

Sections 168 169 181 189A 190 192(f) Resource Management Act 1991

To The Minister for the Environment

Name of submitter: Telecom New Zealand Limited

This is a submission on a Notice of requirement from Contact Energy Limited for a designation (the notice of requirement)

Contact Energy Limited has lodged Notices of Requirement with the Waikato District Council for the following activities associated with the reticulation and transmission of electricity from Hauāuru mā raki to the National Grid:

- **DES0012/08:** The construction, operation, maintenance, replacement, renewal and upgrading of a substation at Matira (called the Matira Substation) and ancillary facilities.
- **DES0013/08:** The construction, operation, maintenance, replacement, renewal and upgrading of a substation at Te Akau (called the Te Akau Substation) and ancillary facilities.
- **DES0014/08:** The construction, operation, maintenance, replacement, renewal and upgrading of a single circuit 220 kV transmission line (to the extent that the line will be within the Waikato District) on monopoles (except in some locations where lattice towers may be required) linking the proposed Matira and Te Akau Substations to the south in the Waikato District with the Limestone Downs Substation in the Franklin District to the north, and ancillary facilities.



The specifics of the Notice of requirement to which my submission relates are Telecom is concerned about the impact on its infrastructure in the locality. In particular:

- Telecom has cables and cable network plant down virtually all the existing roads in the vicinity of the proposed wind farm and the associated 33/220 kV Substations and 220 kV lines.
- As there are major voltages involved (33 kV and 220 kV), and also almost certainly very high earth fault current levels, and consequently possible high induced voltages on Telecom cables.
- Increased induced voltages on Telecom network due to increased earth fault current levels on existing transmission lines;
- Increased EPR hazard from existing pylons, concrete or steel poles on existing transmission lines; and
- Excessive "electromagnetic noise" levels being induced on Telecom cables as a result of the operation of the wind farm.

Telecom's concerns are set out in more detail in our letter to Wind Farm Group Limited dated 6 February 2008.

My submission is

Telecom neither opposes nor supports the Notice of Requirement, but is concerned that conditions should be placed on any consent to ensure that the wind farm and connection to the National Grid do not impact on its infrastructure.

I seek the following recommendation or decision from the requiring authority
That the Minister imposes conditions on any consent:

1. Requiring the Requiring Authority to:

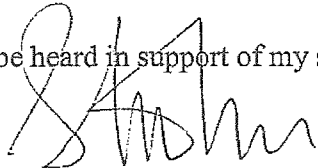
- Consult with Telecom in respect to the telecommunications and associated infrastructure that is potentially affected by the proposed wind farm;
- Evaluate, in conjunction with Telecom, the consequential possible induction hazard and EPR hazard to Telecom cable network plant;
- Identify, in conjunction with Telecom, the required mitigation to Telecom's cable network plant;
- The above work is recorded in a report to the satisfaction of, and provided to the consent authority. and
- Any mitigation work to be at the consent holders cost and be completed prior to the *Hauauru ma raki* wind farm being connection to the National grid and transmission networks being commissioned.

2. Requiring the Requiring Authority to:

- Provide Telecom at least one years notice of the proposed commissioning date of the connection to the Transpower 220 kV line, so that Telecom can arrange to install its electromagnetic "noise" loggers on its most 'at risk' cables, suitable period before the commissioning date;
- Advise Telecom of any subsequent changes to the planned commissioning date of the connection to the National grid and transmission networks;
- In conjunction with Telecom, immediately following the commissioning and operation of the wind farm, assess the impact on the electromagnetic "noise" levels on Telecom's most 'at risk' cables over up to a 12 month period;
- In conjunction with Telecom, identify any required mitigation to the wind farm, the power network or Telecom's cable network plant along with the timing of its implementation;
- The above work is recorded in a report to the satisfaction of, and provided, to the consent authority; and
- Any mitigation work to be at the consent holders cost.

Note: Designing, supplying and installing any required mitigation to Telecom's cable network plant will take some time and it should not be left to the last minute.

I wish to be heard in support of my submission.



.....
Signature of submitter
(or person authorised to sign on behalf of submitter)

29 Oct 08

.....
Date

(a signature is not required if you make your submission by electronic means.)

