

Local Government (Auckland) Amendment Act Appeals to Plan Changes 13 to 18.

ENV Court #	WCC #	Appellants To WCC Changes	Section 274 Parties	Appeals						
				PC 13	PC 14	PC 15	PC 16	PC 17	PC 18	
Env-2007-AKL-000565 PC 13	201	Auckland Regional Council		✓						
Env-2007-AKL-000568 PC 14	201	Auckland Regional Council	Ockleston Family Trust		✓					
Env-2007-AKL-000566 PC 15	201	Auckland Regional Council				✓				
Env-2007-AKL-000567 PC 16	201	Auckland Regional Council					✓			
Env-2007-AKL-000680 PC 16	202	AMP Capital Investors (NZ) Ltd					✓			
Env-2007-AKL-000680 PC 17	202	AMP Capital Investors (NZ) Ltd						✓		
Env-2007-AKL-000680 PC 18	202	AMP Capital Investors (NZ) Ltd							✓	
Env-2007-AKL-000556 PC 16	203	CSR, Huhtamaki (NZ), and others								✓
Env-2007-AKL-000556 PC 17	203	CSR, Huhtamaki (NZ), and others	Vusich, Borich, Bhana & others							✓
Env-2007-AKL-000556 PC 18	203	CSR, Huhtamaki (NZ), and others								✓
Env-2007-AKL-000648	204	Gareija Brothers Strawberry Gardens						✓		
Env-2007-AKL-000629	205	Gary Harfield							✓	
Env-2007-AKL-000678	206	Henry Norcross						✓		
Env-2007-AKL-000609 PC 14	207	IMF NZ Ltd	Ockleston Family Trust		✓					
Env-2007-AKL-000616 PC 15	207	IMF NZ Ltd						✓		
Env-2007-AKL-000614 PC 18	207	IMF NZ Ltd								✓
Env-2007-AKL-000537	208	Ivan and Milka Selak							✓	
Env-2007-AKL-000626	209	John Calvert							✓	
Env-2007-AKL-000522	210	Land Transport NZ	Progressive Enterprises Ltd							✓
Env-2007-AKL-000542	211	Maycey's Confectionary								✓
Env-2007-AKL-000623	212	Midgley, IB+GA, IE								✓
Env-2007-AKL-000658	213	Neil Construction Ltd								✓
Env-2007-AKL-000533	214	Neon Ltd and Boron Ltd	Westfield (NZ) Ltd							✓

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ENV Court #	WCC #	Appellants To WCC Plan Changes	Section 274 Parties	Appeals						
				PC 13	PC 14	PC 15	PC 16	PC 17	PC 18	
Env-2007-AKL-000552	215	North Shore CC		✓						
Env-2007-AKL-000543	216	Ockleston Family Trust			✓					
Env-2007-AKL-000585 PC 13	217	Progressive Enterprises Ltd								
Env-2007-AKL-000597 PC 14	217	Progressive Enterprises Ltd			✓					
Env-2007-AKL-000594 PC 15	217	Progressive Enterprises Ltd				✓				
Env-2007-AKL-000591 PC 16	217	Progressive Enterprises Ltd					✓			
Env-2007-AKL-000581 PC 17	217	Progressive Enterprises Ltd						✓		
Env-2007-AKL-000596 PC 18	217	Progressive Enterprises Ltd							✓	
Env-2007-AKL-000589	218	Titan Hunter Trust Formerly Rexford Family Trust				✓				
Env-2007-AKL-000540	219	Roy Wigg					✓			
Env-2007-AKL-000538	220	Steve Nuich					✓			
Env-2007-AKL-000564 PC 13	221	The National Trading Company (NZ) Ltd		✓						
Env-2007-AKL-000563 PC 14	221	The National Trading Company (NZ) Ltd	Ockleston Family Trust		✓					
Env-2007-AKL-000561 PC 15	221	The National Trading Company (NZ) Ltd				✓				
Env-2007-AKL-000560 PC 16	221	The National Trading Company (NZ) Ltd					✓			
Env-2007-AKL-000558 PC 17	221	The National Trading Company (NZ) Ltd						✓		
Env-2007-AKL-000555 PC 18	221	The National Trading Company (NZ) Ltd							✓	
Env-2007-AKL-000641 PC 16	222	The Warehouse Ltd					✓			
Env-2007-AKL-000646 PC 17	222	The Warehouse Ltd						✓		
Env-2007-AKL-000664 PC 18	222	The Warehouse Ltd							✓	
Env-2007-AKL-000613 PC 14	223	Transit NZ	Ockleston Family Trust		✓					
Env-2007-AKL-000613 PC 15	223	Transit NZ								✓

