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DBEDT
Strategic Industries/Renewable Energy
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#### Aloha

Thank you for this opportunity to submit comments and questions regarding the upcoming EIS for the Big Wind Project: Lana'i, Molokai & Maui.

#### **General Questions**

- What other sources of renewable energy have been studied or proposed?
- What and where are these studies?
- How and by whom was wind energy determined to be the best source of renewable energy?
- What is the total energy/ecological cost in barrels of imported oil for construction of components, transportation to the site, construction of roads, concrete pads, accessory structures, and erection of turbines, of the Big Wind Project?
- What is the total environmental cost of the project; effect on the local environments for the construction and transportation of components?
- Where will the turbines be constructed?
- Why is the Big Wind Project Lana'i, Molokai and Maui the best, most efficient, advanced technological, and economical solution to the need for renewable energy for electrical energy generation on Oahu?
- What is the estimated need in barrels for imported oil to satisfy the electrical generating needs of Oahu over the next 20 years?
- What percentage of imported oil in barrels to be used for electrical energy generation on Oahu would be supplied by the Big Wind Project in 2025?

- What is the total cost of the Big Wind Project?
- Who will pay for it?
- What will be done if the project doesn't work for a variety of unknown economic, technical and environmental reasons?
- Who will pay to dismantle it?
- What procedures will be established for public input and mitigation in the event of problems and questions arising during construction and operating phases?
- How will this project benefit the residents of the project areas?
- Exactly how many turbines will be constructed, and where?
- Exactly how many miles of roads will be constructed, and where?

#### Construction

- How and where will off island workers be housed during the construction phase of the project?
- What steps will be taken to control the social impacts of a large number of persons with differing attitudes and lifestyles (the possibility of fighting, drugs, conflict with locals, disruption of family life, etc.) who will be living on the island for several years during construction?
- What is the estimated water usage of the construction phase, both for the use of the workers and for concrete, road dust control, and other project uses?
- Where will the fresh water pipelines for the project be routed?
- What is the source of the fresh water for the project?
- Will non-brackish water from the high level aquifer be used for the project?
- What is the estimated draw from the high level aquifer?
- Where will construction debris be disposed of?
- Where will the topsoil scraped off during road and pad construction be stored or disposed of?
- How will the free flow of prehistoric drainage and run-off be quaranteed?

- What prevention measures will be taken to insure that construction run-off does not impair adjacent ocean reefs and shorelines?
- What is the estimated tonnage of surface dirt/rocks/etc that will be moved during construction?
- Will the current road to North End be open to the public during construction?
- Will the construction site be open to the public during construction?
- How close to Lana'i City will the main construction/access road be located?
- How close to Kaumalapau road?
- How will the noise and dust from truck travel on the construction road impact residents in Lana'i City, the villas at Ko'ele, and guests at the Lodge at Ko'ele?
- What will be done to control this impact?
- What will be the impact on the use of Kaumalapau Harbor during construction?

## Wind Turbine Project Lana'i

- When will the project be completed after all permits are secured?
- How long will it take to complete the project?
- Will the public have access to Ka'a and Paomai after construction is completed?
- What are the legal guarantees of public access during the lifetime of the project?
- Will hunting be allowed in the project area?
- What are the legal guarantees of public hunting in the project area?
- Will fishing be allowed along the shoreline in the project area?
- What are the legal guarantees of fishing along the shoreline in the project area?
- What will happen to the batch plant, concrete pads, roads, accessory structures and turbines when the project is no longer operative?

- What is the legal guarantee that the turbines, concrete pads, and accessory structures will be removed after the project ceases to operate?
- What is the operating lifetime of the entire project?
- What is the operating lifetime of the turbines?
- What is the operating lifetime of the undersea cable?
- Will the site be restored to its pre-project condition when the project is no longer operating?
- What legal guarantee is there that the site will be restored?
- Who will restore the site?

#### Wildlife

- What specific steps will be taken to prevent the destruction of wildlife?
- Who will monitor the effect of the project on wildlife?
- Will construction workers be permitted to hunt and fish during the construction phase of the project?
- What will be the effect of the turbines' lights flicker on the passage of endangered birds when returning to their nests at night?
- What steps will be taken to protect the passage of endangered birds during the night?
- What steps will be taken to protect the passage of birds during the daytime?
- What steps will be taken to protect the passage of endangered Hawaiian Bats?
- What is the effect of the construction of the project on endangered sea turtles?
- How will the deer be protected during and after construction?

# **Native Vegetation**

- How will rare and endangered native plants be identified and located prior to the construction of the project?
- How will rare and endangered native plants be protected during construction?

- How will the native vegetation be restored to the site after construction?
- What is the planting plan after construction of roads, concrete pads, and turbines?
- When will the site be planted after construction?
- How long will it take to replant the ground after construction?
- How much fresh water will be used to irrigate new planting?

## **Night Lighting**

- How far can the lights on top of the turbines be seen during the day?
- How far can the lights on top of the turbines be seen during the night?
- Will the project lights be visible from/or on Molokai at night?
- Will the project lights be visible from Lana'i City day or night?
- What effect will the night lighting have on aircraft during unusual/storm and low visibility conditions?
- How will the loss of the night sky be mitigated?
- What is the effect of the flicker on wildlife?
- What is the effect of the flicker on humans?

#### **Undersea Cable**

- Where exactly will the cable on Lana'i enter the ocean?
- Where exactly on Molokai will the cable enter the ocean?
- Will public fishing be allowed in the area where the cable enters the ocean?
- How will this fishing be legally guaranteed?
- Will the cable pass through Penguin Banks?
- Will the cable disturb or destroy bottom-fishing spawning?
- Will construction of the cable disturb or destroy bottom fishing?
- How will the impact of the undersea cable on bottom fish be measured?
- How will the disturbance of fish spawning be prevented?
- Does the cable emit low-level electrical/magnetic waves?
- Do low-level electrical/magnetic waves affect fish?

- If they do affect fish, what is the effect?
- Will the cable pass through the Hawaiian Humpback Whale Sanctuary?
- Will the cable be constructed during the whale season?
- How will the whales be protected during construction?
- How will the whales be protected from low-level vibrations emitted from the cable?
- What is the estimated life span of the cable?
- How is the cable repaired when broken or inoperative?
- Can a broken cable endanger whales, fish and humans?

### **Earthquake Impacts**

- What is the total tonnage of the project, cables, concrete pads, turbines and accessory structures?
- What is the estimated impact of this total tonnage on possible earth motion of the Molokai fault?
- Will turbines be constructed on the Molokai fault?
- Will the undersea cable pass over the Molokai fault?
- What would be the effect of an earthquake on the cable?
- What would be the effect of an earthquake on the turbines?

Thank you for your consideration in soliciting these questions and I look forward to the answers in the upcoming EIS.

Sincerely,

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