Address for service of submitter

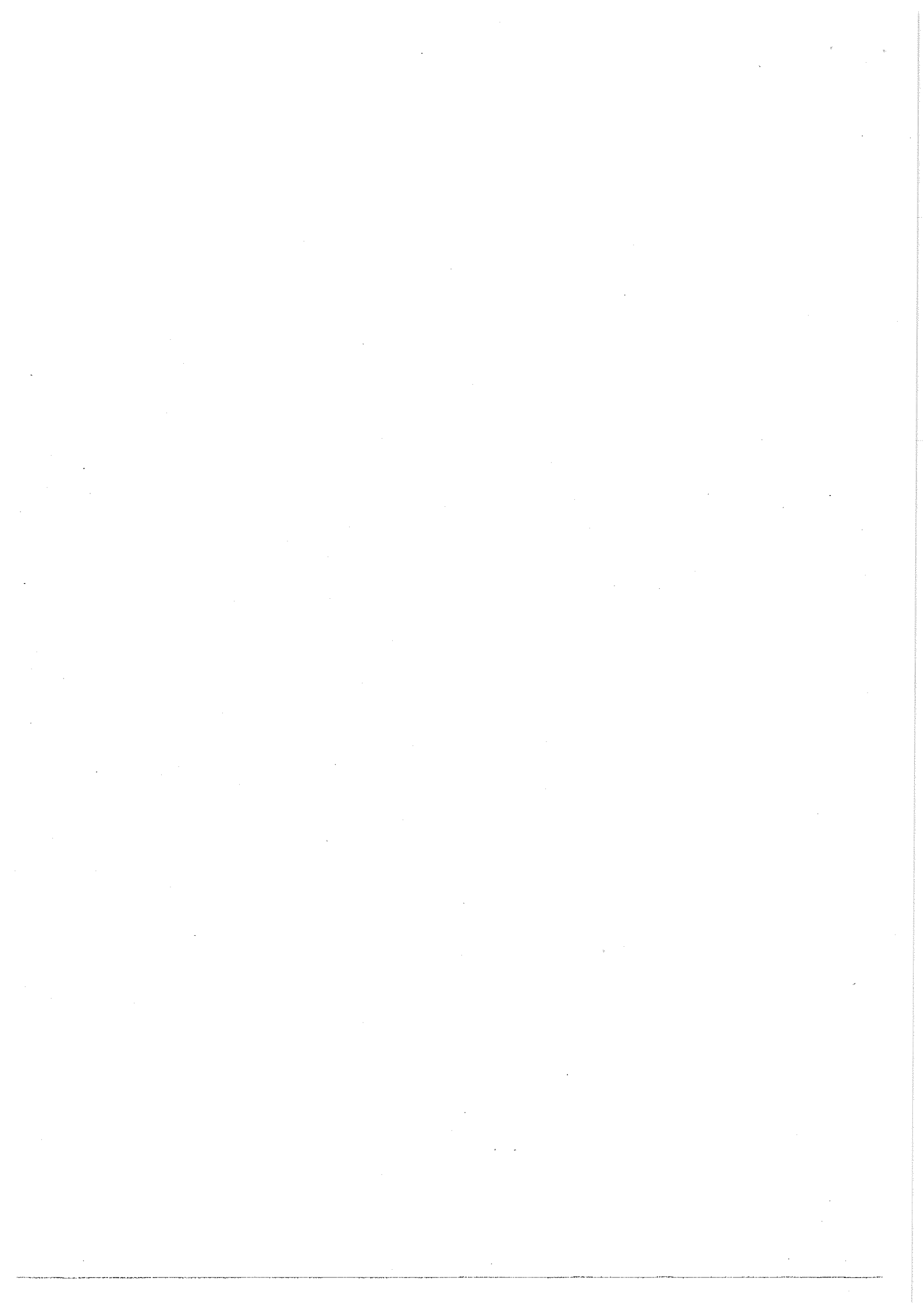
Postal Address: c/- Chorus PO Box 632 Wellington 6140.

Telephone: (04) 382 5692

Fax/email: (04) 385 4673

Contact person:

Steven Kerr, Environmental Manager, Telecom New Zealand Ltd



SUBMISSION ON APPLICATION PUBLICLY NOTIFIED OR NOTICE OF WHICH SERVED UNDER SECTION 94(1) CONCERNING RESOURCE CONSENT, WATER PERMIT OR ESPLANADE STRIP

Sections 94(1), 96, 127(3), 126(4), and 234(4) Resource Management Act 1991

To: The Minister for the Environment

Name of submitter: Telecom New Zealand Limited (Telecom)

This is a submission on an application from Contact Energy Ltd for resource consents.

Land use consents [L08052] for all activities associated with the construction, operation and maintenance of a [*Hauauru ma raki*] wind farm that includes the erection and operation of wind turbine generators, site mobilisation and establishment, earthworks and land disturbance, underground and over-ground 33 kV transmission works and site reinstatement.

The proposed wind farm is to be located along approximately 34 km of coastline on the west coast of the North Island of New Zealand from 4 km south of Port Waikato to Te Akau, some 8 km north of Raglan.

The specifics of the application that my submission relates are - Telecom is concerned about the impact on its infrastructure in the locality. In particular:

- Telecom has cables and cable network plant down virtually all the existing roads in the vicinity of the proposed wind farm and the associated 33/220 kV Substations and 220 kV lines.
- As there are major voltages involved (33 kV and 220 kV), and also almost certainly very high earth fault current levels, and consequently possible high induced voltages on Telecom cables.
- Increased induced voltages on Telecom network due to increased earth fault current levels on existing transmission lines;
- Increased EPR hazard from existing pylons, concrete or steel poles on existing transmission lines; and
- Excessive "electromagnetic noise" levels being induced on Telecom cables as a result of the operation of the wind farm.

Telecom's concerns are set out in more detail in our letter to Wind Farm Group Limited dated 6 February 2008.

My submission is –

Telecom neither opposes nor supports the application, but is concerned that conditions should be placed on any consent to ensure that the wind farm does not impact on its infrastructure.

I seek the following decision from the consent authority:
That the Minister imposes conditions on any consent:

1. Requiring the consent holder to:

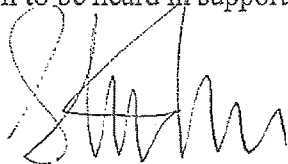
- Consult with Telecom in respect to the telecommunications and associated infrastructure that is potentially affected by the proposed wind farm;
- Evaluate, in conjunction with Telecom, the consequential possible induction hazard and EPR hazard to Telecom cable network plant;
- Identify, in conjunction with Telecom, the required mitigation to Telecom's cable network plant;
- The above work is recorded in a report to the satisfaction of, and provided to the consent authority. and
- Any mitigation work to be at the consent holders cost and be completed prior to the *Hauauru ma raki* wind farm being connection to the National grid and transmission networks being commissioned.

2. Requiring the consent holder to:

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