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Attorneys for Keep the North Shore Country

BOARD OF LAND AND NATURAL RESOURCES
STATE OF HAWAI'I

IN THE MATTER OF

A Contested Case Hearing Re Final Habitat Conservation Plan and Incidental Take License for the Na Pua Makani Wind Energy Project by Applicant Na Pua Makani Power Partners, LLC; Tax Map Key Nos. (1) 5-6-008:006 and (1) 5-6-006:018, Koolauloa District, Island of O'ahu, Hawai'i.

Case No. BLNR-CC-17-001

KEEP THE NORTH SHORE COUNTRY'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION & ORDER; CERTIFICATE OF SERVICE

HEARING OFFICER: YVONNE Y. IZU

KEEP THE NORTH SHORE COUNTRY'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION & ORDER

PROPOSED FINDINGS OF FACT

Procedural Background

1. Na Pua Makani Power Partners, LLC (**NPM** or the applicant) seeks approval from the board of land and natural resources (**board**) for its March 2016 final habitat conservation plan (**HCP**) as well as an incidental take license. Exhibits A-1 and A-2.
2. At the November 10, 2016 board hearing on NPM's application, Keep the North Shore Country orally requested a contested case hearing. See <https://dlnr.hawaii.gov/wp-content/uploads/2016/01/161110-minutes.pdf> at 13 and 14.

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3. On November 19, 2016, Keep the North Shore Country filed its petition for a contested case hearing on this matter. Direct Testimony of Gil Riviere and the record.

4. At the board's December 9, 2016 meeting, the board voted to approve Keep the North Shore's request for a contested case hearing. Exhibit A-41 at 14-15.

5. Elizabeth Rago filed a petition for a contested case proceeding which the board consolidated with this case. Minute Order No. 3.

6. No objection was filed to Elizabeth Rago's participation in this contested case and she was admitted as party because she has shown a substantial interest in the matter and her participation would assist the board in its decision-making. Minute Order No. 4.

The Evidentiary Hearing

7. Oral testimony was taken on August 7 and 8, 2017.

8. Testimony was received from: Mike Cutbirth, Alicia Oller and Thomas Snetsinger on behalf of NPM; Gil Riviere on behalf of Keep the North Shore Country; Elizabeth Rago and Tēvita Ka'ili on behalf of Ms. Rago; and Scott Fretz, who was subpoenaed to testify by Keep the North Shore Country.

9. NPM's exhibits A-1--A-58 were received into evidence and made a part of the record. Transcript Vol I at 150.

10. Keep the North Shore Country's exhibits B-1--B-38 were received into evidence and made a part of the record. *Id.* at 174-175.

11. Elizabeth Rago's exhibits C-1-- C-4 were received into evidence and made a part of the record. *Id.*

12. During the two days of oral testimony, the only species that the opposition to NPM's application was focused upon was the 'ōpe'ape'a.

The Significance of ‘Ōpe‘ape‘a

13. The ‘ōpe‘ape‘a is an endangered species. Exhibit A-44 (Introduction).
14. The ‘ōpe‘ape‘a, otherwise known as the Hawaiian hoary bat (*Lasiurus cinereus semotus*), is designated as the official land mammal of the State. HRS § 5-12.2.
15. The ‘ōpe‘ape‘a is culturally significant. Transcript Vol I at 168-170; Exhibits C-1; C-2 and C-3; Direct Testimony of Tēvita Ka‘ili.

NPM’s Proposed Project

16. NPM proposes to construct and operate nine wind turbine generators (WTGs) with a maximum height of 200 meters (m) (656 feet) in Kahuku on the North Shore of O‘ahu. Exhibit A-1 at 1-5.
17. Prior to December 2015, earlier versions of NPM’s project called for WTGs with a maximum height of 130.5 m and 156 m. Exhibit A-1 at Appendix B at 11 and 18; Exhibit B-16 at 5.
18. Because NPM’s project will likely result in the incidental take of endangered species, NPM applied for approval of a habitat conservation plan and an incidental take license. *Id.* at 1; Exhibit A-2; Transcript Vol II at 202.

