

BYLAW NO. 7
TRAFFIC

13 PENALTIES

13.1 Every person who commits an offence against this Bylaw is liable on summary conviction to a fine not exceeding \$500.00 and where the offence is a continuing one to a further fine not exceeding \$50.00 for every day or part of a day during which the offence continued.

14 SAVINGS

14.1 The Waitakere City Council Bylaw No. 7 1990 is hereby expressly repealed with effect from the date that this Bylaw comes into operation, provided however, that:-

- (1) All offices, appointments, orders, certificates, notices, requisitions, records, instruments, resolutions and generally all acts of authority and all other documents, matters, acts and things and all periods of time that originated or had effect under the said Bylaw or any part thereof and are subsisting and in force or continuing at the date that this revocation of Bylaw comes into force shall endure for the purpose of the Bylaw made by this Special Order as fully and effectually as if they had originated under the Bylaw hereby made and shall where necessary be deemed to have so originated.
- (2) All matters, proceedings, and prosecutions commenced under the Bylaw hereby revoked and pending or in progress on the date this revocation comes into force may be completed, continued and enforced under the Bylaw made by this Special Order.
- (3) The revocation of the said Bylaw shall not revise any Bylaw revoked by the Special Order by which that Bylaw was made.

15 DISPENSING POWERS

15.1 Where in the opinion of the Council a full compliance with any of the provisions of this Bylaw would needlessly or injuriously affect any person, or the course or operation of the business of, or be attended with loss of inconvenience to, any person without any corresponding benefit to the community, the Council may, on the special application of such person so affected or on the recommendation of the officer of the Council usually or for the time being charged with the control or administration of the particular Part or the provisions of the Part or clause of the Bylaw affected, by resolution dispense with the full Compliance or relax the full compliance with any such Part or the provision of any such Part or clause of such Bylaw, or otherwise modify the same with or without added conditions.

15.2 Should the Council acting pursuant to the foregoing clause (15.1) hereof dispense with the full compliance or relax the full compliance with any of the provisions of this Bylaw or otherwise modify the same then a breach by such applicant of any such terms or conditions shall be deemed a breach of this Bylaw.

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Authenticated in accordance with Section 252 Local Government Act 1974 as a true copy of Bylaw No. 7 (Traffic) 1991 incorporating amendments No.1 1991, No.2 1993, No.3 1995, No.4 1998 and No.5 2001.

Signed by



H. V. O'Rourke
Principal Administrative Officer

Dated this 23rd day of July 2002.

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Databases > NZ Law Partner Legislation and Cases > Statutes of NZ > T > Transport Act 1962 > Part 5 Road traffic > Bylaws > 72 Bylaws as to the use of roads

Transport Act 1962

72 Bylaws as to the use of roads

- (1) Subject ... to the provisions of this Act or of any other enactment in respect of any of the matters referred to in this subsection, any Minister of the Crown in respect of any roads under his control, or any local authority in respect of any roads under its control, may from time to time make bylaws for any of the following purposes:
- (a) Providing for the weighing or measurement of loads of vehicles, or for the computation of the weight or measurement of loads from the cubical or superficial measurements thereof; prescribing what quantity of any material shall for the purpose of such computation be conclusively deemed to be a specified weight or measurement; and providing for the drivers of vehicles giving such information as to the loads thereof and as to the quantity, weight, size, or measurement of the loads, or doing such things for the purpose of enabling the same to be ascertained, as may be requested by any person authorised in that behalf:
 - (b) Regulating the weights of vehicles or loads that may pass over bridges or culverts:
 - (c) Prohibiting, either absolutely or conditionally, the crossing of any bridge or culvert by horses, cattle, sheep, pigs, or other animals, and regulating the times at which or the manner in which any vehicles, horses, cattle, sheep, pigs, or other animals may cross or be taken over any bridge or culvert:
 - (d) Prescribing the routes by which and the times at which horses, cattle, sheep, pigs, or other animals, or specified classes of vehicles may pass over any such roads; and prohibiting the driving of loose horses, cattle, sheep, pigs, or other animals along any such road, otherwise than at the times and by the routes so prescribed, except with the permission of the said Minister or of the local authority, as the case may be, and on such conditions as the said Minister or the local authority, as the case may be, thinks fit:
 - [(dd) Prohibiting, either absolutely or conditionally, the driving of horses, cattle, sheep, or pigs along any road, and requiring that no horses, cattle, sheep, or pigs shall be taken upon or enter any road unless they are confined within a motor vehicle:]
 - (e) Providing for the giving and taking of security by or from any person that no special damage will occur to any road, bridge, culvert, ferry, or ford by reason of any heavy traffic thereon:
 - (f) Prohibiting any specified class of heavy traffic that has caused or is likely to cause serious damage to any road unless the cost of reinstating [or strengthening] the road, as estimated by the said Minister or the local authority, as the case may be, is previously paid:
 - (g) Providing for the annual or other payment of any reasonable sum by any person concerned in any heavy traffic by way of compensation for any damage likely to occur therefrom to any road, bridge, culvert, ferry, or ford:
 - [(h) Providing for the establishment, in accordance with section 361 of the Local Government Act 1974, of a toll to be levied on any class of heavy traffic:]
 - [(i) Prohibiting or restricting absolutely or conditionally any specified class of traffic (whether heavy traffic or not), or any specified motor vehicle or class of motor vehicle which by reason of its size or nature or the nature of the goods carried is unsuitable for use on any road or roads specified in the bylaw:]
 - [(ia) Providing that, subject to the erection of the prescribed signs, vehicles on roads designated in the bylaw shall travel in one specified direction only:]

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- (j) [In the case of Ministers of the Crown only, fixing], for the safety of the public or for the better preservation of the road, the maximum speed of vehicles or of specified classes of vehicles on any road:
- [(k) Prohibiting or restricting, subject to the erection of the prescribed signs, the stopping, standing, or parking of vehicles on any road; limiting the stopping, standing, or parking of vehicles on any road to vehicles of any specified class or description; limiting the period of time that vehicles may park on any part of the road where parking is limited to such vehicles; and providing that a vehicle used for the time being for any specified purpose shall be deemed for the purposes of the bylaw to be of such class or description as is specified in the bylaw, notwithstanding that the vehicle may belong to any other class or description for any other purpose:]
- [(ka) Prohibiting, subject to the erection of the prescribed signs, vehicles on a roadway turning from facing or travelling in one direction to facing or travelling in the opposite direction, or prohibiting vehicles on a roadway, other than vehicles of a class specified in the bylaw, from turning to the right or to the left:]
- [(kb) Prescribing, subject to the marking of lanes on the roadway, that on any road any traffic lane specified in the bylaw may be used or any turning movement may be made only by omnibuses, taxis, or vehicles of other specified classes or vehicles carrying specified classes of loads [[or not less than a specified number of occupants]]:]
- [(kc) Prohibiting or restricting, subject to the erection of the prescribed signs, the parking of heavy motor vehicles, or any specified class or description of heavy motor vehicles, on any specified road during such hours or exceeding such period as may be specified:]
- (l) Prescribing fines, not exceeding \$500, for the breach of any bylaw made under this section.
- (2) Any bylaws made under this section may apply generally to all roads under the care, control, or management of the Minister or local authority making the bylaws, or to any specified road, or to any specified part or parts thereof, and may apply to all vehicles or traffic or to any parts thereof, and may apply to all vehicles or traffic or to any specified class or classes of vehicles or traffic, and may operate at any time or at any specified time or times.
- (3) All charges, fees, and tolls received by any local authority under this section in respect of any road shall, without any deduction except for the cost of collection, be expended on the maintenance of that road.
- (4) A copy of every bylaw made under this section by a local authority shall within one week after the making thereof be sent by the local authority to the Minister of Transport, who may at any time disallow the bylaw or any part thereof under section 74 of this Act.
- (5) Nothing in this section shall apply to any authorised railway or tramway on, over, or across any road, or shall limit any powers of regulating traffic on roads otherwise possessed by the Governor-General, any Minister of the Crown, or any local authority.
- (6) The power to make bylaws regulating, controlling, or prohibiting vehicular traffic shall be subject to the provisions of this Act or any other enactment dealing with any specified class or classes of traffic or vehicles.
- [(6A) Every person who—
- (a) Parks in breach of a bylaw of a local authority in any portion of a road where parking is for the time being governed by the location of parking meters placed pursuant to a bylaw of the local authority; or
- (b) Parks in any other portion of a road in breach of a bylaw of a local authority prohibiting parking for a period in excess of the period fixed by the bylaw—
- commits an offence, and (where no penalty is prescribed in respect thereof in the bylaws of the local authority) is liable to a fine not exceeding \$20.]