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Env-2007-AKL-000613 PC 16	223	Transit NZ	Section 274 Parties	Appeals					
ENV Court #	WCC #	Appellants To WCC Plan Changes	Section 274 Parties	PC 13	PC 14	PC 15	PC 16	PC 17	PC 18
Env-2007-AKL-000545	224	Vusich, Borich, Bhana & others						✓	
Env-2007-AKL-000530	225	Waitakere Ranges Protection Society					✓		
Env-2007-AKL-000636 PC 16	226	Warehouse Stationary Ltd					✓		
Env-2007-AKL-000639 PC 17	226	Warehouse Stationary Ltd						✓	
Env-2007-AKL-000642 PC 18	226	Warehouse Stationary Ltd							✓
ENV-2007-AKL-000711 PC15	227	Westfield (NZ) Ltd				✓			
Env-2007-AKL-000595 PC16	227	Westfield (NZ) Ltd					✓		
Env-2007-AKL-000618	228	Westgate Properties Ltd				✓			

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Submission of the Waitakere City Council to the
Rodney District Council: re Plan Change 107/Variation 89 and associated
Resource consents, and to the
Auckland Regional Council: re Air Discharge, Earthworks/Sediment and
Water Consents

relating to the applications by Genesis Energy for the

Rodney Power Station

Comprising Forms 5 and 13 Resource Management Act 1991 Regulations

To: Rodney District Council
Private Bag 500
Orewa

Auckland Regional Council
Private Bag 92102
Auckland

Genesis Energy
c/- Rodney Project Team
PO Box 17188
Greenlane
Auckland

Contact: Waitakere City Council
Private Bag 93109
Henderson 0650
Waitakere

Att: Kyle Balderston
Strategic Advisor: Sustainable Management
Ph 09-836-8000, extn 8474
Email kyle_balderston@waitakere.govt.nz

Application to which this submission relates:

This submission relates to the Proposed Plan Change 107 to the Operative Rodney District Plan 1993 and concurrent Variation 89 to the Proposed Rodney District Plan 2000 in its entirety, and to the related Rodney District Council and Auckland Regional Council resource consents and discharge permits required, in their entirety, for the enabling works and operation of the proposed "Rodney Power Station", as encompassed in the application documents provided by the applicant, Genesis Energy, dated March 2008.

The application is more fully described on www.arc.govt.nz as:

Applicant: Genesis Power Limited (T/A) Genesis Energy
Address for Service: Genesis Energy
c/- Paul F Majurey
Russell McVeagh
Barristers and Solicitors
PO Box 8/DX CX10085
Auckland 1

Location: The Rodney Power Station and ancillary facilities are proposed to be located in the vicinity of 528 Kaipara Coast Highway (State Highway 16) and on the following properties:
Lot 5 DP 210805 (CRS Parcel ID [SUE]: 6639910 CT 139A/260)
Lot 5 DP 124170 (CRS Parcel ID [SUE]: 4936989 CT 72C/72)
Lot 5 DP 207811 (CRS Parcel ID [SUE]: 5202799 CT 1368/276)
Lot 1 DP 202885 (CRS Parcel ID [SUE]: 5200625 CT 131C/618)
Lot 6 DP 207811 (CRS Parcel ID [SUE]: 4905582 CT 1368/277)
Pt Allot 15A Parish of Ararimu (CRS Parcel ID [SUE]: 4822109 CT 72/233)
Lot 1 - 4 DP 206522 (CRS Parcel ID's [SUE]: 5103776, 4821431, 4753597, and 4868536 CT 131C/619).

Submission Close Date: Friday 16 May

Rodney District Council Applications:

Application No: 53883

Application Details: Land use consent - To discharge dust to air during earthworks activities associated with the construction of the Rodney Power Station in the vicinity of map reference NZTM 1732019E 5943946N.

Application No: 53884

Application Details: Land use consent - To undertake works on or over the surface of the Kaukapakapa River and/ or to disturb and remove vegetation in relation to the construction of water intake, outfall and jetty structures at or about map reference NZTM 1732318E 5944447N.

Further information on Rodney District Councils plan variation is available at www.rodney.govt.nz

Auckland Regional Council Applications:

Application No: 34213

Application Details: To discharge contaminants into the air associated with the establishment, construction, operation, maintenance and upgrading of a combined cycle gas turbine power station with a maximum nominal 480 MW capacity and associated infrastructure at or about map reference NZTM 1732019E 5943946N.

