Clean Energy in Hawai‘i

As referenced earlier, the term *kuleana* implies mutual responsibility. Government agencies have an obligation to provide the community with a fair and inclusive process that genuinely and appropriately consults with all facets of the community. The community has the *kuleana* to participate in a meaningful way to ensure informed and balanced decision making.

Ku‘iwalu kept stakeholders informed of various milestones.

- On October 29, 2010, 151 letters were mailed to Native Hawaiian Organizations, government agencies, firms, and individuals who may have information related to cultural resources to initiate the Section 106, NHPA, consultation process. See Appendix A Attachment 5 for an example of the letter and a list of those who received it.
- During the week of December 6, 2010, in addition to the official public notice published in the Office of Environmental Quality Control Bulletin, individual letters were mailed or emailed, to the stakeholders who participated in the small talk-story sessions. The letter notified stakeholders of USDOE’s “Notice of Intent to Prepare the Programmatic EIS” and of DBEDT’s “Environmental Assessment/Environmental Impact Statement Preparation Notice” and invited them to attend the public scoping meetings that would follow. See Appendix A Attachment 6 for an example of the letter and a list of those who received it.
- On December 16, 2010, similar letters were mailed to key stakeholders and enclosed were copies of the State’s Environmental Assessment/Environmental Impact Statement Preparation Notice. See Appendix A Attachment 7 for an example of the letter and a list of those who received it.
- On January 7, 2011, emails were sent to various stakeholders, containing the press release on the Lāna‘i Community Benefits Package, who had previously expressed an interest in receiving updates on the community benefits package. See Appendix A Attachment 8, which contains an example of the email and a list of those who received it.
- On February 1, 2011, emails were sent to various stakeholders notifying them of the public scoping meetings. Appendix A Attachment 9 is an example of the email and a list of those who received it.
- On April 20, 2011, emails were sent to various stakeholders, including those who attended the public scoping meetings, providing them an update on the HIREP Wind EIS process as well as informing them that the public scoping meeting transcripts and attendance sheets were available for public review on the website. Appendix A Attachment 10 is an example of the email and a list of those who received it.

Current Findings

During the course of listening to stakeholders and the community at large throughout the programmatic review process (in addition to the public scoping meetings), a broad range of concerns and issues emerged. These included concerns regarding cultural practices, cultural and natural resources, access to these resources, economic development, environmental justice, land use, and community benefits. The large range of comments was considered and an effort was made to identify the issues that were recurrent as well as those concerns that would help in the development of the programmatic review.

A consistent concern by the residents on Molokaʻi and Lānaʻi was the desire for more specific information regarding community benefits associated with projects that might occur under the program. Specific projects would unavoidably have some environmental and cultural effects, and many felt that the community must, at a minimum, receive some type of economic benefits package to mitigate these negative effects.

Many participants in the community engagement process questioned limiting the Hawaiʻi Wind EIS to only "Big Wind" projects. A consistent theme was that the programmatic review was inadequate as it did not fully explore all the renewable alternatives, including solar and geothermal, especially on the three islands of Maui County. Many also questioned whether the programmatic review went far enough to support the HCEI by only focusing on transmission of renewable energy from potential projects from Molokaʻi and Lānaʻi to Oʻahu. This limitation was viewed as serving the two large landowners on Molokaʻi and Lānaʻi.

Overall, the outreach process was productive in identifying key areas of concern held by the interested stakeholders identified above. The methods of community engagement permitted candid discussions without the fear of intimidation or criticism.

Some concerns were unique to particular islands, while others were unique to the individuals in a respective group. Other concerns were widely held topically and geographically (particularly concerns over community benefits). Specific comments are intentionally not attributed to any individual to honor and respect those confidential communications.

Comments below are grouped first by island, and then additional comments unique to stakeholder groups are covered.

<u>Molokaʻi</u>

A common concern by most Molokaʻi residents was that the HIREP Wind Program had no direct benefit to Molokaʻi, as all the energy produced would be transmitted to Oʻahu via undersea cable. To most residents, this was unacceptable. Molokaʻi community members felt that if they were to endure the negative impacts of the project on their island, they needed to be

compensated through some sort of community benefits package (e.g., a reduction in electrical rates). However, many felt that although a lowering of the rate was a primary concern, it may not be sufficient in itself to adequately mitigate the adverse effects of such a program. There were cultural practitioners who commented that from a cultural standpoint Hawaiians had different names for each wind and that the winds themselves were cultural resources that could not be harnessed without causing an adverse impact.

A main concern regarding a wind program's impact on the community was its possible effect on the subsistence lifestyle of many of the island's residents. Molokaʻi is a rural community that relies on its natural resources to maintain a subsistence style of living. Residents rely on fishing, hunting, gathering, and farming to produce their own food and support their families. Many voiced significant and complex concerns regarding the project's potential impact on these resources. Negative impacts were seen as coming directly from displacement of key resources due to construction. The project could also indirectly affect these resources by reducing their presence/abundance or reducing access to these resources.

Much of the opposition to a wind project seemed to be more related to a distrust of the landowner, Molokaʻi Ranch dba Molokaʻi Properties Limited (MPL), and not the general idea of wind energy. Molokaʻi residents supported renewable energy projects on Molokaʻi, but there was general opposition to the HIREP Wind Program that was to be built on lands owned by MPL. Part of the opposition was because the project would produce electricity solely for transport to Oʻahu; however, a larger portion of the opposition was related to the landowner of the area because of past events. MPL had previously proposed a development project for the Lāʻau Point area, but following the subsequent closure of their operations, community members have formed a distrust of MPL's intentions and many no longer support MPL operations. Many residents would also prefer to support local corporations rather than foreign ones.

Additional impacts were discussed regarding cultural sites and areas. These sites included Moʻomomi, Anahaki, and Lāʻau. Access to and protection of these areas are important to community members because these areas provide natural resources and/or are culturally significant. In fact, the Molokaʻi Hawaiian Homestead residents petitioned the Department of Hawaiian Home Lands Commissioners to prohibit large-scale commercial uses of Anahaki and Moʻomomi. The homesteader's petition was granted.

Molokaʻi residents were also concerned about possible impacts the HIREP Wind Program might have on ocean resources. Concerns were raised regarding the undersea cable and its effects, specifically on fishing resources. Some of these concerns were grounded in misconceptions and inaccurate information. Some community members did not see the undersea cable as causing harm given the numerous undersea fiber-optic cables already in existence around the world, including Molokaʻi.

Again, many Molokaʻi residents support renewable energy in general and would like Molokaʻi to be 100 percent green. They have been extremely supportive of past green initiatives, in particular by Blue Planet Foundation. However, a large concern is that the project must benefit Molokaʻi. Many feel that Molokaʻi residents should receive direct benefits from the project, and see the project as potentially providing the island with economic benefits. The idea of using Department of Hawaiian Home Lands land for such a project was mentioned. Residents felt this might be a way to generate revenue for those living on homestead land.

Lānaʻi

Like Molokaʻi, the majority of Lānaʻi residents did not support the HIREP Wind Program without a direct community benefit to the residents, mainly through greatly reduced electricity rates. For some, even a major reduction in the electricity rate was not sufficient to move forward with the project. Many residents would like to evaluate a complete benefits package before making a decision on the project.

There was a perception that the project is being done solely for the benefit of landowners, developers, and Oʻahu rate payers. This perception has led many to believe that the project is unjust. Part of the perception seems to stem from a significant distrust in the landowner, Castle & Cooke. Resort developments and their associated impacts to the rural community have led to distrust and feelings of unfulfilled promises. Members of the community felt that the landowner failed to implement past community agreements, leading many residents to question the veracity of the landowner. Because of these incidents, the Lānaʻi community wanted to see community benefits upfront rather than after the conclusion of the project.

Impacts to the subsistence lifestyle of the residents were viewed as significant. Many of Lānaʻi's residents rely on hunting and fishing to supplement their family needs. The Kaʻā Ahupuaʻa (land division), where the inactive Castle & Cooke wind project was proposed to be built, is a source of subsistence for these families. Many are concerned that the roadways and increased access to this area will negatively impact the availability of resources to their subsistence lifestyle. Previously, this area was only accessible by vehicles with four-wheel drive. The limited accessibility protected many of the subsistence resources on which these families rely.

An important impact addressed by Lānaʻi community members was the impact on cultural and historical sites. The visual corridor between Molokaʻi and Lānaʻi holds great cultural significance. In Kepa Maly's recent ethnographic study of Kaʻā Ahupuaʻa (Maly and Maly 2011), he identifies this cross-island district visual corridor as "The Keahiakawelo-Lanikāula Cross-Island District (including Keahiakawelo, Keahiʻāloa, Malulani, and the view plane across Kaʻā and Paomaʻi, to the Kalohi/ʻAuʻau Channel, to Moku Hoʻoniki Islet, and on to the site of the famed Kukui Grove of Lanikāula on the island of Molokaʻi." The proposed scale of the renewable energy program and its visual impact on the area, in some people's view, would interfere with the sacred corridor between the islands.

Apprehension was also expressed regarding the current lack of basic infrastructure on the island. Residents felt that the current infrastructure, especially the harbor and roads, would not be adequate to accommodate the construction and transmission of equipment to the site. Lānaʻi residents feared that this would result in further construction and more changes to the land, which would have significant impacts on the integrity of the landscape.

Additional environmental impacts were brought up related to turtle nesting areas, bird habitats, and hunting and fishing grounds. The sheer size and potential number of wind turbines have raised concerns regarding their impact on wildlife. Concerns were also raised regarding the land erosion that occurs during construction.

Lānaʻi residents voiced concern over the short-term impact from an influx of construction workers and developers to the island. In the past, this influx has negatively affected the community lifestyle and caused social disruption.

Generally, Lānaʻi residents support renewable energy projects. However, there is some trepidation, as a previous solar energy farm did not end up meeting the expectations of the community as conveyed to them by the solar company and the landowner. Many residents were willing to consider supporting the project if significant and relevant community benefits resulted. Many comments were received regarding job and other economic opportunities that could possibly be generated by the project.

Maui

Maui residents had concerns related to ocean resources near Kahului and off of Olowalu. Some cultural practitioners cited potential underwater fishing *koʻa lawaiʻa* (fishing shrine) near Kahului that needed to be protected. Because four freshwater streams converge into the ocean near this area, the conditions provide a valuable and unique fishing resource.

Generally, the Maui community is more supportive of renewable wind energy projects, as several wind projects are already established and more are proposed. Kaheawa I and II were already established and ʻUlupalakua was in the planning stages.

As with any construction project, the potential discovery of *ʻiwi kūpuna* or ancestral bones was a major concern for Maui residents. In Hawaiian culture, the bones of an individual contain the person's spiritual power. Thus, the protection of these remains is of considerable importance. The area of Kahului, where the Waiheʻe sand dunes adjoin the shoreline, was of particular concern.

O‘ahu

O‘ahu residents were concerned that the HIREP Wind Program may involve some kind of military connection because of the location of potential undersea cable landing site areas at MCBH at Kāne‘ohe Bay and Pearl Harbor. There was also concern over the unexploded ordnance field in the ocean waters between Lāna‘i and O‘ahu.

Possible cultural impacts were raised regarding *‘iwi kūpuna* at MCBH at Kāne‘ohe Bay. *‘Iwi kūpuna* were previously discovered there and a NAGPRA consultation process is ongoing regarding those ancestral bones, which are in the custody of the Bishop Museum. Residents are cautious about projects in the area disturbing more *‘iwi kūpuna*.

Concerns were raised about potential impacts to historic buildings located near Pearl Harbor. These buildings are currently under the purview of the programmatic agreement between the Navy, SHPD, and ACHP.

Environmental Groups

Generally, strong support was shown for a wind programby environmental groups, even if it involved the transmission of energy via undersea cables. However, there was a strong desire to understand how the wind program would relate to the overall HCEI program. Many individuals, who would normally oppose large projects, expressed a willingness to see a wind program pursued; however, there was a concomitant desire that the environmental documents fully explicate how a wind program is necessary in conjunction with other green measures (i.e., distributed generation, alternative energy development, and conservation) to fulfill the objectives of the HCEI program.

Environmental groups expressed that they will allow community leadership and opinion from the wind source islands to affect their own decision making, specifically regarding projects on Lāna‘i and Moloka‘i. Many voiced concern over the issues of environmental justice, including rate equalization, resource management, and environmental protection. There was strong desire to understand and support the desires of the communities on which the projects were built. Each of these issues would be a factor in the environmental groups’ decision to support a wind program.

Some concern was expressed regarding distrust of HECO. Many members of environmental groups commented that the relationship with HECO led them to be wary of the overall approach to renewable energy projects.

Elected Officials

In general, the state legislative elected officials were supportive of the HCEI, and while they viewed the HIREP Wind Program as an important component of the comprehensive approach to meet the HCEI goals, they felt specifically that wind should not be the only renewable alternative.

The elected officials also supported an extensive community outreach program conducted in a culturally sensitive manner that would provide the communities on Molokaʻi and Lānaʻi an opportunity to fully discuss this project through different outreach methods.

Elected officials also understood that a substantial community benefit package would be required for the islands of Molokaʻi and Lānaʻi, or any rural community who would be asked to accept the burden of large utility infrastructure. This would be necessary to garner community support, especially if communities expected to need to change their subsistence lifestyle.

3.2.4 Public Scoping Lessons Learned and Recommendations for Future Efforts

During the course of listening to the stakeholders and the larger public community through the community outreach and public scoping meetings, a broad range of concerns and issues were put forth. Included were substantive concerns related to the following:

- the narrow scope of the Hawaiʻi Wind EIS and its limited focus on wind energy alternatives;
- the need to expand the analysis of alternative energy sources;
- the lack of community benefit consideration;
- the insufficient dissemination of information regarding the Hawaiʻi Wind EIS process;
- the cultural issues that needed to be addressed;
- the visual impact of the project on Molokaʻi and Lānaʻi;
- the adverse effects on rural subsistence communities; and
- the issues related to the format of the public scoping meetings.

One of the most consistent complaints was the public's frustration that the format of the public scoping meetings did not provide an opportunity for a question-and-answer period. In many instances, attendees left the meeting frustrated, with more questions than answers. This mounting frustration resulted in confusion and dissatisfaction with the public scoping process. Thus, the remainder of this section of the report will focus on the lessons learned from the public scoping meetings format and will make specific recommendations to improve the public scoping process for future efforts of this type.

Venues

The number of venues should support the expected number of people and viewpoints present at each meeting and should recognize the respective geographic areas on each island. This should make the meetings convenient to a broader range of people and increase the effectiveness of educating the larger community, which would generate greater community engagement.

Publications

An expansion of publication methods could increase awareness of the public meetings. Methods could include radio announcements, advertisements in all major newspapers and meeting notices in monthly publications.

Meeting Logistics

A court reporter and a trained facilitator are highly recommended at each public scoping meeting. A court reporter is needed to provide an administrative record and transcript of the statements. The facilitator is helpful in moderating and maintaining order at the meeting, which is sometimes necessary given the passion and intensity that can arise during these discussions. Both provide increased efficiency and productivity to the public scoping meeting, which in turn benefits the attendees.

Light refreshments should be provided, as these meetings are generally held in the evening. This not only provides comfort for the community members but also displays gratitude for their time and participation. This is always culturally appropriate as sharing food helps to ease otherwise tense issues.

Paper and/or note cards should also be provided for those wishing to share their opinions in a written format. This provides an option for those who may not be comfortable speaking out in public.

Some community members were compelled to testify in Hawaiian. Services of a Hawaiian language translator could be helpful.

Meeting Format

A modification of the meeting format is recommended. The meeting should proceed from an initial presentation of information to a time for public testimony. The designated time period for the presentation of information should replace the information stations that were previously set up for community members to browse independently prior to the start of the public scoping meeting. These stations were scarcely attended.

1. It is recommended that the meeting open with a *pule* (opening prayer) by a *kupuna* (elder). This would be followed by a presentation on the program, project, or issue; discuss the role played by the various entities involved; and outline the purpose of the meeting. To the extent possible, the panel should remain the same throughout all the public meetings to ensure consistent dissemination of information.
2. Following the panel presentation, the public should be allowed time to ask the panel questions. The aim of this period of the meeting is to give the public an opportunity to ask questions and seek clarification, and for the panel to clarify certain things that may have been misinterpreted, misconstrued, or incompletely understood.
3. Finally, if appropriate, the meeting would then progress to its formal phase, where individuals would provide their statements for the record. This portion of the meeting should be facilitated with ground rules (e.g., limiting the amount of time a person may speak depending on the number of individuals requesting to testify, asking one person to speak at a time to ensure that the court reporter accurately transcribes the testimony, etc.).
4. Upon the conclusion of testimony, the meeting should close with a *pule*.

Media Relations

The media is critical to educating the public. An extremely thoughtful community and media relations campaign can educate the community on renewable energy alternatives and the approach programmatic review takes to providing it. If done prior to public scoping the community has accurate information upon which to form knowledgeable opinions.

Community Outreach and Public Education

Community outreach to engage interested stakeholders through culturally sensitive approaches may involve small talk-story sessions or one-on-one meetings.

It is important to identify interested stakeholders early, and to gradually expand the group. The wider and broader the participation, the more opinions and viewpoints are received and the better the understanding of the different concerns.

The educational component of the community outreach needs to include timely management of public concerns. Misinformation or inaccurate information has to be addressed in a timely manner to avoid a situation where this misinformation becomes the community-wide perception. Thus, both a proactive educational campaign and a crisis management plan are needed to regularly dispense accurate and current information while at the same time addressing and correcting inaccurate information.

Summary

In summary, the development and implementation of an effective community engagement process will help to ensure an informed community who, in turn, can make informed decisions. The community, both Hawaiian and general public, wants to be energy self-sufficient but thoughtfully balancing the needs of the communities and avoiding disproportionate impacts to some of our most rural communities. A community outreach process that genuinely engages all facets of the community to participate in this very important issue will be critical to the future of Hawai‘i.

