

**WAITOMO DISTRICT COUNCIL REPORT ON A NON-NOTIFIED APPLICATION  
PURSUANT TO SECTION 127 OF THE RESOURCE MANAGEMENT ACT 1991 –  
WAITOMO DISTRICT COUNCIL LAND USE CONSENT RM050019A**

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<b>COUNCIL REFERENCE:</b>	RM050019A
<b>APPLICANT:</b>	Ventus Energy (NZ) Ltd
<b>PROPERTY ADDRESS:</b>	Taumatotara West Road, Te Anga
<b>LEGAL DESCRIPTION:</b>	Section 2 Block V Kawhia South Survey District (SA37A/26) Section 1 Survey Office Plan 58558 (SA47A/876) Section 12 and Section 22 Block V Kawhia South Survey District (SA31C/23) Section 1A Block V Kawhia South Survey District (SA37A/25)
<b>ZONING – WAITOMO DISTRICT PLAN:</b>	Rural
<b>PROPOSAL:</b>	An application has been made in accordance with Section 127 of the Resource Management Act 1991 to change the conditions of resource consent RM050019 to increase the maximum consented height of the 11 northernmost consented wind turbines to 121.5 metres. The current maximum consented height is 110 metres. The remaining consented turbines will remain at a maximum consented height of 110 metres.
<b>REPORT DATE:</b>	12 March 2011

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## **1.0 BACKGROUND**

- 1.1 Waitomo District Council granted land use consent RM050019 to Ventus Energy (NZ) Ltd on 13<sup>th</sup> June 2006. The resource consent approval was for 22 wind turbines with a maximum height of 110 metres from the ground to the top of the vertically extended blade tip. The resource consent decision is subject to 53 conditions of consent, including an extended lapse period of eight years. Construction on the wind farm has not yet commenced.

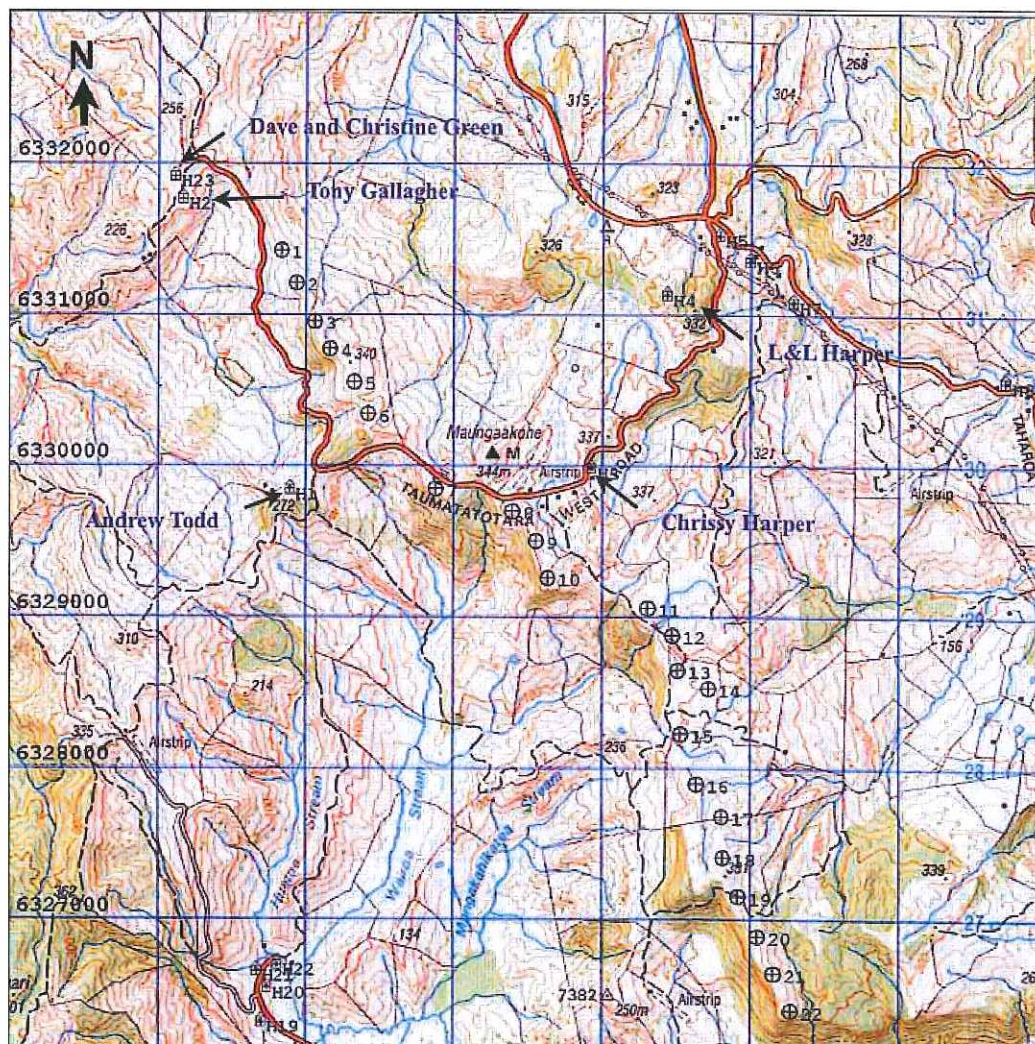
## **2.0 THE SITE**

- 2.1 The site of the proposed wind farm is located on an unnamed ridgeline, situated approximately 6.5 kilometres south of Taharoa (from Turbine 1) and 2.5 – 3 kilometres to west of Te Anga.



- 2.2 The existing land use of the site is predominantly pastoral grazing (sheep and cattle) with scattered pockets of plantation radiata pines. Small fragments of native bush also exist in the surrounding area. The topography of the site ranges from moderate to very steep hill country. Surrounding land uses are predominantly rural.
- 2.3 Taumatotara West Road traverses through the centre of the site in an east-west direction, and effectively 'divides' the wind farm site into two parts, with turbines 1-6 located on the northern side of Taumatotara West Road, and turbines 7-22 located to the south.
- 2.4 The southern part of the ridgeline, in particular, is visually prominent with respect to a large but sparsely populated area of the nearby Marokopa Valley.
- 2.5 The application which has been made by Ventus Energy (NZ) Ltd relates specifically to the northern 11 consented wind turbines. Turbines 7 to 11 will be located just to the south of Taumatotara West Road while turbines 1 to 6 will all be located to the north and east of the road.
- 2.6 The nearest dwellings to turbines 1 to 11 are shown on the site layout plan provided by the Applicant as an appendix to the further information response dated February 2012. A scanned copy of the site layout plan is included as **Diagram 1** below.

**Diagram 1: Site Layout Plan with Turbine and Dwelling Locations**





- 2.7 All of the dwellings that are labelled with occupant names on the map (**Diagram 1**) are located on land that forms part of the wind farm site itself (Harper's and Gallagher's). Written approval to this application has been provided from the owners and occupiers of all five of these dwellings (see section 8 of this report).
- 2.8 The site is zoned Rural in the Proposed Waitomo District Plan, as are all of the adjoining properties. There are no designations, sites of significance or other special features affecting the site that are identified on the District Plan maps. However, the planning maps do denote three areas zoned 'Conservation' located in close proximity to the wind farm site (the Maungaakohe Scenic Reserve administered by DOC to the south-west, and two open space covenant areas to the north-east).
- 2.9 There are a number of agricultural airstrips in the surrounding area. The Applicant has consulted with the Civil Aviation Authority (CAA) in relation to the proposal, and their written comments are included in the appendices of the application.

### **3.0 THE PROPOSAL**

- 3.1 The proposal involves changes and deletions to conditions of resource consent RM050019 which authorised the construction and operation of a 22 turbine wind farm on the site.
- 3.2 The changes which are being sought are associated with a proposal to increase the maximum consented height of the 11 northernmost wind turbines from 110 metres to 121.5 metres. The existing height limit of 110 metres will be retained in respect of the 11 southernmost consented wind turbines.
- 3.3 The application explains that the increase in height is necessary because wind turbine design has evolved since the application was initially made. Turbines now typically have larger rotors and taller towers. Furthermore the wind monitoring data collected at the site has been independently analysed meaning the wind regime is now better understood. Taller towers will have the advantage of allowing for a reduction in the turbulent effect of wind closer to the ground. The Applicant considers that larger turbines (in respect of turbines 1-11) will therefore give better economic returns for the project.
- 3.4 The 121.5 metre proposed turbine height is based on a nominal turbine design with a 76 metre hub height and a 90 metre rotor diameter. A turbine with these dimensions would have a clearance between the blade tip and the ground of 31 metres.
- 3.5 The application seeks amendments to conditions 1, 3 and 11.

### **4.0 SECTION 127 RESOURCE MANAGEMENT ACT 1991**

- 4.1 Section 127 of the RMA states:

*"(1) The holder of a resource consent may apply to a consent authority for a change or cancellation of a condition of the consent, subject to the following:*

*(a) the holder of a subdivision consent must apply under this section for a change or cancellation of the consent before the deposit of the survey plan (and must apply under section 221 for a variation or cancellation of a consent notice after the deposit of the survey plan); and*

- (b) *no holder of any consent may apply for a change or cancellation of a condition on the duration of the consent.*
  - (2) *Repealed.*
  - (3) *Sections 88 to 121 apply, with all necessary modifications, as if –*
    - (a) *the application were an application for a resource consent for a discretionary activity; and*
    - (b) *the references to a resource consent and to the activity were references only to the change or cancellation of a condition and the effects of the change or cancellation respectively.*
  - (4) *For the purposes of determining who is adversely affected by the change or cancellation, the consent authority must consider, in particular, every person who –*
    - (a) *made a submission on the original application; and*
    - (b) *may be affected by the change or cancellation.”*
- 4.2 The application is able to be processed under section 127 of the RMA as it seeks a variation to the consented activity, and the resulting effects will not be materially different. The overall nature of the activity will remain the same and the only change that will result relates to the height of turbines 1 to 11.
- 4.3 The effects of the proposed changes and cancellations are considered in section 6 of this report. Consideration has been given to all persons who made submissions to the original application as part of the notification assessment in section 8.

