



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

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San Francisco, CA 94105-3901

AUG 19 2016

Mary Abrams, Field Supervisor
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

Subject: Final Environmental Impact Statement for the Na Pua Makani Wind Project and Habitat Conservation Plan, Kahuku, Hawaii [CEQ# 20160165]

Dear Ms. Abrams:

The U.S. Environmental Protection Agency has reviewed the Final Environmental Impact Statement for the Na Pua Makani Wind Project and Habitat Conservation Plan. Our comments are provided pursuant to the National Environmental Policy Act, Council on Environmental Quality Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. The EPA supports the state of Hawaii in attaining the goals of reducing reliance on fossil fuels and meeting 100 percent of Hawaii's energy needs using clean energy by the year 2045. Developing renewable energy resources and deploying clean energy technologies, while also aiming to reduce environmental impacts as much as possible, is critical for accomplishing these objectives.

The EPA reviewed the Draft Environmental Impact Statement and provided comments to the U.S. Fish and Wildlife Service on August 11, 2015. We rated the DEIS as *Environmental Concerns – Insufficient Information* (EC-2) due to concerns about potential impacts to aquatic resources, the proximity of the wind turbines to nearby residents, and potential impacts of noise and shadow flicker. We also requested clarification on several items including setbacks between turbines and residences, the baseline sound survey and projected noise levels, and measures to minimize potential impacts from noise and flicker.

The FEIS presents a new alternative, the Modified Proposed Action Option – Alternative 2a, which consists of nine turbines with larger generating capacities and dimensions that are more efficient and better suited to existing wind conditions. The Proposed Action – Alternative 2 – which was evaluated in the DEIS, included up to 10 turbines, totaling 25 MWs. Although the number of turbines in Alternative 2a has been reduced from 10 to nine, the new turbines are 656 feet high, as compared to 512 feet high.

We commend the FWS for the extensive interagency coordination on this project and appreciate the additional information and commitments that have been incorporated into the FEIS in response to our August 11, 2015 DEIS comment letter. The FEIS provides clarification on the proposed locations of wind turbines and their proximity to residents, as well as existing conditions during the baseline sound survey. Additionally, the FEIS clarifies that the proposed project will avoid jurisdictional features where possible and not directly impact streams in the project area, thus avoiding the need for a Section 404 Clean Water Act permit. Per our recommendations, the FEIS has also expanded the discussion on noise. The FEIS includes additional information on World Health Organization Night Noise Guidelines and also states that the Proponent will implement a noise complaint resolution process to respond to potential future public concerns. This process may include a post-construction sound survey (Appendix D, pg. 47). While the FEIS states that there is no requirement for monitoring post-construction noise in

the analysis area, we continue to recommend that such monitoring be conducted at the locations of sensitive receptors to verify predicted noise levels (including low frequency and infrasound) and to ensure compliance with Hawaii noise regulations. We also recommend that additional outdoor and indoor monitoring be considered as a possible follow-up action to better understand and address any unresolved noise complaints.

While the FEIS cites 17 independent scientific reviews which evaluate reports of wind turbine-related health effects (pg. 4-250), we note that the excerpts presented could be interpreted to conclude that there are no health effects due to wind-turbines, when it is more appropriate to state that additional studies are warranted. For example, the NHMRC 2015 study¹ does conclude, as noted in Appendix M, “that there is currently no consistent evidence that wind farms cause adverse health effects in humans.” However, the study also concludes that, “examining whether wind farm emissions may affect human health is complex, as both the character of the emissions and individual perceptions of them are highly variable”....“high quality research into possible health effects of wind farms – particularly within 1,500 meters – is warranted.” Please consider updating the summary of research completed to date so that it more accurately discloses the state of knowledge (including gaps in current knowledge) regarding possible health effects from wind turbines.

In addition, we expressed concern about shadow flicker and requested further information about the types and locations of receptors, as well as potential mitigation measures. EPA appreciates that the FEIS provides updated information in Section 4.18 and Appendix K. We encourage including in the ROD a commitment for resolving complaints, if any, about shadow flicker and providing more detailed information regarding the time and duration of shadow flicker to parties affected, upon request.

We recommend that all mitigation measures, including those recommended in this letter, be adopted in the ROD, and be included as conditions in construction contracts and other approvals, as appropriate. If there are additional details regarding the Community Benefits Package at the time the ROD is prepared, please also incorporate them into the ROD. If any mitigation measures proposed in the FEIS are not adopted, the ROD should provide the basis for the decision not to adopt them.

We appreciate the opportunity to review this FEIS and are available to discuss our comments. When the ROD is released for public review, please send one hard copy to the address above (Mail Code: ENF-4-2). If you have any questions, please contact me at 415-947-4161, or contact Ann McPherson, the lead reviewer for this project. Ann can be reached at 415-972-3545 or mcpherson.ann@epa.gov.

Sincerely,



Connell Dunning, Acting Manager
Environmental Review Section

¹ NHMRC (Australian Government National Health and Medical Research Council). 2015. NHMRC Statement: Evidence on Wind Farms and Human Health. February 2015.