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Sent via Email and U.S. mail

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Re: Comments on Scope of Intended Joint Federal and State Programmatic Environmental Impact
Statement for the Hawai'i Interisland Renewable Energy Program(HIREP): Wind

Dear Sirs:

Below are my comments and questions regarding the scope of the PEIS, submitted in response to the HIREP Preparation Notice published on December 14, 2010. I hereby request recognition as a consulting party in the preparation of this PEIS.

An initial observation is that this is a terribly flawed approach. A Programmatic EIS process has been used when an agency, such as the Bureau of Land Management that controls vast acreage in many states, seeks to put "on notice" as yet unknown developers who would at some future time seek to develop projects of a similar nature across and throughout multiple states or sites. This is an intelligent way to establish comprehensive policies, practices and minimum-level mitigation guidance for anticipated, but as-yet unidentified, project development.

In this case there are only two potential sites, the location of one is well known, there is only one utility, one or two developers, and no potential for any future similarly-sized developments to occur anywhere else in the state of Hawaii has ever been mentioned. To relegate obvious and well known facts to a later tiered project-specific number of EISs is to ignore sound planning principles and reduces this process to an absurdity.

In addition, where, as here, multiple actions are contemplated to be developed in tandem, such as cable development along with one or two industrial wind facilities, a programmatic approach may make sense IF the individual impacts of component parts are already known and can be assessed in a cumulative fashion. Given the diverse nature of the different sites known to be contemplated under this HIREP, geographically, physically, socially and economically, coupled with the as-yet unknown site-specific

impacts, the “programmatic” approach taken at this time makes no sense, and does a grave disservice to the environments and communities impacted.

Nonetheless, the scope of the PEIS must include the following:

P. i and P.1-9: DBEDT as applicant AND accepting authority.

- 1) *Please explain how the obvious and inherent conflict in this dual role will be avoided.*
- 2) *Will there be any third party oversight? If so, who or what agency will act in this capacity?*
- 3) *Please detail the complete process for “accepting” the HIREP/EIS, including the parties involved and the anticipated time frame.*

P. ii: Parties consulted: “local cultural interest groups” and “local state officials.”

- 1) *Please identify which groups and officials were approached, by whom, when, and what was discussed.*
- 2) *Please identify which and how many future project-specific proposals you anticipate will be “analyze[d] consistently” by this “process”.*
- 3) *How will “minimum” requirements for mitigation be determined and by whom?*

P. iii: “NO ACTION” ALTERNATIVE.

- 1) *Please explain: what “potential future alternative energy options” were explored, when their “economic viability” is expected to “mature” (see also p. 1-4), and please cite and produce which studies were used to justify a conclusion that no other energy alternative is worthy of consideration “at this time.”*
- 2) *Please specifically address why geothermal and ocean resources, which are capable of producing 100% of the state’s energy needs, are not being pursued as part of a state-wide strategy, and cite to, and release, all studies used to eliminate these renewable resources as potential solutions.*
- 3) *Please explain how and why you determined “not to pursue” Kaho’olawe (which has class 6 winds) and the Big Island “at this time” (see also p. 1-5 and p.3-48).*
- 4) *Please identify the “various entities and agencies” with which you consulted in concluding that Kaho’olawe and the Big Island would not “be pursued”, when they were approached, by whom, and what was discussed (see also p. 1-5).*
- 5) *Please release all studies and findings that led to a conclusion that siting the wind turbines on shore rather than offshore would be economically or otherwise more feasible, since the wind resources map utilized in DBEDT presentations demonstrates wind resources to be far greater in the channel between Moloka`i and Lana`i than on land.*

Throughout, the HIREP prep notice states that a “new paradigm” in energy source and management is needed to ensure “economic and environmental health of all the islands” (p. 1-2); that this “transformation” effects how renewable energy resources are “planned and used in the state” (p.1-1); and alleges that this proposal specifically benefits “the state economy and its inhabitants” (p. iii).