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CHAPTER 4.0
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APPENDIX A

COMMUNITY ENGAGEMENT ACTIVITIES

Appendix A – Attachment 1
List of Individuals and Groups Consulted

Attachment 1
List of Individuals and Groups Consulted

LAST	FIRST	AFFILIATION	CATEGORY
Aila	William	Department of Land and Natural Resources	State
Aiu	Pua	State Historic Preservation Department	State
Akutagawa	Malia	Molokai Education Center	Education
Alm	Robbie	HECO	Business
Aluli	Emmett	Kaho'olawe Island Reserve Commission	Cultural Leader
Anderson	Lance	The Lānaʻi Art Center	Education
Aoki	Joelle	Lānaʻi Resident	Community
Apio	Alani	Hawaiian Electric Company	Business
Apo	Peter	Office of Hawaiian Affairs	Cultural Leader
Apoliona	Haunani	Office of Hawaiian Affairs	Cultural Leader
Arakawa	Alan	Maui County Mayor	Elected Official
Artates	Perry	Department of Hawaiian Home Lands	State
Awo	Randy	DLNR	State
Bailey	Timothy	ʻAha Kiole Advisory Committee	Cultural Leader
Baker	Rosalyn H.	5 - South and West Maui, Kapalua, Ka'anapali, Lahaina, Ma'alaea, Kihei, Wailea, Makena	Elected Official
Basques	Winnie	ʻAha Kiole Advisory Committee	Cultural Leader
Buchanan	Lori	The Nature Conservancy	Environment
Burrows	Chuck "Doc"	Kailua Hawaiian Civic Club	Culture
Carroll	Mele	13 - Kahoʻolawe, Molokini, Lanai, Molokaʻi, Keanae, Wailua, Nahiku, Hana	Elected Official
Cayan	Coochie	State Historic Preservation Division	State
Chandler	Rhiannon	Community Work Day/Maui County Cultural Resources Commission	State
Ching	Carleton	Castle & Cooke Hawaiʻi	Business
Chinn	Linda	Department of Hawaiian Home Lands	
Costales	Christine	Lana'i Native Species Recovery Program	Environment
Crivello-Helm	Stephanie "Stacy"	Molokaʻi Enterprise Community/Ke Aupuni Lokahi	Community
Cypher	Mahealani	Koʻolaupoko Hawaiian Civic Club	Culture
DaMate	Leimana	Aha Ki'ole	Cultural Leader
Dancil	Keiki-Pua	Patterns Energy	Business
Davis	Morgan	State Historic Preservation Division	State
Desoto	John	Makaha Hawaiian Civic Club	Culture
Donham	Theresa	State Historic Preservation Division	State
Drigot	Dr. Diane	Marine Corps Base Hawaii	Government/Scientific
Duda	Mark	Hawaiʻi Solar Energy Association	Business
Dudoit	Mervin	Ka Honua Momona	Culture
English	J. Kalani	6 - Hana, East and Upcountry Maui, Moloka'i, Lana'i and Kaho'olawe	Community

LAST	FIRST	AFFILIATION	CATEGORY
Faulkner, AICP	Kiersten	Historic Hawaii Foundation	Culture
Fergerstrom	Blaine	Royal Order of Kamehameha I	Culture
Funakoshi	Rodney	Castle & Cooke Hawai‘i	Business
Gabbard	Mike	19 - Waikele, Village Park, Royal Kunia, Makakilo, Kapolei, Kalaeloa, Honokai Hale, Portions of Waipahu and Ko 'Olina	Elected Official
Gill	Gary	Sierra Club	Community
Gumapac	Kale	Kanaka Council	Culture
Haliniak	Barbara	Moloka‘i Chamber of Commerce Foundation	Business
Hanabusa	Colleen	21 - Ko 'Olina, Kahe Point, Nanakuli, Ma'ili, Wai'anae, Makaha, Makua, Ka'ena Point	Elected Official
Harris, Esq.	Robert D.	Sierra Club	Community
Hee	Clayton	23 - Kahuku, La'ie, Ka'a'awa, Kane'ohe	Elected Official
Helm	Adolph	Resident of Ho'olehua Homestead	Community
Helm	Larry	Molokai Veterans Caring for Veterans	Community
Helm	Stacy	Molokai Land Trust/Homesteader	Community
Hera	Bob	The Nature Conservancy	Environment
Hokama	G. Riki	Policy (Chair); Budget & Finance (Vice-Chair); General Plan; Infrastructure Management; Land Use; Residency Area: Lāna‘i	Business
Holt	Karen	Moloka‘i Community Service Council	Community
Holt-Padilla	Hokulani	Maui Arts & Cultural Center	Community
Hu	Lori	Hawaiian Electric Company	Business
Hooser	Gary	Office of Environmental Control	State
Hudnell	Randy	Na Oiwi Olino	Community
Iao	Maydeen	Cultural Practitioner	Cultural Leader
Ihara, Jr.	Les	9 - Palolo, St. Louis Heights, Maunalani Heights, Kaimuki, Kapahulu, West Diamond Head, Waikiki Gold Coast	Elected Official
Iseri-Matsubara	Denise	Office of Hawaiian Affairs Communications Administrator	State
Johnson	Jo Anne	Maui County Transportation Director	Legislative
Kaahanui	Irene	OHA - Moloka‘i	Cultural Leader
Kaho'ohalahala	Sol P.	Maui County Council Member	Elected Official
Kalipi	Noe	First Wind	Business
Kaluhiwa	Kekoa	First Wind	Business
Kam	Allen	DBEDT	State
Kane	Shad	O‘ahu Island Burial Council	Culture
Kapaku	Mona	Department of Hawaiian Home Lands	State
Kapu	J. Ke`eaumoku and Uilani	Kuleana Kuikahi LLC	Culture
Kapu	J. Ke`eaumoku	Maui/Lana‘i Island Burial Council; Maui County Cultural Resources Commission	Culture
Kay	Robin	Lanaians for Sensible Growth	Community
Kealoha	Donavan	Lanaians for Sensible Growth	Community

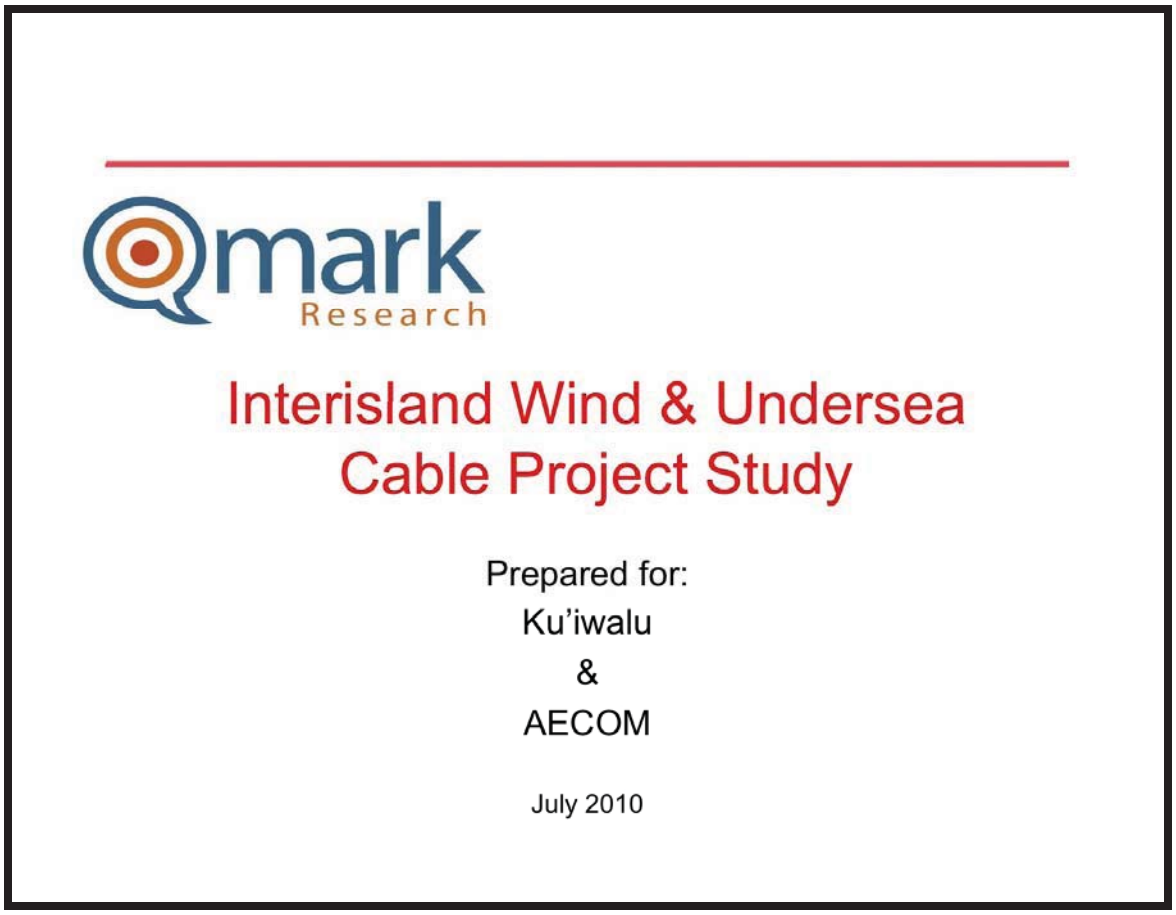
LAST	FIRST	AFFILIATION	CATEGORY
Keith-Agaran	Gilbert S.C.	9 - Kahului, Wailuku, Puunene, Spreckelsville, Paia	Elected Official
Kennison	Willie	ILWU Local 142	Business
Kokubun	Russell S.	2 - Waiakea Uka, Kalapana, Volcano, Kahuku	Elected Official
Kulana Oiwi	(Murphy)		
Kuloloio	Leslie	Aha Ki'ole	Cultural Leader
Lavvorn	Christopher	Castle & Cooke Resorts, LLC	Business
Lo	Catherine	Blue Planet Foundation	Envrionment
Lopez	Sybil	Kalamaula Homestead Association	Community
Luuwai	Robert	Kaho'olawe Island Reserve Commission	Cultural Leader
Machado	Colette Y.	Office of Hawaiian Affairs; Molokai Land Trustees	Cultural Leader
Maioho	George	DHHL Molokaʻi District Office	State
Maly	Kepa	Lanaʻi Culture & Heritage Center	Culture
Manual	Pua	Castle & Cooke Resorts, LLC	Business
Mateo	Danny	Councilman	Elected Official
Maxwell, Sr.	Charles K.	CKM Cultural Resources LLC	Cultural Leader
McComber	Ron	Lanaians for Sensible Growth	Community
McGregor	Davianna	UH Ethnic Studies Program, Protect Kahoʻolawe ʻOhana	Education
Medeiros	Art	Leeward Haleakala Watershed Restoration Program	Community
Medeiros	Bill Kauakea	Maui County Council Member	Elected Official
Mikulina	Jeff	Sierra Club	Community
Minerbi	Luciano	University of Hawaiʻi at Mānoa	Education
Misaki	Ed	The Nature Conservancy	Environment
Molina	Michael J.	Maui County Council Member	Elected Official
Morita	Hermina M.	14 - Hanalei, Anahola, Kealia, Kapaa, Waipouli	Elected Official
Moriwake	Isaac	Sierra Club	Community
Naeole	Clifford	Ritz Carlton/Cultural Pracitioner	Business/Cultural Leader
Nahoʻopiʻi	Mike	Kahoʻolawe Island Reserve Commission	Culture
Nāmuʻo	Clyde	Office of Hawaiian Affairs	Cultural Leader
Nicholas	Peter	Moloka'i Ranch	Business
Nishiki	Wayne K.	Maui County Council Member	Elected Official
O'Brien	Kelly	First Wind Energy LLC	Business
Okamoto	Linda Kay	Charter Commission	Community
Paracuelles	Kuhea	National Park Service	State
Peck	Ted	Dept. of Business Economic Development & Tourism	State
Pellegrino	Hōkūao and Alana	Nohoʻana Farm	Business
Poepoe	Karen	Molokaʻi ʻAha Kiʻole	Cultural Leader
Poepoe	Kelson Mac	Hui Malama o Moʻomomi	Culture
Pontanilla	Joseph	Maui County Council Member	Elected Official

LAST	FIRST	AFFILIATION	CATEGORY
Purdy	Kammy	Ahupua'a-Mokupuni o Moloka'i / Aha Hui Homestead Association	Culture
Reilly	Pat	Lanaians for Sensible Growth	Community
Ritte	Walter	Aha Ki'ole	Cultural Leader
Rodrigues	Mr. Hinano	SHPD and Burial Council	State
Rogers	Henk	Blue Planet Foundation	Business/Environment
Rotunna-Hazuka	Lisa	Archaeological Services Hawai'i, LLC	Business
Ryder	Kawehi	Lāna'i Resident	Community
Ryder	Lei'ohu	Cultural Practitioner	Cultural Leader
Sabas	Mike	Mitchell Pauole Community Center	Community
Sabas	Jennifer Goto	U.S. Senator Daniel K. Inouye's Office	Legislative
Say	Calvin K.Y.	20 - St. Louis Heights, Palolo Valley, Maunalani Heights, Wilhelmina Rise, Kaimuki	Elected Official
Tamanaha	Miwa	Kahea	Culture
Tsutsui	Shan S.	4 - Wailuku, Waihe'e, Kahului, Pa'ia, Lower Pa'ia	Elected Official
Victorino	Michael P.	Maui County Council Member	Legislative
Vitousek	Mike	State Historic Preservation Division	State
Yagodich	Darrell	Department of Hawaiian Home Lands	
Young	Randall	Naval Facilities Engineering Command Pacific	State
Ziegler	Marjorie	Conservation Council for Hawai'i	State
		Office of Hawaiian Affairs Native Hawaiian Historic Preservation Council	Cultural Leader
		Lāna'i Archaeological Committee	Scientific
		Lāna'i Culture and Heritage Center	Culture
		Society for Moloka'i Archaeology	Scientific

Appendix A – Attachment 2
Molokaʻi Survey

Attachment 2
Statewide Survey

July 2010



Methodology

- 301 phone interviews conducted July 16 - 24, 2010.
  - Sample generated using computer generated random numbers
  - Reaches listed, unlisted & unpublished numbers
  - Interviewed full-time Molokai residents – only one per household
  - Approximately 2,900 households on the island
- The sample of 301 interviews ensures a reliability of approximately ±5.7 percent at the 95 percent level of confidence.

Objectives

- To measure respondents' awareness and perception of the Interisland Wind and Undersea Cable Project.
- To gain insight into respondents' knowledge and opinions on the issues surrounding the project.
- To determine respondents' level of support for the project.
- To identify possible incentives to increase level of support for the project.

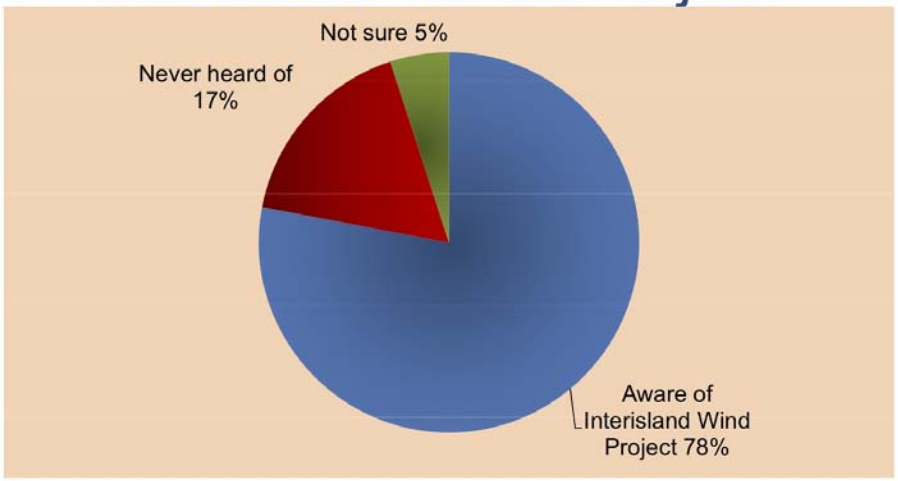
Summary of Findings

Unaided Awareness of Energy-Related Projects

	OVERALL
Building windmills	31%
Solar power projects/ incentives	9%
Project to supply power to Oahu	7%
CFL light bulb replacement program	7%
Community opposition to wind farm	6%
Wind Farm project	5%
Wind energy	5%
Don't recall	9%
Not aware of any energy-related projects	31%

Over a third of respondents are not aware of any energy related projects on Molokai.