The Parties

19. NPM is a subsidiary of Champlin Oahu Wind Holdings, LLC, which is an indirect subsidiary of Champlin/GEI Wind Holdings, LLC. Exhibit A-1 at 1.
20. Michael Cutbirth is the President of Champlin/GEI Wind Holdings, LLC. Transcript Vol I at 15.
21. Keep the North Shore Country is a grassroots, volunteer-based North Shore non-profit, formed in 2006, to preserve, protect and enhance the heritage and rural character of the

North Shore of O‘ahu, Hawai‘i, in partnership with communities from Ka‘ena Point to Kahalu‘u.
Direct Testimony of Gil Riviere.

22. Keep the North Shore Country, and its president, has an interest in protecting endangered species, including the ‘ōpe‘ape‘a. *Id.*

23. Keep the North Shore Country’s interests will be adversely affected because NPM’s proposal is likely to kill ‘ōpe‘ape‘a. *Id.*; Transcript Vol II at 202.

24. Elizabeth Rago lives near NPM’s proposed facility and hears ‘ōpe‘ape‘a from her house. Transcript at 156, 161, 162-3, 168; Direct Testimony of Elizabeth Rago.

25. Ms. Rago’s interest in ‘ōpe‘ape‘a will be adversely affected because NPM’s proposal is likely to kill ‘ōpe‘ape‘a. *Id.*; Transcript Vol II at 202.

Existing Wind Energy Facilities in Hawai‘i

26. The existing **Kahuku** wind power facility commenced operations on March 23, 2011. Exhibit B-30 at 5.

27. The Kahuku wind power facility consists of twelve WTGs with a maximum height of 128 m. Exhibit B-23 at 8.

28. The Kahuku wind power facility shut down on August 1, 2012 and was not fully operational until January 30, 2014. Exhibit B-38 at 8.

29. From August 29, 2013 through January 29, 2014 the project was limited by HECO to generating a maximum of 5 MW of the possible 30 MW. Typically, during this period fewer than 12 WTGs operated in high winds, although in low winds all WTG’s may have operated. Exhibit B-38 at 8.

30. The data on bat mortality collected for the five month period from August 29, 2013 through January 29, 2014 is not representative or comparable to other data from the

Kahuku wind power facility because the facility was operating at 1/6 of its capacity and all the WTGs were not spinning as much as they normally do. *Id.*; Transcript Vol II at 195 (Dr. Fretz).

31. 34.25 months of data while the Kahuku facility was fully operational was available to NPM. Transcript Vol I at 86, 89, 90-91, 94-95.

32. While fully operational, four dead 'ōpe'ape'a were observed at the Kahuku facility and it is scientifically estimated that 16 were taken prior to August 2016. Exhibit B-12 at 13.

33. The **Kawailoa** wind power facility commenced operations on November 2, 2012. Exhibit B-33 at 5.

34. The Kawailoa wind power facility consists of thirty WTGs with a maximum height of 150.5 m. Exhibit B-35 at 13.

35. 33 months of data while the Kawailoa facility was fully operational was available to NPM. Transcript Vol I at 95; Exhibit A-1 at 19; Exhibit B-33 at 5.

36. While fully operational, 29 dead 'ōpe'ape'a were observed at the Kawailoa facility and it is scientifically estimated that 54 were taken prior to August 2016. Exhibit B-12 at 16.

37. Many more 'ōpe'ape'a have been killed at Kawailoa than at Kahuku. Exhibit A-1 at 19; Exhibit B-12 at 13 and 16.

38. WTGs have killed more bats at Kawailoa than predicted. Transcript Vol. I at 84.

39. The **Auwahi** wind energy facility commenced operations at the end of 2012. Transcript Vol I at 40.

40. NPM's consultant conservatively estimated that fewer than one bat would be killed annually at the Auwahi wind energy facility. Exhibit B-5 at 3-78; Transcript Vol I at 36-

38.