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Databases > NZ Law Partner Legislation and Cases > Statutes of NZ > L > Local Government Act 1974 > Part 43 Bylaws > [684 Subject-matter of bylaws

Local Government Act 1974

[684 Subject-matter of bylaws

- (1) Without limiting the power to make bylaws conferred on the council by any other provision of this Act or by any other Act, the council may from time to time make such bylaws as it thinks fit for all or any of the following purposes:

Constitutional and Management of District

- (1) Repealed.
- (2) Repealed.
- (3) Repealed.
- (4) Repealed.
- (5) Repealed.
- (6) Repealed.
- (7) Repealed.

Public Health and Wellbeing

- (8) Repealed.
- (9) Repealed.
- (10) Repealed.
- (11) Repealed.
- (12) Repealed.

Roads

- (13) Concerning roads and cycle tracks and the use thereof, and the construction of anything upon, over, or under a road or cycle track:
- (14) Regulating the use of any means of access constructed pursuant to section 319(1) of this Act:
 - [[(14A) Requiring the owner or occupier of any area of land on which a building is situated or the owner or occupier of any building or part of a building, being land or a building or part of a building to which a number has been allocated under section 319B of this Act, to display that number in a position visible from the road:]]
- (15) Regulating, controlling, or prohibiting the display or continuance of the display, upon or over public buildings or bridges, or upon or over buildings, walls, fences, posts, trees, pavements, or hoardings, situated in or upon or adjoining any land or road the property of or under the control of the council, or the display or continuance of the display, in any manner so that it shall be visible from any such road or public place, of posters, placards, handbills, writings, pictures, or devices for advertising or other purposes:
- (16) Restricting or prohibiting the planting or erection, at or within a specified distance of corners, bends, or intersections on roads, of trees, shrubs, hedges, scrub, or other growth,

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or of fences or walls, which, in the opinion of the council are, or are likely to constitute, a source of nuisance or danger to traffic, and requiring the trimming or cutting down of such trees, shrubs, hedges, scrub, or other growth:

- (17) Requiring any allotment in such parts of the district as are specified in the bylaws to be fenced along its line of frontage to any road, and to be kept clear of noxious plants:
- (18) Prohibiting the cutting of grass for seed on roads or on any specified roads without the previous consent in writing of the council, either at all times or during any specified part of the year:
- (19) Regulating the use of, and protecting, grass plots, flower beds, and shrubberies laid out in roads or on land vested in or under the control of the council (whether laid out before or after the commencement of this Part of this Act) by or under the authority of the council, and protecting trees growing on any roads or on land vested in or under the control of the council (whether planted by the council or not):
- (20) Regulating or prohibiting the construction of cellars or the making of excavations within a specified distance from any road or any adjoining land, and preventing cellars and excavations from becoming a receptacle for stagnant water or other impure matter:

Land and Buildings

- (21) Repealed.
- (22) Repealed.
- (23) Repealed.
- (24) Repealed.
- (25) Repealed.
- (26) Repealed.
- (27) Repealed.
- (28) Repealed.
- (29) Repealed.

Recreation and Community Development

- (30) Repealed.
- (31) Repealed.
- (32) Repealed.
- [[33) Repealed.]]
- [[33A) Repealed.]]
- (34) Repealed.

Animals and Plants

- (35) Repealed.
- (36) Repealed.
- (37) Repealed.

Licensing and Inspection

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Find out more

www.aucklandcity.govt.nz

Monday, 3 September 2007

DDI: 307 7305
Group File No: M1008
LUC No: 20070342401Waitakere City Council
Private Bag 93109
Waitakere-0650
Attention: Philip Brown

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Dear Sir/Madam

RESOURCE CONSENT APPLICATION
UTILITIES, AUCKLAND CITY - HENDERSON-OTAHUHU TRANSMISSION LINE

This application was heard by Hearing Commissioners **Mr G Macfarlane, Mr D Chandler, Mr R Gee, Mr E Graham** and **Board Member L Rea** on Monday, 13 August 2007 to Wednesday, 15 August 2007. A copy of the decision is attached and has been forwarded to the applicant and every person who made a submission.

The applicant and/or any submitter may appeal the council decision under section 120 of the Resource Management Act 1991. If an appeal is lodged, any person who made a submission on the application may become a party to the proceedings by lodging a notice under section 274 of the Resource Management Act 1991. These notes are indicated as a guide only and do not constitute legal advice.

You may lodge an appeal against the council's decision with the Registrar of the Environment Court (PO Box 7147, Wellesley Street, Auckland, phone (09) 916 9091, fax (09) 916 9090). The appeal must be lodged with the Environment Court within 15 working days of the receipt of the decision together with a filing fee of \$55.00. The format of the appeal must follow that prescribed by Regulation 16 (Form 34) of the Resource Management (Forms, Fees, and Procedure) Regulations 2003. A copy of the appeal must be served on the Council within 15 working days of the receipt of the decision and on the applicant and all other submitters within 5 working days of lodging the appeal with the Environment Court.

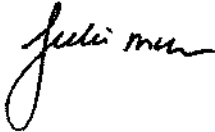
As you were a submitter, any other person lodging an appeal with the Environment Court must serve a copy of the notice of appeal on you. If a notice of appeal is served on you by another person and you wish to be a party to that appeal proceedings before the Environment Court, then you will need to give notice of your intention to become a party to the proceedings to the Environment Court under section 274 of the Resource Management Act 1991 within 30 working days after the notice of appeal is lodged with the Environment Court. The notice must follow the format prescribed by Regulation 16 (Form 33) of the Resource Management (Forms, Fees and Procedure) Regulations 2003. You must serve a copy of this notice on the

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other parties to the proceedings, including the Council and the applicant, within the same 30 working day period. If you do not lodge or serve the notice within 30 working days, you may apply to the Environment Court under section 281 of the Resource Management Act for a waiver of the 30 working day lodgement or service requirements

If you require any further information in relation to the decision and this letter, please contact Robyn Pilkington, Hearings & Appeals Administrator, phone 353 9250, who will direct your inquiry to the appropriate officer.

