

**In the matter of:**

The Proposed National Policy Statement on Renewable Electricity Generation

**And in the matter of:**

And the Hearing by the Board of Inquiry

Statement of Peter Matich  
Senior Policy Analyst (Environment) - Porirua City Council

1. My name is Peter Matich and I am employed by Porirua City Council (the Council) as a Senior Policy Analyst in the Environmental Policy Team, a position I have been in for just over 4 years. I am a member of the New Zealand Planning Institute and I have 18 years experience as a land use planner in New Zealand in a mixture of private and public sector roles and spanning a range of policy and regulatory environmental resource management aspects.
2. Particularly relevant is my recent experience over the last three years with preparing and notifying a proposed Plan Change (Plan Change 7 – Windfarms) to enable and provide for the management of commercial-scale wind farms in Porirua.
3. Porirua City Council is very cognizant of the need to create an appropriate enabling framework for relevant renewable electricity generation, and welcomes any attempt to introduce a nationwide framework for this.
4. However, the Proposed National Policy Statement on Renewable Electricity Generation (Proposed NPS) that is presently before the Board of Inquiry is less helpful to Porirua City Council than it otherwise might be.
5. My statement elaborates, from an expert Planner's perspective, on the points made in Porirua City Council's submission, which I was involved in preparing. These points are:
  - i. Policy 3 of the Proposed NPS, which requires decision makers to have particular regard to the relative degree of reversibility of the adverse environmental effects associated with proposed generation technologies, when considering proposals to develop new renewable electricity generation activities, does not adequately address reversibility of renewable electricity generation technologies.

- ii. Policies 4 and 5 of the Proposed NPS, which require preparation, notification and decisions on Plan Changes, Proposed Plans or Variation by March 2012, impose an unnecessarily onerous and arbitrary burden on local and regional authorities, and their ratepayers. Whether those policies would have beneficial outcomes, is questionable.
- iii. The Proposed NPS provides no consideration of the priority to be afforded to "the benefits to be derived from the use and development of renewable energy" in section 7(j) of the Resource Management Act 1991, with the 'Other Matters' in section 7 of the Act, or even with other matters in Part II of the Act generally. By not tackling this issue, the effectiveness and relevance of the Proposed NPS is in our view, reduced.

6. The above points are elaborated on in the following paragraphs.

#### Reversibility of renewable electricity generation technologies

- 7. The concept of reversibility of environmental effects of certain technologies has been introduced in order to provide some benchmark to encourage pre-selection of certain technologies over others. This is on the assumption that if a particular technology has more reversible effects, it must be more sustainable. Nevertheless there are many people who may be potentially adversely affected by the consequences of this assumption.
- 8. The example of wind farm development is relevant to consider here, because it is increasingly controversial. It is relatively easy to envisage that a wind farm may have environmental effects that may be more-easily and less-expensively reversed than environmental effects associated with (say) a hydro-electric dam, because the cost of decommissioning and removing a wind farm is likely to be less.
- 9. However, wind farms are not necessarily more sustainable than hydro dams just because the environmental effects of wind farms may be more reversible. There are cumulative effects to consider.
- 10. The decision to allocate resources for particular forms of renewable energy generation (or for that matter, any proposed activity) should be made on the basis of a comprehensive range of criteria, in order to enable a balanced judgement of the appropriateness of a proposed activity in a given location. The cue for such criteria is Part II of the Act. I return to this later in my statement.
- 11. The inclusion of the criterion of 'reversibility' in the Proposed NPS could be read to overstate this aspect as a matter of consideration. Such single criterion is hardly the basis for balanced decision-making or robust environmental outcomes.

12. There is also the opportunity cost of removing a source of electricity generation once it has been established.
13. If a facility (no matter how cheaply constructed) continues supplying essential electricity, the question that needs to be asked (alongside the reversibility of its environmental effects) is, is it ever likely to be decommissioned? In the case of wind farms, presumably if wind farms are perceived as a more-sustainable form of renewable electricity generation than hydro dams, then it is hardly ever likely that established wind farms would be decommissioned within the foreseeable future.
14. On this basis, we would request that the criterion of reversibility be taken out of the proposed NPS in the first instance.
15. In the second instance, and without prejudice to the preceding request, if the Board of Inquiry is of a mind to retain the criterion of reversibility, we would ask that supplementary criteria also be included, namely:
  - The extent to which any proposed renewable electricity generation facility has adverse effects which cannot be avoided, remedied or mitigated.
  - The extent to which any proposed renewable electricity generation facility constrains and/or inhibits the efficient use and development of finite natural and physical resources for other activities.
16. The reason for this is that these other criteria would provide some balancing criteria in the determination of the appropriateness or otherwise of particular proposals for renewable electricity generation activities.

