

The Proposed Auckland Unitary Plan (notified 30 September 2013)

5.41 Rodney Thermal Energy Generation

The activities, controls and assessment criteria of the underlying Rural Production zone and Auckland-wide rules apply in the following precinct unless otherwise specified below. Refer to the planning maps and [appendix 11.5.7](#) for the location and extent of the precinct.

1. Activity table

The following table specifies the activity status of activities in the Rodney Thermal Energy Generation precinct.

Activity	Status
Land use	
Wastewater treatment activities related to domestic and electricity generation	P
Wastewater treatment activities not directly associated with the generation, transformation, transmission and distribution of electricity	D
Existing dwellings	P
New dwellings	Pr
Rural	
Farming	P
Development	
Lines or cables attached to the roof, side or underside of buildings	P
Any line as defined by section 2(1A) of the Telecommunications Act 1987 and any necessary incidental equipment including above ground telephone cabinets or equipment buildings not exceeding 10m ² in area	P
Combined cycle gas electricity generation, transformation and/or transmission of power supplied from a combined cycle gas fired power station having a nominal capacity of 240MW and up to a nominal 480MW capacity and activities including operation and maintenance that is located in the power generation and transmission activities area shown in the activity areas and power station site layout plan in appendix 11.5.7.2	P
Combined cycle gas electricity generation in excess of a nominal 480MW capacity	Pr
Construction, use and maintenance of pipelines for the reticulation of natural gas, water and wastewater	P
Erection and upgrading of facilities and structures associated with or accessory to the generation, transformation, and/or transmission of power supplied from a combined cycle gas fired power station having a nominal capacity of 240MW and/or the direct distribution of electricity from the substation to a point of supply that is located in the power generation and transmission activities area shown in the activity areas and power station site layout plan in appendix 11.5.7.2 .	RD
Erection and upgrading of facilities and structures associated with or ancillary to the generation, transformation, and/or transmission of power supplied from a combined cycle gas fired power station having a nominal capacity in excess of 240MW, up to a nominal 480MW and/or the direct distribution of electricity from the substation to a point of supply that is located in the power generation and transmission activities area shown in the activity areas and power station site layout plan in appendix 11.5.7.2 .	RD
Any activity not associated with the generation, transformation, transmission or distribution of electricity or farming that is not listed in this Activity Table.	NC

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Industry that is not directly related to the gas fired combined cycle generation of electricity for a nominal 480MW capacity or directly associated with the generation, transformation, transmission or distribution of that electricity including (but not limited to) the transmission of electricity, telecommunication links or the transporting of gas	Pr
Landscaping, planting and establishing bunds	P
Minor infrastructure upgrading of existing transmission lines including transmission tower foundation strengthening and the erection and removal of temporary line structures	P
Offices, plant and storage ancillary to electricity generation that are located in the power generation and transmission activities area depicted in the activity areas and power station site layout plan in appendix 11.5.7.2 .	P
Pole mounted capacitors up to a maximum of two capacitors on existing overhead electric lines (provided the support structure is a single pole) where any single capacitor has the maximum dimensions of 1m high x 1m wide x 1m deep	P
Pole type telecommunication and/or transmission masts including antennae and their use and any necessary incidental equipment including any above ground cabinets not exceeding 10m ² in area	P
Signs and security fencing associated with any facilities, structures and activities associated with the generation, transformation, transmission and distribution of electricity	P
Stormwater reticulation and disposal	P
Telecommunication aerials and antennas attached to buildings	P
The demolition or removal of buildings and accessory buildings	P
The erection, addition to, or alteration of buildings and accessory buildings for any permitted activity in this table	P
Transport activities including access, parking and loading	P
Use and storage of hazardous substances associated with the generation, transformation, transmission and distribution of electricity that are located in the power generation and transmission activities area shown in the activity areas and power station site layout plan in appendix 11.5.7.2 .	P
Where not otherwise a permitted, controlled or restricted discretionary activity, any facilities, structures or activities associated with the transformation, transmission and/or the direct distribution of electricity and either located within the footprint of the Transpower substation or being an extension to the footprint of the Transpower substation	D
Subdivision	
Subdivision for electricity generation facilities (and associated fuel supply) and activities and any other facilities associated with the generation, transformation, transmission or distribution of electricity for a nominal 480MW capacity	P
Subdivision for any purpose other than for: - Farming or rural production activities; or - Electricity generation, transformation, transmission or distribution activities.	Pr

2. Development controls

1. The development controls in the Rural Production zone apply in the Rodney Thermal Energy Generation precinct unless otherwise specified below.
2. Development that does not comply with clauses 2.1 to 2.34 is a discretionary activity.