- 1) *Please reconcile these claims with the admission that only Oahu will receive the power generated.*
- 2) *Please reconcile these claims with the fact that none of the power generated will stay on Lana`i.*

- 3) *Please reconcile these claims with the fact that Lana`i's power will continue to be diesel-generated.*
- 4) *Please reconcile these claims with the fact that none of the revenue generated is required to be retained on Lana`i and identify how Lana`i's "inhabitants" will benefit.*

P. 1-2: "The decision was made to prepare a single joint EIS that follows the procedural and substantive guidelines and requirements for environmental review of both DOE and the state of Hawaii."

1) *Please identify in detail what Department of Energy guidelines and requirements apply to the environmental review contemplated.*

P. 1-2: "Hawaii depends on imported fossil fuel for over 90% of its energy..."

- 1) *Please acknowledge that only 30% of this is for electric generation, the balance is for transportation use;*
- 2) *Please identify how the anticipated wind projects will have a beneficial impact on fossil fuel use in transportation.*
- 3) *Please restrict future statements with respect to this HIREP to reflect the accurate relationship between fossil fuel use and electric generation.*

P. 1-2: "Importation and use of oil also ...contributes to global climate change, which could have substantial effects on the state through future sea level rise."

1) *Please delineate how the proposed 400 MG from Lana`i and/or Moloka`i to O`ahu will specifically reduce sea level rise in Hawaii.*

P. 1-2/3: "The goal of the HCEI is to decrease energy demand [.]"

- 1) *Please explain how energy demand will be decreased through the activities contemplated by this HIREP.*
- 2) *Please identify how much "reserves" (spinning, operating, regulatory) will be required to insure uninterrupted power should the 400 MW of wind come on line.*

P. 1-3: "Protecting the environment by reducing GHG emissions."

- 1) *Please explain what Hawaii's carbon footprint is presently, compared with the rest of the country, and how producing 400 MW with wind accomplishes a reduction in GHG emissions, taking into consideration the emissions related to material production, transportation, construction and operational activities.*
- 2) *Please identify the GHG impact of the fossil-generated reserves that will be needed and used due to the intermittent nature of wind energy.*

P. 1-4: "DOE and DBEDT have led an ongoing review by local stakeholders and other federal agencies...."

1) *Please identify the scope and detail of the review(s), by whom conducted, which stakeholders and agencies were involved, when the review(s) occurred, what alternative energy generation and delivery options were considered, and why they are not being considered in this HIREP EIS.*

P. 1-4, 1-5, 2-6: "...due to the limited amount of land and limited viable renewable energy resources on Oahu... it was necessary to push forward the most feasible, commercially scalable, economic technology" [i.e. wind] to meet HCEI goals.

- 1) *Please identify the limitations in both land and resources on O`ahu supporting this statement and what studies were conducted to arrive at this conclusion, including the assessment(s) that considered alternative energy resources besides wind.*
- 2) *Please release any and all studies that eliminated the off-shore area near and around Black Point on O`ahu (and other points in, on and around O`ahu) from consideration; if no such studies were conducted, please explain why these areas were not considered, in light of the significant wind strength indicated off shore.*
- 3) *Please acknowledge that the goals of the HCEI are not mandatory, in that the PUC may waive utility performance for reasons detailed in HRS §269 -92; and the PUC has indicated that any penalty that might apply may be waived as well (See PUC Docket No. 2007-0008).*
- 4) *Please provide all studies conducted on "land and resources" available on islands other than Lana`i or Moloka`i that could be used to meet HCEI goals and explain why they are not being considered as part of a state-wide equation to maximize locally-produced energy, for local consumption.*

P. 1-5: Please identify the "range of proposals received and evaluated" as a result of "HECO's solicitation of interest."

P. 1-7: "There are no current viable plans to expand solar energy."

- 1) *Please disclose what plans were evaluated and why it/they were determined not to be "viable."*

P. 1-7 and 2-9: "Small amounts of the Molokai and Lanai wind power were assumed available for local consumption on those islands."