## **5.0 PEER REVIEW**

### Visual and Landscape Effects

- 5.1 A specialist review of the visual and landscape effects of the proposed change has been undertaken by Mansergh Graham on behalf of the Waitomo District Council. The review was commissioned by the Council and with the agreement of the Applicant following a request made pursuant to Section 92(2) of the Resource Management Act 1991.
- 5.2 The Mansergh Graham assessment reports on the assessment of visual and landscape effects provided by the Applicant which was prepared by Opus International Consultants Ltd ('Opus'). The findings of the Mansergh Graham report are relied on for the purposes of this assessment. The main points and conclusions of the Mansergh Graham report are summarised below:
- The Opus report generally follows an acceptable methodological approach to the assessment of landscape and visual effects;
  - The effects of the turbine height increase on landscape and visual amenity values will be less than minor, as stated within the report prepared by Opus. This is principally due to the context of the consented wind farm, the relatively small proposed increase in the turbine size and the distance between potentially affected parties and the wind farm;
  - All properties around the application site have provided written approval and therefore shadow flicker is not expected to be an issue. Any shadow flicker effects beyond a theoretical 1.2km flicker effect limit are expected to be less than minor and will only occur for a relatively short period of time during the day when the top 11m of the turbine (the extension) is between the viewer and the sun.



## 6.0 ASSESSMENT UNDER SECTION 104 OF THE RMA

6.1 The variation is to be considered as a discretionary activity under Section 104 of the RMA (in accordance with Section 127(3)(a) of the Act). Section 104 sets out those matters that Council must consider when assessing an application for resource consent. The matters that are relevant to the consideration of this application (subject also to Part II, Purpose and Principles) are:

- “a) Any actual and potential effects on the environment of allowing the activity; and...*
- b) Any relevant provisions of –  
(vi) A plan or proposed plan; and*
- c) Any other matters the consent authority considers relevant and reasonably necessary to determine the application.”*

Each of the relevant matters is considered in the following sections of this report.

### 6.2 Section 104(1)(a) – Assessment of Actual and Potential Effects on the Environment of Allowing the Activity

6.3 The effects on the environment related to the proposed changes include visual and landscape effects, shadow flicker effects, ornithological effects and aviation effects resulting from the increased height of the turbines. Other effects, including noise, traffic and roading, geotechnical (earthworks) and cultural effects either will not change as a result of the proposal or will continue to be mitigated by existing conditions of consent.

#### Visual and Landscape Effects

6.4 The visual and landscape assessment undertaken by Opus on behalf of the Applicant has assessed the potential visual and landscape effects as a result of the proposal to increase the height of the 11 northernmost turbines. That report has been reviewed by Dave Mansergh of Mansergh Graham (Appendix A) on behalf of Waitomo District Council.

6.5 The Mansergh Graham review assessment has considered the assessment methodology and findings of the specialist visual and landscape assessment prepared by Opus which was submitted by the Applicant with the further information response dated February 2012. It concludes that the Opus report generally follows an acceptable methodological approach to the assessment of landscape and visual effects.

6.6 The Opus report concludes that the change in height of the turbines will be difficult to discern at dwellings to the south of the site based on the viewing distance, including at the nearest residences where approvals have not been provided on Coutts Road. On that basis the report concludes that there will be no discernible change to the effects on landscape character and visual amenity relative to the consented turbine height. The assessment also identifies that the increased height will potentially result in four properties along Coutts Road seeing part of one additional turbine relative to the consented turbine height. That assessment is supported by the wire frame images that are included within Appendix 3 of the Opus assessment. As the properties will only have a partial view of the additional turbine, the assessment concludes that the associated effects will be less than minor.

6.7 The Mansergh Graham report concludes that the effects of the turbine height increase on landscape and visual amenity values will be less than minor, as stated within the report

prepared by Opus. This is principally due to the context of the consented wind farm, the relatively small proposed increase in the turbine size and the distance between potentially affected parties and the wind farm.

- 6.8 The findings of the Mansergh Graham report are relied on for the purposes of this assessment. On the basis of the Mansergh Graham assessment, the visual and landscape related effects will be less than minor.

#### Shadow Flicker Effects

- 6.9 The Mansergh Graham review assessment also considers the effects of the proposed increase in turbine height in relation to the potential for shadow flicker to cause a nuisance.
- 6.10 Written approval to the application has been provided from the owners and occupiers of the dwellings nearest to turbines 1 to 11 (refer to section 8 of this report). Therefore effects on those dwellings must be disregarded in terms of this application. The nearest dwelling where written approvals have not been provided is approximately 3.2km from the nearest wind turbine.
- 6.11 The Mansergh Graham review report (Appendix A) confirms that any shadow flicker effects beyond a theoretical 1.2km flicker effect limit are expected to be less than minor and will only occur for a relatively short period of time during the day when the top 11m of the turbine (the extension) is between the viewer and the sun. The associated effects in terms of the proposed increase in turbine height are therefore considered to be less than minor.

#### Ornithological Effects

- 6.12 The Applicant has also provided a specialist assessment with the application from Kessels and Associates Ltd in terms of potential ornithological effects relating to the change. That assessment concludes that the proposed increase in turbine height will have “*no discernible increase on mortality risk associated with strike for birds and bats, nor will it increase habitat displacement*”. On the basis of this assessment, the ornithological effects of the change in turbine height will be negligible and less than minor.
- 6.13 The resource consent conditions include requirements for monitoring and reporting of ornithological effects as well as specific design requirements (conditions 37 to 44). Those conditions will remain and will not be amended.

#### Aviation Effects

- 6.14 The Applicant has provided a letter from the Civil Aviation Authority (CAA) which confirms their requirements in relation to the wind farm. The letter advises that the change in the height of the turbines will not impact on the CAA’s original determination. However, the letter also advises that the CAA policy has been updated since the time that the initial determination was made by the CAA.
- 6.15 The resource consent already includes conditions (33 to 35) which relate to requirements for obstacle lights. It is suggested that condition 33 should also be amended to include reference to the CAA letter included with the application (dated 23 August 2011). A recommendation to that effect is included in section 11 of this report.



### Noise Effects

- 6.16 The application identifies that the change in the height of turbines 1 to 11 will not have any additional noise effects relative to the consented turbine height.
- 6.17 Conditions 7 to 17 deal with noise from the wind farm. Those conditions will continue to apply. Amongst other things, the conditions require that compliance must be achieved with the standard *NZS6808:1998 Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators*. The onus of demonstrating compliance with that standard will be on the Consent Holder. In that regard, condition 9 requires that the Applicant must engage a person suitably qualified and experienced in acoustics to undertake background noise monitoring and condition 10 requires a person with the same qualifications and experience to prepare a noise report to demonstrate that the proposed turbines will achieve compliance with NZS6808:1998.
- 6.18 Condition 11 specifies that the wind turbines must not exceed a height of 110 metres or a sound power level of 107.2 dBA unless it can be demonstrated by a person specialising in acoustics and accepted by Waitomo District Council that higher turbine heights or sound power will still comply with NZS6808:1998. The Applicant has sought to change this condition. However, no expert assessment has been provided to support the increased turbine height.
- 6.19 It is considered that the condition as worded provides an opportunity for Council to approve higher wind turbine heights than 110 metres if it can be satisfactorily demonstrated that they will achieve compliance with NZS6808:1998. While the Applicant has applied to amend condition 11 so that it refers to 121.5 metres instead of 110 metres, that amendment is not considered to be necessary. Furthermore it would be inappropriate to make that change in the absence of expert assessment.
- 6.20 Accordingly a new advice note is recommended to clarify that an increase in the height of turbines 1 to 11 will be acceptable subject to the necessary acoustic reporting that is required by the current wording of condition 11. An advice note to that effect is included in the recommendation in section 9 of this report.
- 6.21 The existing noise conditions will control noise effects so that noise from the wind turbines must meet the appropriate noise standards. As those standards are not proposed to be changed, the effects of the increase in the height of turbines 1 to 11 will still need to be managed so that the effects will be no different to those anticipated and approved under the existing resource consent conditions.

### Traffic/Roading Effects

- 6.22 The application identifies that the proposal to construct taller turbines is based on an increase in the tower height. The tower height is not the critical component for transportation as the tower sections are shorter than the blades. The tower components also have a lesser weight than the nacelles. Therefore it is the blades and the nacelles that control the road upgrade and maintenance requirements.
- 6.23 Conditions 18 to 28 deal with traffic and roading effects. The conditions include a requirement for a traffic management plan during the transportation of the wind turbine components, as well as requirements for monitoring, upgrading and maintenance of public roads used to transport the wind farm infrastructure to the site. The Applicant does not seek

to amend any of those conditions and they will therefore continue to adequately control traffic and roading related effects.

- 6.24 The effects of the change in the height of turbines 1 to 11 will therefore be negligible in relation to traffic and roading related effects.

#### Other Effects

- 6.25 The application identifies that there will be no changes in respect to effects relating to matters including geotechnical stability, vibration, radio and television communications, hydrology, archaeological/heritage and cultural related impacts.

- 6.26 Furthermore, there are existing resource consent conditions which will continue to apply in respect of some of these matters. Those conditions are commented on as follows:

- Geotechnical stability will continue to be subject to requirements for further investigations and detailed design (condition 36). Conditions imposed on the resource consents issued by Waikato Regional Council also address land stability issues.
- Condition 47 deals with effects relating to radio and television communications. The condition requires the consent holder to rectify any issues in terms of disruption to those services if problems arise following the wind farm construction. That condition will remain in place and will continue to apply.

- 6.27 Vibration related effects were considered during the processing of the original resource consent application for the wind farm. Mr Nevil Hegley of Hegley Acoustic Consultants was engaged to review the noise and vibration aspects of the application. Mr Hegley confirmed at that time that the turbines will not generate adverse effects with regards to vibration. Therefore it follows that the increase in wind turbine height will not result in any vibration related effects.

- 6.28 Effects relating to hydrology predominantly relate to land disturbance works necessary to construct the wind farm. The resource consent issued by Waikato Regional Council deals with these matters. The proposal to increase the height of turbines 1 to 11 is not expected to create any new effects in respect of hydrology.

- 6.29 Effects relating to archaeology, heritage and cultural matters will not change. The existing environment includes 22 consented (but not yet built) wind turbines. It is not proposed to change the location of any of the wind turbines and the increase in height therefore will not result in any new effects in respect of these matters.

