



Department of Conservation
Te Papa Atawhai

DOC-7326472

1 May 2023

Waitomo District Council
26B Queen Street
Te Kuiti
Waikato
3910

Attention: Chris Dawson
cdawson@bbo.co.nz

Dear Sir,

Submission on RM200019 Taumatotara Wind Farm Limited

I refer to the application by Taumatotara for resource consent for a change of conditions of the 2008 resource consent granted to Ventus Energy (NZ) Ltd to construct a 22 turbine wind farm with tip heights of 110 metres at Taumatotara West Road, Te Kuiti.

Please find enclosed a submission by the Director-General of Conservation Tumuaki-Ahurei in respect of the application. You will notice the submission opposes the application, but also seeks that if consent is granted then appropriate conditions are imposed to protect conservation values. The submission identifies the Director-General's concerns in more detail, and DOC staff are willing to discuss those concerns directly with Council and the applicant prior to a hearing.

Please contact Liz Williams in the first instance if you wish to discuss any of the matters raised in this submission (email: lwilliams@doc.govt.nz phone: 027 253 8586).

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Graham Kimber'.

Graham Kimber

Te Papa Atawhai - Department of Conservation

Pou Matarautaki | Operations Manager - Maniapoto - Te Kuiti, Pureora

E: gkimber@doc.govt.nz Ph: 027 615 4380

Copy: Taumatotara Wind Farm Limited C/ Shearer Consulting Ltd, PO Box 60240, Titirangi, 0644

Email: craig@craigshearer.co.nz

Form 13: Submission on application concerning resource consent

Resource Management Act 1991

To: Waitomo District Council

Name of submitter: Penny Nelson, Director-General of Conservation/Tumuaki Aruhei (the **Director-General**)

This is a submission on an application from Taumatotara Wind Farm Limited (the **Applicant**) for a resource consent.

Description of activity: An application to vary conditions 1, 2, 3 and 11 of the 2008 resource consent granted to Ventus Energy (NZ) Ltd to:

- reduce the number of turbines from 22 to 11 (Conditions 1 and 2) and
- to increase the tip height of the remaining 11 turbines from 121.5m to 172.5m, with rotor diameter increasing from 110m to 155m.

Trade competition: I am not a trade competitor for the purposes of section 308B of the Resource Management Act 1991

My submission relates to: The whole application, but in particular the parts relating to the effects on bats and ecological mitigation.

My submission is: I oppose the application.

The Director-General's interest in the Application

1. The Director-General of Conservation (the **Director-General**) has all the powers reasonably necessary to enable the Department of Conservation (**DOC**) to perform its functions.¹ The Conservation Act 1987 (the **CA**) sets out DOC's functions which include (amongst other things) management of land and natural and historic resources for conservation purposes, and advocacy for the conservation of natural resources and historic heritage.² Section 2 of the CA defines 'conservation' to mean '*the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations*'.

Reasons for the Director-General's submission

2. The Applicant has provided insufficient information and I am concerned that the proposal does not adequately identify and address:
 - a. The potential adverse effects on indigenous biodiversity, including but not limited to:
 - i. Terrestrial indigenous biodiversity,
 - b. How the proposal will avoid, remedy, or mitigate potential adverse effects.
3. Section 7(d) of the Act requires that all persons exercising functions and powers under it shall have particular regard to the intrinsic value of ecosystems. The failure of the Application to assess potential effects on terrestrial indigenous biodiversity means that the applicant is not giving effect to Section 7.

Effects on Bats

4. The application acknowledges that there are Long-tailed bats (*Chalinolobus tuberculatus*) present at the site. Long-tailed bats are classed as "nationally critical" which is the highest threat category before extinction. Since the granting of the original consent, there has been widespread international research that verifies the significant effect of wind farms on bats, particularly bat fatalities. Direct causes of fatalities include collisions with the towers and blades, and barotrauma caused by rapid decompression areas behind the moving blades resulting in internal haemorrhaging of the lungs. Long-tailed bats are vulnerable to death or injury from wind turbines because they feed and commute in open and forest edge habitats similar to those habitats proposed for wind farms (O'Donnell 2000, O'Donnell et al. 2006, Davidson-Watts 2019, Borkin & Parsons 2011, Bennett 2019, Boffa Miskell 2019).

¹ Refer section 53 Conservation Act 1987

² Conservation Act 1987, section 6.