- 1) *Please identify the source of this assumption; why it was made; how the energy will be integrated into the grids on Lana`i and Molokai, and what constitutes a "small amount."*

P. 1-7: "The initial approach to implementing wind energy infrastructure on these islands proposed separate environmental reviews for each project component when in reality the project was an integrated wind energy generation and delivery system. Under the initial approach, there are [sic] concerns related to issues of potential project segmentation in evaluating environmental impacts, and concerns related to cumulative environmental and social effects not being captured by using individual environmental documents for different wind project components on each island."

- 1) *Please identify when these "concerns" were raised, by whom and to whom.*
- 2) *If this is in fact a state-wide "integrated energy generation and delivery system" then you will be able to explain why only one energy resource is being considered, as well as provide a specific and detailed plan and time line for both energy generation and energy delivery to and from all islands, including all reserves needed to insure firm delivery.*

P. 1-10: "HIREP is necessary to meet the identified need of improving efficiency [.]"

- 1) *Please specifically explain how 400 MW of intermittent wind power generated on Lana`i and/or Moloka`i and sent to O`ahu accomplishes this.*

- 2) Please provide, in barrels of oil or other energy source, how much fuel will be needed as a constant reserve to ramp up when a) the wind stops blowing; b) the cable becomes dysfunctional; and/or c) a natural event shuts down the wind power plant(s).
- 3) Please produce studies that project the capacity factor for any future wind development projects contemplated by this HIREP.

P. 1-11: "DOE and DBEDT will [...] publish [] related documents."

- 1) Please explain why the economic analysis done by Booz Allen, paid for with taxpayer dollars, has not been released, and provide a date for its publication.

P. 2-4: "...it is anticipated that a temporary concrete batch plant would be constructed..."

- 1) Please explain the anticipated size of this plant, its location and the manner and time frame in which it will be dismantled when construction is complete. Please also include the cost of construction and de-commissioning the plant and identify how it will be de-commissioned and how material will be disposed of.

P. 2-5: "Another converter station would be required on Oahu (or the receiving island) to convert..."

- 1) Please identify which "other island(s)" will be receiving power, the quantity of power anticipated to be delivered, and the time frame for this delivery.
- 2) Please explain how HECO plans on recovering the costs for its component of HIREP projects, including anticipated projected rate increases that it will need to request from the PUC.

P. 2-7: "...resource availability and limitations made the potential contribution of technologies such as biomass conversion, small hydro, and biofuels less feasible..."

- 1) Please identify the limitations referred to and produce any and all studies supporting this claim, including the cost/benefit analysis of the above three options as well as other alternatives considered, and clarify: "less feasible" than what?
- 2) Please provide details of size, cost, and location(s) of any pumped storage hydro projects planned for each island and the state.
- 3) Please include how impacts and mitigation efforts anticipated for any pumped hydro projects planned to complement any and all wind projects in the state will be assessed.

P. 2-8: "The DOE analysis concluded that, in the near term, electricity generation from wind resources is the most fiscally prudent and technologically feasible form of renewable energy available on a commercial scale."

- 1) Please explain the basis for DOE's conclusions, including a comparison of wind resources to other forms of renewable energy.
- 2) Please define "near term."
- 3) Please provide all factual and financial data used to reach this conclusion.

P. 3-3: "LANAI: The HIREP WIND EIS will discuss the various soil categories in the analysis area and discuss their value, uses, and various defining characteristics."

- 1) Please explain why no such discussion is offered for Moloka`i, Maui or O`ahu, and include this discussion in the scope of the PEIS.

P. 3-8 to 3-12: The discussion is focused entirely on Lana`i's flora, vegetation, and fauna; no birds of Molokai are listed in the table provided at all.

- 1) *Please explain why Moloka`i and Maui are not included, and include them in this PEIS.*

P. 3-13 and 3-16: "Four wildlife species were identified as potentially flying over the project area," including the Hawaiian petrel." "Few bird species considered reliably present." "The Hawaiian petrel and the Hawaiian hoary bat are known to utilize the program area."