41. In the three and half years since operations commenced, seven dead ‘ōpe‘ape‘a were observed at the Auwahi facility and it is scientifically estimated that 23 have been taken. Exhibit B-12 at 19.

42. NPM’s consultant underestimated bat fatalities by more than five times for the Auwahi facility. Exhibit B-5 at 3-78 and Exhibit B-12 at 19; Transcript Vol. I at 40-41.

43. Every HCP approved in this state has underestimated the number of ‘ōpe‘ape‘a that would be killed by WTGs. Exhibit A-1 at 56; Exhibit B-12 at 4-20; B-30 at 10; Transcript Vol I at 84.

44. Between 2006 and 2016, wind turbines with HCPs are estimated to have killed 146 bats. Exhibit B-12 at 5, 9, 13, 16 and 19 (adding total estimated take in tables 3, 7, 10, 14 and 18).

45. There is no evidence that the mitigation measures employed in the HCPs for any of the existing WTG facilities has increased the bat population. Transcript Vol I at 124; Vol II at 208 and 210.

NPM’s Estimate of Bat Fatalities

46. NPM estimates that over 21 years, its WTGs will take 51 bats. Exhibit A-1 at 44.

47. The endangered species recovery committee relied on NPM’s take estimates. Transcript Vol. II at 186.

48. NPM’s estimates are based on data from the existing WTGs at Kahuku. A-1 at 41; Direct Testimony of Thomas Snetsinger ¶¶ 12-14; Transcript Vol. II at 194.

49. NPM’s bat fatality estimate is based on an incorrect assumption that Kahuku’s facility operated for approximately 1.17 years without wind speed curtailment and 2.17 years

with curtailment. Exhibit A-1 at 41.

50. The Kahuku facility operated without curtailment for approximately 1.08 years. Exhibit B-30 at 5 and 15.

51. The Kahuku facility fully operated with curtailment for 21 months -- approximately 5 months less than NPM assumed. Exhibit B-38 at 8; Exhibit B-30 at 15.

52. By over-estimating the amount of time that the Kahuku WTGs were fully operational, NPM has underestimated the rate at which bats are killed. Transcript Vol II at 195; Transcript Vol I at 96.

53. NPM gave three reasons for not using bat mortality data from Kawailoa to make its estimates. *Id.*

54. One reason given for not using data from Kawailoa was that Kahuku has a longer operational history. Exhibit A-1 at 41; Direct Testimony of Thomas Snetsinger at ¶ 13; Transcript Vol I at 85.

55. Data from Kahuku while fully operational was available for 34.25 months, while data from Kawailoa while fully operational was available for 33 months. FOFs 31 and 35.

56. The difference in operational time between Kahuku and Kawailoa is insignificant and not a reason to ignore data from Kawailoa. Transcript Vol. II at 197.

57. Another reason NPM gave for not using data from Kawailoa was that there are more WTGs at Kawailoa. Exhibit A-1 at 41; Direct Testimony of Thomas Snetsinger at ¶ 14.

58. In its calculation of bat mortality, NPM assumes that the number of bat deaths is directly proportional to the number of WTGs (i.e. a linear relationship). Transcript Vol I at 97; Exhibit A-1 at 42.

59. NPM divides bat mortality per WTG at Kahuku to calculate the fatality rate and

then multiplies the fatality rate by NPM's number of WTGs. *Id.*

60. Because the fatality calculation is based on an average per turbine and then multiplied by the number of turbines proposed by NPM, it is irrelevant that there are more WTGs at Kawailoa. *Id.*

61. The fact there are more WTGs at Kawailoa is not a reason to ignore data from Kawailoa. Transcript Vol. II at 197.

62. The third reason that NPM gave for ignoring data from Kawailoa was that the landscape features and vegetation at Kahuku were similar to those of NPM's project. Exhibit A-1 at 41 and Direct Testimony of Thomas Snetsinger at ¶ 12.

