

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

August 5, 2016

Outline of Proposal for Renewable Energy Project at Kahuku-Malaekahana,
Koolauloa, Oahu, TMK: (1) 5-6-008:006

APPLICANT:

Na Pua Makani Power Partners, LLC (NPM), a Delaware limited liability company.

LEGAL REFERENCE:

Sections 171-6, -95, and -95.3, Hawaii Revised Statutes (HRS), as amended.

LOCATION:

Government land situated at Kahuku-Malaekahana, Koolauloa, Oahu, identified by Tax
Map Key: (1) 5-6-008:006, as shown on the attached maps.

AREA:

Total Parcel Area: 231.927 acres, more or less

ZONING:

State Land Use District: Agricultural
City and County of Honolulu LUO: Agricultural 1 and 2

TRUST LAND STATUS:

Non-ceded. Government land acquired since statehood from the Estate of James
Campbell, Deceased.

Department of Hawaiian Home Lands 30% entitlement lands pursuant to the Hawaii
State Constitution: No

CURRENT USE STATUS:

Vacant and unencumbered, with the exception of a right-of-entry permit dated March 3,

2016 (ROE #4220) issued to the Division of Forestry and Wildlife for a five-acre portion of the premises to be used for mitigation and recovery of *Abutilon menziesii*. The Board of Land and Natural Resources approved the issuance of the permit at its meeting of February 26, 2016, Item D-14, as amended.

PROPERTY CHARACTERISTICS:

Utilities – There is no existing electrical service to the property, although distribution lines are located in the vicinity. There are no public water systems or public water wells on the property. There is no wastewater system servicing the property.

Slope – 2-40%

Elevation – From 72 feet to 614 feet above mean sea level.

Rainfall – Average annual rainfall is between 45-60 inches.

SCS Soil Series – Predominantly Paumaulu-Badland complex, with smaller areas of Paumaulu silty clay, Haleiwa silty clay, Kaena clay, and Lahaina silty clay

Land Study Bureau – Category E (least productive soils)

Legal access to property – Staff has verified that there is legal access off of Kamehameha Highway via local roads in the area to lands under the jurisdiction of the Department of Agriculture (DOA) under Executive Order No. 3575. The DOA lands are adjacent to the subject property. NPM reports that DOA is agreeable to granting NPM an easement over roads on the DOA land to reach the subject property.

Subdivision – Staff has verified that the subject property is a legally subdivided lot.

Encumbrances – Staff has verified that there are no encumbrances on the property with the exception of ROE #4220 to DOFAW for a five-acre portion of the premises to be used for mitigation and recovery of *Abutilon menziesii*.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

The Final Environmental Impact Statement (FEIS) for the wind project was accepted by the Board of Land and Natural Resources at its meeting of July 22, 2016, Item D-11, and published in the Office of Environmental Quality Control's The Environmental Notice on July 23, 2016. The Board's acceptance letter will be published in The Environmental Notice on August 8, 2016.

PROJECT SUMMARY:

The State is the fee simple owner of certain real property containing an area of approximately 231.927 acres, described as Lot 1168, Map 137, Land Court Application 1095, Kahuku-Malaekahana, Koolauloa, Oahu.

The proposed wind energy project is located partly on the subject land and partly on private land in the area. The applicant, Na Pua Makani Power Partners, LLC (NPM) is requesting a direct lease pursuant to HRS Sections 171-95 and -95.3 for the state-owned parcel, TMK: (1) 5-6-008:006, with an area of approximately 231.927 acres. The parcel

was previously set aside to the Hawaii Department of Agriculture via Governor's Executive Order (EO) 3575 for Kahuku Agricultural Park purposes. In order to pursue the lease for the project, the parcel was withdrawn from EO 3575 by EO 4482, dated March 23, 2015. The state owned parcel is currently vacant. The applicant is also seeking to obtain a lease over adjacent private lands owned by Malaekahana Hui West, LLC, as well as access easements over state lands set aside to the Department of Agriculture. The total leased area plus the State-owned access is approximately 707 acres. Within the leased area, all proposed project activities would occur within a smaller approximately 464-acre project area.