Application No: 32077

Application Details: To take and use up to 2,400 m3 of water per day and 876,000m3 of water per year from the tidal reaches of the Kaukapakapa River at or about map reference NZTM 1732318E 5944447N.

Application No: 34452

Application Details: To undertake works in, on and / or under the bed of the Kaukapakapa River and/or to disturb and remove vegetation in relation to the construction of water intake, outfall and jetty structures at or about map reference NZTM 1732318E 5944447N.

Application No: 34448

Application Details: To discharge up to 1,900 m3 of wastewater per day from the wastewater treatment pond to the Kaukapakapa River at or about map reference NZTM 1732318E 5944447N.

Application No: 34447

Application Details: To discharge contaminants on or into land from an industrial or trade process from the gas fired combined cycle power station in the vicinity of map reference NZTM 1732019E 5943946N.

Application No: 34687

Application Details: To discharge contaminants on or into land from an industrial or trade process from the transmission station in the vicinity of map reference NZTM 1731819E 5943946N.

Application No: 35616

- Application Details:** To discharge treated sanitary/domestic wastewater during construction activities to land at a design wastewater flow of up to 20 m³ per day at or about map reference NZTM 1732219E 5944147N.
Application No: 34417
- Application Details:** To discharge treated sanitary/domestic wastewater from activities within the power station site to land at a design wastewater flow of up to 3 m³ per day at or about map reference NZTM 1732019E 5943846N.
Application No: 35617
- Application Details:** To discharge treated sanitary/domestic wastewater from activities within the transmission substation site to land at a design wastewater flow of up to 0.02 m³ per day at or about map reference NZTM 1731819E 5943946N.
Application No: 34450
- Application Details:** To divert and discharge stormwater (up to 5.0 m³ per second) from the power station site to the Kaukapakapa River at various locations between map references NZTM 1731819E 5944246N and 1732418E 5944447N.
Application No: 34449
- Application Details:** To divert and discharge stormwater (up to 0.77 m³ per second) from the transmission substation area to the Kaukapakapa River at or about map reference NZTM 1731819E 5943946N.
Application No: 34451
- Application Details:** To undertake earthworks associated with the construction of the power station site platform, landscaping, access roads and the realignment and upgrade of the Inland Road / SH16 intersection, all in the vicinity of map reference NZTM 1732019E 5943946N.
Application No: 35637
- Application Details:** To divert, take and discharge groundwater intercepted through earthworks associated with the construction of the power station site platform, landscaping, access roads and the realignment and upgrade of the Inland Road / SH16 intersection NZTM 1732019E 5943946N.

Submission Structure and Overview:

Waitakere both **supports** the applications in part and **opposes** the applications in part.

This submission covers three main issues:

- o Waitakere supports the general objective of the proposal to provide significant new generation capacity north of Otahuhu for enabling variable renewable generation and providing security of supply to the Northland and Auckland Regions;
- o However, support for this broad objective is qualified with some concerns relating to the environmental impacts of the proposal on its receiving environment;
- o for which some suggestions or improvements are suggested (where possible) to enable the objective to be better achieved in a sustainable manner.

The submission is organised in the order outlined above into two parts: Part 1 covers support and reasons for that support, and Part 2 covers areas of concern and the reasons for this concern, and where possible, alternatives have been suggested.

The submission has focussed on the application as a whole (given that this is the manner in which the application has been made, and the application will be considered by a joint hearing panel). This format also reflects that Waitakere has more of a general interest in the application as a neighbouring local authority, rather than a specific interest as say a directly affected person. For these reasons reference has not been *specifically* made to the individual regional or district consents required, although it should be apparent from the topic discussed as to which consent the comment is directed.

Waitakere City Council looks forward to working with the applicants, consent authorities and other interested parties in order to improve the approach to this application and the final outcomes from this process.

Waitakere wishes to be heard in support of its submission.

Waitakere would consider making a joint submission with others making similar submissions, should this be necessary.