Aided Awareness of the "Interisland Wind Project"

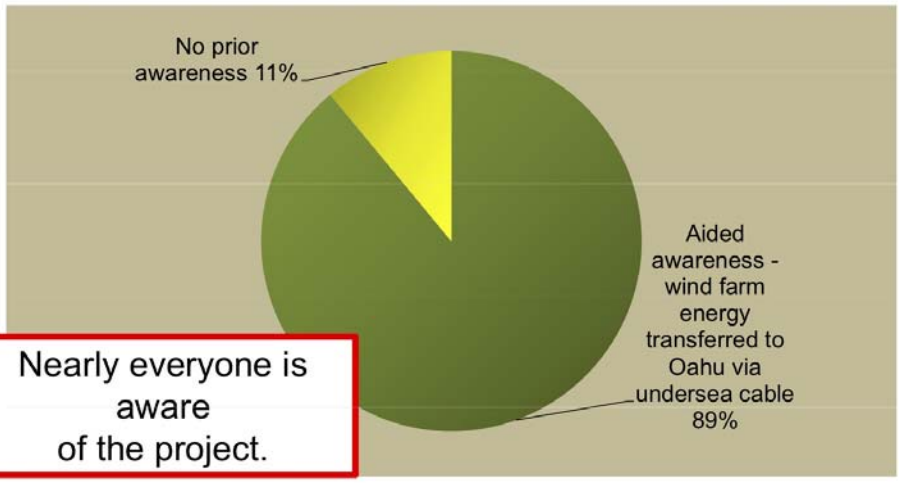


Level of Knowledge on the Interisland Wind Project

	OVERALL
Very knowledgeable (4)	8%
Somewhat knowledgeable (3)	40%
Net Knowledgeable	48%
Not too knowledgeable (2)	31%
Not knowledgeable at all (1)	19%
Net NOT Knowledgeable	50%
Don't know	2%
MEAN	2.38

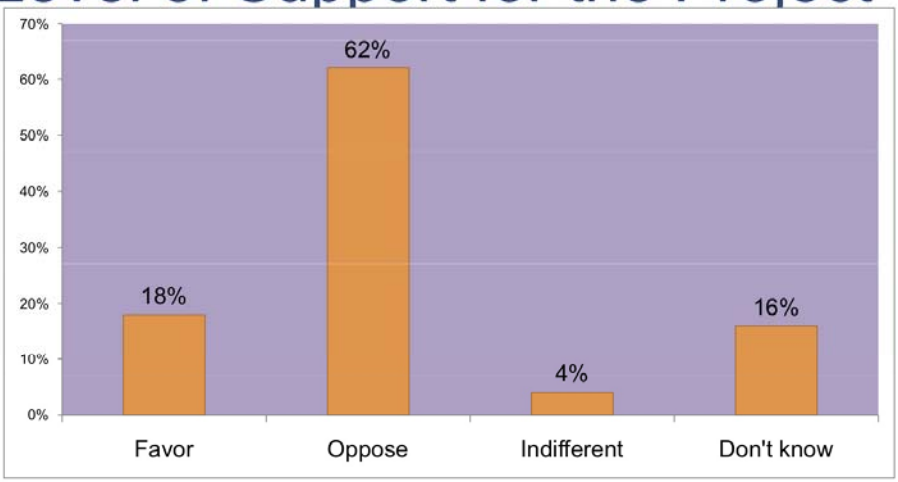
Respondents are split when they are asked to rate their overall level of general knowledge regarding this project

Awareness of Construction of Wind Farm & Undersea Cables



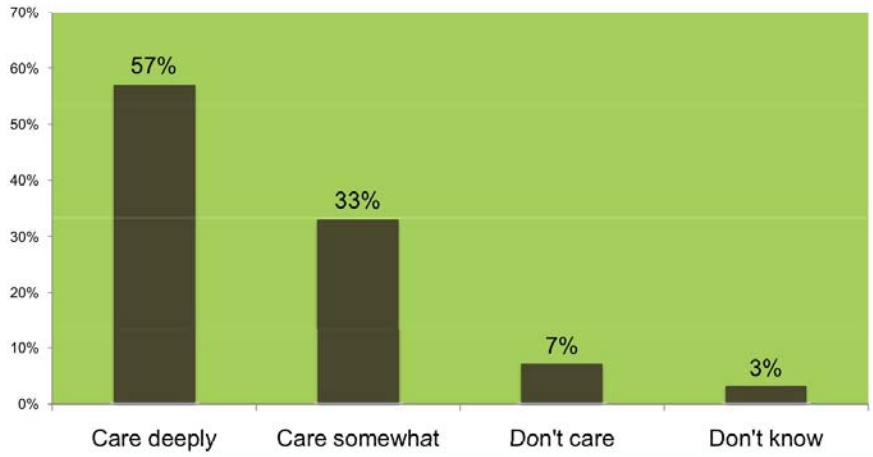
Nearly everyone is aware of the project.

Level of Support for the Project



Almost 2/3 of the respondents initially oppose the project.

Level of Care About the Issue



9 of 10 respondents say they care about this issue.

Perceptions of Entities Involved with the Project

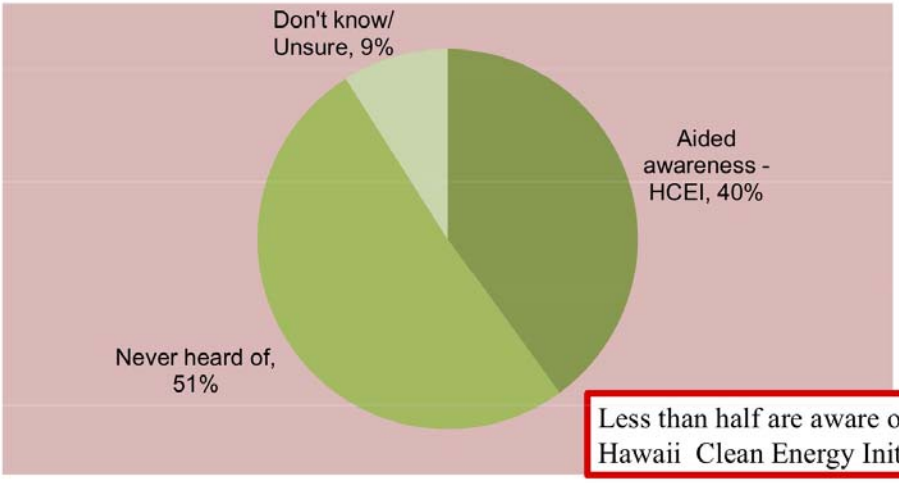
	First Wind	Molokai Ranch	State of Hawaii DBEDT
Very favorable (4)	8%	10%	8%
Somewhat favorable (3)	17%	18%	20%
Net Favorable	25%	28%	28%
Somewhat unfavorable (2)	19%	18%	21%
Very unfavorable (1)	29%	43%	37%
Net NOT Favorable	48%	61%	58%
Don't know	27%	11%	15%
MEAN	2.06	1.94	1.98

None of the major players enjoys a high level of regard among Molokai residents. Those opposed to the project have a much more negative view of each entity.

Level of Concern with Various Issues

	Very Concerned	Some-what Concern	Net Concern-ed	Some-what un-concerned	Very un-concerned	Net Uncon-cerned	Don't know	MEAN
Molokai residents pay higher costs for electricity than most of the state	89%	6%	**95%**	0%	3%	**3%**	1%	3.85
Protection of the environment	81%	16%	**97%**	1%	2%	**3%**	0%	3.76
The rising cost of electricity in Hawaii	81%	13%	**94%**	2%	4%	**6%**	-	3.70
Protection of cultural resources	70%	21%	91%	2%	4%	6%	3%	3.63
The need to develop renewable energy projects in Hawaii	66%	27%	93%	1%	5%	6%	1%	3.57
Protection of a subsistence lifestyle	63%	23%	86%	4%	6%	10%	4%	3.51
Global warming and climate change	51%	35%	86%	3%	9%	12%	2%	3.31

Awareness of Hawaii Clean Energy Initiative



Less than half are aware of Hawaii Clean Energy Initiative

Perception of State of Hawaii's Role in Energy Efficiency

Respondents were asked whether they believe the State of Hawaii is doing all it can to use other renewable technologies and energy efficiency on the other islands to reduce the State's reliance on fossil fuels.

	OVERALL
Strongly agree (4)	11%
Somewhat agree (3)	24%
Net Agree	35%
Somewhat disagree (2)	21%
Strongly disagree (1)	33%
Net Disagree	54%
Don't know	11%
MEAN	2.14

Hawaii's Oil Dependence

Respondents were read the following statement:

"Hawaii is the most oil-dependent state in the nation. More than 96% of the crude oil used in Hawaii comes from foreign sources. The Interisland Wind project would reduce Hawaii's dependence on foreign oil, decrease the gases that cause global warming and reduce air pollution."

They were then asked which of four statements best reflects their personal views.

	OVERALL (all respondents	ORIGINALLY "OPPOSED"	ORIGINALLY "UNSURE"
I agree that the construction of the wind farms and undersea cables will benefit Hawaii as a whole and I am in support of the project	8%	2%	3%
I support the project only if there will be some community benefit package for Molokai residents	64%	62%	70%
I am opposed to the Interisland Wind project	22%	32%	8%
None of the above	4%	3%	10%
Don't know	2%	1%	8%

Financial Benefits/Incentives

Respondents were asked if they Strongly Agree, Somewhat Agree, Somewhat Disagree or Strongly Disagree that "Molokai residents need to receive some financial benefit, such as reduced electricity bills, energy rebate, if the Wind Project is to be built."

	OVERALL
Strongly agree (4)	76%
Somewhat agree (3)	13%
Net Agree	89%
Somewhat disagree (2)	2%
Strongly disagree (1)	4%
Net Disagree	6%
Don't know	6%
MEAN	3.70

Fairness of Generating Energy for Oahu

Respondents were asked if they feel it is Very Fair, Somewhat Fair, Somewhat Unfair or Very Unfair that the wind farm and undersea cable will be built and placed on Molokai to generate energy for Oahu.

	Energy generated on Molokai being transferred to Oahu	Add community benefits package	NET EFFECT +/(-)
Very fair (4)	6%	18%	12.0
Somewhat fair (3)	10%	31%	21.0
Net Fair	16%	49%	33.0
Somewhat unfair (2)	22%	15%	(7.0)
Very unfair (1)	59%	31%	(28.0)
Net Unfair	81%	46%	(35.0)
Don't know	4%	6%	2.0
MEAN	1.62	2.37	.75

Without any type of community benefits package, most Molokai residents feel it is unfair to build a wind farm on Molokai that would benefit Oahu residents.

Unaided Incentives to Increase Support for the Project

Respondents were asked, "In exchange for providing the land for wind turbines, what do you think should be done, if anything, for the Molokai community?"

	OVERALL	Support project only with incentives
Discount on electricity	**40%**	**46%**
Use power locally first before excess is sent elsewhere	15%	16%
Cash payment to residents	14%	16%
Employment opportunities for residents	12%	14%
Subsidize gas/ oil purchases	7%	7%
Free electricity	7%	6%
Don't know	30%	23%

Aided Incentives to Increase Support for the Project

Respondents were presented with five possible incentives that could be tied to the wind farm …

	OVERALL (all respondents)	Support project only with incentives
Lower electricity rates	79%	90%
Protect the environment	75%	87%
Increase employment opportunities and create jobs	66%	79%
Make improvements to the water system	61%	71%
Increase educational benefits for Molokai's children	59%	69%

All of the incentives receive support from more than half the Molokai residents polled.

General Concerns Over Wind Farms (Unaided)

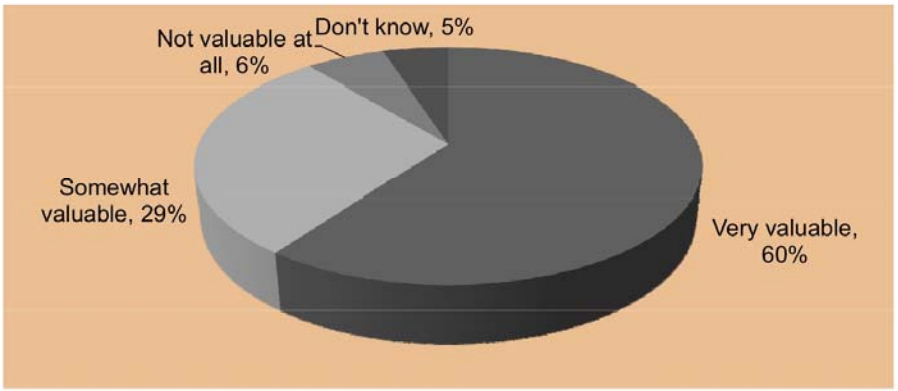
	OVERALL
Eyesore, visual blight, ugly	23%
Project will not benefit local residents	18%
Will destroy the island	16%
Impede hunting/gathering rights	11%
Built on sacred land	10%
Environmental impact	10%
Restrict access to affected land	10%
Electricity for Oahu and not Molokai	8%
Don't know	24%

General Concerns Over Undersea Cables (Unaided)

	OVERALL
Disrupt ocean/ marine life	38%
Hurt ocean access/ recreation use	17%
Negative effect on fishing	17%
Negative effect on ocean/ reefs	6%
Nothing/ No concerns	33%
Don't know	17%

Perceived Value of the Advice of Native Hawaiian Practitioners

Respondents were asked if they feel the advice or position of Native Hawaiian cultural practitioners with hereditary ties to Molokai is valuable.



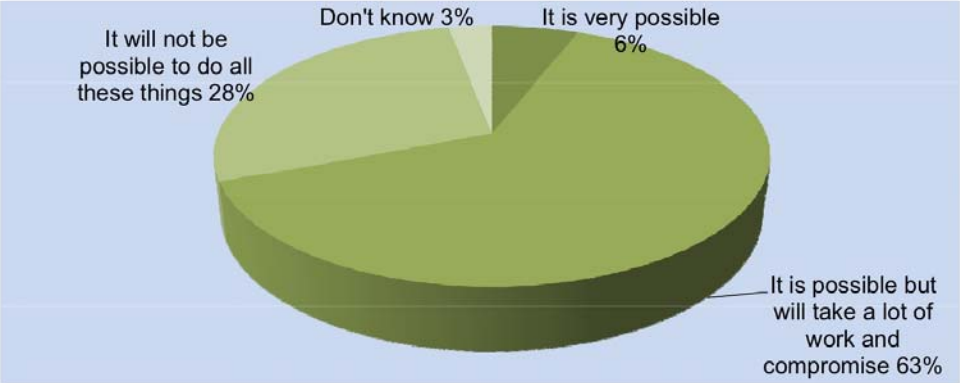
Position on Project Before and After Survey

	PRE-SURVEY (asked near the beginning of survey)	POST-SURVEY (asked again near end of the survey)	NET EFFECT +/(-)
I favor building the wind farms and undersea cable	18%	26%	8.0
I oppose the project	62%	61%	(1.0)
I don't care either way	4%	3%	(1.0)
Don't know	16%	11%	(5.0)

The results show a shift of eight percentage-points in the positive direction after exposure to issues highlighted in the study.

Consensus

Respondents were asked if they believed it was possible for all parties to come together and agree to build a wind farm on Molokai and undersea cables providing energy to Oahu and to provide the necessary community benefits to the residents of Molokai while still protecting the most sacred cultural and natural resources on the island.



Have Internet Access

OVERALL	SUPPORTER	OPPONENT	UNDECIDED	Support project only with incentives
80%	76%	85%	67%	82%

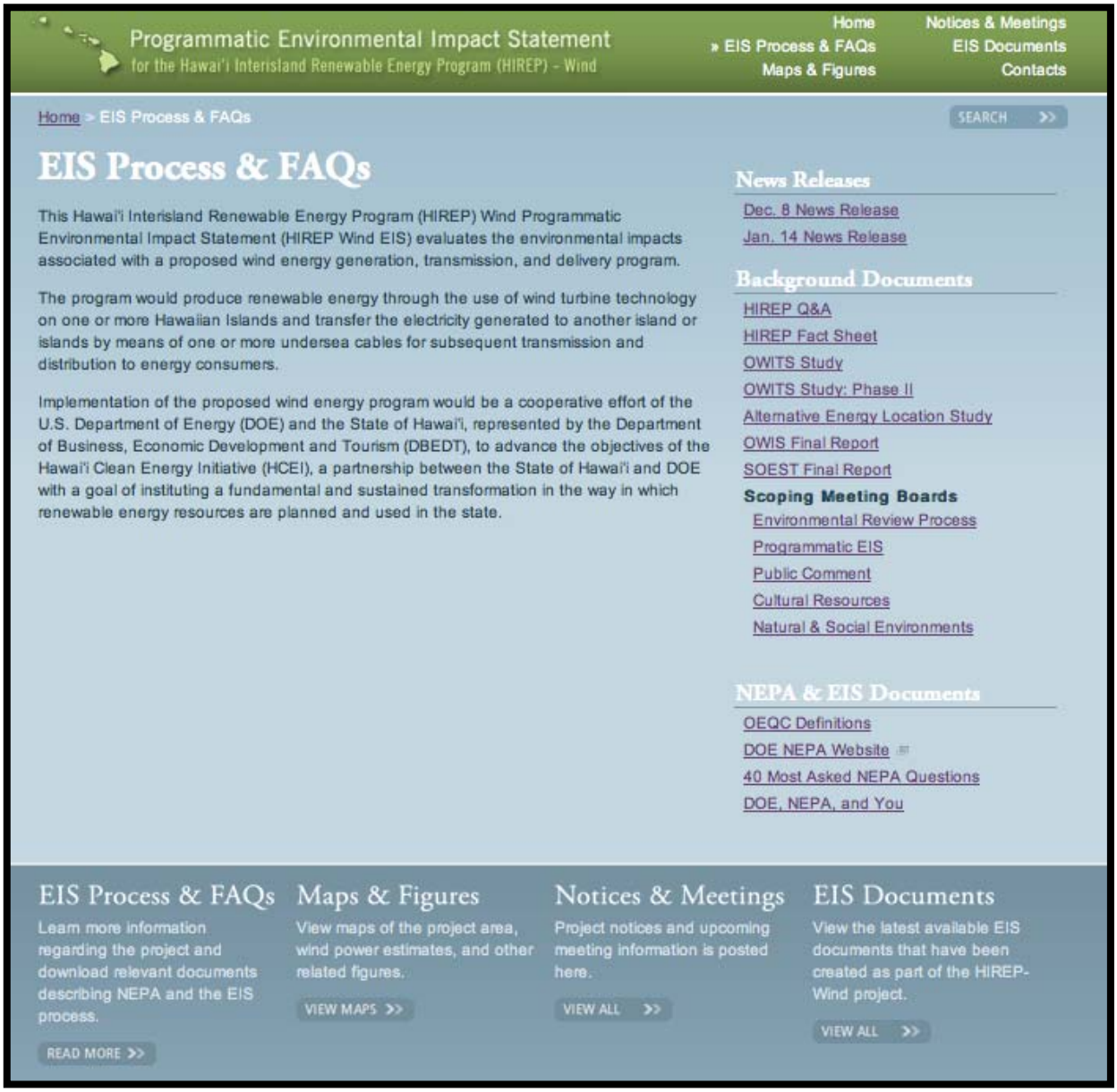
Primary Sources of Information for Current Events and Issues