#### Requirement for Plan Changes etc by 2012

17. Policies 4 and 5 of the Proposed NPS seek to mandate consideration of aspects renewable electricity generation activities in district and regional plans and policy statements, and require plan changes to be notified to this effect by 13 March 2012.
18. Porirua City Council has already prepared and notified a proposed plan change on the topic of renewable electricity generation: Proposed Plan Change 7 – Windfarms<sup>1</sup>.

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<sup>1</sup> A copy of Proposed Plan Change 7 – Windfarms, is included as an Attachment to this statement

19. Therefore at the very least, Porirua City Council would like the Board of Inquiry to direct that Policies 4 and 5 of the Proposed NPS be modified to recognise that where local authorities, such as Porirua City Council, have already have notified proposed plan changes or variations to address the issue of use and development of renewable energy as is relevant to their District, that they may be exempted from having to notify further plan changes or variations.
20. Porirua City Council's Proposed Plan Change 7 took 2 & ½ years to research, prepare, consult on, notify and get to the stage of hearing submissions. The plan change was triggered by proposals for wind farms within Porirua, combined with the fact that the Council's operative District Plan did not specifically address any form of renewable energy.
21. At the time of preparing its own plan change, the only national framework was in the Resource Management Act 1991 itself. In Proposed Plan Change 7, the Council is seeking to establish a regulatory framework that provides certainty for prospective wind farm developers and local residents alike. Proposed Plan Change 7 recognises the benefits of use and development of renewable energy whilst balancing the competing resource management priorities stipulated by the Act. A copy of Proposed Plan Change 7 is attached.
22. Hearing of submissions is presently underway and a decision is likely to be forthcoming before September 2009.
23. Having got this far with Proposed Plan Change 7, the Council would be loathe to be forced to undertake a further plan change(s) along the lines of what is proposed by Policies 4 and 5 of the Proposed NPS.
24. At the time of preparing this statement, Proposed Plan Change 7 has cost the Council \$135,000.00 and is estimated to cost a further \$35,000.00 before hearings are concluded and a decision on submissions is issued<sup>2</sup>. That does not take account of likely Appeals<sup>3</sup>. This is for what amounts to a relatively straightforward plan change proposal.
25. In terms of emerging future technologies, the Porirua City District Plan already to some extent anticipates future technologies (which would include future methods of renewable energy generation) within its resource management framework. Therefore the Council feels confident that there are no further changes warranted in this

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<sup>2</sup> Not including staff time

<sup>3</sup> As an indication of appeal costs on Plan Changes, a recent Plan Change cost the Council ~\$102,000 to settle the appeals alone.

regard for the time-being (and certainly not within the current 10-year timeframe for reviewing District Plans under the Act<sup>4</sup>).

26. The Council also has concerns that the practicalities of implementing the Proposed NPS may not have been fully worked through. In particular Policy 5's definition of "small and community scale distributed renewable electricity generation" incorporating installed capacity of less than 4 megawatts (MW) is quite arbitrary, and has no relation to potential cumulative effects. For example, a 4MW wind turbine is amongst the largest type of wind turbine currently available. One of these on every property in Porirua under the guise of 'small and community-scale distributed renewable electricity', would have potentially enormous adverse cumulative effects.