The decision that is requested to be made, the reasons for making that request and some potential alternatives are outlined in the body of the submission following:

Part 1: General Support

- 1.1 Waitakere City is a net energy importer. Other than some small scale generation (solar hot water heating, photovoltaic panels, micro-hydro generation (Watercare Services) and individual diesel or petrol generators) Waitakere is almost 100% reliant on the generation of electricity in locations outside its jurisdiction and its transmission to the City for distribution and end use.
- 1.2 Waitakere is therefore currently dependent on other locations to absorb the environmental effects of electricity production and transmission to enable the people and communities of Waitakere to provide for their social, cultural and economic wellbeing, and their health and safety. Waitakere is also concerned that environmental effects of electricity generation required to supply Waitakere, do not generate significant or avoidable adverse effects on other locations.
- 1.3 Waitakere contains a number of significant transmission resources including two Transpower substations (Henderson and Hepburn Rd) and three transmission line corridors (2x 110kVA and 1x 220kVA), providing for the transmission of electricity to Waitakere and areas north including Rodney, and the NGC (Vector) High Pressure Gas Line and a compressor station that will supply the proposed plant.
- 1.4 Waitakere is committed to implementation of the Regional Growth Strategy and the Growth Concept, and has projected significant population and employment growth, mainly via intensification, but also through managed expansion of the Metropolitan Urban Limits. Such growth cannot occur without appropriate infrastructural support, and in an intensive urban setting within a modern City, a reliable and resilient supply of electricity is more than desirable, it is a necessity.
- 1.5 Waitakere is also committed to a more efficient and sustainable transport system, particularly via improvements to the public transport system and lower emission vehicles. This includes active promotion (and physical works) to enable electrification of the Auckland metro rail system, which has been estimated to result in a one-off increase in electricity demand equivalent to the greater Auckland areas annual demand increase.
- 1.6 Waitakere is also understanding of the reasons outlined in the application with respect to the reasons for choosing to develop a 'thermal' station, (as opposed to 'renewable' generation) at this time, and in a location north of the Henderson sub-station. Waitakere is of the opinion that should thermal generation be required, then a Combined Cycle Gas Turbine (CCGT) is the most efficient and 'cleanest' of the technological options currently available. The ability of this type of plant to provide flexible generation capacity (e.g. peaking, base load, spinning capacity etc) effectively enables further development of more variable renewable generation such as wind, solar, wave and tidal. Wind and Tidal generation have been identified as having the most realisable potential for generation in the Rodney (and Waitakere) areas, with the 200MW Crest Energy Tidal Project in the Kaipara proceeding to hearing shortly. Solar energy is (currently) most efficiently utilised at the domestic scale for water or space heating, and is considered more of a 'demand side' reduction measure, than a large scale generation option.
- 1.7 Waitakere also supports the use of the ACC cooling (in preference to a water cooled design) as this reduces total water extraction requirements.

- 1.8 Waitakere supports the use of the Plan Change mechanism as a process to enable the development of the Power Station, allowing the merits of the application as a whole to be considered on a holistic basis against the wide tests of the Resource Management Act 1991.
- 1.9 Waitakere also supports that the plan change would have no effect until operative.
- 1.10 These supporting reasons are however tempered by some areas of concern as outlined in the following section.

Part 2: Areas of Concern

2.1 General Concerns

Waitakere City Council as a net energy importer and Eco-City is conscious of the environmental impacts that electrical generation for supply to Waitakere causes both in the immediate vicinity of the generator, and on a global scale.

Waitakere submits that the proposal should be undertaken with a view to avoiding, minimising or mitigating adverse effects wherever possible.

For this reason, while supporting the proposal in a general sense, Waitakere does have concerns with aspects of the proposal, which are outlined in more detail in the following sections.

Where possible, suggestions for addressing Waitakere's concerns are provided.

2.2 Urban Activity outside the MUL and Alternative Locations

As noted above, Waitakere supports the Growth Concept outlined in the Regional Growth Strategy, the Regional Policy Statement PC 6 and the Waitakere District Plan (PC 13-18 and the Growth Management Strategy).

This regional strategy is based on the realisation that the Auckland Region was expected to grow to approximately 2 million persons by 2050. Recent projections suggest this population could be reached as early as 2034. The strategy outlines a vision for the future of the region based on 3 main premises which suggest a future built form of:

- Urban intensification – most population growth occurs within the existing urban area in quality compact urban environments;
- Urban containment – limited rural growth and carefully managed urban expansion only where certain environmental, accessibility, and community principles can be met;
- Development is avoided in the most highly valued and sensitive natural areas and catchments.

This is to sustain

- Strong supportive communities;
- A high-quality living environment;
- A region that is easy to get around;
- Protection of the coast and surrounding natural environment.