	OVERALL	Support project only with incentives
Newspaper	70%	71%
Television	59%	61%
Word-of-mouth	42%	40%
Internet	41%	41%
Radio	15%	15%


QMark Research

Appendix A – Attachment 3
HIREP-Wind Website

Attachment 3
HIREP-Wind Website
www.hirep-wind.com


Programmatic Environmental Impact Statement
for the Hawai'i Interisland Renewable Energy Program (HIREP) - Wind
Home
» EIS Process & FAQs
Maps & Figures
Notices & Meetings
EIS Documents
Contacts
Home > EIS Process & FAQs
SEARCH >>
EIS Process & FAQs
This Hawai'i Interisland Renewable Energy Program (HIREP) Wind Programmatic Environmental Impact Statement (HIREP Wind EIS) evaluates the environmental impacts associated with a proposed wind energy generation, transmission, and delivery program.
The program would produce renewable energy through the use of wind turbine technology on one or more Hawaiian Islands and transfer the electricity generated to another island or islands by means of one or more undersea cables for subsequent transmission and distribution to energy consumers.
Implementation of the proposed wind energy program would be a cooperative effort of the U.S. Department of Energy (DOE) and the State of Hawai'i, represented by the Department of Business, Economic Development and Tourism (DBEDT), to advance the objectives of the Hawai'i Clean Energy Initiative (HCEI), a partnership between the State of Hawai'i and DOE with a goal of instituting a fundamental and sustained transformation in the way in which renewable energy resources are planned and used in the state.
News Releases
Dec. 8 News Release
Jan. 14 News Release
Background Documents
HIREP Q&A
HIREP Fact Sheet
OWITS Study
OWITS Study: Phase II
Alternative Energy Location Study
OWIS Final Report
SOEST Final Report
Scoping Meeting Boards
Environmental Review Process
Programmatic EIS
Public Comment
Cultural Resources
Natural & Social Environments
NEPA & EIS Documents
OEQC Definitions
DOE NEPA Website
40 Most Asked NEPA Questions
DOE, NEPA, and You
EIS Process & FAQs
Learn more information regarding the project and download relevant documents describing NEPA and the EIS process.
READ MORE >>
Maps & Figures
View maps of the project area, wind power estimates, and other related figures.
VIEW MAPS >>
Notices & Meetings
Project notices and upcoming meeting information is posted here.
VIEW ALL >>
EIS Documents
View the latest available EIS documents that have been created as part of the HIREP-Wind project.
VIEW ALL >>

Scoping Documents

Download Scoping Report (28 MB PDF)

Browse Submitted Comments

Agency and Elected Official Comments (18 files)
HIREP Website Comments (52 files)
Individual and Non-Website Comments (84 files)
NGOs and Organization Comments (23 files)

Agency and Elected Official Comments

Hawaii Department of Accounting and General Services
Hawaii Department of Transportation
Hawaii Office of Hawaiian Affairs
Hawaii Office of Planning
Hawaii Department of Land and Natural Resources
- Division of Boating and Oceanic Recreation
- Land Division
- Office of Conservation & Coastal Lands
- State Historic Preservation Division

Hawaii Department of Health
- Clean Water Branch
- Indoor and Radiological Health Branch

U.S. Department of Commerce, National Oceanic and Atmospheric Administration
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency
U.S. Navy
County of Maui, Douglas P. McLeod, Energy Commissioner
County of Maui, Joseph Pontanilla, Council Member
County of Maui, Riki Hokama, Council Member
Hawaii State Representative Cynthia Thielen

back to top

HIREP Website Comments

Charles C. Alton
Brian Barbata
Arthur Beck
Peggy Lucas Bond – Comment #1
Peggy Lucas Bond – Comment #2
Colleen Joaoa Bordeaux
Jon Brodziak
Roger Cable
KC Connors

Meeting Sign-In Sheets

Lanai Sheet
Maui Sheet
Molokai Sheet
Oahu Sheet

Meeting Transcripts

Lanai Transcript
Maui Transcript
Molokai Transcript
Oahu Transcript

Appendix A – Attachment 4
Selected Media

Attachment 4
Selected Media

A. HI Department of Business, Economic Development & Tourism – Programmatic EIS (12/8/10) News Release

B. HI Department of Business Economic Development & Tourism – Public Scoping Meeting (1/14/11) News Release

C. Ka Wai Ola (January 2011)

D. The Garden Island Ad (1/19/11)

E. Maui News Ad (1/13/11)

F. Molokaʻi Dispatch Ad (1/12/11)

G. Star Advertiser Ad (1/14/11)

H. Hawaiʻi Tribune-Herald Ad (1/19/11)

I. West Hawaiʻi Today Ad (1/19/11)

J. Star Advertiser Article (1/13/11)

K. Molokaʻi Dispatch Article (1/20/11)

L. Programmatic EIS Fact Sheet

M. Q&A: The Hawaiʻi Interisland Renewable Energy Program

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

NEWS RELEASE

NEIL ABERCROMBIE
GOVERNOR

RICHARD LIM, ACTING DIRECTOR
Phone: (808) 586-2355
Fax: (808) 586-2377

For Immediate Release: December 8, 2010

State starts study of overall impacts for interisland cable

Programmatic EIS will look at broad wind issues with project-specific EIS to follow

HONOLULU--The State Department of Business, Economic Development and Tourism (DBEDT) Energy Office has filed state and federal notices of intent to prepare a programmatic environmental impact statement (PEIS) for the Hawai‘i Interisland Renewable Energy Program (HIREP). The PEIS will examine the program-level impacts of the development of up to 400 megawatts (MW) of wind energy on Maui County, the transmission of the energy to Oahu via an undersea cable, and the integration of that energy into Oahu’s electrical grid.

The PEIS will incorporate a thorough analysis of overall impacts and benefits, but will not grant any development rights or privileges to a specific wind farm project. Instead, it will provide a framework, uniform policies, and a process for comprehensively deciding how project components should be integrated within the framework. A PEIS is often employed on the federal level. It will specify best management practices for the three major HIREP components:

- Transmission of renewable energy via undersea cable to Oahu: The undersea interisland cable will allow the sharing of renewable energy generated in Maui County, particularly Lanai and Molokai where resources such as wind are substantial, with Oahu, where resources are limited and demand for energy is high.
- Generation of up to 400 MW of wind power on Lanai and Molokai: This PEIS will focus on wind, but the HIREP program could be expanded in the future to include other types of renewable technologies.

- Utility infrastructure upgrades on Oahu needed to integrate large amounts of wind energy into the electrical grids.

“We are examining large infrastructure investments with considerable impacts on our communities. The PEIS and the subsequent project-specific EIS will increase the opportunities for public input,” said Ted Peck, administrator of the State Energy Office. “We have to seriously study the best way we can use the renewable resources we have so that we can significantly reduce our use of imported oil.

“Our Neighbor Islands have the richest renewable energy resources. With an interisland cable, we can share these homegrown resources to reach the State’s goal of 70 percent clean energy by 2030.”

In 2008, the State Legislature passed a law to create the Hawai‘i Clean Energy Initiative (HCEI) with the goal of 70 percent clean energy by 2030. This can be achieved with a 30 percent increase in energy efficiency and 40 percent new renewable energy development. Wind energy to be studied in this PEIS has the potential of contributing 14 percent to the HCEI goals.

The public has a three-month opportunity to provide input through the beginning of March. For more information on how to comment, log on to www.hirep-wind.com.

The PEIS is funded by the federal American Recovery and Reinvestment Act (ARRA) and has a scheduled completion date of April 2012. It will be conducted by AECOM Technical Services, Inc. (AECOM). AECOM is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government with approximately 52,000 employees around the world and approximately 200 professionals living and working in Hawai‘i.

# # #

For more information, contact:

Richard Lim
Acting Director, DBEDT
Phone: (808) 586-2355

Ted Peck
State Energy Administrator
Phone: (808) 587-3812

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

NEWS RELEASE

NEIL ABERCROMBIE
GOVERNOR

RICHARD LIM, INTERIM DIRECTOR
Phone: (808) 586-2355
Fax: (808) 586-2377

For Immediate Release: January 14, 2011

Public Scoping Meetings Regarding the Hawai‘i Interisland Renewable Energy Program

Public Comment Sought for Renewable Energy Program

HONOLULU – The Department of Energy (DOE) and the Department of Business, Economic Development and Tourism (DBEDT) will host public meetings on Maui, Moloka‘i, Lāna‘i, and O‘ahu to receive comments on the scope of the Hawai‘i Interisland Renewable Energy Program (HIREP): Wind Programmatic Environmental Impact Statement (EIS). The EIS reviews possible environmental impacts that may arise from wind energy program development under the HIREP and the range of reasonable options.

“This is an excellent forum for concerned citizens to express their opinions, speak with experts and talk about moving Hawai‘i towards a brighter energy future,” says Estrella A. Seese, Acting Energy Administrator, State Energy Office.

TIMES, DATES AND LOCATIONS:

- February 1, 2011 - McKinley High School Cafeteria, 1039 South King Street, from 5:30 p.m. to 9:00 p.m.
- February 2, 2011 - Pomaika‘i Elementary School Cafeteria, 4650 South Kamehameha Avenue in Kahului, from 5:30 p.m. to 9:00 p.m.

--more—

- February 3, 2011 - Mitchell Pauʻole Community Center, 90 ʻAinoa Street, Kaunakakai, Molokaʻi, from 5:30 p.m. to 9:00 p.m.
- February 5, 2011 - Lānaʻi High & Elementary School Cafeteria, 555 Fraser Avenue, from 9:30 a.m. to 3:00 p.m.

Both oral and written comments will be considered by DOE and DBEDT. Requests to speak at any of the public scoping meetings should be submitted to Mr. Allen G. Kam, Esq., AICP, HIREP-Wind EIS Manager, on or before January 28, 2011, by any of the following means:

- By e-mail to hirep@dbedt.hawaii.gov
- By submitting electronic comments on the EIS web page at www.hirep-wind.com
- By facsimile (fax) to 808-586-2536, Attention Allen G. Kam.
- By mail to:
  Allen G. Kam, Esq., AICP
  HIREP EIS Manager
  State Energy Office, Renewable Energy Branch
  Department of Business, Economic Development and Tourism
  P.O. Box 2359
  Honolulu, Hawaii 96804

Requests to speak may also be made at the meetings; however, requests received by January 28, 2011, will be given priority in the speaking order. Additional project information can be found at the project website: www.hirep-wind.com

# # #

For more information, contact:

Richard Lim
Interim Director, DBEDT
Phone: (808) 586-2355

Anthony J. Como
DOE NEPA Document Manager
Phone: (202) 586-5935
Anthony.como@hq.doe.gov

Allen G. Kam, Esq., AICP
HIREP-Wind EIS Manager
Phone: (808) 587-9023
hirep@dbedt.hawaii.gov

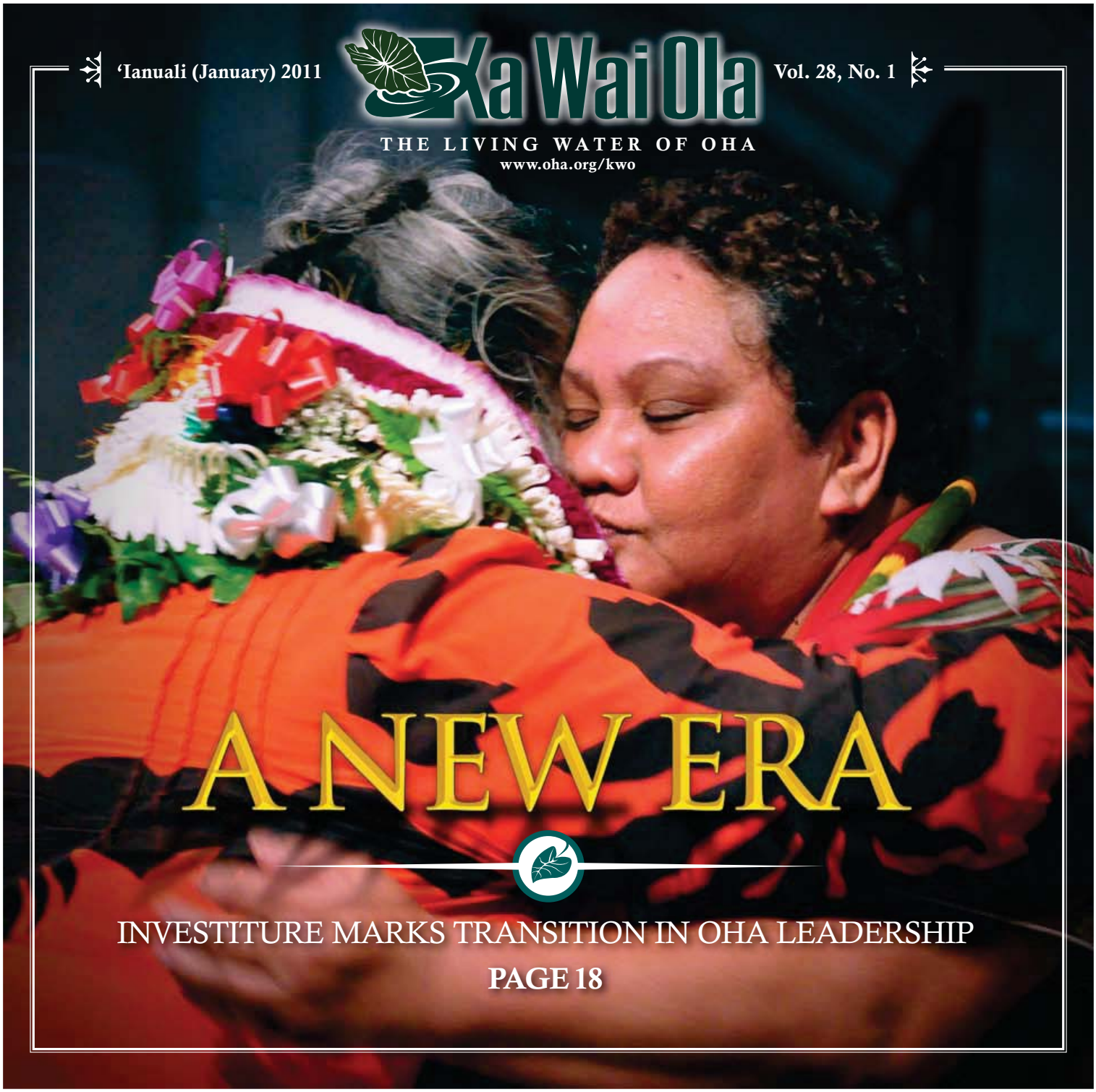
ʻIanuali (January) 2011

Ka Wai Ola

Vol. 28, No. 1

THE LIVING WATER OF OHA

www.oha.org/kwo



A NEW ERA

INVESTITURE MARKS TRANSITION IN OHA LEADERSHIP

PAGE 18

LOOK INSIDE FOR A 4-PAGE INSERT FROM KAMEHAMEHA SCHOOLS

NO KA ILINA
BURIAL NOTICES

WAIKĪKĪ AHUPUAʻA

NOTICE TO INTERESTED PARTIES IS HEREBY GIVEN that, during the course of an archaeological inventory survey, Cultural Surveys Hawaiʻi Inc. identified human burials within the St. Augustine-by-the-Sea Church property, Hamohamo, Waikīkī Ahupuaʻa, Honolulu (Kona) District, Island of Oʻahu, TMK [1]-2-6-26:012.

The landowner is Roman Catholic Church [contact: Father Lane Akiona, 923-7024, 130 ʻŌhua Ave., Honolulu, HI 96815; email, staugustinebythesea@gmail.com].

The Tax Map Key plat map indicates the burials were within Land Commission Award (LCA) 1446 granted to Naʻa. Background research indicates that during the *Māhele* these lands were awarded to Ana Keohokālole and that LCA 8452 granted to Ana Keohokālole, LCA 2027 to Palaua-lelo, and LCA 10677 to Pupuka are in the immediate vicinity.

Following the procedures of Hawaiʻi Revised Statutes (HRS) Chapter 6E-43, and Hawaiʻi Administrative Rules (HAR) Chapter 13-300, the burial features are believed to be over 50 years old and most likely Native Hawaiian. The burial features have been assigned State Inventory of Historic Properties (SIHP) # 50-80-14-7136.

The landowner would prefer to keep all burials associated with 50-80-14-7136 within the Church property but is considering relocation. However, the decision to preserve in place or relocate these previously identified human remains shall be made by the Oʻahu Island Burial Council and the SHPD in consultation with any recognized lineal and/or cultural descendants, per the requirements of HAR Chapter 13-300-33. The remains' proper treatment shall occur in accordance with HAR Chapter 13-300-38. A burial treatment plan is currently being prepared by Cultural Surveys Hawaiʻi Inc. [P.O. Box 1114, Kailua, HI 96724; tel. 808-262-9972; fax 808-262-4950].

SHPD is requesting persons having any knowledge of the identity or history of these human burials to immediately contact Phyllis Coochie Cayan at SHPD, located at the Kākuhihewa Building, 601 Kamōkila Blvd., Suite 555, Kapolei, HI 96707 [tel. 808-692-8015; fax 808-692-8020] to present information regarding appropriate treatment of the unmarked human remains. All interested parties should respond within 30 days of this notice and file descendancy claim forms and/or provide information to SHPD adequately demonstrating lineal or cultural descent from these specific burials or cultural descent from ancestors buried in the vicinity of this area.