Relative priority of use and development of renewable energy resources with other important matters in the RMA

27. Earlier in my statement, I have inferred the lead that Part II of the Act should play in considering proposals for renewable energy generation activities. It is to these matters that I now turn.
28. At the risk of repeating what many submitters may have no doubt already stated, the reality is that all persons exercising functions and powers under the Act (including local and regional authorities) have a hierarchy of priorities to consider.
29. This includes a requirement to 'recognise and provide for' the Matters of National Importance in Section 6 as well as 'have particular regard to' the Other Matters in Section 7 and 'take into account' the principles of the Treaty of Waitangi in Section 8.
30. Any given renewable electricity generation activity proposal may trigger consideration of one, or a combination of some or all, of these matters.
31. This is particularly the case with consideration of proposed wind farms. The relationship of Section 7 Other matters with the Matters of National Importance in Section 6 is reasonably clear. However, of particular concern to the Council is how it should reconcile the tensions between 'competing' Section 7 matters that the Council has to have particular regard to. Namely (amongst other things); kaitiakitanga, the ethic of stewardship, the efficient use and development of natural and physical resources, maintenance and enhancement of amenity values, intrinsic values of ecosystems, maintenance and enhancement of the quality of the environment, any finite characteristics of natural and physical resources, and the

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<sup>4</sup> Notwithstanding that the 10-year timeframe for review of District Plans is proposed to be removed in the present Resource Management (Simplifying and Streamlining) Amendment Bill 18-1 (2009).

benefits to be derived from the use and development of renewable energy.

32. The ability to resolve these issues is a critical factor in successfully developing a 'sustainable' renewable energy generation sector. The Council generally considers that the resolution of these issues is best addressed in a local context, and this is a good reason for local authorities to be given some degree of initiative in determining policy that is appropriate for their jurisdiction.
33. However the Council does believe that there would be benefit in national guidance through the National Policy Statement, on reconciling the tensions between conflicting priorities within Section 7.
34. This may take the form of a definition of 'sustainable renewable electricity development', with multiple criteria to have particular regard to, including;
  - the matters in Part II of the Act, and
  - The extent to which any proposed renewable electricity generation facility has adverse effects which cannot be avoided, remedied or mitigated; and
  - The extent to which any proposed renewable electricity generation facility constrains and/or inhibits the efficient use and development of finite natural and physical resources for other activities; and
  - The relative degree of reversibility of the adverse effects on the environment associated with proposed generation technologies.

Attachment – Porirua City District Plan Proposed Plan Change 7 – Windfarms (as notified)

# Porirua City District Plan

## Proposed Plan Change 7: Renewable Energy – Wind Farms

### **Guide to the Plan Change**

Existing District Plan text is in normal font.

Instructions are in **bold font**.

New text to be inserted is underlined.

Existing text to be deleted is ~~struck through~~.

### **Amendment 1**

Amend Part B (Significant Resource Management Issues) by adding a new Issue B13 on page B-11:

#### **“B13 RENEWABLE ENERGY**

Section 7(j) of the Resource Management Act requires particular regard to be given to the benefits to be derived from the use and development of renewable energy. The rural areas of the City, in particular, have potential for the development of renewable energy, such as wind energy at a commercial scale, while the urban areas of the City offer the opportunity for domestic scale renewable energy use. Section C4 of the Plan recognises the importance of the development of, and use of, renewable energy resources while at the same time ensuring that any significant adverse effects of such development are avoided, remedied or mitigated and the sustainability of the rural land resource is not compromised.

The rural land resource in Porirua has multiple values including its potential value for wind energy generation. Primary production and plantation forestry activity are predominant in the Rural Zone. However, the nature of the Rural Zone is changing, with rural lifestyle development becoming increasingly prevalent. This is reflected by the number of lots with areas less than 40 hectares and the increasing number of lots between five and 10 hectares in size. The change in land development patterns can mainly be attributed to the following factors:

- (a) The Rural Zone’s proximity to the Porirua urban area;

- (b) The District Plan provides for subdivision to a minimum of five hectares as a discretionary activity;
- (c) The high level of accessibility, being bisected by State Highway One and State Highway 58; and
- (d) The amenity values provided by the Porirua Harbour catchments' landscapes.

Peri-urban development now has a significant presence on the developable land nestled in amongst the hills and ridges of the harbour catchment. Along with its landscape attributes, the harbour catchment also has significant ecological values, and is recognised by Greater Wellington Regional Council as being of regional significance as an estuarine harbour ecosystem.

Both the geographical location of Porirua City and its many hills and ridges within close proximity to the coastal area, lends the City to being a potential wind energy resource. However, the characteristics that make the City a potential wind energy resource are the same that provide the landscape backdrop and natural edge to the harbour catchment and the City's urban and peri-urban areas. The relatively close proximity of the hills and ridges to the lower lying urban and peri-urban areas and the harbour ecosystem results in potential tensions between the existing values of the Rural Zone and its potential as a wind energy resource. These tensions require careful management in considering the sustainable management of the Rural Zone."