Yours faithfully



Julie McKee
Hearings Team Leader

Public Services	
Police Services	
Fire Services	
Health Services	<input checked="" type="checkbox"/>
Education Services	
Environment Services	
ECO - WATER	
Strategic Group	
Consent Services	
Field Services	

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RESOLUTIONS PASSED AT A PLANNING HEARING BY
HEARING COMMISSIONERS HELD ON MONDAY, 13 AUGUST 2007 TO
WEDNESDAY, 15 AUGUST 2007 AT 9.30 AM IN THE HEARINGS MEETING
ROOM, LEVEL 1, TOWN HALL, 301 QUEEN STREET, AUCKLAND

APPLICATION FOR A RESOURCE CONSENT
BY TRANSPOWER NEW ZEALAND LIMITED AT
UTILITIES, AUCKLAND CITY - HENDERSON-OTAHUHU TRANSMISSION LINE,
AUCKLAND
(LUC NO.: 20070342401)

COMMISSIONERS: Mr D Chandler (Chairman)
Mr R Gee
Mr E Graham
Mr G Macfarlane
Board Member Ms L Rea

COUNCIL OFFICERS: Mr G Michie Project Manager
Mr B Dales Reporting Planner
Mr D Hughes Manager Utility Relationship
Ms A Christian Hearings Administrator

APPLICANT: Transpower New Zealand Limited

APPEARANCES:
For the applicant: Mr M Williams Legal Counsel
Mr R Derks Transpower NZ Ltd
Mr R Basher Transpower NZ Ltd
Mr S Mutton Vector
Mr M Khot Transpower NZ Ltd
Mr R Cooper PB Power Ltd
Dr D Black University of Auckland
Mr R Lake Transpower NZ Ltd
Mr K Lichti MPT Solutions Ltd NZ
Mr I Flatley Groundline
Ms A McLeod Beca Carter Hollings Ferner Ltd

Submitters: Ms B Stumbles
Ms J Ponting & Mr S McKeating. Dr L Bennet (Witness)
Mr & Mrs J and W Ellis
New Zealand Refining Company Ltd represented by Mr C
Simmons (Legal Counsel) and Mr G Visser (Witness)
Northpower represented by Mr R Watson
Waitakere City Council represented by Mr P Brown
Jackson Electrical Industries Ltd represented by Mr J Jackson,
Mr W McIntosh (Witness), Mr J Churchill (Witness)
The Onehunga Enhancement Society Inc., The Local Lockup
Ltd, Mr S Palmer and the James Kirkpatrick Group represented
by Mr J Jackson
Jackson Electrical Industries Ltd, The Onehunga Enhancement
Society Inc., The Local Lockup Ltd, Mr S Palmer, SMC
Pneumatics (NZ) Ltd represented by Mr R Demler

Mr G Naulls representing himself and S & I Brown, D & M Kilgour, P & S Brewer, J & D Gomas, W & M Bianco, S O'Connor with Dr A Lasham (Witness)
Mr B Easton
Mr R Meiklejohn
Ms B Graham, Chair; representing Maungakiekie Community Board
Mr H Jarvis

The hearing of evidence concluded at 16.08pm on Wednesday, 15 August 2007 and the public excluded from the deliberations of the Commissioners.

LATE SUBMISSIONS

With regard to Section 37 of the Resource Management Act 1991, the Commissioners considered that the interests of the community would not be compromised if these submissions were to be accepted, and noted that these submissions have not caused any delay in the processing of the report. Also the Applicant raised no objections to their acceptance.

The Commissioners therefore resolved to accept all late submissions.

DECISION

Pursuant to Section 104C of the Resource Management Act 1991, the restricted discretionary activity land use application by Transpower New Zealand Limited ("Transpower") to enable the operation of one live circuit of the Henderson – Otahuhu A 220kV transmission line ("the Line") above 750MVA/75°C and up to 986MVA/120°C during a forced outage affecting the other (second) circuit, and further up to 10% higher than this, namely, 1085MVA, for a maximum period of 15 minutes during any such outage that:

- In accordance with Rule 4A.4.6E of the Operative District Plan 1999 – Isthmus Section is a restricted discretionary activity

be granted consent.

Lapsing of Consent

Pursuant to section 125 of the Resource Management Act 1991, this resource consent will expire 5 years after the date of commencement of consent unless, before the consent lapses;

- (a) the consent is given effect to; or
- (b) an application is made to the consent authority to extend the period of the consent, and the consent authority decides to grant an extension after taking into account the statutory considerations, set out in section 125(1)(b) of the Resource Management Act 1991.

Pursuant to Section 113 of the Resource Management Act 1991 the following matters have been taken into account in making the decision set out above:

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Relevant Statutory Provisions

The following provisions of the Resource Management Act 1991 were relevant in the assessment of this application:

- Sections 5-8, 36, 37, 104, 104C, 108, 113, 123 and 125

Relevant Plan Provisions

The relevant planning documents considered were:

- Auckland City District Plan 1999 – Isthmus Section (“The District Plan”) and in particular the following:
 - Clause 4A.4 (Network Utility Services)
- Plan Change: Plan Modification No.90.

Principal Issues in Contention

The principal issues in contention are covered in the summary of submissions and evidence below.

Summary of Submissions and Evidence

- Mr Williams, Counsel for Transpower noted that the Line is currently the only continuous link in the national grid serving North Auckland and Northland
- Demand is increasing at 3-4% per annum
- The Line has two circuits each consisting of three conductors i.e. a total of six conductors fixed to each tower
- Because the national grid operates on an ‘N-1’ basis, if a fault occurs in one circuit, the other circuit must be able to carry all the power being transmitted at a given time until the faulty circuit is repaired
- The Line was previously rated to 750MVA/75°C; it is now rated to 986MVA following the raising of some conductors and tower strengthening where required
- However, current flows in the Line may not be increased beyond 750MVA per circuit as a permitted activity
- In the event of a forced outage (being an unplanned event as defined in the application) the District Plan limit would be exceeded, hence this application
- No forced outages have occurred in the past two winters when loads on the Line have been at their highest
- Turning to the Planner’s report, Counsel considered that no purpose would be achieved by limiting the duration of the consent. Rather, in line with the High Court authority in the Genesis case (see below), he would support a review clause

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- **Transpower would support the recommended self-monitoring condition proposed in the officer's report. They would also accept:**
 - **A requirement to notify to all submitters to this application, and also the public generally by way of public notice in the local and regional newspapers of a "point of contact"; being a person responsible for receiving complaints about operation of the Line during forced outages**
 - **A requirement that this person keep a record of all such complaints**
 - **A requirement that each complaint relating to operation of the Line during a forced outage (involving operation above 750MVA) be investigated**
 - **A requirement that the record of complaints, the outcomes of their investigation and any remedial steps taken by Transpower to address any complaints, be supplied to the Council on an annual basis.**
- **The applicant, Transpower, then called a number of expert witnesses in support of its case**
- **Mr Derks noted that planned outages (for maintenance purposes) do not require a consent as the District Plan limits would not be exceeded**
- **He is preparing a Grid Upgrade Plan to address the predicted shortfall in transmission capacity into North Auckland and Northland after 2013 assuming this consent is granted. This would require Electricity Commission approval prior to implementation**
- **Mr Basher described the management of load during forced outages, load shedding and steps taken to minimize outage duration and frequency**
- **Mr Mutton, a Vector employee, stated that if a consent were not granted, electricity supply to up to 61,000 homes and businesses from Henderson to Wellsford would be cut in times of overload**
- **Mr Khot's evidence covered the assessment of Electric and Magnetic field levels, Radio Frequency Interference, Audible noise and safe clearance distances. A minimum ground clearance of 7.5 metres was required in all circumstances taking into account conductor temperatures and other factors**
- **Electric fields are a function of the voltage on the conductors while magnetic fields are exclusively a function of the current through the conductor**
- **The safe limits for electric and magnetic fields are suggested by the International Commission for Non-Ionising Radiation Protection (ICNIRP) and endorsed by the World Health Organisation (WHO). They are 5kV/m (volts/metre) and 100µT (microtesla) for electric and magnetic fields respectively**