KŌLOA AHUPUAʻA

All persons having information concerning potential unmarked burials on a roughly 66-acre property (TMK:4-2-8-14:001) in Kōloa Ahupuaʻa, Kōloa District, Island of Kauaʻi are hereby requested to contact Dr. Bob Rechtman, Rechtman Consulting LLC (808) 969-6066, 507A E. Lanikaula St., Hilo, HI 96720, and/or Ms. Phyllis Coochie Cayan, DLNR-SHPD Burial Sites Program (808) 692-8015, 601 Kamokila Blvd. Room 555, Kapolei, HI 96707.

Names historically associated with the immediate project area include: Kenoi, Pehu and Wahapuu.

Appropriate treatment of the remains will occur in accordance with HRS, Chapter 6E, respective to this potential burial site. The landowner intends to preserve this site in place, following the preparation of a Burial Treatment Plan in consultation with any identified descendants and with the approval of the Kauaʻi/Niʻihau Island Burial Council. All interested parties should respond within thirty (30) days of this notice and provide information to DLNR-SHPD adequately demonstrating lineal descent from these specific Native Hawaiian remains, or cultural descent from ancestors once residing or buried in the same ahupuaʻa.

PUAKEA AND KUKUIPAHU AHUPUAʻA

All persons having information concerning an unmarked burial on a roughly 25-acre property (TMK:3-5-6-01:108) in Puakea and Kukuipahu ahupuaʻa, North Kohala District, Island of Hawaiʻi are hereby requested to contact Dr. Bob Rechtman, Rechtman Consulting LLC (808) 969-6066, 507A E. Lanikaula St., Hilo, HI 96720, and/or Mr. Analu Josephides, DLNR-SHPD Burial Sites Program (808) 327-4959, 40 Poʻokela St., Hilo, HI 96720.

Names historically associated with the general project area include: Kamalamailalo, Kaluhilaau, Keaulumoku, Keaweopala, Keawekipi, Kailiahi, Kaaua, Moku, Makuahine.

Appropriate treatment of the remains will occur in accordance with HRS, Chapter 6E, respective to this burial site. The landowner intends to preserve the burial in place, following the preparation of a Burial Treatment Plan in consultation with any identified descendants and with the approval of the Hawaiʻi Island Burial Council. All interested parties should respond within 30 days of this notice and provide information to DLNR-SHPD adequately demonstrating lineal descent from these specific Native Hawaiian remains, or cultural descent from ancestors once residing or buried in the same ahupuaʻa. ■

HOʻOLAHA LEHULEHU
PUBLIC NOTICE

FEDERAL AND STATE ENVIRONMENTAL REVIEW PROCESSES TO BEGIN FOR THE HAWAIʻI INTERISLAND RENEWABLE ENERGY PROJECT – WIND (HIREP)

For the proposed Hawaiʻi Interisland Renewable Energy Project – Wind (HIREP), Department of Business Economic Development and Tourism (DBEDT) will be preparing a joint programmatic environmental impact statement (PEIS) under the Federal National Environmental Policy Act and an environmental impact statement (EIS) under the State Hawaiʻi Environmental Policy Act (Chapter 343). The EA/EIS Preparation Notice was published in the Office of Environmental Quality Control (OEQC) on December 8, 2010 and the Notice of Intent to Prepare the EIS will be published in the Federal Register shortly thereafter.

The HIREP Wind PEIS will evaluate the environmental impacts associated with a proposed wind-energy generation, transmission, and delivery program. The program would produce renewable energy through the use of wind turbine technology on one or more Hawaiian Islands and transfer the electricity generated to another island or islands by means of one or more undersea cables for subsequent transmission and distribution to energy consumers. Implementation of the proposed wind energy program would be a cooperative effort of the U.S. Department of Energy (DOE) and the State of Hawaiʻi, represented by DBEDT, to advance the objectives of the Hawaiʻi Clean Energy Initiative (HCEI), a partnership between the State of Hawaiʻi and DOE with a goal of instituting a fundamental and sustained transformation in the way in which renewable energy resources are planned and used in the state.

Hawaiʻi Powered
Hawaiʻi Clean Energy Initiative

The formal notices of intent to prepare the PEIS and EA/EIS contain additional details on the project. The public scoping meetings are scheduled for Tuesday, February 1 on Oʻahu at McKinley High School, 1039 South King Street, Honolulu, at 5:30 p.m.; Wednesday, February 2 on Maui at Pomaikaʻi Elementary School, 4650 South Kamehameha Avenue, Kahului at 5:30 p.m.; Thursday, February 3 on Molokaʻi at Mitchell Pauole Community Center, 90 Ainoa Street, Kaunakakai at 5:30 p.m., and Saturday, February 5 on Lānaʻi at Lānaʻi High & Elementary School, 555 Fraser Avenue, Lānaʻi City at 9:30 a.m. Scoping meeting schedules and information will also be posted at www.hirep-wind.com.

For additional information, please call Allen Kam (808) 587-9023 or email at hirep@dbedt.hawaii.gov. ■

STATE OF HAWAII
COUNTY OF KAUAI
AFFIDAVIT OF PUBLICATION

THE GARDEN ISLAND

STATE OF HAWAII
DBEDT (DEVELOPMENT & TOURISM)
235 S BERETANIA STREET
HONOLULU HI 96813

REFERENCE: 106409
729814 SCOPING MEETINGS FOR HAWAII INTERISLAND

Kaylen Manoi, being duly sworn, deposes and says, that she is an employee of "The Garden Island," a newspaper published in Lihue, County of Kauai, State of Hawaii; that the NOTICE in the above entitled matter of which the annexed is a true and correct copy, was published 1 time(s) in "The Garden Island" aforesaid and that this affiant is not a party to or in any way interested in the above entitled matter.

Kaylen Manoi

Subscribed and sworn to me this 25 day of Jan., 2011.

CATHERINE VALENCIA
Notary Public, Fifth Judicial Ciruit
State of Hawaii
My Commission Expires: 10-3-2012

Document Description: Affidavit of Publication
No. of pages: 1 Document Date: 1-25-11

PUBLISHED ON: 01/19/2011

CATHERINE VALENCIA ★ NOTARY PUBLIC ★ No. 04-560 ★ STATE OF HAWAII

FILED ON: ~~01/19/11~~ KM

Notice of Public Scoping Meetings for the Hawai`i Interisland Renewable Energy Program: Wind Programmatic Environmental Impact Statement (DOE/EIS-0459)

AGENCIES: U.S. Department of Energy (DOE) and the State of Hawai`i Department of Business, Economic Development and Tourism (DBEDT)

DOE and DBEDT will host four public meetings to receive comments on the scope of the Hawai`i Interisland Renewable Energy Program: Wind Programmatic Environmental Impact Statement (hereinafter referred to as the Hawai`i Wind EIS or the EIS). The EIS will assess the foreseeable environmental impacts that may arise from wind energy program development under the Hawai`i Interisland Renewable Energy Program (HIREP) and the range of reasonable alternatives. The public is invited to attend and participate in these meetings. Both oral and written comments will be considered by DOE and DBEDT. Requests to speak at any of the public scoping meetings should be submitted to Mr. Allen G. Kam, Esq., AICP, HIREP-Wind EIS Manager, on or before January 28, 2011, by any of the following means:

- By e-mail to hirep@dbedt.hawaii.gov
- By submitting electronic comments on the EIS web page at www.hirep-wind.com
- By facsimile (fax) to 808-586-2536, Attention Allen G. Kam.
- By mail to Allen G. Kam, Esq., AICP, HIREP EIS Manager, State of Hawai`i, Department of Business, Economic Development and Tourism, Renewable Energy Branch, State Energy Office, P.O. Box 2359, Honolulu, HI 96804.

Requests to speak also may be made at the scoping meetings; however, requests received by January 28, 2011, will be given priority in the speaking order.

TIMES, DATES AND LOCATIONS: DOE and DBEDT now announce that they will jointly host the following public scoping meetings:

- February 1, 2011 - McKinley High School Cafeteria, 1039 South King Street, Honolulu, HI 96814, from 5:30 p.m. to 9:00 p.m.
- February 2, 2011 - Pomaika`i Elementary School Cafeteria, 4650 South Kamehameha Avenue, Kahului, HI 96732, from 5:30 p.m. to 9:00 p.m.
- February 3, 2011 - Mitchell Pauole Community Center, 90 Ainoa Street, Kaunakakai, Moloka`i, HI 96748, from 5:30 p.m. to 9:00 p.m.
- February 5, 2011 - Lana`i High & Elementary School Cafeteria, 555 Fraser Avenue, Lana`i City, HI 96763, from 9:30 a.m. to 3:00 p.m.

FOR FURTHER INFORMATION CONTACT: For information on DOE's proposed action, contact Anthony J. Como, DOE NEPA Document Manager at 202-586-5935 or anthony.como@hq.doe.gov. For information on HIREP, contact Mr. Allen G. Kam, Esq., AICP, HIREP-Wind EIS Manager, at 808-587-9023 or hirep@dbedt.hawaii.gov. Additional project information can be found at the project website: www.hirep-wind.com

(January 19, 2011)

SOH-Dept. Business, Eco. Dev.
2x7.75" Class2011 • 01-18-11
Tuesday (FRS)
1491782 - Page 1 - Composite

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(MN: Jan. 18, 2011)

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AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
Notice of Public Scoping Meetings

STATE OF HAWAII }
} SS.
City and County of Honolulu }

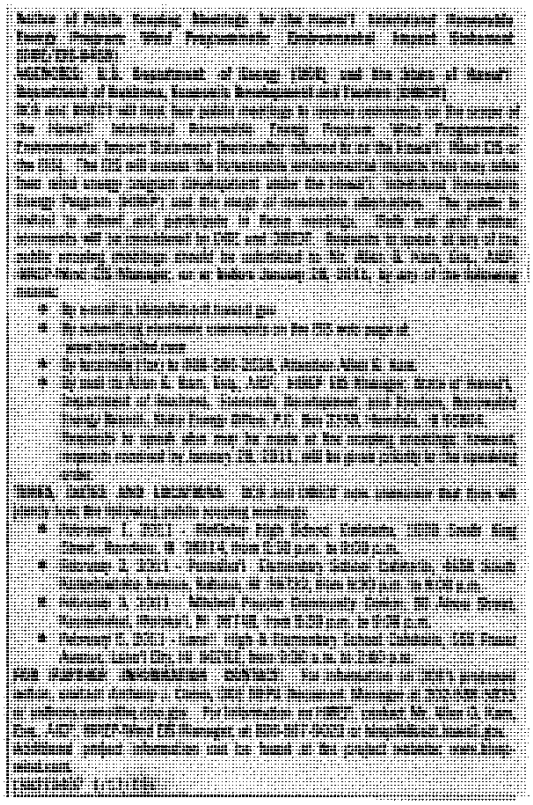
Doc. Date: JAN 17 2011 **# Pages:** 1

Notary Name: Patricia K. Reese First Judicial **Circuit**

Doc. Description: Affidavit of Publication

PATRICIA K. REESE NOTARY PUBLIC (Official Seal) Comm. No. 86-467 STATE OF HAWAII

Notary Signature JAN 17 2011 Date



Theresa Oyama being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser and MidWeek, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Advertiser 1 times on:
01/17/2011

Midweek Wed. 0 times on:

_____ times on:

And that affiant is not a party to or in any way interested in the above entitled matter.

Theresa Oyama

Subscribed to and sworn before me this 17th day of Jan. A.D. 20 11

PATRICIA K. REESE NOTARY PUBLIC Comm. No. 86-467 STATE OF HAWAII

Patricia K. Reese, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: Oct 07 2014

Ad # 0000273407 LN: _____

Notice of Public Scoping Meetings for the Hawai'i Interisland Renewable Energy Program: Wind Programmatic Environmental Impact Statement (DOE/EIS-0459)

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(28194r1 Hawaii Tribune-Herald: January 19, 2011)

Public Scoping Meetings for the Hawai'i Interisland Renewable Energy

Program: Wind Programmatic Environmental Impact Statement (DOE/EIS-0459)

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(No. 37321-West Hawaii Today: January 19, 2011)

Star Advertiser .com
Monday, January 31, 2011

State seeks input on wind energy plan

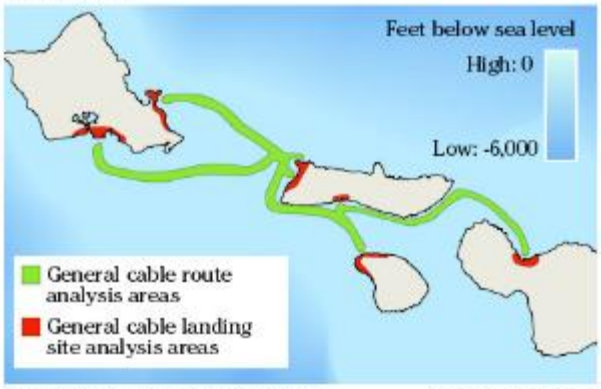
By Gary T. Kubota

POSTED: 01:30 a.m. HST, Jan 31, 2011

25 Comments

WIND AND CABLE ON THE TABLE

Public meetings on Oahu and Maui County islands are being held to discuss the use of undersea cables to transmit wind energy.



Source: Hawaii Interisland Renewable Energy Program, DBEDT

STAR-ADVERTISER

State and federal officials are holding public meetings starting tomorrow on an environmental study of the proposed transmission of wind energy from Maui County to Oahu by undersea cable. The project could cost $1 billion, officials estimate.

But the environmental group Life of the Land said government officials should be looking instead at generating electricity through ocean thermal energy conversion.

"OTEC would cost less," said Henry Curtis, executive director of Life of the Land.

The study, funded with up to $2.9 million in federal stimulus money, is intended to help the state meet its 2030 goal of providing 40 percent of its net electricity sales through locally generated renewable energy.

Four islands hosting forums

Public meetings on transmitting wind energy by undersea cable will start at 5:30 p.m. on the following days:
» Tomorrow at McKinley High School, Honolulu
» Wednesday at Pomaikai Elementary, Kahului, Maui
» Thursday at Mitchell Pauole Community Center, Molokai
» Feb. 5 at Lanai High and Elementary School
An environmental notice about the plan is available for review in the online Jan. 8 issue of the state Office of Environmental Quality Control's newsletter:
http://hawaii.gov/health/environmental/oeqc/index.html

The plan is to have wind energy provide up to 400 megawatts of electricity via undersea cable.

State official Allen Kam said wind energy transmitted by undersea cable is one of a variety of options using alternative energy technologies to meet the state's renewable-energy goal.

He said preliminary studies show Maui County has "world-class winds."

"The wind is strong, steady ... and pretty much always on," said Kam, a manager with the Hawaii Interisland Renewable Energy Program, part of the state Department of Business, Economic Development and Tourism.

Curtis, however, said that in terms of reliability, OTEC tops wind and solar.

OTEC uses the temperature differential between cold, deep seawater with warm surface water to generate power through the transfer of heat. In the 1980s and 1990s, an experimental plant at Keahole Point on the Big Island accessed deep water just offshore through a pipe, but the project was dropped because it was too costly compared to cheap oil.

Kam said he's unaware of any commercial-scale OTEC projects today.

Josh Strickler, the state's facilitator of renewable- energy programs, said the state continues to support OTEC research on the Big Island but the technology is still in the testing stages.

"I would love to see OTEC come on line, but it's just not there right now," he said.

Kam said a developer of an undersea cable project would still have to prepare a separate environmental impact statement and give the public the opportunity to comment on the project.

What is currently under review is a state and federal "programmatic" EIS, which would provide information that could be useful to a prospective undersea cable developer and help to quicken the development of a separate environmental study, Kam said.

The potential entry sites for the cable include northeast and south-central Molokai, northeast Lanai and Kahului Harbor on Maui.

The landing site of the cable on Oahu could be located on the east side of the Mokapu Peninsula at the Marine Corps Base and the leeward side between Pearl Harbor and Honolulu Harbor.

Kam said Castle & Cooke wants to develop a large wind farm on Lanai, and First Wind is interested in developing a wind farm on Molokai that could transmit energy through undersea cable.

The state said some 20 undersea electrical transmission cables are in operation around the world, including a Tasmania-Australia link, the Cross-Sound Cable between Long Island and New York, and the Trans Bay Cable in San Francisco.

AGRICULTUREBUSINESSENERGYENVIRONMENTENVIRONMENT & ECOLOGYPOLITICAL

Thursday, January 20, 2011 By Mark Hayden

Wind, Cable on the Table

State seeking public comment

Department of Business, Economic Development and Tourism News Release

With Lanai's wind farm taking a tentative step forward, the Department of Energy (DOE) and the Department of Business, Economic Development and Tourism (DBEDT) are seeking public comment at meetings on Maui, Molokai, Lanai, and Oahu regarding the Hawaii Interisland Renewable Energy Program (HIREP), and the Wind Programmatic Environmental Impact Statement (EIS).

A meeting will be held on Molokai on Feb. 3 at the Mitchell Pauole Center at 5:30 p.m.

The EIS reviews possible environmental impacts that may arise from wind energy program development under the HIREP and the range of reasonable options.

"This is an excellent forum for concerned citizens to express their opinions, speak with experts and talk about moving Hawaii towards a brighter energy future," said Estrella A. Seese, Acting Energy Administrator, State Energy Office.

Both oral and written comments will be considered by DOE and DBEDT. Requests to speak at any of the public scoping meetings should be submitted to Mr. Allen G. Kam, Esq., AICP, HIREP-Wind EIS Manager, on or before Jan. 28, 2011, by: e-mail to hirep@dbedt.hawaii.gov, submitting electronic comments on the EIS web page at www.hirep-wind.com, fax to (808) 586-2536, Attention Allen G. Kam, or mail to Allen G. Kam, Esq., AICP, HIREP EIS Manager, State Energy Office, Renewable Energy Branch, Department of Business, Economic Development and Tourism, P.O. Box 2359, Honolulu, Hawaii 96804.