2.1 Building dimensions

1. No part of any building associated with the generation, transformation, transmission or distribution of

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electricity may exceed a height of RL* 52m, excluding:

- a. any emission stacks, which must not exceed a height of RL* 60m
- b. any communication antennae or mast, which must not exceed a height of RL* 61m
- c. any infrastructure, apart from the control building, associated with the substation and with the operation of or a connection to a 220kV transmission or a distribution line of up to and including 220kV.

*RL means Reduced Level, reference LINZ Mean Sea Level Datum, Auckland 1996

2.2 Gross floor area

1. The GFA of buildings associated with the generation, transformation, transmission or distribution of electricity must not exceed a combined area of 22,000m².

2.3 Colour of buildings

1. The exterior walls and roofing of buildings used for electricity generation, transformation, or distribution facilities, excluding aerials and lines including their support structures, must be coloured green within the range equivalent to that between Coloursteel (NZ Steel) colours 'Spring Green' and 'Permanent Green' for building elevations above RL 20m, except those parts of the buildings used for windows, vents or doorways.
2. Roofing material above RL 21m must be of low reflectivity.

2.4 Height in relation to boundary

1. No part of any building, except for transmission and distribution lines for electricity and telecommunication, including their support structures, and substation equipment, must exceed a height equal to 3m plus the shortest horizontal distance between that part of the building and the precinct boundary.

2.5 Hours of operation

1. Hours of operation may be up to and include 24 hours a day, seven days a week.

2.6 Landscaping

1. Landscape works including landform mounding, revegetation and amenity planting must be carried out in association with any electricity generation facilities and associated facilities and activities within the precinct in accordance with the following standards:
 - a. a landscape plan developed in consultation with council landscape/ecological advisers must be submitted to council for approval prior to the start of earthworks within the precinct. This plan must:
 - i. be prepared in accordance with the landforms and contour plan set out in [appendix 11.5.7.3](#) and in particular with the vegetation planting plan (October 2008) set out in [appendix 11.5.7.4](#), and use the techniques and processes used on the Albany to Puhoi realignment project (ALPURT)
 - ii. define the nature and scope of landscape works to be implemented in conjunction with the construction of any electricity generation facilities including a set of suitably detailed scaled plans of all landscape works
 - iii. confirm the form and extent of site and landform mounding works to be done and the rehabilitation of all disturbed areas and to confirm that the landform mounding works are consistent with the landform and contours plan in [Appendix 11.5.7.3](#).
 - iv. include technical specifications for plant supply, site preparation, planting and initial planting establishment

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- v. identify and document all plant species to be used, including the position/pattern of planting, numbers and grades of both revegetative and specimen species
 - vi. identify areas, as appropriate, where fast growing exotic vegetation is to be used for initial screening, along with a replacement strategy for this vegetation using native or other species when the initial screening requirement has been met
 - vii. identify where vegetation that is low growing and less dense when mature is to be used to ensure compliance with the Electricity (Hazards from Trees) Regulations 2003 or any other relevant legislation applicable at the time of development.
 - viii. include a landscape management plan and maintenance programme for the ongoing management and maintenance of the landscape works.
- b. revegetation planting must start in the winter following completion of site earthworks
 - c. the implemented landscape works must be maintained for the duration of any electricity generation facilities within the precinct in a manner to be defined in the landscape plan. This must include replacement of defective plant material and weed control so that the landscape works conform to the landscape plan submitted in accordance with this rule.

2.7 Main building design

1. The main power station building, incorporating the electricity generation and cooling plant, must be designed in general accordance with the plans shown in the development concept plan – building, set out in [Appendix 11.5.7.5](#).

2.8 Building coverage and impervious surface

1. Building coverage for electricity generation, transformation, transmission and distribution facilities must not exceed 7 per cent of the precinct area.
2. The combined area of impervious surfaces and site coverage, including internal roading and parking, for electricity facilities within the precinct must not exceed 20 per cent of the precinct area.