## **Amendment 2**

**Amend Part C4 (Rural Zone Objectives and Policies) by adding a new Objective C4.2A and associated explanation on page C4-18:**

### **"C4.2A OBJECTIVE**

**To recognise the potential of the Rural Zone for renewable energy development, in particular wind farming, while ensuring that any significant adverse effects on the environment, including the sustainability of the rural land resource, are avoided, remedied or mitigated.**

#### Explanation

The Rural Zone has been recognised as encompassing environments that are potentially suited to the development of renewable energy resources, particularly commercial scale wind farms, due to the scale and characteristics of the Zone.

While the benefits of renewable energy generation from commercial scale wind farms are recognised, so too are their potential to generate significant adverse effects on the environment, including landscape, ecology and amenity values, noise, traffic and the sustainable development and use of land. The likely scale and location of wind farms generally means these adverse effects will generally not be able to be internalised within the wind

farm site and may impact on the development potential of sites in the immediate vicinity and the sustainability of the rural land resource.

Renewable energy developments may be located in the Rural Zone where any significant adverse effects on the environment and on the sustainability of the rural land resource are avoided, remedied or mitigated.

The broader, and national, regional and local, benefits need to be weighed against the potential adverse, and local, effects of the development of renewable energy resources. This requires careful assessment to ensure that any significant adverse effects are avoided, remedied or mitigated. The retention of Council's discretion to grant or refuse any application for resource consent ensures that full consideration can be given to this on a case-by-case basis."

### **Amendment 3**

**Amend Part C4 (Rural Zone Objectives and Policies) by adding the following new Policies C4.2A.1, C4.2A.2 and C4.2A.3 and associated Explanations, Methods of Implementation and Principal Reasons after new Objective C4.2A:**

#### "C4.2A.1 Policy

**To recognise the benefits of the development of renewable energy resources and the natural advantages that the Rural Zone provides for wind energy in particular.**

#### Explanation

This policy recognises the local, regional and national benefits of renewable energy development and regional and central government policies that seek to reduce dependence on non-renewable energy generation in favour of renewable energy generation. The City is recognised as having environments with a very good wind resource. The Rural Zone, in particular, contains potentially favourable locations for wind farms based on topography and land contour. The Zone also provides larger undeveloped spaces that potentially offer some degree of isolation from sensitive land uses. However, at the same time, it should be recognised that many of these large spaces are becoming increasingly fragmented.

#### Method of Implementation

**District Plan policies and rules** specify that wind farms are a discretionary activity in the Rural Zone, subject to certain criteria about their location. Any applications will be assessed against a range of assessment criteria that includes the recognition of the potential contribution of wind farms to achieving national, regional and local energy policy objectives, amongst other matters.

#### Principal Reasons

Central and regional government policies, along with an amendment in 2004 to the Resource Management Act, emphasise the importance of the development and use of renewable energy resources. More specifically, this includes:

- Central Government policies in relation to climate change and energy, which seek a reduction of greenhouse gas emissions in accordance with New Zealand’s Kyoto Protocol obligations, increased energy efficiency and an increase in the supply of energy from renewable sources. These policies are included in the National Energy Efficiency and Conservation Strategy (NEECS) (2001), the Draft NEECS (2006) and the draft New Zealand Energy Strategy (2006). The NEECS targets an annual increase in renewable energy supply of 2% to 2012.
- Section 7(j) of the Resource Management Act that requires Council to have particular regard to the benefits derived from the use and development of renewable energy.
- The Wellington Regional Policy Statement that seeks reduced energy demand, increased energy efficiency, the management of non-renewable sources and the development of renewable energy sources.

The Wellington Region, including Porirua City, is recognised as having a wind resource that is suitable for renewable energy generation. Given its characteristics, the Rural Zone has the most potential of any environment in the City for commercial wind farm development. Other zones in the City do not offer the natural advantages that the Rural Zone does. Other Zones also provide for activities that are sensitive to, and incompatible with, the development of commercial wind farms. Domestic scale turbines will require assessment against the performance standards of these zones.”