Requests to speak may also be made at the meetings; however, requests received by Jan. 28, 2011, will be given priority in the speaking order. Additional project information can be found at the project website: www.hirep-wind.com

For more information, contact:

Richard Lim

Interim Director, DBEDT

Phone: (808) 586-2355

FACT SHEET
Programmatic Environmental Impact Statement (PEIS)
Hawai‘i Interisland Renewable Energy Program

The Hawai‘i Interisland Renewable Energy Program (HIREP) will enable the delivery of electricity generated in areas where substantial renewable energy sources are located to areas where the power is needed. It will create an undersea interisland cable to transmit wind power from islands within Maui County to O‘ahu. The complex nature of the project and its potential impacts will be addressed through a programmatic EIS.

WHAT: A programmatic EIS (PEIS) will analyze the cumulative impacts and benefits of three components that together make up HIREP:

- Transmission of renewable energy via undersea cable to O‘ahu;
- Generation of up to 400 MW of renewable wind energy on one or more islands in Maui County; and
- Utility infrastructure upgrades on O‘ahu needed to integrate large amounts of wind energy into the electric grid.

The PEIS will provide a framework, uniform policies, best management practices, and a process for deciding how project components should be integrated within the framework.

A project-specific EIS that includes each project component (wind farms, undersea cable, and O‘ahu grid upgrades) is still needed and will be coordinated with, or tiered, under the umbrella of the PEIS.

WHY: HIREP proposes a large infrastructure investment that will significantly contribute to the State’s Hawai‘i Clean Energy Initiative goal of 70 percent clean energy by the year 2030. Wind power generated through this proposed program can contribute 14 percent to Hawai‘i’s renewable energy target.

WHO: The State Energy Office of the Department of Business, Economic Development and Tourism has contracted AECOM Technical Services, Inc. (AECOM) to conduct the PEIS.

AECOM is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government with approximately 52,000 employees around the world and approximately 200 professionals living and working in Hawai‘i.

The PEIS is funded by federal American Recovery and Reinvestment Act (ARRA) stimulus funds, which allows us to increase the opportunities for public input.

WHEN: The PEIS must be completed by April 2012 due to the expiration of ARRA funding.

HOW TO PARTICIPATE: Public comments are welcome. For information on how to comment, log on to www.hirep-wind.com.

Q&A: The Hawai‘i Interisland Renewable Energy Program (HIREP)

What is the Hawai‘i Interisland Renewable Energy Program (HIREP)?

HIREP is a proposed renewable energy generation, transmission, and delivery program that works to realize the Hawai‘i Clean Energy Initiative’s goal of achieving 70 percent clean energy by 2030 with 30 percent from efficiency measures and 40 percent coming from renewable energy sources. HIREP would produce renewable energy from sources such as wind turbine technology on one or more islands and share the electricity generated with other islands via undersea cable for subsequent transmission and distribution to consumers.

What are the components of HIREP Wind?
There are three primary components:

- An undersea cable system including converter/inverter station infrastructure,
- Wind farms on one or more islands in Maui County, and
- Utility infrastructure upgrades on the island of O‘ahu to receive and integrate wind energy into the electric grid.

Why do we need an interisland cable?
An interisland cable will allow electricity generated in Maui County, where wind resources are abundant, to be transmitted to O‘ahu where the demand for energy is high, but viable renewable energy resources and land are limited. The cable is vitally important to achieve the goal of 70 percent clean energy for Hawai‘i by the year 2030. It will enable the production of at least 14 percent of the power we need to meet the 40 per cent renewable energy goal, significantly cutting Hawai‘i’s dependence on imported fuel.

Why wind?
Of the alternative renewable energy sources available – including wind, geothermal, solar, biomass, ocean thermal energy conversion, and wave – wind power has been identified as the most commercially available and economically viable option at the present time. The islands of Maui, Lāna‘i, and Moloka‘i have the most abundant and viable wind resources of the islands closest to O‘ahu. In the future, HIREP could be expanded to include other types of renewable technologies.

What’s the difference between a Programmatic Environmental Impact Statement (PEIS) and an Environmental Impact Statement (EIS)?
The State of Hawai’i, in cooperation with the U.S. Department of Energy, has decided to prepare a programmatic EIS for the HIREP-Wind. Program-level EIS documents are relatively common on the federal level, but somewhat unique in Hawai‘i. The PEIS is designed to provide agencies and the public an overview of the potential impacts and benefits in the development of HIREP. This PEIS does not grant any development rights or privileges to a specific wind farm project; rather, this PEIS will set a framework, identify

broad areas of concern (both location and environment), and specify best management practices for the three major HIREP components. Project-specific EIS will conduct more focused environmental reviews using consistent guidelines specified by the PEIS.

Why not build the wind farms on O‘ahu?
There are concrete plans to build 100 megawatts (MW) of wind power on O‘ahu. The new 30-MW Kahuku wind farm on O‘ahu is being completed and its owner, First Wind, wants to build 70 MW more on O‘ahu.

However, O‘ahu does not have as favorable wind resources as do Moloka‘i and Lāna‘i. Studies have identified the channel between Lāna‘i and Moloka‘i to have some of the most favorable wind zones within the State of Hawai‘i.

Where will the undersea cable go?
Several options for routes between O‘ahu, Moloka‘i, Lāna‘i and Maui are being explored. The PEIS will examine different possible routes.

On Moloka‘i, preliminary landing sites that may be studied will be in the northeast and south-central portions of the island, near the possible wind farm sites. On Lāna‘i, the preliminary landing site that is expected to be studied will be in the northeast portion of the island. On O‘ahu, landing sites are being considered on the east side near the Mōkapu Peninsula and on the leeward side between Pearl Harbor and Honolulu Harbor. The PEIS will help determine the preferred landing sites.

How much will the interisland cable cost?
Costs will be based on the routes and technology chosen. Based on the cost of similar projects around the world, an early estimate is $800 million to $1 billion.

However, projected savings from not having to buy imported oil over a 20-year period is estimated to be approximately $5.7 billion.

How will the state pay for it?
The cable system will ultimately be financed by some combination of O‘ahu ratepayer charges, state tax revenues, and federal grants to pay for the cost of the cable. The state will be seeking additional federal funding and long-term loan guarantees to keep the total cost to Hawai‘i residents as low as possible.

Why are we spending money on such an expensive project?
Hawai‘i spends about 10 percent of its gross state product, three times more than the national average , to buy imported fuel. HIREP will enable much more of that money to remain in our local economy, covering the cost and more of the interisland cable.

How long will it take to build?
The first step is the completion of the Programmatic EIS (PEIS), which must be completed by April 30, 2012 due to the expiration of American Recovery and Reinvestment Act (ARRA) stimulus funding. Project-specific EIS for the wind farms and the O‘ahu grid upgrades will then be conducted.

Construction on the actual cable system could start after the project-specific EIS and permits are completed. Construction and the laying of the cables can be done in 24 months.

Are there similar projects elsewhere?
There are already nine undersea communications cables connecting the Hawaiian Islands. There are more than 20 undersea electrical transmission cables in operation around the world. There are several systems in Europe similar to the one proposed for Hawai‘i, as well as others in the Philippines, Japan, and the mainland U.S. The technology is well established, and several international companies are able to do the work.

Who will own the interisland cable?
The state is currently looking at numerous ownership possibilities or scenarios.

Who will operate and maintain it?
The state is examining various scenarios for operation and maintenance.

# # #

Appendix A – Attachment 5
Section 106 Consultation Letters

Attachment 5
Section 106 Consultation Letters

A. Section 106 Consultation Letter (10/29/10)

B. 10/29/10 Mailing List

LINDA LINGLE
GOVERNOR

THEODORE E. LIU
DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

October 29, 2010

[redacted]

Aloha [redacted]

The State of Hawai‘i’s Department of Business, Economic Development, and Tourism (DBEDT) and the U.S. Department of Energy (DOE) intend to prepare a cultural impact assessment and to conduct consultation under Section 106 of the National Historic Preservation Act of 1966, as amended, for the Hawai‘i Interisland Renewable Energy Program: Wind Phase (Program).

DBEDT and DOE are interested in soliciting names and contact information of Native Hawaiian Organizations and individuals (NHOs) that may be interested in participating in consultation regarding the proposed Program that would potentially include the islands of O‘ahu, Moloka‘i, Lāna‘i, and possibly Maui. The proposed Program is being developed as part of the Hawai‘i Clean Energy Initiative’s efforts to decrease Hawai‘i’s dependence on imported fossil fuels by generating clean, renewable energy sources. The Program is in its preliminary planning stages, and the Program proposal has not yet been fully defined. However, DBEDT and DOE would like to identify NHOs early on in the process in order to be as proactive as possible in ensuring the identification of cultural and historic resources and ultimately the culturally appropriate treatment of Hawai‘i’s cultural and historic properties that may be located within proposed Program areas.

Please note, this letter is solely for the purpose of identifying NHOs and does not serve as a consultation letter under Federal or State law. Pursuant to Hawai‘i Environmental Protection Laws, Hawaii Revised Statutes Chapter 343, and Section 106 of the National Historic Preservation Act of 1966, as amended, a formal consultation letter will be forthcoming once the proposed Program details are defined.

DBEDT and DOE look forward to your response and thank you in advance for your kōkua. Please contact Dr. Windy McElroy at (808) 381-2261 or wkm@keala-pono.com or you may contact Dawn Chang with Ku‘iwalu at (808) 539-3584 or dnschang@kuiwalu.com if you have names and contact information of NHOs. If you have any questions, please do not hesitate to contact me at (808) 587-9010.

Me ke aloha pumehana,

Allen G. Kam
Hawai‘i Interisland Renewable Energy Program Manager
Hawai‘i State Energy Office
Renewable Energy Branch

Name	AFFILIATION
William Aila, Jr.	Wai‘anae Small Boat Harbor
Vivian Aiura	Kamiloloa One Alii Homestead Association
Akoni Akana	Friends of Moku‘ula Inc.
Malia Akutagawa, Chair	c/o State Historic Preservation Division
Robbie Alm	Hawaiian Electric Company
Kathleen Ross Aoki	Maui County Planning Department
Haunani Apoliona	Office of Hawaiian Affairs
Perry Artates	Department of Hawaiian Home Lands
J. Stephen Athens	International Archaeological Research Institute, Inc.
Edward Halealoha Ayau	Hui Mālama I Na Kupuna O Hawai‘i Nei
Roselle Bailey	Ka Imi Na‘auao ‘O Hawai‘i Nei
Timothy Bailey	‘Aha Kiole Advisory Committee - Maui
Winifred "Winnie" Basques	‘Aha Kiole Advisory Committee - Lāna‘i
Danielle Ululani Beirne-Keawe	Ko‘olauloa Hawaiian Civic Club
David Brown	HDR, Inc/Engineering-Environmental Management, Inc.
Chuck Burrows	‘Ahahui Mālama I Ka Lōkahi
Edwina Cacoulidis	Ho‘olehua Hawaiian Civic Club
Mele Carroll	Representative
Letty Castillo	Lāna‘i Community Association
Phyllis Coochie Cayan	State Historic Preservation Division
David B. Chaffe	Scientific Consultant Services, Inc.
Donald S.M. Chang	Department of Hawaiian Homelands
Allison Chun	Affordable Cultural & Ecological Resources
Stephan D. Clark	Pacific Consulting Services, Inc.
Paul Cleghorn, PhD	Pacific Legacy, Inc.
Alan B. Corbin	Corbin & Associates
Stacy Helm Crivello	Moloka‘i Land Trust
Lynette Hi‘ilani Cruz	Ka Lei Maile Ali‘i Hawaiian Civic Club
Henry Curtis	Life of the Land
Mahealani Cypher	Ko‘olaupoko Hawaiian Civic Club
Leimana DaMate	Princess Ka‘iulani Hawaiian Civic Club
Tamar deFries	Merchant Street Hawaiian Civic Club
Michael F. Dega, PhD	SCS/CRMS
Le Ann DeLima	Kamehameha Schools
Michael Desilets	Garcia and Associates
John Desoto	Makaha Hawaiian Civic Club
Boyd Dixon	TEC, Inc.
Rose Marie Duey	Alu Like, Inc.
Thomas S. Dye	T.S. Dye & Colleagues, Archaeologists, Inc.
J. Kalani English	Senator
Matthew Erickson	Lahaina Hawaiian Civic Club
Kiersten Faulkner, AICP	Historic Hawaii Foundation
Blossom Feiteira	Hui Kako‘o ‘Aina Ho‘opulapula and Na Po‘e Kokua
Blaine Fergerstrom	Royal Order of Kamehameha I
Kehaulani Filimoe‘atu	Hui of Hawaiians
John M. Fowler	Advisory Council on Historic Preservation
Erik Fredericksen	Maui County Cultural Resources Commission
Erik Fredericksen	Xamanek Researches, LLC

Name	AFFILIATION
Rodney Y. Funakoshi	Castle & Cooke Homes Hawai‘i, Inc.
William Garcia, Jr.	Royal Order of Kamehameha I
Henry Gomes	Hawai‘i Maoli
Kale Gumapac	Kanaka Council
Moses Haia, III	Native Hawaiian Legal Corporation
Barbara Haliniak	Moloka‘i Chamber Foundation
Hallett Hammatt, PhD	Cultural Surveys Hawai‘i, Inc.
Vanda Hanakahi	‘Aha Kiole Advisory Committee - Moloka‘i
Shelly Hao-Tamon	King Kamehameha Hawaiian Civic Club
Clifford Hashimoto	Aha Ali‘i O Kapu‘aiwa O Kamehameha V
Alan E. Haun	Haun & Associates
Clayton Hee	Senator
Walter Meheula Heen	Office of Hawaiian Affairs
Lui Hokano	Central Maui Hawaiian Civic Club
Lance C. Holden	Ahahui Siwila Hawaii O Kapolei Hawaiian Civic Club
Lei Ishikawa	Na Leo Pulama
Kekealani Ishizaka	Hawaiian Homes Waiehu Kou I
Jonathan Jarvis	ATTN: Pacific West Region
Kaleikoa Ka‘eo	Maui Community College
George Kaho‘ohanohano	Royal Order of Kamehameha I
Sol P. Kaho‘ohalahala	Council Member
Ryan Alena Kaimana Kūhiō Kalama	Kailua Hawaiian Civic Club
Kekoa Kaluhiwa	First Wind
Charles Kapua	‘Aha Kiole Advisory Committee - O‘ahu
Leatrice Maluhia Kauahi	Hawaiian Civic Club of Honolulu
Gege Kawelo	Hawaiian Civic Club of Wai‘anae
David Keala	Native Hawaiian Educational Council
Joseph Kennedy	Archaeological Consultants of the Pacific
Leimomi Khan	Association of Hawaiian Civic Clubs
Howard S. Kihune	Maui Native Hawaiian Chamber of Commerce
Marvelle Ku‘ulei Laughlin	Hawaiian Civic Club of Waimānalo
Susan A. Lebo	Southeastern Archaeological Research, Inc.
Antoinette L. Lee	Pearl Harbor Hawaiian Civic Club
Tom Lenchanko	Waha olelo ‘Aha Kukaniloko
Tom Lenchanko	Hawaiian Civic Club of Wahiawa
Keali‘i T. Lum	Ali‘i Pauahi Hawaiian Civic Club
Francis Kahou Lum	Department of Hawaiian Homelands
Colette Y. Machado	Office of Hawaiian Affairs
Velma Mariano	Paukukalo Hawaiian Homestead Community Association
Ruby Kalei Maunakea	Nanaikapono Hawaiian Civic Club
Charles Maxwell	Maui/Lanai Islands Burial Council
Charles Maxwell	Hui Mālama I Na Kupuna O Hawai‘i Nei
Kawika McKeague	Oahu Island Burial Council
Trish Morikawa	Department of Hawaiian Homelands
Hermina M. Morita	Representative
Boyd P. Mossman	Office of Hawaiian Affairs
Iris Mountcastle	Queen Liliuokalani Children's Center
Clyde Nāmu‘o	Office of Hawaiian Affairs

Name	AFFILIATION
Robin Newhouse	Keokea Hawaiian Homes
Patty Nishiyama	Na Kupuna O Maui
Malia Nobrega	Waikīkī Hawaiian Civic Club
ʻAlohilani Okamura	Kuini Piʻolani Hawaiian Civic Club
Sheila Ople	Aʻo Aʻo O Na Loko Iʻa O Maui
Jeffrey Pantaleo	Archaeological Services Hawaiʻi, LLC
Jeffrey Pantaleo	Jeffrey Pantaleo Consultants, Inc.
Pua Paoa	Maui/Lanai Islands Burial Council
Kaulana H.R. Park	Department of Hawaiian Homelands
Susan K. Pine	Kalihi-Palama Hawaiian Civic Club
Cynthia Pua-Nichols	Waiʻalua Hawaiian Civic Club
Leone Purugganan	Central Maui Hawaiian Civic Club
Lena Racimo	Queen Emma Hawaiian Civic club
Kiʻope Raymond	Kilakila O Haleakalā
Robert B. Rechtman, PhD	Rechtman Consulting, LLC
Joanne Ridao	Maui Community College - Kuʻina Program
Hinano Rodrigues	State Historic Preservation Division, Maui
Patrick Ryan	Fishpond ʻOhana
Timothy E. Scheffler	Geohazards Consultants International, Inc.
Thelma Shimaoka	Office of Hawaiian Affairs
Thomas T. Shirai, Jr.	Kawaihapai ʻOhana
Alika Silva	Koa Mana
Kitty Muller Simonds	Maunalua Hawaiian Civic Club
Douglas B. Sims	Sims & Associates, LLC
Aki Sinoto	Aki Sinoto Consulting
Janet Six	Sixth Sense Archaeological Consultants, LLC
Chasmin Sokoloski	Prince Kuhio Hawaiian Civic Club
Clarence Solomon	Royal Order of Kamehameha I
Melvin Soong	The Imua Group
Shirley S. Swinney	Maluʻohai Residents Association
Dancine Takahashi	Kamehameha Schools Alumni
Henry K. Tancayo	Department of Hawaiian Home Lands
David K. Tanoue	City & County of Honolulu
Laura Thielen	Department of Land and Natural Resources
Ed Underwood	Division of Boating and Ocean Recreation
Jim Wagele	Hawaiian Community Assets, Inc.
Donna Wong	Hawaiʻi's Thousand Friends
Lawrence A. Woode, Jr.	Hawaiian Civic Club of ʻEwa-Puʻuloa

Organizations

NAME
Department of Hawaiian Homelands
Haleakalā National Park Kipahulu Kupuna Group
Haleakalā National Park Summit Kupuna Group
Hawaii Hunting Association
Hui Kakoʻo ʻAina Hoʻopulapula
Hui Malama Pono O Lānaʻi
Lokahi Pacific
Na Kuʻauhau O Kahiwakaneikopolei
Pig Hunters Association of Oʻahu
Royal Hawaiian Academy of Traditional Arts
Society for Molokaʻi Archaeology
Sovereign Councils for Hawaiian Homelands Assembly
Ulupalakua Hunting Club
Kanaka Maoli O Lāna'i
Lanaians for Sensible Growth

Appendix A – Attachment 6
EA/EIS Preparation Notice Stakeholder Communication

Attachment 6
EA/EIS Preparation Notice Stakeholder Communication

A. EA/EIS Preparation Notice Letter (12/6/10)

B. EA/EIS Preparation Notice E-Mail (12/8/10)

C. 12/6/10 & 12/8/10 Mailing/E-Mail List

Kuʻiwalu

December 6, 2010

[redacted]

Aloha Mai Kākou,

I would like to thank you for personally meeting with us over the last several months to talk story about the potential wind project, currently referred to as Hawai'i Interisland Renewable Energy Program – Wind (HIREP). Both Jonathan Scheuer and I, as we met with you individually, gained very valuable insights. This is obviously a very important issue to you and many others in the community.