2.9 Safe clearance distance

1. The erection of buildings and structures, the operation of the mobile plant and equipment, and the planting of vegetation in the vicinity of overhead electricity lines, including their support structures, must comply with the requirements of the New Zealand Electrical Code of Practice for Electrical Safe Clearance Distances (NZECP34:2001) or any other relevant legislation applicable at the time of development.

2.10 Yards

1. The minimum yard must be 30m on all precinct boundaries.

2.11 Earthworks

Avoiding soil erosion

1. Soil erosion as a result of earthworks, vegetation removal or importation and depositing of fill must be minimised and any silt discharge must be controlled through a combination of techniques including:
 - a. establishing perimeter controls to keep clean runoff out of the area being worked
 - b. protecting steep slopes within the precinct from erosion with runoff over such slopes being avoided or diverted
 - c. implementing runoff control measures, including contour drains, earth bunds or similar, to control and direct runoff to sediment ponds or stormwater outlets, and limit the accumulation of volumes

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of water with erosion potential

- d. use of sediment retention ponds
 - e. use of silt fences and hay bales along the lower boundary of the earthworks or vegetation clearance
 - f. stormwater inlet protection, including filter cloth, gravel or securely stacked hay bales at all inlets directly affected by the earthworks
 - g. retention of grassed buffer strips along waterways or boundaries at the lowest end of the property.
2. The earthworks area must be protected from wind and water erosion, as soon as is practicable or within 2 months of earthworks completion, whichever is the sooner. Surface stabilisation techniques such as regrassing, hydroseeding, tree replanting, metalled hardstand, or building erection must be used.

Earthworks staging

3. Prior to any earthworks and construction starting within the precinct, the requirements of clauses 2.11 must be met and any earthworks consent necessary under the Unitary Plan obtained.
4. Construction of the power station platform must start with earthworks required to realign Inland Road and to construct the primary site access entrance way. The earthworks must then extend to the balance of the development, including internal site road construction and establishment of the equipment platform.

Ecologically sensitive areas

5. Construction activities in ecologically sensitive areas identified in [appendix 11.5.7.2](#) must be limited to those principally for:
 - a. constructing water supply intakes, wastewater discharge outfalls, and stormwater outfalls and structures associated with the construction, operation, maintenance and upgrading of the Rodney Power Station
 - b. construction of public access walkways for the purpose of enhancing public access to and along the margins of the Kaukapakapa River
 - c. establishing and enhancing wetland and ecological habitats within and adjacent to sensitive areas.
6. A riparian margin management plan must be submitted to council for approval prior to the start of earthworks for establishing, constructing, operating and maintaining generation facilities within the precinct.
7. A riparian management plan must set out the specific measures for managing the ecological values of ecologically sensitive areas identified in [appendix 11.5.7.2](#), including as a minimum, stock proof fencing of these areas.
8. Ecologically sensitive areas and any adjoining earthworks and construction activities must be actively managed and maintained in accordance with the approved riparian plan for the duration of any electricity generation activities within the precinct.

Excavations and untreated filling

9. Earthworks must not involve unretained filling within 5m of the precinct boundary, or excavation or filling that intercepts a line drawn at 1 vertical to 2 horizontal from the ground level at the precinct boundary, or excavation that intercepts a line drawn at 1 vertical to 2 horizontal from the ground level above a

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council service line.