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- These limits are adopted by the National Radiation Laboratory (Ministry of Health) New Zealand
- Mr Khot produced graphs showing the electric and magnetic field strengths arising for different scenarios
- Mr Khot noted that it is general practice to 'reverse phase' lines, meaning that the sequence of the phases in one circuit is the reverse of the sequence in the other circuit. He stated that the Line is reverse phased which has the effect of cancellation of fields to some degree. With reverse phased lines, such as the Line, the magnetic field reduces significantly more rapidly than if the circuits were not reverse phased
- For the Line carrying the District Plan limit of 750MVA/75°C spread over two circuits, the maximum magnetic field is about 15µT, the maximum electric field is less than 3kV/m assuming a ground clearance of 7.5m which is within the ICNIRP guidelines
- With only one circuit in operation during a forced outage and the same loading and ground clearance, the magnetic field increases to a maximum of about 35µT (ICNIRP limit 100µT) the electric field to a maximum of less than 5kV/m, the ICNIRP limit
- The application includes a request for one circuit to operate for 15mins at 1085MVA/120°C during a forced outage. In such a case, the maximum magnetic field is about 50µT, half the ICNIRP limit. The maximum value of the electric field is little changed
- Mr Khot also considered corona and audible noise. Corona discharges generate radio frequency interference (RFI). He concluded that there was no possibility of the components going into corona and the audible noise would remain unaffected
- Mr Cooper's evidence included the effect of magnetic fields on residential, electrical and electronic equipment such as TV's and computer monitors with cathode ray tubes (CRT's) also emission standards and immunity standards. He noted that there are no standards for the emission of 50Hz magnetic fields from a transmission line; however, he confirmed the ICNIRP guidelines specify the maximum public exposure is 100µT for magnetic fields and noted that the earth's magnetic field is about 55.3µT
- Graphs were produced of magnetic fields generated by the Line with the limits of the 3.7µT and 1.25µT fields identified. The former figure is the generic level of magnetic field immunity specified in a number of standards eg: AS/NZS 61000.6.1:2006, the latter figure, 1.25µT is the level of immunity applicable to CRT computer monitors and (arguably) TV sets
- Compliance with immunity standards would ensure that equipment can operate in a magnetic field without maloperation
- Mr Cooper found that under the new proposed operating regime, for 50% load on each circuit, the 3.7µT contour would increase in distance from the centre of the transmission line by 1.5m, and the 1.25µT contours by 3m

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- For fault conditions (100% load on one circuit), the 3.7 μ T contour would increase by 5m each side and the 1.25 μ T contours by 8m each side. These were for worst case scenario conditions under the lowest points in the conductors assuming 7.5m clearance
- Thus some houses and premises that were just outside these contours before the line uprating would be inside the contours after the line uprating was activated
- Adverse effects could include wobbly or fuzzy pictures on CRT's and TV's. He notes the most effective alternative is to replace the CRT equipment with liquid crystal displays (LCD's) or plasma displays
- Mr Williams gave further clarification in his closing submissions. The additional 8 metre width affects an additional 31ha of land occupied by about 200 buildings of which 20% are garages. The 8-metre additional distance only applies during forced outages at winter peak load to properties adjacent to the mid-span of the conductor. Even then, those buildings or parts of buildings may not contain CRT computer screens and/or TV sets
- Mr Cooper concluded his evidence by noting that there would be no change in the shadow effect on radio reception, TV reception or cell phone coverage
- Dr Black gave evidence covering electricity transmission and extra low frequency (ELF) fields, international standards for human ELF exposure, biological effects of electric and magnetic fields arising from transmission lines and the expected effects of this project
- Dr Black explained that human exposure to electromagnetic fields at extremely low frequencies is covered by several robust internationally recognised standards
- New Zealand uses the ICNIRP guideline which specifies the maximum levels of general public exposure – 5000 volts/metre for electric field strength, 100 μ T for magnetic field strength. Compliance with this guideline eliminates any established health or biological effects
- The changes in rating of the Line are relatively minor and the Line remains compliant with the ICNIRP guideline by a good margin including single circuit operation
- Exposure from this Line will not exceed the reference levels in the guideline which are conservatively chosen to provide complete safety
- Mr Lake confirmed that all physical changes to the Line have been analysed to ensure the structures and foundations can safely withstand the additional loadings associated with the Line uprating
- Mr Lichti gave evidence relating to the condition assessment and remaining life prediction of transmission lines
- He concluded that the completed testing programme demonstrated the Line would remain "fit-for-purpose" for at least another 40 years

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- The limiting factor will be the reduction in cross sectional area of the aluminium in the conductors reaching the Transpower replacement criterion of 15% loss in cross-sectional area from the specification area
- The 120°C temperature testing confirmed that increased current flow through the line would have negligible impact on its remaining life
- Mr Flatley's evidence addressed the integrity and maintenance aspects of the joints that connect the various components of the Line enabling it to carry out its electrical function
- He described the testing of the existing joints, the condition assessment and the resistance criterion for joint replacement. He noted that testing and maintenance work on the degradation rate of joints was on going
- Finally, Ms McLeod put matters relating to the Line into a planning context, with District Plan and Resource Management Act observations
- In relation to CRT TV's she noted the current economic life of standard CRT TV's is 7 years as assessed by manufacturers, while on the basis of sales, the entire stock of TV sets in New Zealand is replaced in nine year cycles
- She provided maps which showed the locations of most submitters properties
- She also noted that Transpower representatives had met with two opposing submitters (Metlifecare Powley Ltd and Ministry of Education) and provided them with further information in relation to impacts on electrical equipment and human health. Neither of these two submitters gave oral evidence
- The applicant's expert witnesses, also commented on matters raised by submitters opposing the application

Submitters in support of the application

The following submitters presented evidence:

1. **Mr Watson on behalf of Northpower**

Mr Watson stated that Northpower distributes electricity throughout the Whangarei and Kaipara districts. It has approximately 51,000 consumers with a peak demand of around 150MVA. About 65% of the consumers are domestic consumers. In the event of a request by Transpower to shed load in the instance of a forced outage, Northpower would expect to shed 500 domestic consumers for every MVA of load reduction once water-heating cuts had been applied. The oil refinery at Marsden Point would not initially be affected

2. **Mr Simmons, Counsel appeared with witness Mr Visser for the NZ Refining Co Ltd.**

They noted that a short-term disruption to the electricity supply (in the order of seconds) or a drop in voltage would result in some refinery equipment 'tripping'. The tripped units can generally be restarted

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immediately. Normal operation can be restored within a day. The loss in income would be of the order of \$1million.

A disruption in supply lasting more than 10 minutes is considered to be severe and would result in all equipment tripping apart from steam boilers and steam turbine driven equipment.

A sequential start up of the equipment would progress over a period of days once flushing and stabilising operations had been completed.

The lost time and income and potential equipment failures could be \$2-3million.

Water to the refinery is supplied by the Northland Regional Council through pumps, filters and treatment stations, all of which require electricity. Pumps in the Refinery to Auckland Pipeline (RAP) which run 24 hours a day are located at Wellsford and Huapai and would also be affected. The refinery itself has an exemption from the requirement for Northpower to automatically shed load in the event of a grid emergency (expires 31 March 2008). However, the pumps and ancillary equipment referred to are not covered by the exemption.

Counsel was concerned about submissions relating to the impact the proposal may have on public health. He invited the Commissioners to disregard perceived health risks as lacking scientific evidence.

Case law was quoted stating that:

- (a) there was 'no place' in the decision making process for 'mere perceptions of risk which are not shown to be well founded' and
- (b) that the Environment Court made it clear that 'the RMA is not a no risk statute'

Mr Simmons deposed that it was not the role of the Commissioners to ensure that the increased loading will operate with 'absolute safety'

3. Mr Brown, Group Manager, Planning and Community Services of the Waitakere City Council appeared on that Council's behalf

He confirmed that a Certificate of Compliance had been issued for that part of the Line within his Council's jurisdiction, on the basis that the proposal falls within their district plan definition of upgrading of infrastructure which is a permitted activity in all zones.

He pointed out that the current operating capacity of the Line has established a baseline of EMI effects.

He supported the reporting Planner's report except for the recommended 2013 cut-off date -- he would prefer to see a review date instead.