- 1) *Please reconcile these inconsistent statements; several endangered species were confirmed in 2007 to be flying in and through the area targeted for the industrial power plant on Lana`i.*
- 2) *Please explain which program area on which island you are referring to, and, since it seems to be limited to Lana`i, please explain why other prospective islands are not included in detail and this PEIS will be inadequate without them.*
- 3) *Please provide the detailed studies conducted on other islands/areas under consideration.*

P. 3-21: "Other marine wildlife species with potential to occur in the ROI include a resident spinner dolphin population off the west side of the island."

- 1) *Please identify which island you are referring to and why other islands are not included or identified; failure to include other sites will render this PEIS inadequate.*

P. 3-22: "These activities include: improvements to harbors transshipping construction materials for program facilities."

- 1) *Please identify which improvements to what harbors are contemplated, the time line for proposed improvements, the cost for each, and the source of funding for the improvements referred to.*

P. 3-23: "Coastal harbor improvement activities are localized and limited in area and not likely to affect whales or marine mammals in the region."

- 1) *Please identify which improvements to what harbors are contemplated, and on what basis a conclusion was reached that such improvements are "not likely" to impact the robust whale and marine population(s) in and around Kaunalapau Harbor on the island of Lana`i.*

P. 3-28: "Cumulatively, air quality may improve with the completion of future energy projects and reduction in polluting fossil fuel power sources."

- 1) *Please explain how you arrive at this conclusion and provide studies supporting it.*
- 2) *Please explain how air quality on Lana`i will improve if we remain on diesel-generated power.*

P. 3-34: "The areas under consideration for landing sites include coastal areas in the vicinity of Pearl Harbor and Kaneohe Bay."

1) Please identify whether and what the role and interest of the military has in any and all land and sea-based projects anticipated by this HIREP.

P. 3-42: "The Castle and Cooke Company owns and operates the water supply on Lana`i."

1) This is an incorrect statement. All state waters are held in public trust, HRS §174(C).

P. 3-45: "There will be some limited field studies."

1) In 2009, Castle and Cooke released a draft EIS-PN that acknowledged that a "literature review" does not satisfy requirements for an archeological inventory survey. Please explain why a literature review appears to be driving the cultural inventory process for this HIREP, rather than an actual physical survey of the APE; if the APE has not been completely surveyed, then it follows that the literature and surveys "conducted to date" will be inadequate to provide meaningful data and this PEIS will be inadequate.

P. 3-49: "4) ongoing expenditures for materials and outside services."

1) Please identify and quantify what expenditures for what materials and which outside services, over what period of time, are referred to in this statement.

P. 3-49: "It [the HIREP] will also discuss the extent to which each alternative would directly affect employment and the level of business activity. It is anticipated that the project could potentially disproportionately affect low-income or minority populations..."

- 1) Please explain what "each alternative" means.*
- 2) Please define what group(s) comprises a "minority" population, and explain how the "project" will "disproportionately affect" this population, and in what manner the "affect" will be mitigated.*
- 3) Please identify and quantify all anticipated government loan guarantee/grants/tax credits that will be sought, and the cost to taxpayers of each.*
- 4) Please identify the total funding required for all land and sea based projects, and the source of that funding if government credits and/or guarantees are not available.*

P. 3-50: "Members of the public as well as workers could be impacted by ...decommissioning of future wind developments."

- 1) Please identify the working life of any anticipated wind development, when "decommissioning" is anticipated to occur, how it will be accomplished, how it will be paid for, and who will determine whether it is satisfactorily decommissioned.*
- 2) Please disclose/define the impacts referred to and how they will be mitigated.*

P. 3-60: "Future wind development projects could be expected to have a beneficial impact on climate change by decreasing fossil fuel consumption."

- 1) Please explain this statement in the context of each Hawaiian island and the state as a whole.*
- 2) Please quantify the anticipated decrease in fossil fuel consumption and identify how fossil fuel use will decrease on Lana`i.*

P. 5-1: "The community outreach sessions included talk story session with key community stakeholders in the affected communities, including Lana`i and Moloka`i, legislators, cultural practitioners, NHO's and environmental interests..."