The Regional Growth Strategy elaborates on these principles and notes that considerable infrastructural investment will be required to support growth, minimise environmental impacts and rectify existing capacity or environmental shortfalls. The Regional Growth Strategy also recognises that *"the provision of regionally significant infrastructure should not promote growth patterns that are inconsistent with the vision, outcomes and principles of the Growth Strategy"* (p66), but does not suggest the locations where this should occur.

The Regional Policy Statement (as amended by PC6) does not provide much guidance as to the location of supporting infrastructure, only suggesting that it should be located where it supports intensification objectives.

Regional Overview and Strategic Direction: Issue 2.4.5:

Electricity networks and services are approaching capacity thresholds due to ongoing and extensive growth and associated demand for electricity supply. The National Grid in particular is reaching capacity. Without significant investment, secure electricity supply into the Auckland and Northland Regions becomes increasingly difficult. In response to this a programme of upgrades of existing infrastructure servicing the Auckland and Northland Regions has been initiated. This programme will be ongoing to continue to ensure a reliable and secure supply of electricity, to meet the projected growth demands in those regions. The failure to do so will severely restrict the regions' economic and social growth and development.

Because of the developmental and environmental consequences which can arise when utility services are provided or extended, it will be essential to ensure that such works are planned and programmed within a strategic framework. Such services should, where practicable, be designed to support a direction of urban development which gives effect to the purposes of the RM Act.

Chapter 5: Energy of the Regional Policy Statement while recognising the essential nature of energy infrastructure, notes that the production, distribution and use of energy can have significant effects that should be avoided remedied or mitigated, and recognises the tension between the necessity for infrastructure and accommodating the environmental impacts caused by it in a sustainable manner:

The Rodney Power Station therefore raises important policy questions regarding the provision of electrical generation capacity required to support the Regional Growth Strategy.

The Regional Policy Statement framework in general relates to the need to protect regionally significant infrastructure from sensitive land uses to ensure it may continue to operate – in the case of this proposal this may serve to limit the potential for the current surrounding general rural land use to be converted to countryside living. It would therefore not preclude other non-sensitive land uses (such as further large scale industrial activities) from locating in proximity to the Station.

The Regional Policy Statement then goes on to consider how the issue can be addressed, and has introduced a number of new policies relating to regional significant infrastructure, including the need to protect existing infrastructure of sensitive activities that could effect its operation, upgrade or expansion, and to preserve the opportunities for new regionally significant infrastructure, particularly in rural locations (2.6.17.e.(i)), while also avoiding adverse effects on rural amenity and character, and productive ability, in addition to the other matters in the Regional Policy Statement such as landscape and coastal protection, rural character, and air and water quality concerns.

A concern with the proposal is that it may encourage other large industrial activities to locate outside of the MUL though the use of precedent arguments. Of particular concern would be the co-location of some industrial processor adjacent to the station that could utilise waste heat from the generation process – a sustainable use of the waste-heat on one hand, but further undermining the Regional Growth Strategy on the other.

The Rodney Power Station should also be considered as regionally significant infrastructure, being infrastructure that is of greater than local significance, as the definition also includes *“Energy and telecommunications networks, including energy generation facilities (such as Otahuhu A and Otahuhu B) and electricity distribution networks”*.

On one hand, the desirability of significant new flexible generation in the region (and for Northland) will provide significant positive benefits to the region through improved security of

supply, and may defer (but not remove the need for) significant transmission upgrades through the Auckland Region including the Otahuhu-Henderson circuit and Henderson north which will directly impact on Waitakere.

The flexibility of the CCGT system will also enable the development of more variable renewable energy sources including the Crest Tidal Energy project nearby at the mouth of the Kaipara, which while very reliable and predicable, is variable, and will only be generating on the flows of the incoming and outgoing tides (no generation will occur at the ebb of the tides), and/or any future wind generation which has been identified as a resource available for between 100 and 200MW¹, mostly likely in close proximity to the station on the west coast ridges or isolated high points in the centre of the District.

On the other hand, the proposal, as identified by the Auckland Regional Council in their requests for information, is clearly an Urban Activity of a heavy industrial nature, which will be located in a relatively isolated rural area, with little other activities or structures providing context for the Power Station.

The site selection process undertaken for the station appears to have discounted urban locations due to the lack of suitably large sites – it is however suggested that the station located in a heavy industrial area in an urban location would not require as large 'buffer area' as is required in the chosen location, and could therefore be comfortably located on a site only slightly larger than the 2.4Ha required for the building footprint and associated access and facilities.