Submitters in opposition to the application

The following submitters presented evidence:

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1. Ms Stumbles and Ms Ponting with Dr Laura Bennet, Associate Professor Foetal Physiology and Neuroscience group (as an expert witness).
2. Mr & Mrs J and W Ellis
3. Mr Jackson representing a number of submitters, together with Mr Churchill (as an expert witness) and Mr McIntosh (as an expert witness) and Mr Demler (as an expert witness).
4. Mr Naulis representing a number of submitters from Cape Horn road, together with Dr Lasham (also as an expert witness)
5. Mr Easton
6. Mr Meiklejohn
7. Ms Graham on behalf of Maungakiekie Community Board
8. Mr Jarvis

Matters raised in evidence included:

- Effect of electro-magnetic fields on health especially that of children in relation to leukaemia
- Change in amenity values due to 'growth limit zone' resulting in the lowering of the height of trees
- Absence of designations and easements over the Line and inadequate notice of right of entry onto land
- Difficulties of discussing complaints with Transpower
- Interference with household equipment
- Interference with computer monitors
- Request for an independent monitoring body
- Adverse effects on health of office workers
- Alternatives to the proposal – four options available
- Effect on property values
- Confusion about what the ultimate load carrying capacity of the Line will be
- Average period of forced outages to date greater than the 15 minutes overload proposed in the application
- No figures on what the effects will be for a forced outage event with one circuit operating at 1500 MVA or 1972MVA
- Application seems not to delve into the concept of the Line performing at a maximum proposed operating rating of 2170MVA at an undefined conductor temperature

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- There is no restriction on the number of outages per year or their duration
- Mr Ellis tabled a paper from the British Medical Journal, 4 June 2005, (Draper et al). The objective was to determine whether there is an association between the home address at birth from high voltage power lines and the incidence of leukaemia and other cancers in children in England and Wales. Records of 29,081 children with cancer were studied including 9,700 with leukaemia. The study concluded that there is an association between childhood leukaemia and proximity of home address to high voltage power lines.
- However, the authors emphasised the uncertainty as to whether this statistical association represents a causal relation. They note that there is no accepted biological mechanism to explain the epidemiological results; indeed the relation may be due to chance or confounding.
- Mr Demier provided a copy of the SAGE report by R K Partnership Ltd, United Kingdom, 27 April 2007 which was referred to by Dr Bennet and Dr Black.
- This Report was a first interim assessment of the implications for a precautionary approach to ELF electric and magnetic fields and made recommendations for precautionary measures.
- The remit of the SAGE Report was to provide advice to the UK Government, and it brought together stakeholders in the industry. Childhood leukaemia and other illnesses are mentioned.
- The Report notes (pg 13) among other things, evidence for possible health effects has been variously considered by a number of national and international review bodies. Not all bodies reviewed all the outcomes and the bodies have come to a variety of conclusions.
- Dr Bennet referred to childhood leukaemia and advocated a precautionary approach. In particular, a magnetic field limit of $0.4\mu\text{T}$ was suggested. In response to a question about the significance of the earth's magnetic field, (about $55.3\mu\text{T}$), Dr Bennet replied that the earth's magnetic field is static. Her concern was with the magnetic fields generated by power lines which are fluctuating.
- Dr Lasham spoke about melatonin suppression by Electro Magnetic Forces (EMF's). A stakeholder's comment in the SAGE report (Pg 52) observes that 'fifteen studies now report suppression of melatonin by EMF's especially electric fields'. This contributor also observes that 'the powerfully electro-protective effect of exogenous melatonin supplementation especially among the UK's 20 million elderly population had not been addressed' (by the report).
- Elsewhere the SAGE report notes (Pg 15) 'there is no clear evidence of a carcinogenic effect of ELF and EMF's in adults'
- Cases referred to by Transpower Counsel Mr Williams in his arguments and tabled at the hearing included:

ALP

- Redvale Line Co Ltd et al. (A140/2005) regarding relevance of alternative proposals
- Chen vs. Christchurch City Council (C102/97) regarding reduction in property values
- Wratten vs. Tasman District Council (W008/98) regarding applicability of a precautionary approach only where there is a threat of serious or irreversible damage
- Kett et al. (A P404/151/00, M404/1974/00) regarding whether a chosen site for a public work being the only suitable site or the most suitable site is relevant
- Genesis Power Ltd vs. Manawatu-Wanganui Regional Council (CIV 2004-485-1139) regarding limitation of term of consent, also appropriateness of a review condition
- Cases referred to and quoted from by Mr Simmons legal counsel for NZ Refining Co Ltd included
 - Central Energy Ltd vs. Waikato Regional Council (A004/00) regarding consideration of effects on the environment as it actually exists now (permitted baseline) and also regarding perception of risk
 - Shirley Primary School vs. Telecom Mobile (1999NZRMA66) regarding RMA not being a 'no risk' statute

Main Findings of Fact

General

1. Transpower dealt with the major issues concerning the HEN OTA LINE A and outlined its importance to the Northern Auckland region. It provided substantial technical detail and evidence to support this application, and the reasons why this consent should be granted.
2. Transpower owns and operates the national grid of which the Line forms part. It maintains the system at an N-1 Security Status, a term which describes the level of security required to meet the obligations on the system operator. It means that at any particular location in the core national grid, the loss of one system component can be tolerated without resulting in loss of service. It follows therefore that in the event of an outage the system does not meet the requirements of an N-1 Security Status.
3. The Line includes 92 steel lattice towers, 56 of which are within the jurisdiction of the Auckland City Council. Other parts of the Line are within the Manukau City Council and the Waitakere City Council, and within the Manukau and Waitemata harbours.
4. Within Auckland City the Line passes over recreational, residential and industrial areas.
5. Manukau City Council and Waitakere City Council have issued Certificates of Compliance confirming that the Line is permitted to

operate at an increased capacity. The Commissioners were advised that a consent is not required for those parts of the Line within the Coastal Marine Areas within the Manukau and Waitemata Harbours.

6. The Line was lawfully established with a permitted capacity of 750MVA/75°C for each of its two circuits and has recently been lawfully uprated to 986MVA/120°C per circuit. However the Line can only be operated at a capacity greater than 750MVA/75°C on three occasions per year for a maximum of 20 minutes per occasion up to a maximum of 830MVA/85°C. The resource consent which enables this to be done expires on the 31st December 2007.
7. The Commissioners accept that the electricity demand to North Auckland and Northland is increasing and that four options to provide for this on a permanent basis are being investigated. The increased loading on the Line is seen as necessary until 2013 and beyond to the time a second electricity supply line is expected to be established and commissioned through the Auckland Isthmus. No firm commitment could be given to the resolution of this important issue because of a number of matters that did not lie within the capacity and jurisdiction of Transpower.
8. For the avoidance of doubt and in response to matters raised by some submitters, the Commissioners are satisfied that this application by Transpower to exceed the permitted capacity of the Line during periods of forced outages is limited to 986MVA/120°C for a single circuit with a provision for a temporary increase to 1085MVA/120°C for a maximum period of 15 minutes on any one occasion.

Extent to which public safety and convenience may be affected

8. Public Safety

Public safety is dependent upon the elements of the Line being capable of taking the forces and resultant stresses imposed on them throughout their scheduled lifetime. The elements comprise towers, conductors, conductor joints and suspension insulators. The evidence showed that these items have been evaluated, tested, found to be fit for their purpose and are subject to ongoing maintenance.

9. Public Convenience

Public convenience relates mainly to the expectation that electricity is readily available to homes and factories and that lifts, street lighting, life support systems, traffic lights, utility pumps etc continue to function satisfactorily.

The evidence showed that in the event of a forced outage if additional Line capacity is not made available in the unaffected circuit, then electricity supply for up to 61,000 homes and businesses from Henderson to Wellsford would be immediately cut. Further north, Northpower would expect to shed 500 domestic customers for every MVA of load reduction once water-heating cuts have been applied.