63. Yet, 'ōpe'ape'a are found in all habitat types. Exhibit A-11 at 38; Exhibit B-19 at 64 and 69; Exhibit A-44 at section VIc1; Transcript Vol II at 197.

64. The preponderance of the evidence demonstrates that when WTGs are taller and/or rotor swept area increases, the number of bats killed increases. Exhibit B-1 at 24; Exhibit A-9 at 69; Exhibit B-7 at 381, 384-85; Exhibit A-50 at 5; Exhibit A-44 at section IIIa; Ex. B-15 at 69.

65. NPM admitted that taller WTGs would have greater impacts than smaller ones. Exhibit B-16 at 41; Exhibit A-1 at 41; Transcript Vol I at 46-47.

66. Increased WTG height and/or rotor swept area will likely result in increased take of 'ōpe'ape'a. *Id.*; Exhibit B-1 at 24; Exhibit A-9 at 69; Exhibit B-7 at 381, 384-85; Exhibit A-50 at 5; Exhibit A-44 at section IIIa; Ex. B-15 at 69.

67. NPM's refusal to use data from Kawailoa is unjustified -- particularly since those turbines are taller (150.5 m) than the ones that spin at Kahuku (128 m) and closer in height to the ones proposed by NPM (200 m). Exhibit B-35 at 13; Exhibit B-23 at 8; Exhibit A-1 at 5.

68. NPM failed to discuss the impact of increasing the size of the turbines or the rotor swept area between the draft habitat conservation plan and the final. Transcript Vol I at 47, 104, 108 and 111.

69. The HCP's estimate of bat mortality contains methodological errors and omissions, and was not based upon the best available scientific and other reliable data.

70. NPM's bat fatality estimate (including its methodology and rationale) was not persuasive given that:

(a) Neither Mike Cutbirth nor Alicia Oller are experts on 'ōpe'ape'a, Transcript Vol. I at 16 and 35;

(b) Neither Alicia Oller nor Thomas Snetsinger have a Ph.D., Transcript Vol I at 35 and 78;

(c) Thomas Snetsinger's bachelor and master's degrees are in engineering rather than biology, Transcript Vol. I at 78 and 122;

(d) Alicia Oller's significantly underestimated bat fatalities at Auwahi, Exhibit B-5 at 3-78 and Exhibit B-12 at 19; Transcript Vol. I at 40-41;

(e) NPM's witnesses demonstrated a lack of candor in cross examination; and

(f) Dr. Fretz testified that data from Kawaihoa would have been useful in making fatality estimates. Transcript Vol II at 199.

71. NPM's HCP fails to include sufficient accurate information for the board to ascertain with reasonable certainty the likely effect of the plan upon the 'ōpe'ape'a population (including its estimate of bat fatalities). FOFs 48-70.

NPM's Mitigation

72. There is no credible evidence in the record that the HCP will increase the

likelihood that 'ōpe'ape'a will recover. Exhibit A-34 at 23-25.

73. There is no credible evidence in the record that the HCP is likely increase the population of 'ōpe'ape'a.

74. There is no credible evidence in the record that the 'ōpe'ape'a population would be better off with this plan than without it.

75. There is no credible evidence in the record that the HCP will replace the 51 bats that NPM estimates that its WTGs are likely to take.

76. Any results from the research component of the mitigation are speculative and cannot be relied upon to increase the survivability of the 'ōpe'ape'a. Transcript Vol I at 113, 114 and Vol II at 202-3.

77. The fence maintenance component of the mitigation will not increase the bat population. Transcript Vol II at 204.

78. There is no evidence that management of native forest through the removal of alien species -- as laudable as that activity is -- increases the bat population. Exhibit B-20 at 14; Exhibit A-44 at section VIc1; Exhibit A-35 at 8; Exhibit A-34 at 34; Transcript Vol II at 203, 204-5; Transcript Vol I at 116, 117-119, 121.

NPM's Cumulative Impact Analysis

79. There is no evidence that the O'ahu 'ōpe'ape'a population is stable or increasing. Transcript Vol I at 132, 134.

80. The most recent study in this same area concluded that its findings do not demonstrate high bat abundance in the region. Exhibit A-11 at 38.