5. It is considered that although the information provided with the application states that the proposed variation will have negligible effects on bats, there remains risk and uncertainty around the effects of the proposal on bats.
6. It is noted that decreasing the number of turbines will reduce the number of structures available for bats to investigate. Research has found that bats investigate turbine structures which may be due to the associated insects, or the structures being seen as a potential roost sites (Horn et al 2008, Guest et al 2022). Increasing the height of the rotor diameter and the turbine blade tip will increase the surface area that is potentially available to bats and may result in greater harm to bats. Some of the turbines may be more attractive to bats than others so predicting the effects is complicated. It is also noted that there was no assessment at the time of the original consent of the effects on bats therefore it is not possible to compare an unknown effect with the new configuration of turbines.
7. The application notes that the field-based investigations support a conclusion that the proposal to vary the existing consent to allow for fewer larger turbines is not expected to significantly change impacts on native bats and avifauna (Chapman, April 2021). The applicant has offered a package of ecological mitigation, monitoring and management that is proposed to be implemented if the application to vary the existing is granted. This includes:
 - a. Undertaking further field assessment of bat presence during construction of the turbines. If detected, it is proposed to place bat deterrents at 17m height on Turbines 1, 4, 7 and 11.
 - b. The developer has proposed to offer financial support for a wider investigation of bat populations in the area. Although it is acknowledged that this would not directly relate to the effects of the proposed wind farm on bats, it is considered that the findings of the research could be used by landowners to improve habitat for bats.
 - c. The operator has also proposed to undertake intensive pest control over a minimum of 20ha of the two larger forest areas in the surrounding landscape to create biodiversity gains.
8. Overall, the applicant considers that any adverse effects will be negligible and that due to the reduction in the number of turbines from 22 to 11 as well as the increase in ground clearance from 10 to 17.5 metres, the ecological effects of the proposed variation will be positive.
9. However, the Director-General considers that the proposed mitigation measures are insufficient and do not adequately remedy or mitigate for the potential mortality of critically endangered bats from wind turbines. The loss of any bats would affect the local population. Given the considerable research undertaken since the granting of the original consent, there

would need to be stringent conditions and monitoring associated with this proposal to reflect the increase in knowledge of the effect of wind turbines on bats.

10. The suggested mitigation of pest control has the potential to compensate for some of the project impacts on bats but only if it covers a large enough area and reduces predators to low levels in perpetuity. There is also limited benefit from pest control in addressing the mortality of bats from wind turbines. It is therefore unclear whether, or to what extent, this proposal would actually compensate for effects of the wind farm.
11. In terms of the proposed acoustic deterrents, it is noted that these are still experimental and appear to work on some species of bat but not others (Romano et al 2019, Good et al 2020, Weaver et al 2020). Acoustic deterrents have not been tested on New Zealand bats. The Director General would not support the sole use of acoustic deterrents without associated monitoring and consideration of the immediate and long-term effects on bats.
12. Curtailment strategies for turbines at low wind speeds when bat activity is high appears to be an effective technique (Adams et al 2021). This could include halting turbine activity only when bats are present with the use of bat detectors at single/multiple turbines or when bats are predicted to be present. Any curtailment method would have to be closely monitored to review the effectiveness of the technique and adaptive management measures put in place. Carcass searching is essential to monitoring, and the use of dogs is deemed to be the most successful technique to do this (Dominguez del Valle et al 2020). This would also require long term monitoring based on international standards and best practice.

Decision sought

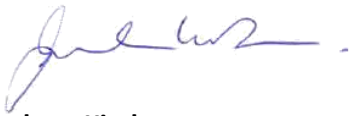
13. I seek the following decision from the Council:
 - a) That the consent authority **declines the application**, given the shortcomings identified above;
 - b) If the consent authority is minded to grant the application, that it imposes suitable conditions including:
 - i. The requirement of turbine curtailment protocols specific to Long-tailed bats present at the site;
 - ii. Require ongoing monitoring and reporting to Council and the Department of Conservation on bats at the site and to measure the success of the turbine curtailment protocols (based on international standards and best practice including carcass searching);
 - iii. Provide for adaptive management where appropriate; and

iv. That the conditions are enforceable throughout the duration of the consent.

14. I also seek such alternative and/or additional relief as may be necessary and appropriate to address my concerns.

I **do wish to be heard** in support of my submission.

If others make a similar submission, I will consider presenting a joint case with them at a hearing.



Graham Kimber

Pou Matarautaki | Operations Manager - Maniapoto - Te Kuiti, Pureora

Acting pursuant to delegated authority on behalf of Penny Nelson, Director-General of Conservation

Date: 01.05.2023

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Address for service:

Attn: Liz Williams, Planner

lwilliams@doc.govt.nz

027 253 8586

Department of Conservation

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Dunedin