As I indicated, the State through the Department of Business, Economic Development & Tourism (DBEDT) and U.S. Department of Energy (DOE) will be preparing a joint programmatic environmental impact statement under the Federal National Environmental Policy Act and an environmental impact statement under the State Hawai'i Environmental Policy Act (Chapter 343). The EA/EIS Preparation Notice will be published by the Office of Environmental Quality Control on December 8, 2010 and the Notice of Intent to Prepare the EIS will be published in the Federal Register shortly thereafter. Attached is a copy of the preparation notice.

This is the beginning of the environmental review process. We will be scheduling public scoping meetings in early 2011. Dates, times, and locations of the public scoping meetings will be published in the local newspapers, posted on www.hirep-wind.com. We will also continue with our small talk story sessions and be available to meet with any individuals, group or organizations that may want more information. We want to know your mana'o and what you think.

Should you have any questions, please do not hesitate to contact my office or Shirlyn Ho'okano at 539-3584.

Mālama pono,

Dawn N.S. Chang

Enclosure

Pauahi Tower, Suite 750 - 1003 Bishop Street - Honolulu, Hawai'i 96813
PHONE: (808) 539-3580 - FAX: (808) 539-3581 - WEBSITE: www.kuiwalu.com

Shirlyn Hookano

From: Shirlyn Hookano
Sent: Wednesday, December 08, 2010 8:19 AM
To: [redacted]
Cc: Dawn N. Chang
Subject: Re: HIREP-Wind EA/EIS Preparation Notice
Attachments: HIREP EA-EISPN_Nov 24.pdf

VIA E-MAIL ON BEHALF OF DAWN CHANG

Wednesday, December 8, 2010

Aloha [redacted]

I would like to thank you for personally meeting with us over the last several months to talk story about the potential wind project, currently referred to as Hawai'i Interisland Renewable Energy Program – Wind (HIREP). Both Jonathan Scheuer and I, as we met with you individually, gained very valuable insights. This is obviously a very important issue to you and many others in the community.

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Should you have any questions, please do not hesitate to contact my office or Shirlyn Ho'okano at 539-3584.

Mālama pono, Dawn N.S. Chang

Dawn N.S. Chang
Ku'iwalu
1003 Bishop St., Suite 750
Pauahi Tower
Honolulu, Hawai'i 96813

Shirlyn Ho'okano

Ku'iwalu | Pauahi Tower, Suite 750 | 1003 Bishop Street | Honolulu, Hawai'i 96813 | T: 808.539.3584 | F: 808.539.3581

NAME	AFFILIATION
William Aila, Jr.	Waiʻanae Small Boat Harbor / Cultural Assessment Provider – Oʻahu: Waiʻanae, Lualualei
Pua Aiu	State Historic Preservation Division
Malia Akutagawa,	Molokaʻi Island Burial Council
Robbie Alm	Hawaiian Electric Company
Lance Anderson	The Lānaʻi Art Center
Joelle Aoki	Coalition for A Drug-Free Lānaʻi
Alani Apio	Hawaiian Electric Company
Haunani Apoliona	Office of Hawaiian Affairs
Rosalyn Baker	Hawaiʻi State Legislature
Winifred "Winnie" Basques	ʻAha Kiole Advisory Committee – Lānaʻi
Mele Carroll	Hawaiʻi State Legislature
Phyllis Coochie Cayan	State Historic Preservation Division
Rhiannon Chandler	Community Work Day / Maui County Cultural Resources Commission
Carleton Ching	Castle & Cooke Hawaiʻi
Christine Costales	Lānaʻi Native Species Recovery Program
Stacy Helm Crivello	Molokaʻi Land Trust / MolokaʻI Enterprise Community, Ke Aupuni Lokahi
Leimana DaMate	ʻAha Kiole Advisory Committee / Princess Kaʻiulani Hawaiian Civic Club
Morgan Davis	State Historic Preservation Division
Theresa Donham	State Historic Preservation Division
Mark Duda	Hawaiʻi Solar Energy Association
J. Kalani English	Hawaiʻi State Legislature
Kiersten Faulkner	Historic Hawaiʻi Foundation
Rodney Y. Funakoshi	Castle & Cooke Hawaiʻi
Mike Gabbard	Hawaiʻi State Legislature
Gary Gill	Blue Planet
Barbara Haliniak	Molokaʻi Chamber Foundation
Colleen Hanabusa	Hawaiʻi State Legislature
Rob Harris	Sierra Club
Clayton Hee	Hawaiʻi State Legislature
Adolph Helm	Homestead Association
Hokulani Holt-Padilla	Maui Arts & Cultural Center
Lori Hu	Hawaiian Electric Company
Les Ihara, Jr.	Hawaiʻi State Legislature
Irene Kaʻahanui	Office of Hawaiian Affairs - Molokaʻi
Sol Kahoohalahala	County of Maui
Noe Kalipi	Ti Leaf Group
Kekoa Kaluhiwa	First Wind
Shad Kane	Oʻahu Island Burial Council / Cultural Assessment Provider – Oʻahu: ʻEwa, Honouliuli
Robin Kaye	Lanaians for Sensible Growth
Donavan Kealoha	Lanaians for Sensible Growth
Gilbert Keith-Agaran	Hawaiʻi State Legislature
Willie Kennison	ILWU
Russell Kokubun	Hawaiʻi State Legislature
Leslie Kuloloio	ʻAha Kiole Advisory Committee, PKO
Christopher Lavvorn	Castle & Cooke Hawaiʻi

NAME	AFFILIATION
Catherine Lo	Blue Planet
Sybil Lopez	Kalamaula Hawaiian Homestead Association
Collette Machado	Office of Hawaiian Affairs - Molokaʻi
George Maioho	DHHL Molokaʻi District Office
Kepa Maly	Lānaʻi Culture & Heritage Center / Cultural Assessment Provider – All Islands
Pua Manuel	Castle & Cooke Resorts, LLC
Ron McComber	Lanaians for Sensible Growth
Davianna McGregor	University of Hawaiʻi at Mānoa
Art Medeiros	Leeward Haleakalā Watershed Restoration Program
Jeff Mikulina	Blue Planet
Luciano Minerbi	University of Hawaiʻi at Mānoa
Hermina M. Morita	Hawaiʻi State Legislature
Isaac Moriwake	Earthjustice
Mike Nahoʻopiʻi	Kahoʻolawe Island Reserve Commission
Clyde Nāmuʻo	Office of Hawaiian Affairs
Peter Nicholas	Molokaʻi Properties Limited
Kelly O'Brien	First Wind
Kuhea Paracuelles	County of Maui
Theodore Peck	Dept. of Business Economic Development & Tourism
Kelson Mac Poepoe	Hui Mālama o Moʻomomi
Pat Reilly	Lanaians for Sensible Growth
Hinano Rodrigues	State Historic Preservation Division
Jennifer Goto Sabas	U.S. Senator Daniel K. Inouye's Office
Calvin Say	Hawaiʻi State Legislature
Miwa Tamanaha	Kahea
Mike Vitousek	State Historic Preservation Division
Wendy Wichman	Historic Hawaiʻi Foundation
Randall Young	Naval Facilities Engineering Command Pacific
Marjorie Ziegler	Conservation Council for Hawaiʻi

Appendix A – Attachment 7
EA/EIS Preparation Notice to Additional Stakeholders

Attachment 7
EA/EIS Preparation Notice to Additional Stakeholders

A. EA/EIS Preparation Notice Letter (12/16/10)

B. 12/16/10 Mailing List

Kuʻiwalu

December 16, 2010

[redacted]

Aloha Mai Kākou,

An Environmental Assessment/Environmental Impact Statement Preparation Notice pursuant to the EIS law (Chapter 343, HRS and Chapter 11-200, HAR) and Programmatic Environmental Impact Statement for the Hawai'i Interisland Renewable Energy Program – Wind (HIREP) has been formally published on December 8, 2010, in the Office of Environmental Quality Control (OEQC) bulletin. For your convenience, enclosed is a copy of the preparation notice for HIREP. **The document can also be found at: www.hirep-wind.com.**

You are invited to review and comment on the document in order to assist us with preparation, future scoping meetings and identification of issues that need to be analyzed in the subsequent Draft Environmental Impact Statement. For commenting on-line, use the link and on-line form found at the web address above. You may also email your comments directly to: **hirep@dbedt.hawaii.gov** attention: Allen G. Kam, Esq., AICP. If submitting written comments, send them to the Proposing Agency and Consultant at the addresses below. All comments must be received on-line or postmarked, no later than **March 1, 2011.**

This is the beginning of the environmental review process. We will be scheduling public scoping meetings in early 2011. Dates, times, and locations of the public scoping meetings will be published in the local newspapers, posted on www.hirep-wind.com. We will also continue with our small talk story sessions and be available to meet with any individuals, group or organizations that may want more information. We want to know your mana'o and what you think.

Should you have any questions, please do not hesitate to contact my office or Shirlyn Ho'okano at 539-3584.

Mālama pono,

Dawn N.S. Chang

Enclosure

Pauahi Tower, Suite 750 - 1003 Bishop Street - Honolulu, Hawai'i 96813
PHONE: (808) 539-3580 - FAX: (808) 539-3581 - WEBSITE: www.kuiwalu.com

NAME	**AFFILIATION**
Alan Arakawa	Elected Official
Gladys Coelho Baisa	Elected Official
JoAnne Johnson	Elected Official
Danny Mateo	Elected Official
Bill Medeiros	Elected Official
Michael Molina	Elected Official
Wayne Nishiki	Elected Official
Joseph Pontanilla	Elected Official
Michael Victorino	Elected Official
ORGANIZATIONS	
Molokaʻi Land Trustees	
Molokaʻi Planning Commission	

Appendix A – Attachment 8
Lānaʻi Community Benefits Package Press Release

Attachment 8
Lāna‘i Community Benefits Package Press Release

A. Lāna‘i Community Benefits Package Press Release E-Mail Communication (1/7/11)

B. Joint C&C HECO Press Release on Lāna‘i Agreement (1/7/11)

C. 1/7/11 E-Mail List

Shirlyn Hookano

From: Shirlyn Hookano
Sent: Friday, January 07, 2011 3:58 PM
Cc: Dawn N. Chang; Kanani Kealalio
Subject: Community Benefits Package for Lana`i
Attachments: 20110107 Joint C&C HECO news release on Lanai agreement.pdf

Email forwarded on behalf of Dawn Chang

Aloha Kākou,

Attached for your information is a press release related to Lāna'i that I thought you might want to know about. Should you have any questions, please don't hesitate to call me.

Mālama pono. Dawn

Dawn N.S. Chang
Ku'iwalu
1003 Bishop St., Suite 750
Pauahi Tower
Honolulu, Hawaii 96813
(808) 539-3583 (direct line)
(808) 539-3581 (fax)
dnschang@kuiwalu.com
www.kuiwalu.com

Hawaiian Electric Company

For more information
Hawaiian Electric: Peter Rosegg, 808-543-7780
peter.rosegg@heco.com

Castle & Cooke: Carleton Ching, 808-548-3793
cching@castlecooke.com

For immediate release
January 7, 2011

Hawaiian Electric and Castle & Cooke agree on low prices for power from future Lanai wind farm and on community benefits for Lanai

(Honolulu, Hawaii) Hawaiian Electric Company and Castle & Cooke Resorts today announced agreement on pricing terms for power from a proposed Lanai wind farm. The prices would be lower than most other renewable energy available.

The companies also agreed on proposed community benefits for the people of Lanai in response to concerns about the impact of a wind farm on the small island.

The agreements, which ultimately require Public Utilities Commission approval, are another step forward for the Interisland Wind project to transmit up to 400 megawatts (MW) of electricity to Oahu via undersea cable from wind farms proposed for Lanai and Molokai. It is estimated that electricity from 400 MW of wind power would displace about 15% of Oahu's oil use.

The agreement sets electricity price targets for Lanai wind power at about 13 cents per kilowatt-hour (kWh) for a 200 MW wind farm and 11 cents per kWh for a 400 megawatt wind farm, plus transmission costs. This would be among the most reasonably priced renewable energy available on Oahu and the terms would be fixed for 20 years with only minor escalations.

“These low prices will help protect Hawaii from the expected rise in the price of oil and reduce the risk to our economy and way of life from possible disruptions in oil supplies,” said Robbie Alm, Hawaiian Electric executive vice president.

The agreement will be used to negotiate a purchase power agreement for the Lanai project. The Molokai project is at an earlier stage.

Castle & Cooke and Hawaiian Electric recognize that, while the electricity will be transmitted to Oahu, the impact of construction and operation of the wind farm will be felt on Lanai, including on cultural and recreational resources, plants and wildlife and the people of the small island community. Therefore, a community benefits package for Lanai is appropriate.

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The benefits – some from Hawaiian Electric and some from Castle & Cooke – cover a range of issues, from employment to hunting access to water rights. A list of major proposed benefits is attached.

"The proposed benefits reflect what we have heard from many people," said Harry Saunders, president of Castle & Cooke Resorts. "They represent a cross section of concerns about the wind farm and ideas about what is best for Lanai's future.

"These proposals can improve the economic future of Lanai while making a contribution to the state as a whole by helping reduce our dependence on imported oil. It will keep more of our energy dollars at home and protect the environment."

The companies were also motivated by the recent November 18, 2010 PUC decision that set a March 2011 deadline for a fully executed term sheet, which is a step that precedes negotiation on the final purchase power agreement.

The benefits proposal comes after three years of informational and listening meetings, community discussions and private communications that included Castle & Cooke, Hawaiian Electric and the State of Hawaii Department of Business, Economic Development and Tourism energy division.

Those providing input on the many issues, needs and solutions include the Carpenters Union, International Longshoremen and Warehousemen's Union local that represents over 600 workers and their families, Lanaians for Sensible Growth, Friends of Lanai and small business owners.

“We will continue the dialogue with the Lanai community as we proceed with the environmental impact and permitting review processes,” said Saunders.

Implementation of benefits will be tied to the construction of the wind farm and in most cases begin when electricity from Lanai is supplied to Oahu.

"The benefits package and preliminary pricing are the first step toward negotiation of a complete purchase power agreement for the Lanai project," said Alm. "There will also be a formal environmental impact study for this and other parts of the Interisland Wind project with plenty of opportunity for further public comment. It would be unreasonable to ask the people of Lanai to consider hosting a project of this size without knowing the community benefits that would be offered.”

# # #

Community Benefit Commitments from
Hawaiian Electric Company and Castle & Cooke:

Some Hawaiian Electric commitments must be approved by the Public Utilities Commission with input from the Consumer Advocate and other stakeholders. These are:

-- Electric rates for Lanai residents "levelized" to match those of Oahu. At today's electricity costs that would reduce Lanai residential electric rates by about 40 percent while Oahu residents, with a much larger customer base, would see only minor increases.

-- Lanai to be 100 percent renewable for electricity by 2030, using solar, wind, biomass and biofuel resources, as far as possible originating on Lanai.

-- Grid improvements, particularly to the Manele Circuit, to allow more customer-sited distributed generation, such as roof-top photovoltaic arrays.

-- Increased solar water heating with the utility paying upfront costs and being repaid through shared savings on utility bills (pay-as-you-save).

With no approvals needed from the PUC, Hawaiian Electric also commits to:

-- $50,000 a year during the life of the purchase power agreement (PPA) contributed from shareholder funds to the Lanai Community Fund.

-- $30,000 for at least two years from Hawaiian Electric and Maui Electric companies for community-based campaign for energy efficiency and conservation on Lanai.

Castle & Cooke commits to the following, subject also to approval by the Public Utilities Commission with input from the Consumer Advocate of the purchase power agreement as well as by other stakeholders:

-- Establish a Lanai Community Benefits Fund with proceeds of one percent of the wind farm's gross revenues. Funds will be directed to economic diversification and job creation; medical and social/health services; education, training and recreation; and cultural and natural resource preservation as determined by a community committee, with at least $100,000 a year to the Lanai Cultural and Heritage Foundation.