Excavation and/or deposition quantity

10. The excavation and/or deposition of soil, spoil or earth within the precinct must not exceed 500,000m³ cut volume for establishing the power station platform and associated facilities and activities, and the creation of landform features around the site in accordance with the landform and contours plan in [appendix 11.5.7.3](#).
11. Prior to excavation and/or deposition of more than 1000m³ of soil, spoil or earth within the precinct, an excavation and deposition management plan must be prepared and submitted to council for approval. It must show:
 - a. a suitably detailed set of scaled plans showing the location and details of all proposed earthworks and proposed mitigation measures
 - b. the quality and type of material to be excavated and/or deposited
 - c. the extent of the area to be filled, provision to be made for benching, compaction, drainage or other measures appropriate to ensure the stability of the area during filling operations and after reinstatement of the site
 - d. provision for the control of stormwater, silt or any other liquid discharge from the excavated area in a way which will ensure no pollution of surrounding surface water
 - e. the measures to manage dust generation around the substation and transmission line network
 - f. the sequence of any staged development of the earthworks, and the time scale for the works
 - g. the proposed location and form of access points to the disposal site including traffic management measures
 - h. the layout of the main internal driveways and the surfacing and actions proposed to prevent any dust nuisance
 - i. the likely number of offsite vehicle movements per day and the hours/days of operation
 - j. the number and type of vehicles working permanently on the site
 - k. the location of any buildings on site
 - l. security and supervision measures for the site
 - m. the position of boundary fences, and existing vegetation and watercourses on site
 - n. the reinstatement measures proposed for the site including topsoiling, regrassing or planting.
12. All earthworks in the vicinity of overhead electric lines and their support structures must comply with the requirements of the New Zealand Electrical Code of Practice for Electrical Safe Clearance Distances (NZECP34:2001) or any other relevant legislation applicable at the time of development.
13. Vegetation or demolition of building materials in the precinct must not be buried or burned.
14. Vegetation, demolition or building material requiring disposal must be removed from the precinct and disposed of at an approved disposal facility.

General earthworks

15. All earthworks within the precinct must be consistent with the requirements of Auckland Council Technical Publication 90 Erosion and Sediment Control Guideline for Land Disturbing Activities in the Auckland Region or similar design and any conditions of consent for any earthworks necessary under the Unitary Plan.

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16. Any earthworks in excess of 1ha in any one year and any modification of wetlands and watercourses must be done in accordance with an approved erosion and sediment control plan prepared in accordance with Auckland Council Technical Publication 90.
17. The erosion and sediment plan must be submitted to council for approval before site construction earthworks begin.
18. No earthworks activities on the site in excess of 1ha can start until an approved erosion and sediment plan exists and any earthworks consents necessary under the Unitary Plan obtained.

2.12 Modification of wetlands and water courses

1. The excavation and/or deposition of soil, spoil or earth must not modify in excess of 1000m² of a wetland and/or watercourses other than for establishing the building platform or for restoration purposes.

2.13 Odour and dust

1. Activities within the precinct must not discharge nuisance odour, dust, particulate, smoke or ash.
2. The management and assessment of odour must be done in accordance with the Ministry for the Environment's Good Practice Guide for Assessing and Managing Odour in New Zealand (June 2003) or any other relevant legislation applicable at the time of development.
3. The management and assessment of dust must be done in accordance with good practice, and in particular with the Ministry for the Environment Good Practice Guide for Assessing and Managing the Environmental Effects of Dust Emissions (September 2001) or any other relevant legislation applicable at the time of development.

2.14 Vegetation removal

1. Vegetation removal activities must be limited to:
 - a. cutting, trimming, pruning or other maintenance or removal of any individual native tree or group of native trees for establishing, maintaining and managing the landscaping established within the precinct.
 - b. treatment or removal of dead, damaged or diseased native trees or other works relating to native trees immediately necessary to avoid any actual or potential damage to the life, health or property of the owners of the site on which the trees are located or any adjacent site
 - c. cutting or removal of vegetation for walking tracks or walkway access up to and including 1.7m wide within the precinct
 - d. any vegetation management required to ensure compliance with the Electricity (Hazards from Trees) Regulations 2003.
2. In respect to the bush protection covenant on Lot 6 DP 207811 shown on [appendix 11.5.7.2](#), the following apply:
 - a. the natural landscape trees, vegetation and areas of bush must be preserved
 - b. the cutting down, damaging or destruction of any such natural trees, vegetation or areas of bush is not allowed without council's prior written consent and then only in strict compliance with any conditions imposed by the council
 - c. the health of any such natural landscape trees, vegetation or areas of bush must not be prejudiced
 - d. all pest plants and animals within the identified part of each site must be controlled
 - e. a stockproof fence approved by council must be maintained around the perimeter of each site.