Waitakere is concerned that the application does not outline the site selection process in detail, and does not clearly articulate why, out of all possible locations, the current location was chosen², particularly in light of the strong policy direction in the Regional Policy Statement in relation to urban containment.

It is considered that the applicant has not presented a compelling reason why the station could not be accommodated within an urban location - in contrast to 'resource dependent' generation (such as hydro, wind, tidal etc), the station has no specific locational needs that would 'require' a rural location such as the one proposed.

An urban location would also negate several of the concerns that Waitakere has with the proposal in terms of environmental impacts though locating in an Industrial AQMA (for air discharge), the use of existing wastewater infrastructure both for water supply and disposal (as per the Helensville Wastewater option), use of existing transport infrastructure for access by construction workers and plant operators (most of which will need to commute daily from the Auckland metropolitan area to the distant work site for approximately 2 years).

However it is understood that a location north of the Henderson Substation is preferred because of existing transmission constraints.

Waitakere is aware that the Otahuhu-Henderson transmission line is currently being upgraded (not withstanding consenting issues in Auckland City³, and that Transpower is also investigating⁴ several options for improvements to transmission capacity including a new high capacity cross-harbour cable, Penrose to Albany, and Penrose to Pakuranga transmission upgrades that would negate this current bottleneck and widen the potential for other candidate sites, possibly including within the existing (or future) metropolitan urban limit.

¹ Pg 25, SKM April 2006, *Sustainable Energy Supply Options for Rodney District*

² It is noted that in relation to discharges, for which the majority of resource consents are required, and in relation to s32 analysis for the Plan Change, alternatives are required to be considered.

³ Transpower's proposed up-rating received a Certificate of Compliance from Waitakere City Council, but was a notified, non-complying activity in Auckland City.

⁴ <http://www.gridnewzealand.co.nz/n239.html>

Should the current north of Henderson location still be required, this would limit reasonably available locations in Waitakere City to areas that are identified for future urban growth in the Northern Strategic Growth Area (NorSGA) and in particular the Massey North Employment Special Area which is the largest industrial zone proposed and most distant from existing residential activities. This is considered to be the only realistic location, as Waitakere has an extreme shortage of vacant industrial and business land inside the current MUL. Other than this constraint, in Waitakere, no bulk and location rules apply in the Working Environment (the industrial zone - there are no height or appearance controls other than when abutting a more sensitive zone), and it appears that the station could⁵ be constructed with a low level consent, and certainly without a plan change (subject to Regional Air Discharge standards).

The only other possible 'urban' location in Rodney would be Kumeu, or potentially Helensville. Both these locations (other than Helensville) are also relatively proximal to the transmission lines and the Gas pipeline.

In the case of Massey North Employment Special Area or other locations in the NorSGA area, Waitakere would have concerns the potential for the thermal plume and height of the station to adversely impact on the flight path and operations of the nearby Whenuapai Airbase which Waitakere has undertaken a plan change process to preserve the opportunity for the site to be continued to be used as a commercial airport. While it is noted that the Otahuhu Station is within 8-10km of Auckland International, Whenuapai would be less than 2km from the probable alternative location and directly under the approach path to the main runway running east-west as illustrated in Figure 1 below.

Information obtained by Waitakere City indicates that the currently proposed location is some 18-21km northwest of Whenuapai and is well clear of CAA designated approach and departure paths, but CAA will need to make an investigation as to whether the thermal plume will be identified as a 'hazard in navigable airspace' under Part 77 of the Civil Aviation Rules.

Rodney District Council and North Shore City Council are also shareholders in the Whenuapai Airport Company, along with Infratil and Waitakere City Council.

In summary, while it would be preferable for the station to be located within the current MUL for the reasons outlined in the Regional Policy Statement, the only probable location within Waitakere City north of the Henderson sub-station is in the NorSGA, particularly the Massey North Employment Special Area, which would create conflict with existing regionally significant infrastructure, namely RNZAF Whenuapai, and the intended future use of this important regional asset, and could not be supported by Waitakere for this reason.

However, there are likely to be a large number of suitable industrial sites within the region that could be considered in light of transmission upgrades.

⁵ Ignoring issues such as earthworks, landscaping etc, and regional consent issues which would still be required.



Figure 1: future urban areas in Waitakere north of the Henderson Substation – Massey North Employment Special area, the largest and most residentially ‘buffered’ industrial location is directly under the approach flight path of the Whenuapai Airbase main runway, resulting in thermal plume issues.

In summary, while Waitakere has concerns with the station as an urban activity outside the MUL, it does not appear that there is a readily available alternative location in Waitakere City north of the Henderson substation.