#### **6.30 Section 104(1)(b) – Assessment of relevant provisions of the Operative Waitomo District Plan**

- 6.31 The objectives and policies of most relevance to this application are those relating to the Rural Zone, as set out in Section 11 of the Operative Waitomo District Plan. The relevant objectives and policies have been extracted and are included below.

#### ***Objectives***

- 11.3.1 To promote the Rural Zone as a productive working environment where the use and development of its natural resources, consistent with meeting environmental safeguards, is encouraged.*



- 11.3.3 *To ensure that significant archaeological, historical and cultural features are protected from adverse effects arising from the removal of vegetation, or other development of land. See also Section 21, Heritage Resources.*
- 11.3.4 *To protect areas of significant indigenous vegetation and significant habitat of indigenous fauna.*
- 11.3.5 *To ensure that rural development and land use does not give rise to increased erosion and thus degradation of water quality.*
- 11.3.8 *To promote use of rural land in a manner which encourages maintenance and enhancement of amenity values of the rural environment, protects outstanding natural features and landscapes from inappropriate use and development, and preserves the natural character of the coastal environment, wetlands, lakes and rivers, and their margins.*
- 11.3.9 *To encourage maintenance and enhancement of rural visual character.*
- 11.3.12 *To ensure the adverse effects of rural buildings situated close to boundaries, and large non-farm buildings, are avoided, remedied or mitigated.*

***Policies***

- 11.4.1 *To ensure the Rural Zone functions as a productive working environment where the use and development of its natural resources, consistent with meeting environmental safeguards, is encouraged.*
- 11.4.4 *To avoid, remedy or mitigate any effects of the use or development of rural land that gives rise to erosion which adversely affects water quality.*
- 11.4.10 *To avoid, remedy or mitigate the adverse effects of removal of areas of significant indigenous vegetation and significant habitat of indigenous fauna.*
- 11.4.12 *To ensure that all rural activities, including extractive industries, are established and operated so as to avoid, remedy or mitigate adverse effects on amenity or on neighbours, or on significant karst features.*
- 11.4.13 *To encourage mitigation of the adverse effects of all rural activities, including afforestation and forestry clearance, on adjacent sites. Particularly that mitigation should occur in areas that are visually sensitive, including areas with significant tourist resources, areas of high landscape quality and in the coastal environment.*
- 11.4.17 *To avoid, remedy or mitigate the adverse effects of rural buildings situated close to boundaries, and large non-farm buildings, on sunlighting, privacy, landscaping and amenity.*

6.32 The wind farm was assessed in terms of these same objectives and policies during the processing of the initial resource consent application. They are generally of little relevance in terms of the effects of the change and the amended wind farm incorporating higher turbines 1 to 11 will not be contrary to them.

## 7.0 RESOURCE MANAGEMENT ACT 1991 – PART II

7.1 Applications considered under Section 104 are also subject to Part II of the Act (Purpose and Principles). Part II outlines and promotes the concept of sustainable management, lists matters of national importance as well as other matters related to achieving the purpose of the RMA, and requires the principles of the Treaty of Waitangi to be taken into account.

7.2 In particular, the following sections of Part II are applicable to this application:

### 5. *Purpose*

- (1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, “sustainable management” means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –*
  - (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
  - (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
  - (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

### 7. *Other Matters*

*“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to –*

- (b) *The efficient use and development of natural and physical resources:*
- (c) *The maintenance and enhancement of amenity values:*
- (f) *Maintenance and enhancement of the quality of the environment:*
- (g) *Any finite characteristics of natural and physical resources:*
- (i) *The effects of climate change:*
- (j) *The benefits to be derived from the use and development of renewable energy”.*

### 8. *Treaty of Waitangi*

*“In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi.”*

7.3 In respect to Section 5(a), the wind farm proposal is an important means of harnessing a natural resource to provide for the energy needs of New Zealand. Wind energy is a renewable resource and therefore the proposal will provide for the ability of future generations to meet their needs. One of the needs of future generations will be electricity and energy, and the use of wind to meet that need is sustainable. The proposal is therefore consistent with Section 5(a).



- 7.4 Section 5(b) requires that the life supporting capacity of air, water, soil and ecosystems be safeguarded. The proposal will have minimal effect on the life supporting capacity of the air and soil, and is not expected to have any significant effect on the water resource. Conditions require that issues relating to land stability are addressed as part of detailed design. The proposal is not expected to have any effect on the life supporting capacity of ecosystems. The proposal is therefore consistent with section 5(b).
- 7.5 Section 5(c) requires any adverse environmental effects to be avoided, remedied or mitigated. The environmental effects associated with the wind farm will continue to be mitigated by the existing (and amended) conditions of consent. The proposal is therefore consistent with section 5(c) of the Act.
- 7.6 Section 7(b) requires regard to be had to the efficient use and development of natural and physical resources. The Applicant has identified that the proposed increase in the height of turbines 1 to 11 will enable the wind farm to more efficiently harness the wind resource at the site. The proposal is therefore considered to represent an efficient use and development of the land and wind resource. The use of wind (a renewable resource) to generate electricity is considered an efficient use and development of natural resources.
- 7.7 Section 7(c) relates to amenity values. The predominant amenity related effect will be in terms of visual amenity. Those matters have been given consideration in the Opus landscape and visual effect assessment provided by the Applicant and in the review undertaken by Mansergh Graham. The Mansergh Graham review (see Appendix A) concludes that the *“effects of the turbine height increase on landscape and visual amenity values will be less than minor”*. Accordingly in my opinion the amenity value of the area will be generally maintained by the proposal and the application is therefore consistent with Section 7(c) of the Act.
- 7.8 With regard to Section 7(f), the maintenance and enhancement of the quality of the environment has been considered. The section 2 definition of ‘Environment’ includes ‘ecosystems and their constituent parts, including people and communities’, ‘all natural and physical resources’, ‘amenity values’ and ‘social, economic, aesthetic and cultural conditions’. As previously stated, the proposal will generally maintain amenity values. Conditions of consent will continue to address effects on ecosystems and on people and the local community. The proposal is therefore consistent with section 7(f).
- 7.9 Subsections 7(i) and 7(j) are particularly relevant to this proposal. These two subsections were added by the *Resource Management (Energy and Climate Change) Amendment Act 2004* and reflect the Government’s commitment to its obligations under the Kyoto Protocol to reduce greenhouse gases and promote the generation of energy from renewable sources. The proposal will support the feasibility of the construction of the consented wind farm, which in turn will yield national benefits in terms of the use of a renewable energy source (as opposed to the burning of fossil fuels), contribution to security of energy supply, providing energy to meet the needs of communities and potential economic growth that could derive from the energy generated. The proposal is therefore consistent with sections 7(i) and (j).
- 7.10 Section 8 of the Resource Management Act requires that in considering the application the Council take into account the principles of the Treaty of Waitangi. Local groups representing tangata whenua interests were involved during the processing of the original application. The change will not significantly alter the environmental effects relative to the original application, nor will it result in any increase in terms of cultural effects or impacts

on any sites of significance. The wind turbine locations will not change, only the maximum consented height of turbines 1 to 11. The proposed change and the process that has been followed in relation to the wind farm proposal is considered to be consistent with section 8 of the Act.

## 8.0 NOTIFICATION

8.1 The provisions of the Resource Management Act 1991 (“RMA”) relevant to an assessment of notification are sections 95A to 95F, with the consideration of effects limited to effects resulting from the changes proposed only.

8.2 Section 95A states as follows:

*“ Section 95A Public notification of consent application at consent authority's discretion*

- (1) A consent authority may, in its discretion, decide whether to publicly notify an application for a resource consent for an activity.*
- (2) Despite subsection (1), a consent authority must publicly notify the application if—*
  - (a) it decides (under section 95D) that the activity will have or is likely to have adverse effects on the environment that are more than minor;*  
*or*
  - (b) the applicant requests public notification of the application; or*
  - (c) a rule or national environmental standard requires public notification of the application.*
- (3) Despite subsections (1) and (2)(a), a consent authority must not publicly notify the application if—*
  - (a) a rule or national environmental standard precludes public notification of the application; and*
  - (b) subsection (2)(b) does not apply.*
- (4) Despite subsection (3), a consent authority may publicly notify an application if it decides that special circumstances exist in relation to the application.”*

8.3 Section 95D of the RMA sets out the way in which a consent authority must decide whether the effects are likely to be more than minor for the purpose of reaching a determination under Section 95A. In this case there are no relevant trade competition effects.

8.4 However, a number of parties have provided written approval to the application. Effects on those persons must be disregarded when undertaking the assessment in terms of notification and in terms of assessing the resource consent application under section 104 of the Act. The parties who have provided written approval are listed in Table 1 which follows. The location of the properties where written approvals have been provided is shown on the diagram in Appendix C.



**Table 1: Written Approval List**

<b>Name</b>	<b>Owner/Occupier</b>	<b>Description</b>
Andrew Todd and Doreen Rangitata Putaranui	Occupier	Occupier of H1
Tony Gallagher	Occupier	Occupier of H2
David Green	Occupier	Occupier of H23
Kris Harper	Occupier	Occupier of H3
John Gallagher and Glenice Gallagher (G and J Gallagher Farm Ltd)	Owner	See Appendix C for land ownership. Owner of H1, H2, H23.
Larry and Lynette Harper	Owner & Occupier	See Appendix C for land ownership. Owner of H3. Owner and occupier of H4.

- 8.5 The original land use consent application was processed on a notified basis. A total of fifteen submissions were received to the application.
- 8.6 A table which lists the submissions received and the issues raised in each submission is included in Appendix B. The table demonstrates that although some submissions related to visual and/or landscape effects, the minor nature of the increase in turbine height and the distance to the nearest dwellings will ensure that the change in effects will be less than minor. That assessment is supported by the reporting undertaken by Opus and by Mansergh Graham.
- 8.7 Other effects associated with the change have been assessed in section 6 of this report. That assessment concludes that the effects of the change will be less than minor in respect of those matters. The assessment also concludes that the existing resource consent conditions will continue to avoid, remedy and mitigate the effects of the wind farm.
- 8.8 Having had regard to the notification provisions of the RMA, the notification report prepared in relation to the application determined that the application did not require notification for the following reasons:
- a) The landscape and visual effects assessment prepared by Opus Consultants and provided with the application concludes that landscape and visual related effects will be 'less than minor'. This finding is supported by the findings of the peer review report undertaken by Mansergh Graham. Therefore landscape and visual effects will be less than minor.
  - b) There are no other adverse effects related to the proposed change that will be minor or more than minor.
  - c) The submissions that were received to the original resource consent application have been considered. None of the submitters are considered to be affected parties in relation to the change.
  - d) There are no special circumstances that justify public notification.

