

March 4, 2024

Recipients: Kinsley McEachern, Amanda Macias, Katherine Cullison; State of Hawaii, Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW)

Subject: Justification for Approach to Reduce and Manage Barbed Wire Fencing identified in the Kahuku Wind Project Hawaiian Hoary Bat Tier 2 Mitigation Plan Mitigation Plan for 'Ōpe'ape'a (Hawaiian Hoary Bat)

Dear DOFAW:

Terraform formally requests the opportunity to present to the Endangered Species Recovery Committee (ESRC) our justification for our current proposed approach to reduce and manage barbed wire fencing as part of the Kahuku Wind Project Hawaiian Hoary Bat Tier 2 Mitigation Plan (Plan). TerraForm worked with DOFAW and USFWS in developing the originally proposed Plan, and DOFAW acknowledged this and recommended approval of the September 2023 version of the plan to the ESRC in a letter dated October 30, 2023¹. Terraform presented the September 2023 version of the Plan to the ESRC on October 30, 2023, at which time the ESRC voted to approve the Plan with an amendment. The amendment requires the permit holder, Terraform (formerly Brookfield), to remove *exposed* barbed wire fencing in and around the Helemano Mitigation Area (HMA). The motion that was unanimously passed on October 30, 2023, was “approve the plan with the amendment to reduce and take away the barbed wire in exposed areas”. The barbed wire removal was again addressed by the ESRC at the February 1, 2024, Annual Review Meeting, during which two ESRC members expressed uncertainty as to their October 30 amendment votes. Ultimately, all voted to clarify that their previous recommendation had been to “remove *all* barbed wire fencing at the Helemano Mitigation Area.” Review of the meeting notes and recordings would indicate that the February 1, 2024, vote differs significantly from the original October 30, 2023, vote.

The September 2023 version of the Plan acknowledges that long segments of exposed barbed wire are a threat to bats, but the Plan also identified that there is no risk to bats when barbed wire fencing is completely encased in vegetation, which is the case for a large percentage (65%) of the fence at the HMA. The Plan uses risk categories from 0 to 5, 0 being no risk and 1-5, which have an increasing level of risk. Originally the revised Plan (January 2024) had intended to target the areas of highest risk and remove only risk categories 4 and 5; however, in response to concern from DOFAW and the ESRC, as well as the opportunity to review the draft meeting notes from October, Terraform has agreed to remove and replace all risk categories (1-5). TerraForm acknowledges that we misinterpreted the original intent of the ESRC motion that was approved, focusing on

¹ https://dlnr.hawaii.gov/wildlife/files/2023/10/Kahuku_Bat_Tier-2_Plan_ESRC_Submittal_Letter-signed.pdf

“reducing” risk by focusing on the highest categories of risk rather than removal of all exposed barbed wire. The now proposed replacement would remove all segments with exposed barbed wire and the risk they pose to ‘ōpe‘ape‘a. Unchanged from the Plan is the requirement to routinely monitor the fence for changes in vegetation coverage and exposure of barbed wire in the mitigation area and replace any previously encased segments that become exposed over the life of the mitigation project.

Terraform respectfully requests the opportunity to present a PowerPoint at the March 11, 2024, ESRC meeting to discuss the current state of knowledge regarding barbed wire and bats in Hawaii, our rationale for the risk categories, and our proposal for immediate and long-term management of the HMA fence line which involves leaving in place barbed wire fencing encased in vegetation that has been identified as zero risk to bats, while targeting removal and replacement of any barbed wire that is exposed to bats at this time and monitoring for any areas of new exposure for the life of the mitigation project.

There is little published data on how bats interact with fences and Terraform acknowledges that bats have been documented getting caught on barbed wire fencing. But the rate at which this occurs and the lack of information on how bats navigate other types of fencing leaves the question unresolved. Based on a general understanding of how bats interact with their surroundings using echolocation, there would appear to be a higher risk to ‘ōpe‘ape‘a if all of the segments of fencing encased in vegetation (risk category of 0) were replaced with welded wire fence which would be free of vegetation. Based on observations of ‘ōpe‘ape‘a behavior, we can conclude that they can more easily detect and avoid dense vegetation (in which an object of risk may be enclosed) than they can detect and avoid a welded wire fence that is not encased in vegetation based on the increased amount of vegetative surface area compared to the fence. Another option for the replacement of the barbed wire fence is smooth wire. However, smooth wire is not as effective as welded wire fencing at keeping cattle in, something necessary for the grazed land use at the site, and cattle grazing is a component of the mitigation plan.

Regardless of the implications of exposed fencing versus fencing encased in vegetation, replacement of the entire HMA-surrounding fence will require significant disturbance of the HMA perimeter through vegetation removal. Most of the fence at the mitigation area is currently encased in heavy vegetation and removing the fence line vegetation to replace the fence would require that all the fence line vegetation AND some of adjacent vegetation to be removed.

A final consideration is the cost to replace the entire barbed wire fence. The cost to replace all risk categories versus the risk categories plus the no risk category is an order of magnitude difference. The no risk category makes up approximately 65 percent of the total fence length. During the monitoring program Terraform assumes that some of the currently encased segments will become

exposed leading to the removal and replacement of some of the barbed wire fencing adaptively over time, thus resulting in a similar outcome to replacing the entire fence up front. However, the gradual replacement over time is a more financially practicable approach for Terraform.

Please contact me at 802.249.4889 or via email at scott.rotman@brookfieldrenewable.com should you have any questions or require additional information.

Sincerely,

Scott Rotman

Scott Rotman
Director, Environmental Affairs