-- Employment on Lanai maintained at no lower than Castle & Cooke employment today.

-- Continued access to hunting areas and if hunting must be limited to protect wind turbines, comparable acreage provided for hunting before any limits go into effect. Continued full access to coastal fishing in the Ka'a area.

-- Residential, agricultural and commercial lessees to be able to buy their properties or land at fair market prices.

-- Priority for qualified Lanai residents in construction jobs and contractors required to ensure that all workers respect Lanai community standards in their behavior.

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-- Wind generation facilities to be removed when no longer in service.

-- All contractors required to protect Lanai archeological and cultural sites, monitored by Lanai residents when possible.

-- 5,000 acres reserved for creating a viable biofuel crop on Lanai.

-- $250,000 a year for the term of the PPA for preservation of Lanai Hale watershed.

-- At least $500,000 a year for the term of the PPA for capital improvements to the Lanai water system and 250,000 gallons of water a day above the current allocation to encourage diversified agriculture.

# # #

First Name	Last Name
William	Aila
Pua	Aiu
Malia	Akutagawa
Alani	Apio
Haunani	Apoliona
Rosalyn H.	Baker
Winnie	Basques
Mele	Carroll
Coochie	Cayan
Rhiannon	Chandler
Christine	Costales
Stacy Helm	Crivello
Leimana	DaMate
Morgan	Davis
Theresa	Donham
Mark	Duda
J. Kalani	English
Kiersten	Faulkner, AICP
Mike	Gabbard
Gary	Gill
Barbara	Haliniak
Robert D.	Harris, Esq.
Clayton	Hee
Adolph	Helm
Hokulani	Holt-Padilla
Les	Ihara, Jr.
Irene	Kaahanui
Sol P.	Kaho'ohalahala
Kekoa	Kaluhiwa
Shad	Kane
Robin	Kaye
Donavan	Kealoha
Gilbert S.C.	Keith-Agaran
Willie	Kennison
Russell S.	Kokubun
Leslie	Kuloloio
Sybil	Lopez
Colette Y.	Machado
George	Maioho

First Name	Last Name
Kepa	Maly
Davianna	McGregor
Art	Medeiros
Jeff	Mikulina
Luciano	Minerbi
Hermina M.	Morita
Isaac	Moriwake
Mike	Nahoʻopiʻi
Clyde	Nāmuʻo
Peter	Nicholas
Kelly	O'Brien
Kuhea	Paracuelles
Karen	Poepoe
Kelson Mac	Poepoe
Pat	Reilly
Hinano	Rodrigues
Jennifer Goto	Sabas
Calvin K.Y.	Say
Miwa	Tamanaha
Mike	Vitousek
Wendy	Wichman
Randall	Young
Marjorie	Ziegler

Appendix A – Attachment 9
Public Scoping Meeting Stakeholder Notification

Attachment 9
Public Scoping Meeting Stakeholder Notification

A. Public Scoping Meeting Stakerholder Notification E-Mail (2/1/11)

B. Public Scoping Meeting Flyer

C. 2/1/11 E-Mail List

Shirlyn Hookano

From: Shirlyn Hookano
Sent: Tuesday, February 01, 2011 12:35 PM
To: [redacted]
Cc: Dawn N. Chang
Subject: Moloka'i HIREP Public Scoping Meeting
Attachments: Public Scoping Meeting flyer_Moloka'i_020311.pdf

Email forwarded on behalf of Dawn Chang

Aloha [redacted]

Attached is information on the upcoming Public Scoping Meeting on Molokaʻi. Please feel free to circulate.

Mahalo nui loa,

Shirlyn Hoʻokano

Kuʻiwalu | Pauahi Tower, Suite 750 | 1003 Bishop Street | Honolulu, Hawaiʻi 96813 | T: 808.539.3584 | F: 808.539.3581

Date: Thursday, February 3, 2011

Time: 5:30 - 9:00 PM

Location: Mitchell Pau'ole Community Center

90 'Ainoa Street

Kaunakakai, Moloka'i, Hawai'i 96748

U.S. Department of Energy (DOE) and the State Department of Business, Economic Development and Tourism (DBEDT) will host a public scoping meeting on the scope of the programmatic environmental impact statement (EIS). The EIS will assess the foreseeable environmental impacts that may arise from wind energy program development under HIREP and the range of reasonable alternatives. The public is invited to attend and participate in these meetings. Both oral and written comments will be considered by DOE and DBEDT.

Requests to speak at any of the public scoping meetings may be submitted to Mr. Allen G. Kam, HIREP EIS Manager, by emailing hirep@dbedt.hawaii.gov or faxing (808)586-2536 Attention: Allen G. Kam or Ms. Dawn Chang with Ku'iwalu, by emailing dnschang@kuiwalu.com or calling (808)539-3583.

For more information please visit http://www.hirep-wind.com/.

First Name	Last Name
Malia	Akutagawa
Emmett	Aluli
Lori	Buchanan
Mele	Carroll
Carleton	Ching
Stacy Helm	Crivello
Mervin	Dudoit
J. Kalani	English
Barbara	Haliniak
Clayton	Hee
Adolph	Helm
Larry	Helm
Karen	Holt
Kekoa	Kaluhiwa
Ron	Kimball
Sybil	Lopez
Colette Y.	Machado
George	Maioho
Davianna	McGregor
Hermina M.	Morita
Peter	Nicholas
Kelson Mac	Poepoe
Walter	Ritte

Appendix A – Attachment 10
PEIS Update Communication

Attachment 10
PEIS Update Communication

A. PEIS Update E-Mail (4/20/11)

B. 4/20/11 E-Mail List

Shirlyn Hookano

From: Shirlyn Hookano
Sent: Tuesday, April 19, 2011 5:40 PM
To: [redacted]
Cc: Dawn N. Chang
Subject: Hawai'i Interisland Renewable Energy Program – Wind (HIREP) update

Email forwarded on behalf of Dawn Chang

Tuesday, April 19, 2011

Aloha [redacted],

Thank you for personally meeting with us over the last several months to talk story about the Hawai'i Interisland Renewable Energy Program – Wind (HIREP). We indicated in our discussions that we would try to provide updates as information becomes available about HIREP. In our last update around December 2010, we informed you that the Department of Business, Economic Development & Tourism (DBEDT) and U.S. Department of Energy (DOE) would be preparing a joint programmatic environmental impact statement under the Federal National Environmental Policy Act and an environmental impact statement under State Hawai'i Environmental Policy Act (Chapter 343), including the preparation of a Cultural Impact Assessment (CIA). The EA/EIS Preparation Notice was published by the Office of Environmental Quality Control (OEQC) on December 8, 2010 and the Notice of Intent to Prepare the EIS was published in the Federal Register around the same time. The publications were the start of the environmental review process.

In February 1-5, 2011, DBEDT and DOE held four public scoping meetings on O'ahu, Maui, Moloka'i, and Lāna'i. The comment period on the preparation notice was from December 4, 2010 to March 1, 2011. The meetings were well attended; on O'ahu – approximately 100 attendees, Maui – approximately 50 attendees, Moloka'i – approximately 110 attendees, and Lāna'i – approximately 75 attendees. We received over 400 unique written and oral comments from over 200 individuals throughout the three-month scoping period. The discussion was robust and the comments constructive.

After the public scoping meetings, many asked to review the transcripts, scoping comments and attendance sheets. We have posted all of these items on our public website at www.hirep-wind.com. Prior to posting the attendance (sign-in) sheets, we removed attendees' personal information for privacy purposes. All of the transcripts and comments will be published in the Draft HIREP EIS. However, in the meantime please visit our website to view these documents.

Over the next several months, we will be continuing our small talk story sessions to gather information and consulting with the community for the Cultural Impact Assessment and the Section 106 of the National Historic Preservation Act. This information will be incorporated into the Draft HIREP EIS. There will be another series of public meetings and opportunities for public comments when the Draft HIREP EIS is completed. The notices for the public meeting will be posted in the Federal Register, local newspapers, OEQC bulletin and posted on the www.hirep-wind.com website.

Should you have any questions, or want to schedule a talk story session with me or Jonathan Scheuer, please do not hesitate to contact my office or Shirlyn Ho'okano at 808.539.3584.

Mālama pono, Dawn N.S. Chang

Dawn N.S. Chang
Ku'iwalu
1003 Bishop St., Suite 750

First Name	Last Name
William	Aila
Pua	Aiu
Malia	Akutagawa
Robbie	Alm
Alani	Apio
Haunani	Apoliona
Rosalyn H.	Baker
Winnie	Basques
Mele	Carroll
Coochie	Cayan
Rhiannon	Chandler
Carleton	Ching
Christine	Costales
Stacy Helm	Crivello
Leimana	DaMate
Morgan	Davis
Theresa	Donham
Mark	Duda
J. Kalani	English
Kiersten	Faulkner, AICP
Rodney	Funakoshi
Mike	Gabbard
Gary	Gill
Barbara	Haliniak
Robert D.	Harris, Esq.
Clayton	Hee
Adolph	Helm
Hokulani	Holt-Padilla
Les	Ihara, Jr.
Irene	Kaahanui
Kekoa	Kaluhiwa
Shad	Kane
Mona	Kapaku
Robin	Kaye
Donavan	Kealoha
Gilbert S.C.	Keith-Agaran
Willie	Kennison
Christopher	Lavvorn
Sybil	Lopez
Colette Y.	Machado

First Name	Last Name
George	Maioho
Pua	Manual
Davianna	McGregor
Art	Medeiros
Jeff	Mikulina
Luciano	Minerbi
Hermina M.	Morita
Isaac	Moriwake
Clifford	Naeole
Mike	Naho‘opi‘i
Clyde	Nāmu‘o
Peter	Nicholas
Kelly	O'Brien
Kuhea	Paracuelles
Karen	Poepoe
Pat	Reilly
Mr. Hinano	Rodrigues
Lisa	Rotunna-Hazuka
Jennifer Goto	Sabas
Calvin K.Y.	Say
Miwa	Tamanaha
Mike	Vitousek
Wendy	Wichman
Randall	Young

APPENDIX B

RENEWABLE ENERGY TECHNOLOGY SUMMARY EVALUATION

Renewable Energy Sources in Maui County with Potential for Transmission via Undersea Cable (from NREL Scenarios 8/9 Summary, HRS 269, and Public Scoping Inputs)

Energy Technology	Identified by			Technical Criteria			Suitable for Transmission through Undersea Cable [>50MW]	Comments/Summary
	NREL Scenario 8	HIREP Scoping Inputs	HRS 269	Available at Sufficient Scale (>50MW) for R.E. Goals Implementation	Available at Demonstrated Reliability for R.E. Goals Implementation	Available within the 2030 Horizon Timeframe for R.E. Goals Implementation		
Biofuels*	●	●	●	**n/a**	**n/a**	**n/a**	**n/a**	• Dispatchable. Could be used as backup to other renewables.
Biogas (including landfill and sewage-based digester gas)	**no**	**no**	●	**no**	**no**	**no**	**no**	• Availability on Molokai and Lanai is insufficient to attain criteria levels for undersea cable transmission. • Availability on Maui is not quantified, but is not likely in sufficient capacity to attain criteria levels.
Biomass (direct firing)	●	**no**	●	**no**	**no**	**no**	**no**	• The NREL report identified only local programs for on-Oahu generation use.
Geothermal	●	●	●	**MAUI only**	**yes**	**yes**	**yes**	• Geothermal was not explored in depth in the NREL report on the Maui County islands. • A geothermal resource subzone exists on Maui. • Geothermal power export from Maui is considered viable if the undersea power cable exists to transmit generated power.
Geothermal – small-scale (Power Tube, etc.)	**no**	●	●	**no**	**no**	**no**	**no**	• Put forward as a potential technology in a scoping letter from the Maui County Energy Commissioner (http://www.powertubeinc.com/). • As described by the vendor, this technology is not likely to be suitable as a source of power for interisland transfers.
Hydroelectric power generation	●	●	●	**no**	**n/a**	**n/a**	**no**	• All of the identified resource in the NREL report is on Maui. This source is most suitable for local distributed use, and not transmittal by undersea cable.
Hydroelectric – pumped storage (in conjunction with wind power)	**no**	●	●	**UND**	**yes**	**UND**	**yes**	• Uses proven technology. • Concept requires two reservoirs and appropriate vertical lifts with interconnected pipelines and pumping and electricity-generating facilities.
Hydrogen (from renewable energy sources)	**no**	**no**	●	**no**	**no**	**no**	**no**	• Hydrogen may be used as an alternative transportation fuel or to store excess renewable energy as a grid management tool.

Renewable Energy Sources in Maui County with Potential for Transmission via Undersea Cable (from NREL Scenarios 8/9 Summary, HRS 269, and Public Scoping Inputs)

Energy Technology	Identified by			Technical Criteria			Suitable for Transmission through Undersea Cable [>50MW]	Comments/Summary
	NREL Scenario 8	HIREP Scoping Inputs	HRS 269	Available at Sufficient Scale (>50MW) for R.E. Goals Implementation	Available at Demonstrated Reliability for R.E. Goals Implementation	Available within the 2030 Horizon Timeframe for R.E. Goals Implementation		
Liquefied Natural Gas (LNG) power generation	**no**	●	**no**	**n/a**	**n/a**	**n/a**	**n/a**	• LNG is an imported fuel and is **not considered a "renewable source."**
Municipal Solid Waste (MSW)	●	**no**	●	**MAUI only**	**yes**	**no**	**no**	• This technology was not available at sufficient scale for R.E. Goals implementation.
Nuclear Energy	**no**	●	**no**	**n/a**	**n/a**	**n/a**	**n/a**	• Submitted as an on-Oahu alternative. • Put forward as a viable alternative at scoping meetings. • **Not considered a "renewable source."**
Ocean Energy – hydrokinetic devices	●	●	●	**MAUI only**	**no**	**no**	**no**	• This technology was not available at sufficient scale, demonstrated reliability, or within the horizon timeframe for R.E. Goals implementation.
Ocean Thermal Energy Conversion (OTEC)	**no**	●	●	**no**	**no**	**no**	**no**	• Technology was not available at sufficient scale, demonstrated reliability, or within the horizon timeframe for R.E. Goals implementation.
Solar – commercial rooftops	●	●	●	**MAUI only**	**yes**	**yes**	**no**	• All of the identified resource is on Maui. This source is most suitable for local distributed use, and not transmittal by undersea cable.
Solar – residential rooftops	●	●	●	**MAUI only**	**yes**	**yes**	**no**	• All of the identified resource is on Maui. This source is most suitable for local distributed use, and not transmittal by undersea cable.
Solar utility (large-scale arrays)	●	●	●	**Sufficient suitable area available on all three Maui County islands**	**yes**	**yes**	**yes**	• The solar utility technology was not explored in depth in the NREL report for the Maui County islands. • Solar utility is considered viable if the undersea power cable exists to transmit generated power; likely viable only in concert with wind power transmission, with MWh capacity based on total suitable areas.
Wind – airborne power generation devices	**no**	●	●	**no**	**no**	**no**	**no**	• Identified as a potential technology (http://www.makanipower.com/) in a scoping letter from the Maui County Energy Commissioner.

Renewable Energy Sources in Maui County with Potential for Transmission via Undersea Cable (from NREL Scenarios 8/9 Summary, HRS 269, and Public Scoping Inputs)

Energy Technology	Identified by			Technical Criteria			Suitable for Transmission through Undersea Cable [>50MW]	Comments/Summary
	NREL Scenario 8	HIREP Scoping Inputs	HRS 269	Available at Sufficient Scale (>50MW) for R.E. Goals Implementation	Available at Demonstrated Reliability for R.E. Goals Implementation	Available within the 2030 Horizon Timeframe for R.E. Goals Implementation		
								• This technology is not likely to be suitable as a source of power for interisland transfers due to the proposed scale of the technology, which is more suited to local use.
Wind – Maui County sources	●	**n/a**	●	**yes**	**yes**	**yes**	**yes**	• This is the original "Big Wind" program, with MWh capacity based on total suitable areas.
Wind – offshore platforms	**no**	●	●	**UND**	**UND**	**UND**	**OAHU only**	• Opposed by American Bird Conservancy. • Comments on this technology submitted during scoping by Life of the Land and Blue Planet. • Proposed project off Oahu referenced in comments by West Wind Works, LLC.
Wind – on-Oahu sources	●	●	●	**n/a**	**n/a**	**n/a**	**n/a**	• The HIREP process addresses only power transmitted from Maui County sources to Oahu.

Primary source: National Renewable Energy Laboratory (NREL) 2012. Hawaii Clean Energy Initiative Scenario Analysis: Quantitative Estimates Used to Facilitate Working Group Discussions.

●	Technology identified from this source.
Assumptions:	Suitable areas required for implementing each technology at a scale suitable for undersea power cable transmission: solar, 100MW=500 acres; wind, 50MW=1,000 acres; the available wind generation capacity on Maui was identified in the NREL report as 97MW; the potential resource on Lanai and Molokai was estimated at 400MW on each island; a maximum total of 400MW (combined) from Lanai and Molokai was assumed for the Big Wind program.
*	Note: The NREL report (new Scenario 9) assumed that biofuels would only be used in the Transportation sector, not the Electricity Generation sector.
HRS 269	Hawaii Revised Statutes – Chapter 269: PUBLIC UTILITIES COMMISSION; Part V: RENEWABLE PORTFOLIO STANDARDS
MAUI only	available only on Maui
MW	megawatts
MWh	megawatt hour (= MW [installed capacity] x [24 hr/day x 365 days/year] x [capacity factor])
n/a	not applicable
OAHU only	submitted in public/agency comments during scoping as an "on-Oahu" alternative only
PEIS	Programmatic Environmental Impact Statement
R.E. Goals	Renewable Energy portfolio goals as included in HRS 269
UND	undefined