The preferred alternative for the project, identified as the Modified Proposed Action Option in the FEIS, is a wind-farm consisting of a maximum of nine (9) turbines. The three blade turbines would reach up to a total height of 656 feet. The height of each tower would extend up to 443 feet. The rotor diameter would reach up to 427 feet with the blade length up to 208 feet. The rotor swept area would encompass up to 143,160 square feet. The cut-in wind speed is 10 feet per second and the cut-out wind speed is up to 82 feet per second.¹ The turbines would be capable of generating up to 3.45MW. Five of the turbines would be located on the State parcel, the remaining four turbines on private land.

The applicant is currently considering newer turbine models from leading turbine manufacturers including Siemens, Vestas, and GE. The turbine array could include a combination of models from a single manufacturer ranging in generating capacity and dimensions. The applicant would select the most appropriate turbines for the site-specific conditions of the wind farm site prior to construction. The proposed project would also include permanent facilities including access roads, overhead and underground transmission and collector lines, an onsite substation, and an operation and maintenance (O&M) building and associated storage yard and parking area. Temporary wind turbine assembly lay-down areas would also be used during construction.

The primary purpose for the leasing of State land is the proposed construction of the wind farm project. Per the applicant's FEIS, the purpose is to provide clean, renewable wind energy for the island of Oahu, and to assist HECO in meeting Hawaii's Renewable Portfolio Standard (RPS) requirements and the State's goal to reduce electricity costs. Hawaii's Clean Energy Initiative sets goals for the state to achieve 100 percent clean energy by 2045 coming from locally generated renewable sources. The cost of electricity from renewable energy is currently about one-half the cost of electricity from burning oil and other non-renewable sources. Toward that end, the Project plans to begin operation in 2017. The power generated by the Project would be sold to HECO pursuant to the Purchase Power Agreement under a long-term, fixed-price contract with fixed annual escalation providing long-term price stability for consumers.

¹ The cut-in wind speed is defined as the minimum wind speed at which the turbine blades overcome friction and begin to rotate. The cut-out wind speed is defined as the speed at which the turbine blades are brought to rest to avoid damage from high winds. Source: www.wind-power-program.com

Additionally, the FEIS states that the applicant anticipates that operation of the proposed Project would contribute to the State's diversified portfolio of renewable energy projects, provide environmental and economic benefits to the State, County, and local communities, diversify Oahu's power supply, and contribute to the State's energy independence and security and reduce the import of foreign oil. Production of wind generated energy would replace a portion of the State's electricity that is currently generated by burning fossil fuels, thus reducing greenhouse gas (GHG) emissions and other forms of pollution that are detrimental to the environment and human health. The energy potentially generated by the proposed Project would eliminate the use of approximately 13.44 barrels of oil for every hour of operation, which in turn would reduce emissions of carbon dioxide (CO₂) and other air pollutants including sulfur dioxide (SO₂), nitrogen oxides (NO_x), and mercury (Hg).

For further details on the project, please review the Final Environmental Impact Statement published in the Office of Environmental Quality Control's [The Environmental Notice](#) on July 23, 2016, available online at:

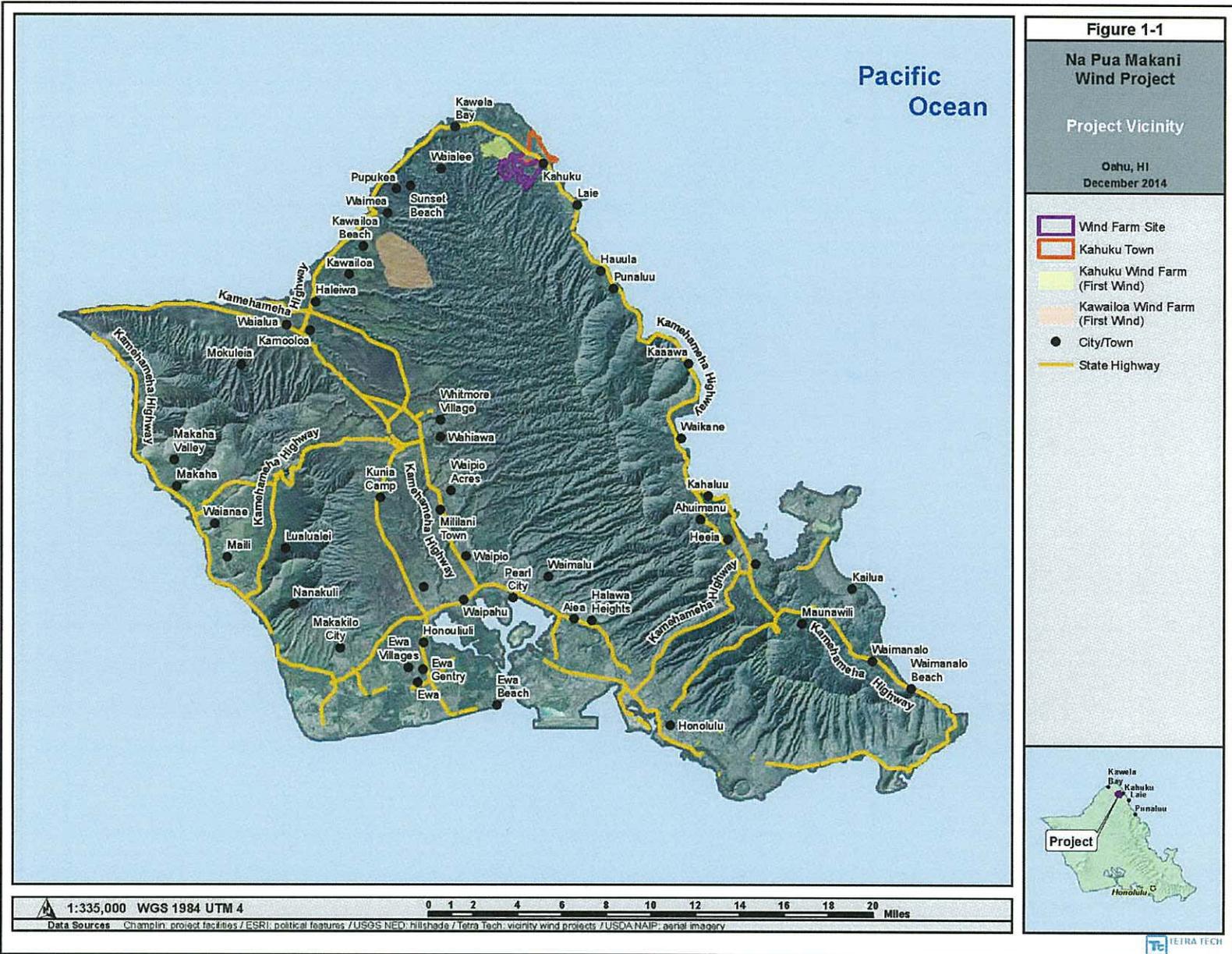
http://oeqc.doh.hawaii.gov/Shared%20Documents/Environmental_Note/Archives/2010s/2016-07-23.pdf .