## **9.0 CHANGES TO CONSENT CONDITIONS**

- 9.1 In assessing the conditions of consent, the following changes are recommended (additions shown underlined and deletions shown in ~~strike through~~):

- a) Amend condition 1 so that it reads as follows:

*“The wind farm development shall be constructed, operated and maintained in general accordance with the information, plans and drawings submitted with the application and received by Council on 23<sup>rd</sup> December 2005; and the additional information received on 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005 except as otherwise amended by the s127 application dated 21<sup>st</sup> November 2011 and the further information response dated 28<sup>th</sup> February 2012. The application documentation comprises of:*

- (a) Taumatotara Windfarm Assessment of Environmental Effects, Volume 1 – Main Report, dated March 2005;*
- (b) Taumatotara Windfarm Assessment of Environmental Effects, Volume 2 – Book of Figures, dated March 2005.*
- (c) Further information received 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005.*
- (d) Further Information provided in respect of the revised proposal approved as part of the change to the conditions of consent in accordance with Section 127 of the Resource Management Act 1991, namely :*
  - i. Report dated 21<sup>st</sup> November 2011; titled ‘Taumatotara Windfarm Assessment of Environmental Effects for a Turbine Tip Height Increase’, prepared by Ventus Energy (NZ) Ltd;*
  - ii. Further information response dated 28<sup>th</sup> February 2012; titled ‘Taumatotara Windfarm Further Information for a Turbine Tip Height Increase’, prepared by Ventus Energy (NZ) Ltd;*
  - iii. Report dated 24<sup>th</sup> February 2012; titled ‘Taumatotara Wind Farm Landscape and Visual Assessment for S92(1) Further Information Request’, prepared by Opus International Consultants Ltd.”*

- b) Amend condition 3 so that it reads as follows:

*“The turbines shall have a maximum height of ~~110 metres~~ measured from the ground to the top of the vertically extended blade tip as follows:*

- (a) Turbines 1 to 11 inclusive – maximum height of 121.5 metres*
- (b) Turbines 12 to 22 inclusive – maximum height of 110 metres”.*

- c) Amend condition 33 so that it reads as follows:

*“The consent holder shall comply with the Civil Aviation Authority (CAA) Determinations issued to Ventus Energy Limited dated 7 February 2006 and 23 August 2011.”*

- d) Insert a new advice note 7:

*“For the purposes of condition 11, a height greater than 110 metres will be approved for turbines 1 to 11 inclusive subject to the necessary confirmation being provided in respect of compliance with NZS6808:1998. Condition 3 also requires that the maximum height of turbines 1 to 11 inclusive must not exceed 121.5 metres and that the maximum height of turbines 12 to 22 inclusive must not exceed 110 metres.”*



- 9.2 The changes that are recommended above are consistent with the changes that were requested by the Applicant with one exception. The Applicant sought for condition 11 to be amended to refer to a maximum turbine height of 121.5 metres. Condition 11 states:

*“The wind turbines shall not exceed a rotor tip height of 110 metres above ground level and a sound power of 107.2dBA unless it can be demonstrated by a person specialising in acoustics and accepted by the Manager, Policy and Planning, Waitomo District Council that higher turbine heights or sound power will still comply with the requirements of NZS6808:1998.”*

- 9.3 It is considered that the condition as worded provides an opportunity for Council to approve higher wind turbine heights than 110 metres in respect of turbines 1 to 11 inclusive if it can be satisfactorily demonstrated that they will achieve compliance with NZS6808:1998. An amendment to condition 11 is therefore not considered to be necessary. Furthermore it would be inappropriate to make that change in the absence of an expert acoustic assessment.
- 9.4 The recommended advice note 7 will clarify that an increase in the height of turbines 1 to 11 will be acceptable subject to the necessary acoustic reporting that is required by the current wording of condition 11.

## **10.0 CONCLUSION**

- 10.1 This assessment has demonstrated that the proposed changes to conditions of resource consent RM050019 will have less than minor effects on the environment. Furthermore, the amended proposal will be consistent with the objectives and policies of the Operative Waitomo District Plan.
- 10.2 The proposal is considered to be consistent with section 127 and Part II of the Resource Management Act 1991. It is therefore recommended that the resource consent conditions be amended to incorporate the changes set out in sections 9 and 11 of this report. The full set of resource consent conditions incorporating the amendments resulting from this application is included in Appendix D.

## 11.0 RECOMMENDATION

That pursuant to Section 127 of the Resource Management Act 1991, the Waitomo District Council hereby grants consent to Ventus Energy (NZ) Ltd to change the conditions of Waitomo District Council land use consent reference RM050019. The land use consent shall be amended as follows:

a) Amend condition 1 so that it reads as follows:

*“The wind farm development shall be constructed, operated and maintained in general accordance with the information, plans and drawings submitted with the application and received by Council on 23<sup>rd</sup> December 2005; and the additional information received on 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005 except as otherwise amended by the s127 application dated 21<sup>st</sup> November 2011 and the further information response dated 28<sup>th</sup> February 2012. The application documentation comprises of:*

- (a) Taumatotara Windfarm Assessment of Environmental Effects, Volume 1 – Main Report, dated March 2005;*
- (b) Taumatotara Windfarm Assessment of Environmental Effects, Volume 2 – Book of Figures, dated March 2005.*
- (c) Further information received 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005.*
- (d) Further Information provided in respect of the revised proposal approved as part of the change to the conditions of consent in accordance with Section 127 of the Resource Management Act 1991, namely:*
  - i. Report dated 21<sup>st</sup> November 2011; titled ‘Taumatotara Windfarm Assessment of Environmental Effects for a Turbine Tip Height Increase’, prepared by Ventus Energy (NZ) Ltd;*
  - ii. Further information response dated 28<sup>th</sup> February 2012; titled ‘Taumatotara Windfarm Further Information for a Turbine Tip Height Increase’, prepared by Ventus Energy (NZ) Ltd;*
  - iii. Report dated 24<sup>th</sup> February 2012; titled ‘Taumatotara Wind Farm Landscape and Visual Assessment for S92(1) Further Information Request’, prepared by Opus International Consultants Ltd.”*

b) Amend condition 3 so that it reads as follows:

*“The turbines shall have a maximum height of ~~110 metres~~ measured from the ground to the top of the vertically extended blade tip as follows:*

- (a) Turbines 1 to 11 inclusive – maximum height of 121.5 metres*
- (b) Turbines 12 to 22 inclusive – maximum height of 110 metres”.*

e) Amend condition 33 so that it reads as follows:

*“The consent holder shall comply with the Civil Aviation Authority (CAA) Determinations issued to Ventus Energy Limited dated 7 February 2006 and 23 August 2011.”*

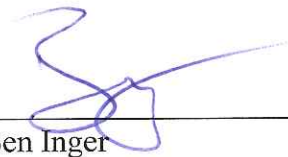


c) Insert a new advice note 7:

*“For the purposes of condition 11, a height greater than 110 metres will be approved for turbines 1 to 11 inclusive subject to the necessary confirmation being provided in respect of compliance with NZS6808:1998. Condition 3 also requires that the maximum height of turbines 1 to 11 inclusive must not exceed 121.5 metres and that the maximum height of turbines 12 to 22 inclusive must not exceed 110 metres.”*

**Reasons for the Decision:**

1. The application is considered to satisfy Sections 127 and 104 of the Resource Management Act 1991. The proposal is also consistent with Part II of the Act.
2. The application is able to be processed under section 127 of the RMA as it seeks a variation to the consented activity, and the resulting effects will not be materially different. The overall nature of the activity will remain the same and the only change that will result relates to the maximum height of turbines 1 to 11.
3. The proposal is consistent with the objectives and policies of the Operative Waitomo District Plan.
4. A specialist assessment relating to the landscape and visual effects of the proposal has been submitted with the application. The findings of the report support Council’s own assessment that the effects on the environment relating to the change will be less than minor in terms of visual and landscape effects.
5. The peer review of the landscape and visual effects aspects of the application undertaken by Council concludes that the effects of the change will be less than minor.
6. The existing and amended conditions of consent will ensure that any adverse environmental effects that may arise from this proposal will continue to be adequately avoided, remedied or mitigated.



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Ben Inger  
Planner – Bloxam Burnett & Olliver Ltd

Approved/Declined

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John Moran – Planning and Policy Manager

Date: \_\_\_\_\_

**Appendix A – Mansergh Graham Peer Review Report  
(Landscape and Visual Effects)**



12 March 2012

**mansergh graham**  
**LANDSCAPE ARCHITECTS**



23 NAYLOR STREET . PO BOX 542 . WAIKATO MAIL CENTRE  
HAMILTON 3240 . PHONE 07 858 4959 . WWW.MGLA.CO.NZ

Bloxam Burnett & Olliver  
Level 5, 18 London Street  
PO Box 9041  
Hamilton

Attention: Ben Inger

**RE: Review of the landscape and visual components of the application to modify the conditions of consent for the Taumatotara Wind Farm**

Please find attached my review of the visual and landscape components of the application to modify the conditions of consent for the Taumatotara Windfarm. I have undertaken a site inspection, as well as a review of all information received.

The AEE documentation contains a comprehensive explanation of the changes that will occur with the construction of the Windfarm. The assessment of what these changes will mean in terms of effects on visual and landscape amenity and rural character is less comprehensive.

However, I generally concur with the findings of the report that effects of the proposed increase in the height of the 11 northernmost turbines will be *less than minor*. This is principally due to the context of the consented wind farm, the relatively small proposed increase in the turbine size and the distance between potentially affected parties and the Windfarm.

Please contact the writer, if you have any questions.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'DM', is written over a faint, stylized graphic of a plant or landscape element.

**Dave Mansergh** Dip P&RM (Dist), BLA(Hons), MLA, ANZILA  
Registered NZILA Landscape Architect  
Director

## INTRODUCTION

In November 2011, Mansergh Graham Landscape Architects Ltd was engaged by BBO, on behalf of Waitomo District Council, to review the visual, landscape, and amenity components of the assessment of environmental effects (AEE) for the Taumatotara Windfarm.