Waitakere is not able to comment on the availability or otherwise of suitable industrial sites in Rodney such as in Kumeu or Helensville.

Should Transpower’s grid upgrade programme be undertaken in the manner indicated on the gridnz.co.nz website, this would widen the potential candidate area to include other urban locations.

Waitakere submits that the applicants should further outline the site selection process in light of these comments, and the likely upgrade of the Otahuhu - Henderson ‘bottleneck’ by Transpower, which will also satisfy the Auckland Regional Council’s concerns as outlined in a number of s92 requests in relation to the same issue.

2.3 Visual Appearance/Landscape effects (including earthworks)

The architectural appearance of the building, while enclosing the main components and reducing the visual clutter that these elements if exposed would produce does result in a

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significantly massive structure that would appear to be totally out of context with the pastoral landscape dominated by natural features with limited built features.

The curved form of the building and the proposed recessive colouring are supported, however the sheer scale of the building limits the mitigating effect of any architectural flourish.

The extent of earthworks required (450,000m³), the height of the landscaping mounds and scale of the building all combine to suggest that there significant issues with the suitability of the site chosen, and that the applicant has concerns with the visual acceptability of the structure as proposed in this landscape, to the extent that a new 'landscape' is literally to be created to screen the structure using the massive amounts of cut to fill excess.

Such a significant earthworks activity can generate significant impacts on ground and surface water flows directly and indirectly, generate large amounts of sedimentation and noise, and alter natural landforms.

The site is significantly distant from Waitakere for there to be no direct impacts on Waitakere in a visual sense, but the scale of modification in a rural environment does have potential precedent impacts in a regional sense for other similar urban activities seeking to locate outside the MUL, particularly in the context of an identified shortage of industrial land in the North-Western Sector.

Waitakere's first preference is that these issues be avoided – this will be only achievable through reconsideration of the chosen site, or significant redesign of the plant (such as by consideration of a stepped foundation platform for each module).

In the alternative, Waitakere seeks that should the site be confirmed as appropriate for the activity, that appropriate conditions be imposed on the discharge consents and in the plan change to minimise the adverse effects from the earthworks on the site and the receiving environment, that the landscaping bunds be stabilised as soon as possible in the earthworks process and landscaped with a fast growing native nursery/ground cover in the first planting season following commencement of the earthworks, and that an ongoing planning and maintenance programme be implemented to ensure that the landscape planting transitions effectively to a ecologically appropriate canopy closure as soon as possible.

In relation to visual issues, Waitakere seeks that the station be clad in appropriately recessive colours, that the landscaping mounds be shaped in a manner sympathetic to the surrounding landscape (ie avoidance of abrupt angle changes and minimisation of 'straight lines') and that the planting and landscaping plan be implemented as soon as possible.

2.4 Storm water runoff

It appears that considerable impervious surfaces are to be created on the site for access, parking, and utility purposes, that will generate considerable changes to the existing flow regime. The applicant has suggested that hydrological neutrality will be maintained, while also applying for consent to discharge storm water at rates of up to 5m³/second⁶.

Waitakere therefore submits that far greater use can be made of the rainfall on the considerable roof and impervious surface area proposed to provide at least some of the daily water needs of the station (over and above the minor non-potable uses proposed – i.e. toilet flushing, outdoor taps etc). This storage could be in the form of a pond (rather than a large number of tanks) similar to those proposed for storm water and wastewater disposal, and linked to the water intake system as a top-up or first flush type approach (as it is appreciated that roof water alone could not provide the capacity and assurance of volume required for daily use).

⁶ This equates to a 24 hr flow of storm water to the Kaukapakapa river of 432000m³ - which is unlikely to occur.

The use of pervious pavers for areas of staff carparking and access should also be considered – this will reduce the runoff from these areas and reduce the contaminant load (heavy metals, oils etc) to the stormwater pond area, and thence to the Kaukapakapa River, effectively acting like a swale (and/or in conjunction with a swale) but also reducing storm water quantity as well as improving quantity. Alternatively, should non-pervious paving be utilised, this will provide an additional catchment source for the stations water supply.

Waitakere therefore requests that the applicant amend the application to reflect these comments or that the consent authorities impose appropriate conditions or rules in the resource consents/plan change to the same effect.