#### C4.2A.2 Policy

**“To manage the adverse environmental effects of wind farms on the Rural Zone and the City as a whole, by recognising that wind farms have the potential to cause significant adverse effects on the environment, particularly in terms of landscape, ecology and amenity values, noise and traffic and may be inappropriate in some locations.**

#### Explanation

This policy recognises the importance of the development of renewable energy resources, while recognising that the development and use of wind farms, as the most likely type of renewable energy generators, have the potential to cause significant adverse effects on the environment, particularly in terms of landscape, ecology and amenity values, noise and traffic. These potential adverse effects and the general inability of wind farms to be able to internalise those effects means that a wind farm, or part thereof, may be inappropriate in some locations.

### Method of Implementation

District Plan policies and rules provide for wind farms as a discretionary activity in the Rural Zone where criteria relating to separation from other Zones, separation from adjacent properties and exclusion from Landscape Protection Areas are met. This category of resource consent allows the Council to either refuse the application, or grant consent and impose conditions in order to avoid, remedy or mitigate adverse effects on the environment. The rule includes specific assessment criteria to guide Council's consideration of any applications for resource consent.

Wind farms that do not meet the separation and exclusion criteria will be considered as non-complying activities.

### Principal Reasons

Given the likely scale and the generally elevated location of wind farm developments, they are unlikely to be able to internalise all potential adverse effects that they may generate within the wind farm site. The consequential scale of effects generated on the surrounding environment will vary widely depending on the location of the wind farm and the characteristics of the surrounding area, including such factors as topography, screening and background noise.

The nature of the topography and geographical layout of the City means that any wind farm will potentially be visible throughout the City. Any application for resource consent for a wind farm will need to include an assessment of the ability of the environment to absorb the visual impact of the wind farm within the landscape and the appropriateness of the location. The discretionary activity criteria specifically excludes wind farms from being located within Landscape Protection Areas to reflect that it would be unlikely that wind farms would not significantly compromise the high landscape and amenity values that these areas are recognised for.

It is generally accepted that adverse effects associated with noise and shadow flicker may be able to be mitigated at a distance of 700m from the closest wind turbine, and that the visual impact of the wind farm may be reduced at this distance. The status of wind farms as a discretionary activity rule reflects this by requiring a separation distance of 700m from adjacent Zone boundaries and boundaries with properties that do not form part of the wind farm site.

As a discretionary activity, any wind farm will be subject to a full and rigorous assessment. Where the separation distance is not met, it is less likely that significant adverse effects on the environment will be able to be avoided, remedied or mitigated, and a non-complying activity status will apply.

### C4.2A.3 Policy

To recognise the potential for conflict from wind farms on the present and future use and development potential of sites within the immediate vicinity and to protect the sustainability of the rural land resource from the impacts of wind farms, while also recognising the changing character of the Rural Zone.

#### Explanation

This policy recognises the values associated with the Rural Zone, which have historically been associated with productive farmland and primary production activities. However, these values are changing as the demand for rural residential lifestyle living and lifestyle farming blocks increase and areas of the Zone become more peri-urban in nature. The inappropriate location of wind farms within this Zone has the potential to compromise the opportunities for future use and development of sites within the immediate vicinity and the ongoing sustainability of the rural land resource.

#### Method of Implementation

This policy seeks to recognise the potential impact that wind farms could have on the sustainability of the rural land resource, particularly in terms of limiting the use and future development opportunities of sites within the immediate vicinity. The District Plan reflects this potential impact through the inclusion of an assessment criterion as part of a discretionary activity rule.

#### Principal Reasons

It is recognised that wind farms themselves need not significantly limit the use of the land on which they are located. However, the generally large scale, visual prominence and other potential adverse effects of wind farms may limit opportunities for the use and development of sites within the immediate vicinity, thus impacting on the sustainability of the rural land resource. This is particularly relevant to those areas of the City that do not comprise productive farmland, are not as suitable for primary production activities, and where there is an increasing demand for rural residential lifestyle living. Parts of the Rural Zone of the City have also been identified through the Wellington Regional Strategy 2007 as being suitable for rural residential living, signalling that this increase in demand will be ongoing.

In assessing an application for a resource consent for a wind farm, the Council will consider its potential impact on the use and future development opportunities of sites within the immediate vicinity and the sustainability of the land resource as a whole."