This document has been prepared as part of an analysis of the adequacy of information relating to visual, landscape, and amenity effects identified within the AEE.

This document has been reviewed within the context of the Resource Management Act 1991 and the Waitomo District Plan.

## AEE DOCUMENTATION REVIEW APPROACH

### Approach

The following approach was used in the review of the landscape and visual effects section of the above reports and assessment of the effects of the application:

1. Review relevant sections of the Resource Management Act including:
  - a. Section 6 matters.
  - b. Section 7 matters.
2. Desktop review of the resource consent application and AEE documentation, as well as the landscape and visual assessment. This information was reviewed to determine whether it meets the relevant provisions of the RMA and is of "sound" professional practice. In particular the following was assessed:
  - a. Identification and description of the existing landscape context.
  - b. Identification of the nature of the proposed activity/development.
  - c. Identification of the potentially affected parties and potential viewing audience.
  - d. Identification, analysis and rating of potential effects on landscape, visual and amenity values.
  - e. Report graphics and photomontages
  - f. Conclusions and recommendations.
3. Inspection of the subject site and surrounding landscape context.

The content of the report was also compared with other visual assessments for similar applications. A site familiarity inspection has been undertaken in association with this application.

### S92 Request

Preliminary review of the AEE, prepared by Ventus Energy (NZ) Ltd, found that there was insufficient information to fully understand the visual and landscape components of the application. In response to a S92 request, supplementary information was provided by Ventus and a *Landscape Visual Effect Assessment (LVEA)* was prepared by Opus International Ltd. This report takes into account all the information supplied.



## Documents Reviewed

Documents and/or extracts received and reviewed are as follows:

- Taumatotara Windfarm. Further Information for a Turbine Tip Height Increase Prepared by Ventus Energy (NZ) Ltd. 28 February 2012.
- Taumatotara Wind Farm. Landscape and Visual Assessment for s92 (1) Information Request. Prepared by Opus International Consultants Ltd. December 2011.

## **AUDIT OF THE ASSESSMENT OF LANDSCAPE, VISUAL AND AMENITY EFFECTS**

The following audit reviews the landscape and visual amenity components of the responses to the s92 request from Mansergh Graham landscape Architects and all accompanying AEE documentation to determine whether they meet the provisions of the RMA and are of standard or 'sound' professional practice.

### **Identification and Description of the Existing Landscape Context**

At a broad scale, the project is identified as being located within the Western Hill Country of the Waikato District, which is described as follows:

*Steep pastoral hill country inter-dispersed with exotic tree stands and areas of native vegetation.*

Within a 10km study area surrounding the project site, key elements of the local context are identified as:

- *steep sided hills with well defined ridgelines and narrow valley systems to the north and south of the site;*
- *A predominantly pastoral landcover with areas of remnant native vegetation associated with the hill slopes and valley systems that run off the ridgelines;*
- *Isolated areas of exotic trees scattered across the landscape;*
- *Rural houses and farm buildings generally sparsely located in the surrounding landscape and typically located in sheltered low-lying areas.*

A number of photos of the site and the surrounding area are contained in Appendix 1 of the report.

### Reviewer's comments

The description of the surrounding landscape components is adequate; however greater emphasis could have been placed on how these components (landcover, landform, development) contribute to the existing landscape character and amenity values of the wider landscape.

However, when read alongside the photos in the report, a reasonable impression of the surrounding landscape character can be achieved.

### **Identification of the Nature of the Proposed Development**

Consent has been granted for the construction of 22, 110m high turbines within the site. Associated development includes new access roads and transmission lines. The current application seeks to increase the height of the 11 northernmost turbines from 110m to 121m. Greater detail regarding the rotor types, dimensions and ancillary components is provided in the AEE.

### Reviewer's comments

The main components of the application relevant to landscape and visual effects appear to have been identified.

### **Identification of the Potentially Affected Parties and Potential Viewing Audience.**

The visual catchment of the turbines was identified following ZTV analysis and site inspection. In broad terms, potential receptor groups (viewers) are identified as including the following:

*...Single residential properties and travellers through the area (i.e drivers, cyclists and pedestrians).*

The assessment specifically addresses effects from the following view locations:

*...Public roads and areas adjacent to residential properties, particularly along Marokopa and Coutts Road where properties have a direct view of the site.*

ZTV maps have been produced for both the consented windfarm (110m) and the proposed windfarm with turbines (121m) following an s92 request for a comparison of the two applications.

### Reviewer's comments

While the methodology used to determine the extent of potentially affected parties is an acceptable approach, it is considered that the comparison of ZTV maps for the consented and proposed windfarms could have been more clearly presented.

The s92 request noted that the comparison of ZTV maps should be presented in such a manner that *any change in potential turbine visibility can be clearly identified by comparing the consented ZTV analysis map and the application ZTV map*. A map which clearly showed new areas where the turbine tip extension would be theoretically visible (where previously the 110m turbines would not have been visible) would have clearly communicated the extent to which the proposed turbines will increase the visual catchment of the windfarm.

It appears from the two maps that the visibility of the two options is similar. While, the small increases in potential visibility are difficult to discern, the ZTV table provided in the Ventus further information report (section 4.2) clearly identifies where there are potential increases in the number of turbines visible from surrounding dwellings. This table indicates that from four houses an additional turbine will become visible with the proposed tip height extension. It is noted that this does not mean that the entire turbine will be visible, rather, that a part of the tip extension will be visible. This is further illustrated in the wire frame images in Appendix 3 of the Landscape and Visual Assessment prepared by Opus International Consultants Ltd, which are commented on later in this report.

### **Written Approvals**

In response to an s92 request, a map identifying properties and dwellings for which written approval has been supplied by Ventus. This is useful in that it can be used to cross reference between the site layout map and ZTV maps and identify where potential effects cannot be considered because written approval has been received.



## Identification, analysis and rating of potential effects on landscape, visual and amenity values.

The landscape effects of the windfarm are described in terms of landform, landcover, and landuse.

Physical changes to the landscape from the construction of the windfarm, with the potential to give rise to landscape effects, are identified as including:

- The formation earthworks for the construction of the access road and turbine foundations;
- The construction of substations and ancillary control buildings;
- The construction and or connection to of electrical power lines; and
- The installation of the wind turbines.

It is identified that the extent of change and the effects on landscape character of the above components were considered during the consenting process (November 2005), and the level of effects were judged as being within *acceptable limits* given that consent was granted.

The Opus report contends that the proposed increase in turbine height will have *no discernable effect on landscape character* and that this is illustrated in the photographic montages (Appendix 3, Figures 2.0, 2.1, 3.0 and 3.1). It is noted that the access road, power lines and earthworks will not alter in relation to the consented scheme.

The Opus report identifies that the high degree of modification within the surrounding landscape and the remoteness of the location means that it has a good capacity to absorb change.

The relatively small increase in the turbine height is considered to have a *less than minor* effect from all surrounding public locations and house sites. From locations south of the site, it is identified that the proposed 121m turbines will be seen at the far northern extent of the windfarm, which the report describes as further reducing effects on visual amenity, as these turbines recede into the distance.

Visual effects ratings used in the report are as follows.

### Major Effects

*The project will be visible and immediately apparent element within the landscape and will result in a change to the overall character and/or affect to the viewer.*

### Moderate Effect

*The project may form a visible and recognisable new element within the landscape and would be discernable by the viewer*

### Minor Effect

*The project may result in being discernable within the landscape, but will not have a marked effect on the overall quality of the landscape or affect the viewer.*

### No Effect

*The project will not be discernable and will have no effect on the landscape or viewer.*

## Reviewer's comments

In general, the report contains a clear explanation of the changes that will occur with the extension of the turbine heights of northernmost 11 turbines. However, the assessment of how these changes effect visual and landscape amenity and rural character is not as comprehensive.

The assessment generally focuses on the visibility of the proposal from the surrounding landscape. It does not address in detail how the proposal affects existing visual and landscape amenity, or the rural character of the landscape in depth. However, it is clear that the relatively small extent of the turbine height increase, in combination with the distance at which the windfarm will be viewed from surrounding locations will mean that effects on visual and landscape amenity will be *very low*.

## **Shadow Flicker**

Additional information was requested regarding the effect of the tip height extension on shadow flicker. In response Ventus have confirmed that the dwellings nearest the proposed 121m turbines will be beyond the range at which shadow flicker will be an issue.

### Reviewer's comments

Because the applicant has identified that there will be no houses within 1.2km of the turbines (subject to the consent), shadow flicker is not expected to be an issue. It is noted that all properties around the application site have provided sign off. Any flicker effects beyond the 1.2km theoretical flicker effect limit are expected to be less than minor and will only occur for a relatively short period of time during the day when the top 11m of the turbine (the extension) is between the viewer and the sun.

## **Photomontages**

In response to an s92 request for an additional photomontage from each view location showing the increase in size of the turbines subject to this application within the context of the remaining turbines, montages from two locations have been supplied (from the corner of Marokopa and Coutts Road and from Taharoa Road). In addition, wire frame images have been supplied from various other surrounding house sites.

### Reviewer's comments

In general, it is considered that the photomontages are valuable in terms of communicating the extent of visual effects from a limited range of view locations. It would have been helpful in terms of communicating cumulative effects if in Appendix 3, Figure 3, the southernmost turbines were shown as well as those subject to the proposed increase in height.

The wire frame images do not aid in communicating the extent of visual effects as well as a photomontage due to the lack of contextual visual information. Nevertheless they do usefully illustrate the very small extent to which the visibility of the windfarm will increase as a consequence of the current application.

## **Residual Effects**

In response to an s92 response, full references to public opinion surveys and research into public perception research have been supplied by the applicant.

### Reviewer's comments

These references now support comments made in the AEE regarding the potential effects of turbines on landscape and visual amenity.



## CONCLUSIONS AND RECOMMENDATIONS

In general, it is considered that the report and S92 responses contains a comprehensive explanation of the changes that will occur with the construction of the windfarm, however the assessment of how these changes effect visual and landscape amenity and rural character is not as comprehensive. The assessment tends to focus on the visibility of the proposal from the surrounding landscape, with less emphasis on the effects of the proposed turbine height extension on the amenity derived from the existing landscape character.