81. Between 2006 and 2016, wind turbines with HCPs are estimated to have killed 146 bats. Exhibit B-12 at 5, 9, 13, 16 and 19 (adding total estimated take in tables 3, 7, 10, 14

and 18).

82. There is no evidence that the mitigation measures employed in the HCPs for any of the existing WTG facilities has increased the bat population. Transcript Vol I at 124; Vol II at 208 and 210.

83. NPM did not provide any evidence that the existing O‘ahu ‘ōpe‘ape‘a population can tolerate any more “take.”

84. The HCP fails to thoroughly and properly assess the cumulative impact of NPM’s HCP on the ‘ōpe‘ape‘a population. FOFs 79-83.

NPM’s Curtailment

85. The HCP calls for the WTGs to stop spinning and feather at wind speeds less than 5 meters per second (**m/s**) (curtailment). Exhibit A-1 at 39.

86. The HCP does not include specific triggers for increasing curtailment. Exhibit A-1 at 39 and 87; Transcript Vol II at 201-202.

87. Data from mainland wind facilities demonstrates that bat casualty rates are reduced significantly when curtailment begins at 6.5 m/s instead of 5 m/s. Exhibit B-15 at 70; Exhibit A-44 at Figure 2.

88. It is practicable for NPM to curtail its operations at wind speeds of 6.5 m/s. Transcript Vol I at 23-24 and 139.

89. Curtailment at 6.5 m/s would likely reduce the take of ‘ōpe‘ape‘a more than curtailment at 5 m/s . Exhibit B-15 at 70; Exhibit A-44 at Figure 2.

90. Curtailment at 6.5 m/s minimizes the impacts of the take of ‘ōpe‘ape‘a to the maximum extent possible. FOFs 87-89.

91. Neither NPM nor the endangered species recovery committee considered the

possibility of curtailing at 6.5 m/s. Transcript Vol I at 143 and Vol II at 199-200.

92. NPM has failed to demonstrate that, to the maximum extent possible, it is proposing to minimize the impacts of the take to ‘ōpe‘ape‘a.

NPM’s Measurable goals and time frames

93. The HCP calls for the subsequent preparation of a Poamoho Ridge restoration management plan, which would include goals and timelines associated with the reduction of invasive species. Exhibit A-1 at 65-66.

94. The HCP itself does not contain any “measurable goals,” the achievement of which will contribute significantly to the protection, maintenance, restoration, or enhancement of the ecosystems, natural communities, or habitat types; or time frames within which the goals are to be achieved; or provisions for evaluating progress in achieving the goals quantitatively and qualitatively. Exhibit A-1; Exhibit A-35 at 8.

PROPOSED CONCLUSIONS OF LAW

1. Keep the North Shore Country and Elizabeth Rago have standing in this contested case hearing. HAR §13-1-31. *Kilakila ‘O Haleakalā v. Bd of Land & Natural Res.*, 131 Hawai‘i 193, 204-5, 317 P.3d 27, 38-39 (2013); *Ka Pa‘akai O Ka ‘Aina v. Land Use Comm’n*, 94 Hawai‘i 31, 43-4, 7 P.3d 1068, 1080-1 (2000); *Citizens for the Prot. of the N. Kohala Coastline v. Cnty. of Haw.*, 91 Hawai‘i 94, 101, 979 P.2d 1120, 1127 (1999); *Life of the Land, Inc. v. Land Use Commission*, 61 Haw. 3, 8, 594 P.2d 1079, 1082 (1979).

2. NPM, the applicant, has the burden of proof. HAR § 13-1-35(k); Unchallenged Minute Orders 6 and 7.

3. HRS § 195D-4(g)(1) requires that the “applicant, **to the maximum extent practicable, shall minimize** and mitigate the impacts of the take.”