The Extent to which Public Health may be Affected

10. This was an area of major concern to a majority of submitters opposed to this application. Live conductors generate both electric and magnetic fields. Electric fields are related to the voltage in the conductors. There is to be no change in the transmitted voltage hence there will be no change in the electric fields strengths, except there will be a location change when only one circuit is live.

Magnetic fields are generated by the current carried in the conductors. The Line's conductors have been arranged with transposed phasing, an arrangement which minimises the magnetic fields when both circuits are carrying equal currents. In the event of only one circuit being in operation the magnetic fields will change in both position and magnitude.

The earth itself also has a magnetic field. Many submitters considered that magnetic fields gave rise to ill health, particularly leukaemia and referred to a number of scientific papers in support of their concerns.

The Commissioners have carefully examined all the evidence placed before them by the submitters. The Commissioners note that the National Radiation Laboratory, in a letter tabled by Dr Black, considers that the ICNIRP (International Commission for Non-Ionizing Radiation Protection 1998) guidelines, published nine years ago (and since reviewed and confirmed), still provide a sound basis for controlling exposure.

Evidence provided by submitters in opposition indicated that the results from scientific studies are uncertain. The Commissioners note the wide gulf between the ICNIRP standard of 100 μ T and a level of 0.4 μ T advocated in some reports referenced by some submitters. A statistically sound link between electro-magnetic fields and illness has yet to be established. There is ongoing work in this field but until such time as a definitive conclusion has been reached or the standards are changed the Commissioners are of the opinion that they must adhere to the standards laid down by ICNIRP.

The scale and significance of any adverse effects on the visual environment and on the amenity values of the area.

11. No new towers are proposed.

The existing conductors have already been adjusted lawfully to ensure that statutory minimum ground clearances are observed if the electric load on them is increased.

Transpower is already obliged under statute to maintain minimum specific clearances between ground cover, trees etc and the conductors.

The extent to which noise levels may be increased.

12. As noted, a Transpower expert witness advised that there would be no increase in audible noise.

The potential hazards to habitable buildings and their occupiers within 20m either side of the centre line of the conductors.

13. The Commissioners were advised that as a result of a condition assessment carried out in the Line, all components were found to be fit-for-purpose as confirmed in evidence from Mr Lichti, Mr Lake and Mr Flatley.

The effect of electric and magnetic fields on electrical and communication equipment and also any screening effect the proposed electric lines may have on the propagation of radio frequency transmissions.

14. Evidence presented to the Commissioners indicated that under certain circumstances electronic equipment using cathode ray tubes (CRTs) may be affected by increased magnetic fields. They noted that in the past Transpower appeared to be amenable to discussing problems that had arisen with affected parties with a view to finding a solution; nevertheless, some submitters indicated difficulty in contacting an appropriate person with whom to discuss their problems.

Transpower have offered to provide and publicise the name of a suitable contact person, to keep a register of complaints and any remedial steps taken to address particular complaints.

With respect to electric fields, these are dependent on the transmitting voltage of 220kV, and this will not change during an outage. However, the position of the electric fields will have changed slightly when the conductors were repositioned on some towers during a recent uprating, and in the event of an outage, the electric field (and magnetic field) will be centred around the single live circuit (3 conductors).

The EMF can affect the operation of computerised industrial equipment which is reliant on CRT monitors for operation. Such equipment may not be readily replaceable with LCD or plasma displays. This effect is already occurring. In particular, it is the subject of ongoing discussions between one industrialist (Mr Jackson) and Transpower.

With respect to any screening effect on frequency transmissions, the Commissioners were advised that there would be no change in the shadow effect on radio reception, TV reception or cell phone reception.

The extent to which mitigation measures are able to reduce any significant adverse effects.

15. The Commissioners are of the view that whilst some additional adverse effects may arise during a forced outage which may result when one circuit is carrying more than 750MVA i.e. 986MVA or up to 1085MVA for up to 15 minutes, taking into account the scale and the likelihood of the outages, no significant adverse effects will arise, compared with the existing permitted situation.

Conclusions

16. The Commissioners have carefully considered both the positive and the negative effects of its proposal in relation to the existing baseline of 750MVA/75°C per circuit. They are satisfied on the evidence that the

actual or potential adverse effects are minor and are outweighed by the need to ensure a security of supply to North Auckland and Northland. In this regard, it is noted that Transpower is progressing plans to commission a second supply line through the isthmus by about 2013.

The Commissioners are mindful that standards can change over time, and that once a second supply line (of 220kV or greater) is established and commissioned, then should Transpower wish to continue to provide for outages at loadings over 750MVA/75°C on the Line, then compliance with the appropriate standards in relation to electro-magnetic fields at that time would be appropriate.

Lastly, based on statements made by some submitters in relation to the manner Transpower sometimes deals with the real concerns and issues of landowners or occupiers and access to private land over which its Line traverses; it was apparent that all the present day obligations of the legislation under which the Line is operated and maintained are not always met. There is room for better training and control of its staff and contractors to improve its culture and performance in this regard.

Reasons for the Decision

The reasons for this restricted discretionary activity consent are as follows:

- (a) ~~The granting of consent to the applicant's proposal will have no more than minor effects on the environment. In particular, the proposal will have no more than minor adverse effects on public health and safety, visual amenity, noise levels, existing habitable buildings and occupiers, electrical and communication equipment, and the propagation and reception of radio-frequency transmissions.~~
- (b) The granting of consent to the applicant's proposal is consistent with all those matters to which Council has reserved its discretion under Rule 4A.4.6E of the Auckland City Operative District Plan - Isthmus Section 1999.
- (c) The imposition of the following conditions will ensure that the effects of the applicant's proposal are no more than minor, and in particular that a self-monitoring report is submitted to the satisfaction of the Council to ensure that the information provided as part of this application has been adhered to.
- (d) The applicant's proposal is consistent with the objectives and policies of the Operative District Plan and Plan Change: Plan Modification No.90 in relation to network utility services, and the sustainable management purpose of the Resource Management Act 1991.

Pursuant to Section 108 of the Resource Management Act 1991, this consent is subject to the following conditions:

Activity in Accordance with Application and Plans

- (1) The proposed activity shall be carried out in accordance with the plans and all information submitted with the application, being described as:

- “Application for Resource Consent Henderson-Otahuhu A 220KV Transmission Line Uprating” prepared by Beca and Transpower New Zealand Limited, dated 4 May 2007, pages i-ii, 1-26 and Appendices A-F

and referenced by Council as LUC20070342401.

Monitoring

- (2) The consent holder shall pay the Council a consent compliance monitoring charge of \$1000.00 (inclusive of GST), plus any further monitoring charge or charges to recover the actual and reasonable costs that have been incurred to ensure compliance with the conditions attached to this consent. (This charge is to cover the cost of inspecting the site, carrying out tests, reviewing conditions, updating files, etc, all being work to ensure compliance with the resource consent).

The \$1000.00 (inclusive of GST) charge shall be paid as part of the resource consent fee and the consent holder will be advised of the further monitoring charge or charges as they fall due. Such further charges are to be paid within one month of the date of invoice.

Operational Limits

- (3) This consent permits the consent holder to operate one live circuit of the Henderson – Otahuhu A 220kV transmission line (“the Line”) above 750MVA/75°C per circuit only in the event of forced outages as defined in the application documents referenced in this consent. At all other times the Line shall operate below or up to a maximum of 750MVA/75°C per circuit.

The maximum electro-magnetic fields generated by the Line shall not exceed the limits specified by the International Commission for Non-ionizing Radiation Protection (ICNIRP). The limits of five kilo-volts per metre (5kV/m) for electric fields and 100 microtesla (100µT) for magnetic fields (measured one metre above the ground) shall be complied with.

For the avoidance of doubt, this consent does not permit electro-magnetic strengths occurring during scheduled maintenance outages to exceed those field strengths associated with the original line rating (750MVA/75°C).