The report generally follows an acceptable methodological approach to the assessment of landscape and visual effects.

The inclusion of additional photomontages and wireframe images depicting views of the turbines from surrounding locations have greatly assisted in the review of the application documentation.

In general, it is considered that effects of the turbine height increase on landscape and visual amenity values will be *less than minor* as stated within the report prepared by Opus International Ltd.

## **Appendix B – Assessment of Submissions**



**Table 1: Submitter Table**

SUBMITTER	ADDRESS	SUPPORT/OPOSE/ NEUTRAL	S127 AFFECTED PARTY
Wind Farm Developments (Australia) Limited	PO Box 10-905, Wellington	Support	<p>The submission was in support of the proposal.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
M, J, & N Phillips	719 Marokopa Road	Oppose	<p>The submission raised issues regarding the turbines spoiling the natural environment, traffic effects and lack of consultation. The submission also stated that the wind farm will not have the economic and social benefits outlined in the application.</p> <p>The wind farm has already been granted resource consent and the increase in height of turbines 1-11 will not result in any changes in traffic effects. The existing environment includes the consented wind farm and therefore it is already anticipated that the existing 'natural environment' will be modified. The visual and landscape effects of the increase in turbine height have been considered in the landscape and visual report as well as the peer review. The Opus report concludes that due to the distance of turbines 1-11 to the dwellings on Marokopa Rd to the south of Coutts Rd, the change in turbine height will not be noticeable.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Department of Conservation (DOC)	PO Box 38, Te Kuiti	Neutral	<p>The DOC submission sought for requested conditions to be imposed relating to the monitoring of the effects of the wind farm on wildlife. Those conditions were imposed on the resource consent and the Applicant doesn't seek to change them as part of this application. The Applicant has also provided a letter from Kessels and Associates confirming that there will be "no discernible increase on mortality risk associated with strike for birds and bats, nor will it increase habitat displacement effects".</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
R & S Irons	83 Te Waitere Road	Oppose	<p>Concerns raised in the submission related to earthworks, heavy vehicle movements and impacts relating to electricity line voltage. The s127 application will not result in any changes in respect of these matters.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Mr M Paterson	669 Marokopa Road	Oppose	<p>The submission raised visual effects as a concern as well as traffic effects. The relief sought by the submitter was to remove the 5 turbines closest to Marokopa Road. Those turbines are not affected by the s127 application and will remain at the maximum height as currently consented. The visual and landscape effects of the increase in turbine height have been considered in the landscape and visual report as well as the peer review. The Opus report concludes that due to the distance of turbines 1-11 to the dwellings on Marokopa Rd to the south of Coutts Rd, the change in turbine height will not be noticeable. The s127 proposal will not alter traffic related effects.</p>

			The submitter is not considered to be an affected party in terms of the s127 application.
Mrs M Paterson	669 Marokopa Road	Oppose	<p>The submission raised visual effects as a concern as well as land stability, economic impacts and inadequate consultation. The relief sought by the submitter was to remove at least the 5 turbines closest to Marokopa Road. Those turbines are not affected by the s127 application and will remain at the maximum height as currently consented. The visual and landscape effects of the increase in turbine height have been considered in the landscape and visual report as well as the peer review. The Opus report concludes that due to the distance of turbines 1-11 to the dwellings on Marokopa Rd to the south of Coutts Rd, the change in turbine height will not be noticeable. Land stability effects are already addressed through conditions of consent which will remain in place. The s127 proposal will not alter economic effects.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
C & D Gilbert	443 Marokopa Road, Castle Craig Farm	Oppose	<p>The submission sought relocation of turbines 19-22 which are the turbines nearest Marokopa Road. None of those turbines are affected by the s127 application.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
M Haddad	158 Coutts Road	Oppose	<p>The submission raised visual effects as a concern. The relief sought by the submitter was to remove the 5 turbines closest to Marokopa Road. Those turbines are not affected by the s127 application and will remain at the maximum height as currently consented. The visual and landscape effects of the increase in turbine height have been considered in the landscape and visual report as well as the peer review. The Opus report concludes that the viewing distance to the nearest turbines from Coutts Rd is sufficient that those properties will not discern the increase in turbine height. Also the report identified that while some dwellings on Coutts Rd will see part of one additional turbine, the associated effects will be less than minor.</p> <p>The submitter also raised concerns about noise and road traffic. The s127 application will not result in any changes in respect of these matters.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
G Pilgrim	Marokopa Road, Castle Craig Farm	Oppose	<p>The submission related specifically to turbines 18-22 which are the turbines nearest to Marokopa Road. The submission sought their removal due to adverse visual, noise and traffic effects. The submitter also expressed concern at the lack of consultation. Turbines 18-22 are not affected by the s127 application and will remain at the maximum height as currently consented.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
C Pilgrim	Marokopa Road, Castle Craig Farm	Oppose	<p>The submission related specifically to turbines 18-22 which are the turbines nearest to Marokopa Road. The submission sought their removal due to adverse visual, noise and traffic effects. The submitter also expressed concern at the lack of consultation. Turbines 18-22 are not affected by the s127</p>



			<p>application and will remain at the maximum height as currently consented.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Ministry of Economic Development	PO Box 1473, Wellington	Support	<p>The submission was in support of the proposal.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Energy Efficiency and Conservation Authority	Po Box 388, Wellington	Support	<p>The submission was in support of the proposal.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Airways Corporation of New Zealand	PO Box 294, Wellington	Support	<p>The submission was generally in support of the proposal. It also requested that the Applicant should consult the CAA in respect of the proposal. The CAA has provided a letter in relation to the s127 application which confirms they have no issues with the changes proposed.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Waikato District Health Board	PO Box 505, Hamilton	Oppose	<p>The submission relates to noise effects. The existing condition which requires compliance with a specified maximum noise level will be retained without modification. Therefore the existing noise conditions will continue to control noise effects.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>
Tim Stokes	781 Taharoa Road	Oppose	<p>The submitter raised concerns about vibration effects, health effects associated with the high voltage power lines and lack of consultation. The s127 application will not result in any changes in respect of these matters.</p> <p>The submitter is not considered to be an affected party in terms of the s127 application.</p>

## Appendix C – Written Approval Plan







## Appendix D – Amended Decision Text

That:

- a) The submission by Mr M Taitoko be declared to be out of time pursuant to Section 97 of the Resource Management Act 1991 and ruled invalid.
- b) In consideration of Section 104, and pursuant to Sections 104B and 108 of the Resource Management Act 1991, the Waitomo District Council grants consent to Ventus Energy (NZ) Limited to construct and operate a utility scale wind farm comprised of a maximum of 22 horizontal axis turbines and associated substation buildings, earthworks and access roads and activities as described in Conditions (1) and (2) below for the purpose of generating electricity, on a Rural Zoned site located at Taumatotara West Road, Taharoa, legally described as:
  - Part Section 10 Block V Kawhia South Survey District and Section 3 Survey Office Plan 53968 comprised in Certificate of Title 141077;
  - Section 3 Block IX Kawhia South Survey District comprised in Certificate of Title SA28A/586;
  - Section 1 Survey Office Plan 58558 comprised in Certificate of Title SA47A/876;
  - Section 1A Block V Kawhia South Survey District comprised in Certificate of Title SA37A/25;
  - Section 12 and Section 22 Block V Kawhia South Survey District comprised in Certificate of Title SA31C/23;
  - Section 2 Block V Kawhia South Survey District comprised in Certificate of Title SA37A/26; and
  - Part Section 24 Block V Kawhia South Survey District and Section 2 Survey Office Plan 53968 comprised in Certificate of Title SA48B/494;

subject to the following conditions:

### General

1. The wind farm development shall be constructed, operated and maintained in general accordance with the information, plans and drawings submitted with the application and received by Council on 23<sup>rd</sup> December 2005; and the additional information received on 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005 except as otherwise amended by the s127 application dated 21<sup>st</sup> November 2011 and the further information response dated 28<sup>th</sup> February 2012. The application documentation comprises of:
  - (a) Taumatotara Windfarm Assessment of Environmental Effects, Volume 1 – Main Report, dated March 2005;
  - (b) Taumatotara Windfarm Assessment of Environmental Effects, Volume 2 – Book of Figures, dated March 2005.
  - (c) Further information received 30<sup>th</sup> January 2005 and 8<sup>th</sup> March 2005.



(d) Further Information provided in respect of the revised proposal approved as part of the change to the conditions of consent in accordance with Section 127 of the Resource Management Act 1991, namely:

- i. Report dated 21<sup>st</sup> November 2011; titled 'Taumatotara Windfarm Assessment of Environmental Effects for a Turbine Tip Height Increase', prepared by Ventus Energy (NZ) Ltd;
- ii. Further information response dated 28<sup>th</sup> February 2012; titled 'Taumatotara Windfarm Further Information for a Turbine Tip Height Increase', prepared by Ventus Energy (NZ) Ltd;
- iii. Report dated 24<sup>th</sup> February 2012; titled 'Taumatotara Wind Farm Landscape and Visual Assessment for S92(1) Further Information Request', prepared by Opus International Consultants Ltd.

2. For the purposes of this consent and for avoidance of doubt the activities authorised by this consent include:

- a) the installation, operation and maintenance of no more than twenty-two (22) horizontal axis wind turbines ("turbines");
- b) An underground fibre optic network connecting each turbine to the central control system in the on-site operations building(s);
- c) Tracking and placement of an underground network of 33kV transmission lines delivering electricity from each turbine to the two on-site substations;
- d) Overhead or underground powerlines connecting the on-site wind farm substations to the two existing 33kV lines that traverse the eastern edge of the landholding;
- e) A fenced compound to house the on-site control building and sub-station equipment;
- f) Earthworks associated with the creation of the turbine building platforms, access roads and other facilities described in items a) to e) above.
- g) Widening and/or realignment works along parts of Taumatotara West Road to enable the safe passage of the oversized wind farm components to the site.

3. The turbines shall have a maximum height measured from the ground to the top of the vertically extended blade tip as follows:

- (a) Turbines 1 to 11 inclusive – maximum height of 121.5 metres
- (b) Turbines 12 to 22 inclusive – maximum height of 110 metres.

4. Each turbine shall be located within a turbine contingency zone of no greater than 100 metre radius from the turbine locations specified in the application. The turbine contingency zones shall avoid locations closer to external property boundaries, significant indigenous vegetation and significant habitats of indigenous fauna.