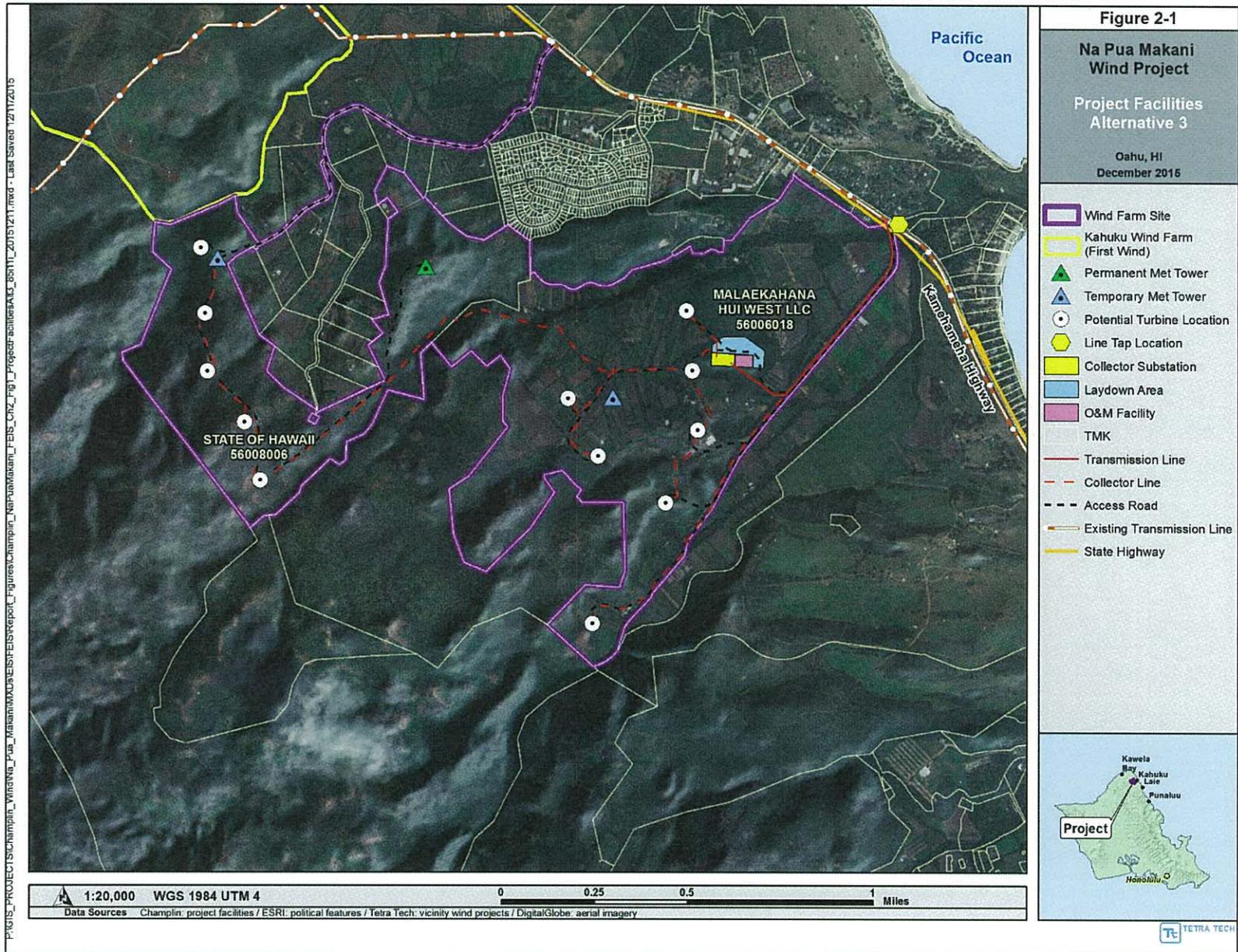
The FEIS and this outline are also available on the Department of Land and Natural Resources' website at:

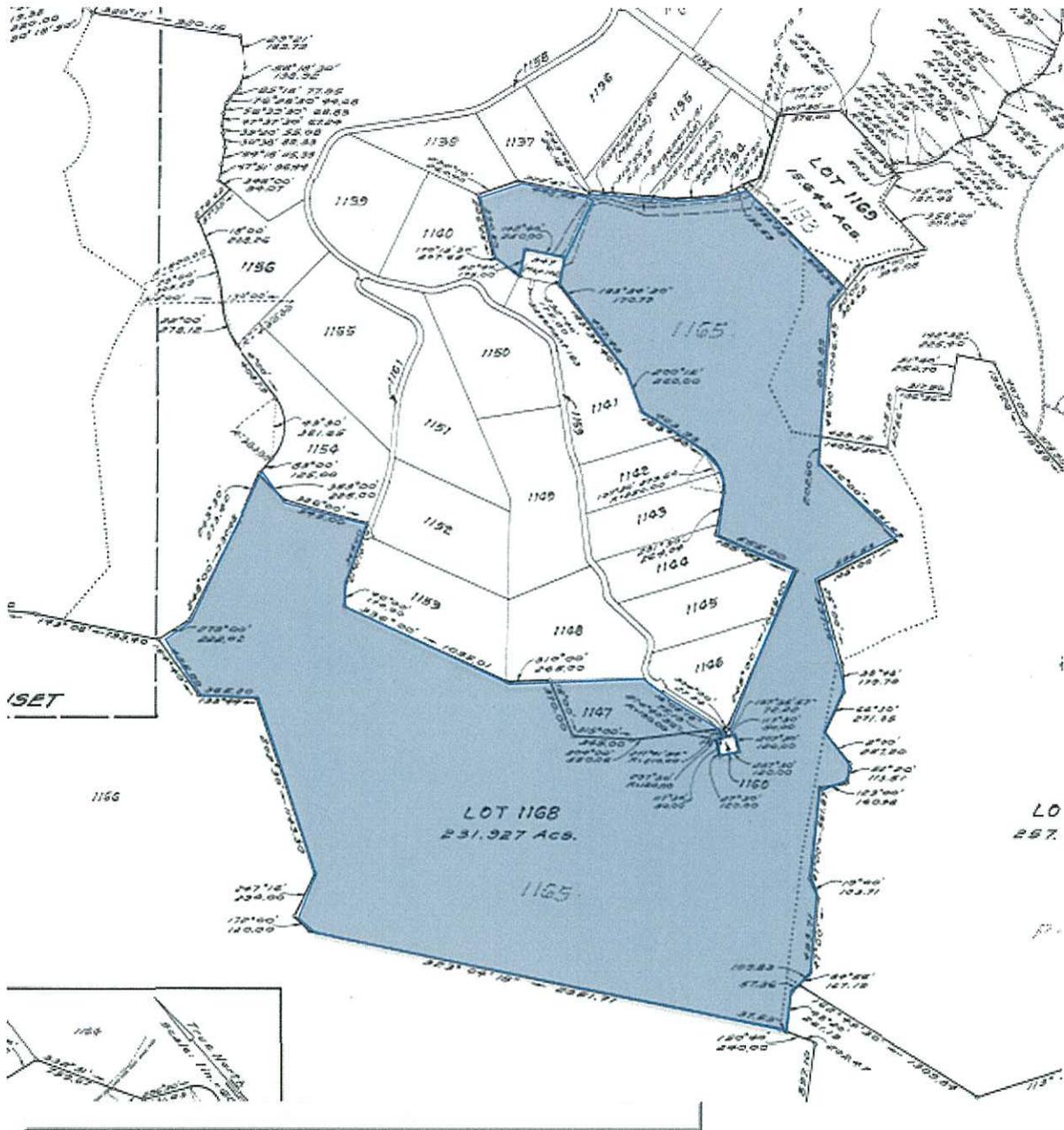
<http://dlnr.hawaii.gov/ld/public-hearings-and-notices/>

Click on NA PUA MAKANI WIND PROJECT.

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TAX MAP KEY: (1) 5-6-008:006

Lot 1168 of Map 137 of Land Court Application No. 1095