#### Amendment 4

Amend Part C4 (Rural Zone Objectives and Policies) by adding the following new clause C4.3.7 to C4.3 Environmental Outcomes Anticipated:

“C4.3.7 The opportunity to derive national, regional and local benefits from the development of wind farms, as a source of renewable energy, where potential significant adverse effects are avoided, remedied or mitigated and the sustainability of the rural land resource is maintained.”

#### Amendment 5

Amend Part D4 (Rural Zone Rules and Standards) by adding the following new discretionary activity to Rule D4.1.4:

“(vii) Wind farms where no structure (including substations and turbines) is located within a Landscape Protection Area or within 700 metres of:

- a) A Zone boundary (excluding district boundaries); or
- b) The boundary of a site that is not part of the wind farm.

Assessment Criteria

In considering whether to grant consent to an application for resource consent and, if granted, what conditions to impose, Council will have specific regard to (but will not be restricted to) the following criteria:

- a) The contribution to achieving national, regional and local energy policy objectives;
- b) Visual impacts, including the design, location, appearance and concentration of structures and their impact on the natural character of the coastal environment, outstanding natural features and landscapes, rural character, and visibility from residences and public places;
- c) The effects of noise, and particularly the ability to meet NZS 6808:1998 (Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators);
- d) Impacts on the amenity values of the surrounding environment, including a consideration of electromagnetic interference, vibration and turbine blade shadow or glare flicker;
- e) Ecological impacts, particularly impacts on waterbodies, impacts associated with native vegetation removal and impacts on indigenous avifauna and other fauna;
- f) Impacts on archaeological and historic features and items, and sites of significance to tangata whenua;
- g) Impacts of earthworks and the modification of natural landforms, including proposed remedial and mitigation measures;
- h) Traffic impacts (including construction and post-construction traffic) and impacts on the roading network, including the nature and extent of

vehicle movements, management and mitigation measures and impacts associated with traffic distraction;

- i) Impacts on aviation, navigation and existing network utilities;
- j) Impacts on the use and future development potential of sites within the immediate vicinity of the wind farm and the sustainability of the rural land resource;
- k) Construction effects, including construction noise (and the ability to meet NZS 6803:1999 Acoustics – Construction Noise); and
- l) Cumulative effects, including a consideration of visual saturation.”

In submitting an application for resource consent the applicant will be required to undertake a full assessment of environmental effects in accordance with the information requirements of Part F Information to be Supplied.

It is acknowledged that a wind farm is likely to encompass more than one site (or land contained within a single certificate of title). For the purpose of this Rule, the provisions of Rule D4.1.4 (vii) apply to all sites that form the wind farm.

### **Amendment 7**

**Amend Part F (Information to be Supplied) by adding the following paragraph to the end of Part F8.3 (Application for a Discretionary Activity), following the words “... alternative locations for the activity.”:**

“Wind farms. All applications are to include relevant assessments undertaken by suitably qualified and/or experienced professionals in relation to the anticipated adverse effects of the proposal, in addition to any of the above requirements for discretionary activities. These assessments shall particularly address the Assessment Criteria listed in Rule D4.1.4(vii). Where necessary, a geotechnical investigation may also be required to be included.”

### **Amendment 8**

**Amend Part M (Interpretation) by inserting the following words in the interpretation of a Primary Production Activity:**

#### **“Primary Production Activity**

Means any land based activity which:

- (i) Has as its purpose the production of any livestock or vegetative matter for use or consumption by humans or animals; and
- (ii) Utilises the in-situ production capacity of the soil, water and air as a medium for production; and

- (iii) Where stocking density does not preclude the maintenance of pasture or ground cover.

The harvesting of production forestry and renewable energy developments ~~is~~ excluded from this definition.”

### **Amendment 9**

**Amend Part M (Interpretation) by adding the following interpretation of a Wind farm:**

**“Wind farm**

Means the land, structures (including substations and turbines), earthworks and access tracks associated with the generation of electricity from wind. It does not include:

- (a) Domestic scale turbines that are capable of generating up to 5kW of electricity and up to 20kW of total maximum output per site;
- (b) Transmission lines that connect the wind farm to the National Grid; and
- (c) Any upgrades or traffic improvements to legal roads.”