2.5 Water take

The proposed water take programme is considered to be the most appropriate methodology in the proposed location – it will involve the taking of brackish (ie salty) tidal waters from the ebbing tide, effectively replicating the action of the outgoing tide. In this manner the water take will minimise the taking of fresh water flows from the river, and this option is supported. The take will also be partly offset (less evaporation and onsite use) by the discharge of the used water back into the river.

Waitakere requests that the consent authorities impose appropriate conditions on the water take consents to ensure that the water is taken only just after the high tide, and at a rate that minimises adverse effects.

However, as raised in s 2.4 above, the volume of water demand could be reduced through use, and/or reuse of station wastewater and storm water runoff.

Waitakere therefore requests that the applicant amend the application to reflect these comments or that the consent authorities impose appropriate conditions or rules in the resource consents/plan change to the same effect.

Helensville Wastewater Use:

This is the option most preferred by Waitakere, and reportedly by the applicant, however, other than the comment that it is being pursued, there is no more detail regarding this option. Waitakere understands that this option will require significant capital investment by both Rodney District Council and Genesis to be practicable, but will solve a current issue with the existing wastewater plant, and remove the need to take water from the Kaukapakapa River, and potentially also remove the need to discharge wastes to the River also (the waste will still enter the Kaipara Harbour after treatment via an upgraded Helensville Wastewater Treatment Plant outlet).

Waitakere request that the applicant and/or Rodney District Council provide further details in relation to the ongoing investigation of this option and its feasibility, and that the consent application for water take is not granted until the Helensville Wastewater option has been fully scoped.

2.6 Station Wastewater Disposal/Discharge to water

Waitakere understands that the proposal will involve the discharge to the Kaukapakapa River of up to 1900m³ of 'station wastewater'.

This is a separate discharge to 'sanitary wastewater' from station toilets, showers, kitchens and laboratories which is to be treated onsite via an onsite wastewater treatment system and then disposed of to land.

In relation to the 'sanitary' wastewater, Waitakere request that appropriate conditions be imposed on the discharge consent to ensure that the system operates to a high standard, is maintained appropriately and that toxic or hazardous laboratory wastes (if any) are not disposed of in the onsite system, but transported offsite for appropriate disposal.

In relation to the 'station wastewater' it is understood that this will consist of various impurities removed from the intake water, and washdown and other waters from the stations day to day operations, including stormwater runoff from the site.

Waitakere is most concerned with this discharge in relation to its temperature and the concentration of contaminants (excluding those that are from the water purification process), particularly those that have an immediate impact on the ecology of the river and harbour systems, and those that have a cumulative or bio-accumulative impact over a long period of time.

Heated water will come from the station and be discharged with the daily outfall, thereby significantly altering the ambient temperature of the Kaukapakapa River downstream of the outlet, and impacting on the habitat values of the river downstream of this point, and potentially upstream as well via the creation of a thermal barrier, which migratory or mobile fish populations will not pass.

Waitakere request that heated station waste waters (the application suggests the temperature will be near boiling) are held in a secondary pond or other suitable method to allow the water to cool significantly prior to entering the main holding pond (further reducing the temperature via mixing) and only then be discharged to the River. This will significantly reduce the temperature of the discharge plume and avoid the effects that this would otherwise cause.

In relation to contaminant loading, it is requested that where waters come from a station process or activity area that results in the wastewater containing contaminants that have the potential to impact on the ecology of the Kaukapakapa River that some form of treatment (other than dilution) be undertaken on the wastewater as a whole prior to discharge, or potentially where specific processes are required to remove contaminants and this would be more effective or efficient than a generic treatment process, prior to entering the main holding pond.

Waitakere therefore requests that the applicant amend the application to reflect these comments or that the consent authorities impose appropriate conditions or rules in the resource consents/plan change to the same effect.

2.7 Air Discharges

The proposal represents the 'cleanest' thermal generation technology currently available. However it will generate significant levels of CO₂ equivalent – according the application, from 0.64MTCO₂-E/pa in the first stage to 1.3MTCO₂-E/pa when fully operational – some 1 to 2% increase over the total emissions for NZ in the 2006 year.

This represents a significant increase over 1990 levels, that may significantly impact on NZ's obligations under the Kyoto protocol.

However CO₂ is not a 'pollutant' in the lay sense, and will not cause health effects in the local air shed. Co₂ (and other emissions from the stacks including NO_x) are issues of global concern due to their impact on the 'greenhouse effect', and global climate change.

Waitakere therefore recognises that the control of GHG emissions while a local and regional issue of concern, is most appropriately managed at the national level by the Government under mechanisms giving effect to the national obligation under the Kyoto Protocol.