Complaints Register

- (4) (a) Transpower shall notify all submitters to this application, and also the general public by way of public notice in local and regional newspapers of a ‘point of contact’, being a person responsible for receiving complaints about the operation of the Line during forced outages and
- (b) a record of each complaint shall be kept in a register by such responsible person and
- (c) each complaint received relating to the operation of the Line during a forced outage (involving operation above 750MVA/75°C)

shall be investigated and where electronic equipment has been adversely affected, remedied by Transpower if practicable.

Self-monitoring Report

- (5) The consent holder shall submit to the Council a self-monitoring report each year which shall include the register of complaints, the outcomes of the investigations and any remedial steps taken by Transpower to address the complaints. The provision of this report, including the form and timing of delivery shall be to the satisfaction and approval of the Council (Resource Consents Monitoring Leader).

Advice of Forced Outage to Council

- (6) The consent holder shall notify the Council (Resource Consents Monitoring Leader) in writing of each forced outage that causes the operation of the Line to be above 750MVA/75°C per circuit. This notice shall be received by the Council (Resource Consents Monitoring Leader) within 5 working days of the exceedance occurring.

ADVICE NOTES

1. The applicant needs to obtain all other necessary consents and permits, including those under the Building Act 1991, and comply with all relevant Council Bylaws.
2. If the applicant does not agree with any of the above conditions or with any additional charges relating to the processing of the application, there is a right of objection pursuant to Section 357 of the Resource Management Act 1991 which shall be made in writing to Council within 15 working days of notification of the decision. Council will as soon as practicable consider the objection at a hearing convened for this purpose.
3. Pursuant to Section 116 of the Resource Management Act 1991, this consent will not commence until any objection or appeal has been withdrawn or decided.

D R E Chandler
Chairman:



Date:

31 Aug 07

fields and illness has yet to be established.” Evidence of sound, statistically rigorous studies which establish this link were presented in evidence, and appear not to have been given any weight in the decision. No evidence on “statistically sound links” which disprove the linkage between electromagnetic fields and illness were presented in evidence. The decision seems to have relied only on unsubstantiated evidence and outdated standards aimed at quite different health effects (tissue heating) rather than than those which link electromagnetic fields to leukaemia and other illnesses.

- (v) Insufficient information was provided with the application to enable the submitters to understand or the consent authority to satisfactorily define the scope and duration of a forced outage event, in a manner which would enable a thorough assessment of its effects consistent with the requirements of the Act.
- (vi) Insufficient information was provided to enable a decision to be made whether in the event of a forced outage the applicant would be able to satisfy the alleged N-1 security status obligations of the applicant under the Electricity Act 1992.
- (vii) Insufficient information was provided to enable an adequate assessment of public safety during a forced outage, or that existing facilities (especially conductors) would continue to operate within their original specifications, or that the additional stresses imposed by “forced outages” would not cause additional adverse effects during the scheduled lifetime of the line and its components.
- (viii) The original application was ambiguous and confusing and as a consequence condition 1 of the decision is unenforceable, as there is a need to define the term “forced outage” and the scope of any forced outage.
- (ix) There is no provision under the Act requiring or otherwise authorising non-compliance with the provisions of the Act or the District Plan where the proposed activity has the potential to create an adverse effect so as to defer to other statutory obligations (such as the Electricity Act).
- (x) Inadequate consideration has been given to alternative methods of addressing the potentially significant adverse effects of the activity on the environment, especially the opportunity to provide for the ducting of the line along or within the motorway corridor.

TOES seeks the following relief:

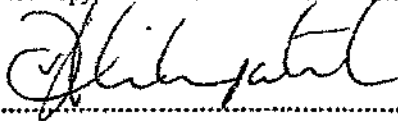
- (i) That the term of the consent is limited to the installation and completion of “Transpower’s Pakuranga, Penrose, Albany, Cross Harbour cable” as part of the North Auckland and Northland Grid Upgrade, or 2010, whichever comes first; and
- (ii) That underground ducting is installed within the alignment of State Highway 20, (as part of the current and proposed upgrading and extension of SH20 between Manukau City and Waterview and raising of the Northwestern Motorway between Waterview and Henderson); and
- (iii) That following the completion of SH20 from the Southern Motorway to the North Western motorway (and the installation of the underground ducting as per item (ii) of this relief), the existing overhead 110kv and 220kv lines and associated pylons are removed from the isthmus of Auckland City; or

(iv) Otherwise that the consent be declined.

TOES attaches the following documents* to this notice:

- (a) a copy of the application:
- (b) a copy of its submission:
- (c) a copy of the decision:
- (d) a list of names and addresses of persons to be served with a copy of this notice.

* These documents must be attached and lodged with the notice in the Environment Court. The appellant does not need to attach a copy of a regional or district plan or policy statement. In addition, the appellant does not need to attach copies of the submission and decision or recommendation to the copies of this notice served on other persons if the copy served lists these documents and state that copies may be obtained, on request, from the appellant.



.....
Signature of person authorised to sign
on behalf of appellant

26/9/07

.....
Date

Address for service of David Kirkpatrick
appellant: Barrister
Park Chambers
PO Box 5844
Wellesley Street
Auckland

Telephone: (09) 379 9780

Fax: (09) 377 0361

email: david.kirkpatrick@parkchambers.co.nz

Contact person: David Kirkpatrick

Note to appellant or person seeking inquiry

You may use this form to lodge an appeal and to request an inquiry.

You must lodge the original and 1 copy of this notice with the Environment Court within 15 working days of receiving notice of the decision. The notice must be signed by you or on your behalf. You must pay the filing fee required by regulation 35 of the Resource Management (Forms, Fees, and Procedure) Regulations 2003.

AS7

Form 16

Notice to Environment Court of appeal on application concerning resource consent

Section 121 Resource Management Act 1991

To The Registrar
Environment Court
Auckland

Jackson Electrical Limited appeals a decision on the following matter:

An application for land use consent by Transpower New Zealand Limited ("Transpower") to enable the operation of one live circuit of the Henderson-Otahuhu Transmission Line above the currently permitted operating capacity limit during a forced outage.

Jackson Electrical Limited made a submission on that application.

Jackson Electrical Limited received notice of the decision on 5 September 2009.

The decision was made by the Auckland City Council.

The decision Jackson Electrical Limited is appealing is:

The decision by the Auckland City Council granting consent, subject to conditions, to Transpower.

The land affected is:

The area affected by the line in Auckland City where the line traverses the Auckland Isthmus between the Henderson substation in Waitakere City and the Otahuhu substation in Manukau City, as shown in Appendix B to the Application.

The reasons for the appeal are as follows:

- (i) The decision is inconsistent with Part 2 of the Act, and in particular does not appropriately enable people to provide for their social, economic and cultural wellbeing and for their health and safety while avoiding, remedying, or mitigating any adverse effects of the activity on the environment.
- (ii) The activity is not itself a matter of national importance within section 6 of the Act and there is no applicable National Policy Statement in relation to it under section 45 of the Act.
- (iii) The decision did not have any sufficient regard to the actual and potential effects of the activity on the environment due to overriding consideration being given to matters relating to other statutory obligations and associated requirements, and in particular the provisions of the Electricity Governance Rules in relation to grid reliability made under the Electricity Act 1992.
- (iv) The decision acknowledged that there would be additional adverse effects arising from the so-called "forced outage" situations that the consent allows the line to be operated under. However, the decision states that "a statistically sound link between electro magnetic

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fields and illness has yet to be established." Evidence of sound, statistically rigorous studies which establish this link were presented in evidence, and appear not to have been given any weight in the decision. No evidence on "statistically sound links" which disprove the linkage between electromagnetic fields and illness were presented in evidence. The decision seems to have relied only on unsubstantiated evidence and outdated standards aimed at quite different health effects (tissue heating) rather than those which link electromagnetic fields to leukaemia and other illnesses.