4. HRS §195D-4(g)(4) requires that the “plan shall increase the likelihood that the species will survive and recover.”

5. HRS § 195D-21(b)(1)(B) requires that the “plan will increase the likelihood of recovery of the endangered or threatened species that are the focus of the plan.”

6. HRS § 195D-30 requires that all habitat conservation plans “be designed to result in an overall net gain in the recovery of Hawaii's threatened and endangered species.”

7. HRS § 195D-4(g)(5) requires that the “plan takes into consideration the full range of the species on the island so that cumulative impacts associated with the take can be adequately assessed.”

8. HRS § 195D-21(b)(1) requires that the plan "be based on the best available scientific and other reliable data available."

9. The applicant has failed to meet its burden by failing to provide any credible evidence that:

a. it will minimize the impacts of the take of ‘ōpe‘ape‘a to the maximum extent possible as required by HRS § 195D-4(g)(1);

b. the ‘ōpe‘ape‘a population would be better off with this plan than without it as required by HRS §§ 195D-4(g)(4), 195D-21(b)(1)(B) and 195D-30;

c. the plan is likely to increase the ‘ōpe‘ape‘a population as required by HRS §§ 195D-4(g)(4) and 195D-21(b)(1)(B); and

d. the plan has adequately assessed the cumulative impact on the ‘ōpe‘ape‘a as required by HRS § 195D-4(g)(5).

10. HRS §195D-21(c) states in part: “The habitat conservation plan shall contain sufficient information for the board to ascertain with reasonable certainty the likely effect of the

plan upon any endangered, threatened, proposed, or candidate species in the plan area and throughout its habitat range.”

11. Because NPM's HCP fails to include sufficient accurate information for the board to ascertain with reasonable certainty the likely effect of the plan upon the ‘ōpe‘ape‘a population (including its estimate of bat fatalities), it fails to comply with HRS § 195D-21(c).

12. HRS § 195D-21(b)(2)(G) requires that the habitat conservation plan “[c]ontain objective, **measurable goals**, the achievement of which will contribute significantly to the protection, maintenance, restoration, or enhancement of the ecosystems, natural communities, or habitat types; time frames within which the goals are to be achieved; provisions for monitoring (such as field sampling techniques), including periodic monitoring by representatives of the department or the endangered species recovery committee, or both; and provisions for evaluating progress in achieving the goals quantitatively and qualitatively.”

13. By failing to include measurable goals within the HCP, and in fact, proposing that they be developed at a later time, the HCP fails to comply with HRS § 195D-21(b)(2)(G). *Cf. Kaleikini v. Yoshioka*, 124 Hawai‘i 53, 76, 283 P.3d 60, 83 (2012) (“In short, the PA commits to undergoing the historic preservation review process at a later time. The City appears to acknowledge this in its opening brief, where the City states that, ‘[i]n accordance with the terms of the PA and [c]hapter 6E, SHPD will continue to be consulted, have the opportunity to comment, and retain the right and authority to approve the remaining Phases.’ However, the City does not address the rules, which require that these steps be taken *before* the SHPD gives its concurrence in the project.”); *Mahuiki v. Planning Commission*, 65 Haw. 506, 519, 654 P.2d 874, 882 (1982) (“We have combed the record in vain for findings”).

PROPOSED DECISION & ORDER

Alternative A:

The hearing officer recommends that the board order the endangered species recovery committee to: more thoroughly and systematically deliberate with respect to the HCP's compliance with HRS §§ 195D-4(g)(1), 195D-4(g)(4), 195D-4(g)(5), 195D-21(b)(1), 195D-21(b)(2)(G) and 195D-21(c), and any other issues that it may consider to be relevant; render findings with respect to these issues; and, if necessary, ensure that the HCP is revised to address the issues discussed above (with an opportunity for public comment).

Alternative B:

The hearing officer recommends that the board order that NPM's HCP is denied.

DATED: Honolulu, Hawai'i, September 11, 2017.



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CERTIFICATE OF SERVICE

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I certify that a file stamped copy of the foregoing will be served upon the following via
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Dated: Honolulu, Hawai'i, September 11, 2017.



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