5. Prior to construction, the consent holder shall submit to the Manager Policy and Planning, Waitomo District Council for approval a plan specifying the final proposed locations of turbines 19 to 22 and a report outlining the reasons for the final locations. The locations of these turbines shall be chosen so that they are located as far as practicable back from the western ridgeline, taking into account geotechnical and other such location requirements, so as to minimise their visual impact as viewed from the west and south.

6. The consent holder shall submit to the Manager Policy and Planning, Waitomo District Council an as-built plan confirming the locations of all constructed turbines, access roads,

entranceways, excess material fills, the substations and control building, the spare turbine component storage area, electricity transmission lines, and road upgrading/realignment works. The Plan shall also include but is not limited to:

- a) The finished line of cut and fill batters;
- b) The finished edge line of pavement and seal widening works;
- c) The location and dimensions of site entrances;
- d) The finished level of access road centrelines;
- e) The location, size and extent of all new stormwater drains or culvert extensions;
- f) The location of all subsoil drains, sumps and manholes; and
- g) Any underground services installed or altered as part of the works.

This plan shall be certified by a registered surveyor as to the accuracy at the completion of the work and is required to be submitted to Council within 6 months of the completion of construction of the wind farm.

## Noise

### *Operational Noise*

7. The noise from all other activities on the site (other than wind turbine generator operation and construction activities) shall not exceed the following limits when measured in accordance with the requirements of NZS 6801:1991 Measurement of Sound and assessed in accordance with the requirements of NZS 6802:1991 Assessment of Environmental Sound:

7.00am to 7.00pm 45dBA L<sub>10</sub>

7.00pm to 7.00am 35dBAL<sub>10</sub>

7.00pm to 7.00am 60dBA L<sub>max</sub>

8. The noise from the wind farm shall comply with the requirements of NZS6808:1998, Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators in relation to any dwelling existing at the date of the granting of this consent, except:
  - a) Any dwelling on any site that forms part of the wind farm; and
  - b) The dwellings labelled as H1, H2, H2A, H3, and H4 on the approved plans.
9. Prior to commencing any development of the wind farm, detailed ambient noise monitoring shall be undertaken within the notional boundary of any dwelling within the 30dBA noise contour (other than the dwellings specifically referred to in (a) and (b) of condition 8 above) by a person suitably qualified and experienced in acoustics and accepted by the Manager, Policy and Planning, Waitomo District Council. The monitoring shall be undertaken to determine the existing background sound in terms of the requirements of NZS6808:1998 Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators. Sufficient field measurements shall be undertaken to demonstrate to the satisfaction of Council's Manager, Policy and Planning, that the best fit regression curve gives an accurate representation of the existing noise environment.
10. Prior to commencing any development of the wind farm, the consent holder shall prepare a noise report to demonstrate, to the satisfaction of Council's Manager, Policy and Planning, that the wind farm will comply with the requirements of NZS6808:1998. This report shall be prepared by a person suitably qualified and experienced in acoustics and accepted by the Manager, Policy and Planning, Waitomo District Council.



11. The wind turbines shall not exceed a rotor tip height of 110 metres above ground level and a sound power of 107.2dBA unless it can be demonstrated by a person specialising in acoustics and accepted by the Manager, Policy and Planning, Waitomo District Council that higher turbine heights or sound power will still comply with the requirements of NZS6808:1998.

***Construction Noise***

12. Noise from all construction and decommissioning work including (but not limited to):
- a) Site works;
  - b) Wind turbine generator assembly and placement;
  - c) Concrete placement;
  - d) Wind turbine removal; and
  - e) Land reinstatement

Shall be measured and assessed in accordance with the requirements of NZS6803:1999 Acoustics – Construction Noise. The noise limits shall be those set out in Table 2 of NZS6803 for works of “long term” duration (the levels for long term construction work are reproduced in the table below).

Time	Weekdays		Saturdays		Sundays	
	L <sub>eq</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>max</sub>	L <sub>eq</sub>	L <sub>max</sub>
0630-0730	55dBA	75dBA	45dBA	75dBA	45dBA	75dBA
0730-1800	70dBA	85dBA	70dBA	85dBA	55dBA	85dBA
1800-2000	65dBA	80dBA	45dBA	75dBA	45dBA	75dBA
2000-0630	45dBA	75dBA	45dBA	75dBA	45dBA	75dBA

13. No concrete trucks shall be permitted to enter the site before 7.00am or leave the site after 7.00pm.
14. Prior to the commencement of construction, a Construction Noise Management Plan shall be prepared to the satisfaction of the Manager, Policy and Planning, Waitomo District Council. The Construction Noise Management Plan shall demonstrate how the requirements of condition 12 will be achieved.
15. The Construction Noise Management Plan shall address, amongst other things, the potential noise effects of construction traffic on the roads and techniques to minimise these effects. Any night time (10.00pm – 7.00am) traffic movements must be included in the evaluation.

***Noise Monitoring:***

16. Within six months of the commencement of operation of the wind farm, the noise levels shall be measured and results provided to the Manager, Policy and Planning, Waitomo District Council.
17. The consent holder shall pay all costs associated with noise compliance measurements, monitoring and reporting.

## Traffic and Rooding

### *Construction Programme*

18. A Construction Programme shall be prepared by the consent holder and submitted to the satisfaction of the Manager, Policy and Planning, Waitomo District Council prior to any construction works commencing. The Construction Programme shall include the following:
- a) The hours of construction work on Taumatotara West Road and other Waitomo District Council administered roads shall be between 7.00am and 7.00pm Monday to Saturday (excluding public holidays), unless written approval is otherwise obtained from the Manager, Policy and Planning, Waitomo District Council to work outside of these hours;
  - b) Provision shall be made to maintain adequate and safe access to and from individual properties along Taumatotara West Road and other Waitomo District Council administered roads while transportation movements are undertaken; and
  - c) The consent holder shall arrange to hold a copy of all Resource Consents on site at all times during construction.

### *Traffic Management Plan*

19. A Traffic Management Plan shall be prepared by the consent holder and submitted to the satisfaction of the Manager, Policy and Planning, Waitomo District Council prior to any construction works commencing. The Traffic Management Plan shall be prepared in accordance with the latest edition of the Transit New Zealand Code of Practice for Temporary Traffic Management and shall include but not be limited to:
- a) The transport route (in general accordance with the route proposed in the application);
  - b) Times and locations when deliveries are prohibited;
  - c) Piloting and traffic management procedures;
  - d) Contingency plans for breakdowns, bridge or pavement failure, severe weather conditions, accidents or roadworks;
  - e) Provisions for co-ordination with other parties, including emergency services;
  - f) Provisions to maintain adequate and safe access to and from individual properties along Taumatotara West Road and other Waitomo District Council administered roads while transportation movements are undertaken; and
  - g) A construction timetable, detailing vehicles movements to and from the site, and the hours that the trucks will operate.
20. The Traffic Management Plan shall be designed to ensure that at all times during construction, all Waitomo District Council administered roads shall be kept open. In exceptional circumstances a request may be sought for short term road closures. Any road closures shall be approved by the Manager, Policy and Planning, Waitomo District Council.
21. If traffic control measures are not carried out in accordance with the Traffic Management Plan and the Transit New Zealand Code of Practice for Temporary Traffic Management, the Waitomo District Council reserves the right after notifying the consent holder or contractors either verbally or in writing, to instruct the consent holder or contractors to cease all work until the requirements of this Plan and Code of Practice are met. Alternatively the Manager, Policy and Planning, Waitomo District Council, may arrange



for the traffic management to be carried out by others, the costs of which will be borne by the consent holder.

### ***Roading Design***

22. The consent holder shall provide, to the satisfaction of the Manager, Policy and Planning, Waitomo District Council, pavement deflection data for relevant sections of Waitomo District Council roads that are to be utilised for transportation of construction materials and turbine components both before and after the construction period. The pavement deflection measurements shall be carried out using either Falling Weight Deflectometer or Benkelman Beam testing techniques.
23. The consent holder shall provide, to the satisfaction of the Manager, Policy and Planning, Waitomo District Council, bridge inspection findings and details of axle loadings resulting from the transportation of the turbine components, to verify that all Waitomo District Council bridges are able to accommodate the transportation of these loads without resulting in any damage. If the Manager, Policy and Planning, Waitomo District Council considers it to be necessary, Council may require the consent holder to provide an appropriate level of supervision of heavy loads across Waitomo District Council bridges.
24. Detailed roading design plans for internal site access roads, Taumatotara West Road, and any other Waitomo District Council roads that are subject to upgrading or realignment works, shall be developed in accordance with appropriate construction standards and submitted to the satisfaction of the Manager, Policy and Planning, Waitomo District Council prior to construction commencing. The detailed design shall include:
  - a) Geotechnical investigation and interpretation report;
  - b) Corner widening design (including cut/fill batters details);
  - c) Taumatotara West Road / Taharoa Road intersection design;
  - d) Pavement design;
  - e) Surfacing details;
  - f) Shoulder feather-edge details;
  - g) Drainage (surface water channels and culverts);
  - h) Safe stopping sight distance; and
  - i) Minimised cut earthworks for the construction of the internal access roads.

### ***Road Maintenance***

25. A maintenance regime covering all Waitomo District Council roads and bridges to be utilised for transportation of construction materials and turbine components shall be prepared by the consent holder and submitted to the satisfaction of the Manager, Policy and Planning, Waitomo District Council prior to any construction works commencing. The maintenance regime shall cover the full construction period and may be developed in partnership with an ongoing maintenance programme (shared with the Waitomo District Council's own Network Maintenance Contractors). The maintenance regime shall ensure the following:
  - a) During the construction period, the consent holder shall undertake any necessary works to ensure that the roads and bridges utilised for transportation of construction materials and turbine components are maintained at a quality no less than the quality of the road and bridges prior to construction commencing.
26. A bond of \$86,000 shall be paid to Council to secure the ongoing performance of condition 25 with regard to Taumatotara West Road maintenance only, pursuant to section

108(2)(b) and section 108A of the Resource Management Act 1991. The bond applies to regular maintenance only, not pavement rehabilitation and shall be refunded to the consent holder at such a time as the Manager, Policy and Planning, Waitomo District Council is satisfied that the objectives of the maintenance regime required by condition 25, as it relates to Taumatotara West Road, has been met. Should the Manager, Policy and Planning, Waitomo District Council consider the consent holder is not meeting the objectives of the maintenance regime with regard to the maintenance of Taumatotara West Road, the bond will be utilised to undertake the work.