- 1) *Please provide a complete list of individuals and agencies or organizations contacted, dates contacted, who contacted them, and what was discussed.*

And for all projects contemplated under this HIREP the following should be included in the scope:

- 1) Please address specifically how much of each island will be consumed by all projects contemplated under this HIREP, in proportion to each island's land mass and the state as a whole.
- 2) Please address how land owners within ten miles of each project will be consulted.
- 3) Please address how fire hazards will be addressed and identify minimum standards to be observed, both during construction and operation. For example, there is no source of water in or near the area targeted for an industrial power plant on the island of Lana`i; how will this be addressed?
- 4) If new water sources will have to be developed to comply with BMPs; to avoid erosion during construction and operation; to make cement, or for any other use: what is the anticipated cost, and who will pay for it?
- 5) Please verify that, according to accepted practice in Maui County and elsewhere in the state, only brackish/non-potable water will be used during construction and operation of all projects, other than for human consumption, contemplated under the HIREP.
- 6) Please identify the extent and size of all radial turbine string roads needed to support construction and operation, whether and how any temporary road work built for construction purposes will be restored to pre-project or improved condition, and how roads used for operation and maintenance will be removed at the end of the project's life.
- 7) Identify the nature, size and extent of "short-term impacts" included in clearing land for "working/laydown" areas. Please identify how large an area will be cleared, the short and long term impacts of such clearing, and identify how they will be reversed/restored following completion of construction, as well as at the end of the project's life.
- 8) In 2009, Castle and Cooke released a draft EIS-PN that characterized the anticipated disruption to the existing landscapes as "irrevocable." Please confirm whether this is still thought to be true, and how many such sites, with what total land mass, will be irrevocably altered at the completion of all projects contemplated under this HIREP.
- 9) Please confirm that monies sufficient to de-commission turbines at any project site contemplated by this HIREP at the end of the applicable PPA or at the end of the turbines' useful life, whichever occurs first, will be escrowed or otherwise secured, and at what point in time this will occur.
- 10) Mention is made of certain unidentified harbor improvements. Please identify the extent of harbor improvements that would be needed for which sites and how impacted communities will be consulted before any harbor-improvement phase begins.
- 11) Access to harbor areas throughout the state has for many generations provided subsistence fishing and recreation for residents. Pursuant to Sec. 10 of the Rivers and Harbors Act of 1899, please discuss how such activities will be impacted and what mitigation measures are contemplated.