- (v) Insufficient information was provided with the application to enable the submitters to understand or the consent authority to satisfactorily define the scope and duration of a forced outage event, in a manner which would enable a thorough assessment of its effects consistent with the requirements of the Act.
- (vi) Insufficient information was provided to enable a decision to be made whether in the event of a forced outage the applicant would be able to satisfy the alleged N-1 security status obligations of the applicant under the Electricity Act 1992.
- (vii) Insufficient information was provided to enable an adequate assessment of public safety during a forced outage, or that existing facilities (especially conductors) would continue to operate within their original specifications, or that the additional stresses imposed by "forced outages" would not cause additional adverse effects during the scheduled lifetime of the line and its components.
- (viii) The original application was ambiguous and confusing and as a consequence condition 1 of the decision is unenforceable, as there is a need to define the term "forced outage" and the scope of any forced outage.
- (ix) There is no provision under the Act requiring or otherwise authorising non-compliance with the provisions of the Act or the District Plan where the proposed activity has the potential to create an adverse effect so as to defer to other statutory obligations (such as the Electricity Act).
- (x) Inadequate consideration has been given to alternative methods of addressing the potentially significant adverse effects of the activity on the environment, especially the opportunity to provide for the ducting of the line along or within the motorway corridor.

Jackson Electrical Limited seeks the following relief:

- (i) That the term of the consent is limited to the installation and completion of "Transpower's Pakuranga, Penrose, Albany, Cross Harbour cable" as part of the North Auckland and Northland Grid Upgrade, or 2010, whichever comes first; and
- (ii) That underground ducting is installed within the alignment of State Highway 20, (as part of the current and proposed upgrading and extension of SH20 between Manukau City and Waterview and raising of the Northwestern Motorway between Waterview and Henderson); and
- (iii) That following the completion of SH20 from the Southern Motorway to the North Western motorway (and the installation of the underground ducting as per item (ii) of this relief), the existing overhead 110kv and 220kv lines and associated pylons are removed from the isthmus of Auckland City; or

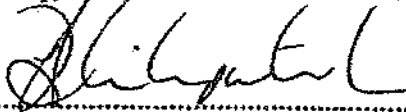
AS9

- (iv) Otherwise that the consent be declined.

Jackson Electrical Limited attaches the following documents* to this notice:

- (a) a copy of the application:
- (b) a copy of its submission:
- (c) a copy of the decision:
- (d) a list of names and addresses of persons to be served with a copy of this notice.

* These documents must be attached and lodged with the notice in the Environment Court. The appellant does not need to attach a copy of a regional or district plan or policy statement. In addition, the appellant does not need to attach copies of the submission and decision or recommendation to the copies of this notice served on other persons if the copy served lists these documents and state that copies may be obtained, on request, from the appellant.



.....
Signature of person authorised to sign
on behalf of appellant

26/9/07

.....
Date

Address for service of
appellant:

David Kirkpatrick
Barrister
Park Chambers
PO Box 5844
Wellesley Street
Auckland

Telephone:

(09) 379 9780

Fax:

(09) 377 0361

email:

david.kirkpatrick@parkchambers.co.nz

Contact person:

David Kirkpatrick

Note to appellant or person seeking inquiry

You may use this form to lodge an appeal and to request an inquiry.

You must lodge the original and 1 copy of this notice with the Environment Court within 15 working days of receiving notice of the decision. The notice must be signed by you or on your behalf. You must pay the filing fee required by regulation 35 of the Resource Management (Forms, Fees, and Procedure) Regulations 2003.

A60

**Before the Environment Court
Auckland Registry**

ENV-2007-AKL-000690

Under the Resource Management Act 1991 ('the Act')

In the Matter of an appeal under section 121 of the Act

Between Jackson Electrical Limited

Appellant

And Auckland City Council

Respondent

And Transpower New Zealand Limited

Applicant

**Notice of wish by Waitakere City Council to be party to
proceedings pursuant to section 274 of the Act**

KensingtonSwan
LAWYERS

18 Viaduct Harbour Avenue Private Bag 92101 DX CP22001 Auckland
Telephone (09) 379 4196 Facsimile (09) 309 4276

Solicitor Acting: R B Enright/B E McDonald

**To: The Registrar
Environment Court
Auckland**

- 1 Waitakere City Council ('WCC') wishes to be a party to the following proceeding:
 - 1.1 Environment Court reference number: ENV-2007-AKL-000690 ('the appeal').
 - 1.2 Parties and nature of proceedings: An appeal by Jackson Electrical Limited ('the appellant') against a decision of the Auckland City Council ('the respondent') to permit the operation of one live circuit of the Henderson-Otahuhu transmission line above the currently permitted operating capacity limit during a forced outage.
- 2 WCC is a local authority within the Auckland Region and made a submission on Transpower New Zealand Limited's application for resource consent.
- 3 WCC is interested in the aspects of the appeal which will have implications for the sustainable management of Waitakere City's resources.
- 4 In particular, WCC seeks to ensure that the transmission line is able to be operated in a manner that avoids potential disruption of power supply to electricity consumers in Waitakere City.
- 5 WCC opposes the relief sought by the appellant to the extent that it may compromise the secure supply of electricity to homes and businesses in Waitakere City.
- 6 WCC agrees to participate in mediation or other alternative dispute resolution of the proceedings.

Dated 5 November 2007



**R B Enright/B E McDonald
Counsel for the Waitakere City Council**

Address for service:

Kensington Swan, 18 Viaduct Harbour Avenue, Auckland

Documents for service on Waitakere City Council may be left at that address for service or may be:

- a. Posted to the solicitor at c/- Kensington Swan, Private Bag 92101, Auckland;
- b. Left for the solicitor at a document exchange for direction to c/- Kensington Swan, DX CP22001, Auckland; or
- c. Transmitted by facsimile to 09 309 4276 provided that they are clearly marked for the attention of the solicitor and that a confirmation copy is forthwith sent by ordinary post or document exchange.

**Before the Environment Court
Auckland Registry**

ENV-2007-AKL-000691

Under the Resource Management Act 1991 ('the Act')

In the Matter of an appeal under section 121 of the Act

**Between The Onehunga Enhancement Society
Incorporated ('TOES')**

Appellant

And Auckland City Council

Respondent

And Transpower New Zealand Limited

Applicant

**Notice of wish by Waitakere City Council to be party to
proceedings pursuant to section 274 of the Act**

KensingtonSwan
LAWYERS

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Solicitor Acting: R B Enright/B E McDonald

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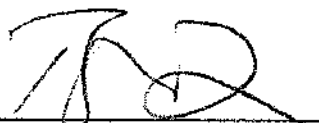
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**To: The Registrar
Environment Court
Auckland**

- 1 Waitakere City Council ('WCC') wishes to be a party to the following proceeding:
 - 1.1 Environment Court reference number: ENV-2007-AKL-000691 ('the appeal').
 - 1.2 Parties and nature of proceedings: An appeal by The Onehunga Enhancement Society Incorporated ('the appellant') against a decision of the Auckland City Council ('the respondent') to permit the operation of one live circuit of the Henderson-Otahuhu transmission line above the currently permitted operating capacity limit during a forced outage.
- 2 WCC is a local authority within the Auckland Region and made a submission on Transpower New Zealand Limited's application for resource consent.
- 3 WCC is interested in the aspects of the appeal which will have implications for the sustainable management of Waitakere City's resources.
- 4 In particular, WCC seeks to ensure that the transmission line is able to be operated in a manner that avoids potential disruption of power supply to electricity consumers in Waitakere City.
- 5 WCC opposes the relief sought by the appellant to the extent that it may compromise the secure supply of electricity to homes and businesses in Waitakere City.
- 6 WCC agrees to participate in mediation or other alternative dispute resolution of the proceedings.

Dated 5 November 2007



R B Enright/B E McDonald
Counsel for the Waitakere City Council

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