#### *Access*

27. Detail of vehicle access points and permanent entranceways along Taumatotara West Road shall be provided prior to construction works commencing. The details will include allowances for:
- a) Pavement widening to a minimum 6.5 metre sealed width;
  - b) Bellmouth radii to a minimum 15 metres;
  - c) Entranceway culverts to a minimum 300mm diameter; and
  - d) Pavement surfacing to a minimum 70 metres at full width, with matching in tapers at 1 in 10.
28. All internal access roads shall be a minimum of 5 metres in width.

#### **Landscaping and Visual**

29. Prior to construction commencing the consent holder shall submit to the satisfaction of the Manager, Policy and Planning, Waitomo District Council, a Landscape Mitigation Plan prepared by a suitably qualified Landscape Architect. The Landscape Mitigation Plan shall detail the visual mitigation and landscape restoration strategies that will be undertaken and shall include but not be limited to:
- a) A plan showing details of planting and landscaping to be undertaken around the substation, control building and spare turbine part storage area;
  - b) The height and location of any earth bunds or mounds created for visual, noise, or mitigation purposes;
  - c) Topsoil stockpile and management plan for all topsoil stockpiled for more than six months from the time of stripping;
  - d) The restoration strategy for any disturbed landforms including:
    - i. Permanent earthworks, including all road cuttings;
    - ii. Temporary earthworks, including construction pads; and
    - iii. Topsoil restoration.
  - e) The restoration shall integrate the new landform into the natural contours, and revegetate (with either pasture or planting) so it appears homogenous with the surrounding landscape;
  - f) An implementation strategy identifying when the mitigation works will be undertaken;
  - g) A maintenance schedule.
30. The colour of the turbines shall be selected to minimise the visual impact. Due consideration will be given to the predominant ambient background sky colour in selection of the final colour. Low reflectivity finishes shall be used on the turbines and the turbine blades where practicable.



31. All 'dead' turbines and turbine components shall be removed within one month from the time that they ceased to function, unless exceptional circumstances exist and written approval is obtained from Manager, Policy and Planning, Waitomo District Council.
32. Upon decommissioning of the wind farm, all visible structures (including turbines, substations and hard stand areas) shall be removed from the site. All foundations shall be buried under a minimum of two metres of soil and revegetated, unless otherwise approved by the Manager, Policy and Planning, Waitomo District Council.

### **Air Safety**

33. The consent holder shall comply with the Civil Aviation Authority (CAA) Determinations issued to Ventus Energy Limited dated 7 February 2006 and 23 August 2011.
34. Those turbines identified as numbers 1, 5, 10, 18 and 22 on the approved plan (and identified below) shall be lit with a medium intensity obstacle light located on the highest practicable point, sufficient to indicate to aircraft the general location of the wind farm.

<b>Turbine ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Attitude</b>
1	2664848	6331439	251m AMSL
5	2665338	6330549	322m AMSL
10	2666640	6329258	319m AMSL
18	2667836	6327401	367m AMSL
22	2668272	6326391	321m AMSL

35. The medium intensity obstacle lights shall –
  - be red; and
  - have an effective intensity of not less than 1600 cd of red light;
  - be visible to aircraft approaching the wind farm from any direction; and
  - shall be installed and operated in a way that minimise their visibility to persons on the ground while meeting CAA requirements.

### **Geotechnical**

36. In accordance with the recommendations of the geotechnical review prepared by Riley Consultants, and submitted with the application (Appendix K of Volume One), the consent holder shall undertake subsurface geotechnical investigation and engineering geological mapping for the wind farm area, to ensure that all of the turbine sites are geotechnically feasible, and provided with stable building platforms. The results of these investigations and detailed design of the proposed geotechnical foundation works for each of the turbines shall be provided for the approval of the Manager, Policy and Planning, Waitomo District Council prior to construction commencing.

### **Effects on Wildlife**

#### ***Register***

37. The consent holder shall keep a register of observations of effects of the wind farm activities on wildlife. This will include evidence of turbine strike (with species, date, weather conditions and other relevant observations), notes of avoidance behaviour observed, and other observed interaction of wildlife with the wind farm. Ground inspections with nil results should also be recorded. The register shall be maintained for

the life of the consent, and shall be made available to Council within 2 working days of its request.

### ***Inspections***

38. In accordance with Condition 37 above, all wind farm personnel will inspect the area around the turbine bases when visiting or passing by a turbine, throughout the life of the consent, for evidence of wildlife mortality.
39. The consent holder shall undertake dedicated inspections of all turbine bases for evidence of wildlife mortality at monthly intervals for the first two years of operation. If construction is staged, later turbines shall also continue to be inspected for a full two years.
40. If no significant adverse effects on wildlife are evident then dedicated inspections shall be discontinued, with the prior approval of the Manager, Policy and Planning, Waitomo District Council.

If a significant adverse effect is found (through dedicated monitoring or other monitoring) then monthly inspections shall continue in the interim and a plan developed, to the satisfaction of the Manager, Policy and Planning, Waitomo District Council and in consultation with the Department of Conservation, acting reasonably, to address the effects. Such a plan shall propose a monitoring regime and identify methods and options to avoid, remedy or mitigate the adverse effects. Specifically excluded from a plan will be any modification or restriction on the operation of the wind turbines.

### ***Reporting:***

41. An annual report, detailing the information required in conditions 37 – 40 above shall be provided to Waitomo District Council and the Department of Conservation. Any unidentified species remains recovered shall be referred to the Department of Conservation for identification as soon as is practicably possible following their discovery.

### ***Bird Perches***

42. No telecommunications devices or signs shall be connected/attached to any part of the turbines and/or the accessory structures.
43. With the exception of the transmission lines connecting the substation to the existing transmission lines, all other intra project lines within the wind farm shall be underground.
44. The turbine towers shall be tubular in design.

## **Ecological Effects**

### ***Native Vegetation***

45. The clearance and trimming of native vegetation associated with the wind farm activities shall be restricted to the minimum area required to undertake the road realignment works, and any realignments of the power line routes. In particular, the consent holder shall avoid the removal of pole stand Rimu where practicable.
46. The consent holder shall develop and implement a weed control programme for the site and access roads, to the satisfaction of Council, and for the first 2 years of operation.



## Communications

47. In the event that the wind farm activities result in any disruption to free to air (not satellite) television, Broadband Wireless access licenses and/or microwave path operators at those properties in the area surrounding the wind farm site, the consent holder shall assist those parties to obtain reception comparable to the pre-construction quality, to the satisfaction of Council. The consent holder shall advise the Manager Policy and Planning, Waitomo District Council of the agreed mitigation measures in writing.

## Complaints Register

48. The consent holder shall appoint a representative who shall be the Waitomo District Council's principal contact person in regard to matters relating to this resource consent. The consent holder shall inform the Manager Policy and Planning, Waitomo District Council of the representative's name and how they can be contacted prior to this resource consent being commenced.
49. The consent holder shall maintain a complaints register for the wind farm activities. The register shall record all complaints received and shall include:
- a) **The date, time and duration of the incident that has resulted in the complaint;**
  - b) **The location of the complainant;**
  - c) **The cause of the incident where appropriate;**
  - d) **Any corrective action undertaken by the consent holder in response to the complaint.**

The register shall be available to Council within 2 working days of its request.

## Implementation, Review and Monitoring

50. Pursuant to sections 128 to 130 of the Resource Management Act the Waitomo District Council may undertake a review of conditions of consent, within twelve months of the commencement of operation of the wind farm and thereafter on an annual basis for the following purpose:
- a) **to review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on the environment from the exercise of this resource consent (in particular the potential adverse environmental effects in relation to noise, vegetation removal, earthworks, and the visual, landscape and amenity effects), and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions; or**
  - b) **to address any adverse effect on the environment which has arisen as a result of the exercise of this consent; or**
  - c) **if necessary and appropriate, to require the holder of this resource consent to adopt the best practicable option to remove or reduce adverse effects on the surrounding environment; or**
  - d) **to review the adequacy of and the necessity for monitoring undertaken by the consent holder.**

The Council will undertake the review in consultation with the consent holder. The consent holder shall pay the actual and reasonable costs of the review.

51. The consent holder shall pay all costs associated with the implementation of this consent in order to achieve and demonstrate compliance with the consent conditions therein.
52. Pursuant to section 36 of the Resource Management Act 1991 the consent holder shall pay the actual and reasonable costs incurred by the Council when monitoring the conditions of this consent.

### **Lapse Period**

53. This consent shall lapse eight years after the date of it being granted, unless the consent is either given effect to before that lapsing date, or unless the Waitomo District Council fixes a longer period pursuant to section 125 of the Resource Management Act 1991.

### ***Advisory Notes***

- 1) The consent holder shall also ensure compliance with conditions of the Waikato Regional Council resource consent. Conditions related to matters covered by that consent have been omitted from this consent to avoid duplication.
- 2) All on-site works shall comply with the requirements of the Health and Safety in Employment Act 1992.
- 3) This consent covers road widening and realignment works associated with Taumatotara West Road only. The consent holder shall obtain any other resource consents required for road widening, including any resource consents required from Waikato Regional Council.
- 4) The consent holder will need to consult with and meet the requirements of all road controlling authorities affected by the transportation of the turbine components, including Transit New Zealand.
- 5) The consent holder will need to consult with the Manager, Policy and Planning, Waitomo District Council in order to facilitate proceeding with the establishment of a turbine viewing area on Marokopa Road.
- 6) If the transmission lines connecting the substation to the existing electricity transmission lines are located above ground, they shall be designed and located so that they are a permitted activity in accordance with Rule 15.5.1 of the Proposed Waitomo District Plan and the NZ Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).
- 7) For the purposes of condition 11, a height greater than 110 metres will be approved for turbines 1 to 11 inclusive subject to the necessary confirmation being provided in respect of compliance with NZS6808:1998. Condition 3 also requires that the maximum height of turbines 1 to 11 inclusive must not exceed 121.5 metres and that the maximum height of turbines 12 to 22 inclusive must not exceed 110 metres.