- 12) How many temporary batch plants will be needed to service any and all projects under this HIREP, how will they be located, what size(s) of structure is anticipated, and how will they be dismantled and by whom?
- 13) Please identify the size of the pad needed for each turbine, how much concrete it will need, and how much water is required for each one.
- 14) Identify all on-island quarry aggregate available on each island to support quality concrete mix for projects contemplated by this HIREP; if sufficient aggregate is unavailable on any one island or site, at what cost and from where will it be acquired? How shipped?
- 15) Identify how large an area per turbine will be subject to pre- and post-construction related alterations; if cultural sites, or threats to endangered species or other adverse impact is revealed, what alternatives are available to on-site construction and assembly of turbines?
- 16) Identify the anticipated time frame for erection of a turbine and then identify how many days would typically have to be added to adjust for a range of winds that exceed safe construction/assembly per site contemplated by this HIREP.
- 17) Identify and quantify all skill levels and total numbers of workers needed to construct any project contemplated by this HIREP.
- 18) Identify and quantify all skill levels and total numbers of workers needed to maintain any project contemplated by this HIREP.
- 19) Identify the current skill level of workers, who are residents of each island and the state as a whole, qualified to perform the various jobs needed for turbine assembly and specialized concrete pouring. If a sufficiently skilled work force is unavailable on each island or in the state as a whole, how will the skilled workers needed be recruited and by whom?
- 20) Identify how and where any off-island temporary workers will be fed and housed, and identify how a baseline "conduct" standard, respectful of local customs and cultures, for imported workers will be developed and enforced.
- 21) Identify all shoreline points of egress and ingress for power lines/cables and how nearby marine life, reef and water quality will be identified and tested prior to any construction activity, and how monitored post-construction and over the life of any project.
- 22) Confirm whether transmission lines running from turbines to the converter station at any and all sites will be above or below ground. If some are one or the other, please explain the criteria for deciding where they will be placed.
- 23) In 2009 Castle and Cooke released a draft EIS-PN indicating that the number of recreational users at Polihua, a potential site for a converter station and cable entry on the island of Lana'i, was "limited" due to high winds and dangerous currents. This was and remains a false assertion. Many residents and visitors use the beach and surrounding waters daily for fishing, whale-watching and access to shoreline hiking. Please identify how access to all shoreline areas will be insured for all residents and visitors at all sites contemplated under this HIREP both during construction and during operation.
- 24) Identify the size, number, location of all converter stations that will be required for all sites contemplated under this HIREP, how secure they will be required to be, and how much land surrounding each facility will be fenced.
- 25) Identify how and over what period of time human access in or near shoreline areas anticipated to be impacted under this HIREP will be studied, quantified and whether continued access will be assured and if not assured, how curtailment will be mitigated.
- 26) Identify the level of pre-project study that will be required to establish and determine the size, habitat extent and living/flight/migration patterns of (but not limited to) the Hawaiian bat, the Newell shearwater, the Hawaiian petrel, mouflon sheep, wild boar and deer, and any other known avian and game animals in any proposed site; if any of these populations, or others

- found to exist in affected areas, are determined to be impacted by the proposed pre-construction, construction and operational activities, include the scope of mitigation measures.
- 27) Identify the level of pre-project study and or survey that will be required to ascertain the existence of native or endangered plants in any proposed site.
 - 28) Should numbers of any animal, bird or plant be found, identify the minimum level of mitigation that will be required to maintain or improve existing habitat(s). Castle and Cooke released a draft EIS-PN in 2009 that identified "789 acres of critical habitat within the proposed project area" for Lana'i alone.
 - 29) Identify the level of pre-project archeological and cultural survey that will be required before any project is permitted and what is the minimum level of mitigation that will be required to be undertaken to preserve cultural and historical sites.
 - 30) In 2009 Castle and Cooke released a draft EIS-PN that stated that an assessment of soil composition to assess impact to foundations and roadways is "critical." Please release the results of any and all studies done for the Lana'i site, and if this study has not been done, confirm at what point prior to any land-altering activities it will be conducted and what are the minimal requirements of soil sampling for any and all additional sites planned under this HIREP.
 - 31) Identify all land use classifications by the state, the counties and relevant Community Plans that conflict with the proposed use for any and all sites contemplated to be future projects for this HIREP, such as "open space" for example, and at what point re-classification would be sought.
 - 32) Identify what the view plane impacts will be for each site and for each island and island-to-island, and how they will be mitigated.
 - 33) Produce and publish modeling of the anticipated visual and auditory effects for all sites; if more than one site is contemplated per island, produce and publish the cumulative effects.

In conclusion, it would be wise to identify the baseline minimum standards that should be set to receive, consider and respond to community involvement and input, and what level of significance community concerns will have on a proposed project. For example, Castle and Cooke released a draft EIS-PN in 2009 that referenced several "community meetings" regarding the project, while at that time only three community meetings had been held and one site tour, by invitation only. When input is limited largely to written comments, many elect not to participate. The most recent "scoping" meeting enraged many local residents who were told they could not have their questions answered. You are attempting to impose a structured "programmatic" assessment "mainland" style that makes no sense at the local level and will eventually result in resentment or worse. Given the legal standing that is afforded local and indigenous populations under state law, it is bad practice to disregard the wishes of the communities potentially impacted by these proposed projects. Please consider this as you move forward.

Comments submitted by:

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