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2.15 Fencing

1. All roadside boundaries must be fenced with stockproof fencing consistent with other rural properties in the locality.
2. Security fencing must not be installed within 10m of the SH16 and Inland Road boundaries.
3. Security fencing must not exceed a maximum height of 3m.
4. Fencing and access gates must be constructed in accordance with AS 1725 – ChainLink Fabric Security Fences and Gates, except security fencing associated with the substation which must meet Transpower Standard: Switchyard and security fencing Specification TP>DS 52.01 SA1 dated August 2005.
5. A post and railtype fence not exceeding 1.2m high must be installed along the State Highway 16 frontage on Lot 5 DP210805.
6. The location of the post and rail and security fencing must be identified in the power station and site development site plan submitted in accordance with clause 2.23 and in the landscape plan submitted in accordance with clause 2.6.1.a.

2.16 Hazard signage

1. All hazardous facilities must have adequate signs to identify the nature and location of the hazardous substances present at the facility in accordance with the Hazardous Substance (Identification) Regulations 2001 (HSNO) or any other relevant legislation applicable at the time of development.

2.17 Hazardous substance storage

1. All hazardous facilities within the precinct, must be:
 - a. designed, constructed and licensed in accordance with HSNO.
 - b. designed, sized and constructed to the size required for electricity generation facilities with a nominal capacity of 480MW, transformation, transmission and distribution facilities within the precinct.

2.18 Spill containment

1. Any part of a site that constitutes a hazardous facility must be protected by a spill containment system which must be:
 - a. constructed from impervious materials resistant to the hazardous substances involved
 - b. able to contain the maximum volume of the largest tank used, plus 10 per cent of the next largest tank, or
 - i. where drums or other containers are stored, the spill containment system must be able to contain half the maximum volume of substances stored or 5000l, whichever is the lesser; or
 - ii. spill containment systems and levels of hazardous substances in stormwater or sediments that comply with Oil Spill Management TP:GS 54.01
 - c. designed, constructed and managed so that stormwater runoff is prevented from flowing into the contained area
 - d. designed, constructed and managed so that any spill or release of any hazardous substance, and any stormwater that may have entered and become contaminated in the spill containment system, is prevented from entering the stormwater drainage system, and prevented from discharging into or onto land, ground water, any water body or potable water supply.
2. Electrical equipment associated with the national grid and containing less than 1500l of oil must not be

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protected by a spill containment system if the oil is contained in a sealed unit.

2.19 Storage tanks

1. All underground and above ground hazardous substance storage tanks and stationary containers must be designed and constructed according to the requirements of Schedule 8 and 9 of the ERMA New Zealand Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer notice 2004 (or any other relevant legislation applicable at the time of development) pursuant to HSNO.

2.20 Stormwater grate marking

1. All stormwater grates must be clearly marked to ensure hazardous substances are not inadvertently released into the stormwater system. For example, by use of the council 'I only drain rain' label.

2.21 Wash down areas

1. Any area within the precinct where vehicles, equipment or containers are washed must be designed and constructed so that any contaminated effluent from the wash down area or washing facility is not discharged to either the stormwater drainage system, land, ground water, any water body, or potable water supply unless authorised by council.

2.22 Archaeological features

1. During earthworks, an archaeologist must be retained by Genesis Energy and must include periodic visits to the site during this time.
2. During construction where any unrecorded subsurface archaeological evidence is discovered, work must cease in the immediate vicinity of the discovery and the Historic Places Trust contacted. Work must only continue in the immediate vicinity of the discovery with trust approval.
3. During construction where any kōiwi (human remains) are discovered, work in the immediate vicinity must cease and the Historic Places Trust, police and Mana Whenua be contacted so that appropriate arrangements can be made. Work may only continue once the remains are removed and trust approval is given.

2.23 Development concept plan and implementation

1. All electricity generation facilities and associated facilities, structures and activities, including parking spaces, and new buildings or alterations to existing buildings within the precinct must be:
 - a. located in accordance with the activity areas and power station site layout plan in [appendix 11.5.7.2](#)
 - b. designed and constructed in accordance with the approved development concept plan in appendices [11.5.7.5](#) and [11.5.7.6](#) and clauses 2.1, 2.3, 2.4 and 2.7 -2.10.
2. Prior to construction of any electricity generation facilities or any other associated facilities, structures and activities within the precinct, a comprehensive power station and site development site plan, prepared in accordance with the development concept plan in appendices [11.5.7.5](#) and [11.5.7.6](#). must be submitted to council for its approval. This plan must include:
 - a. details of the site layout and security fencing to be used for the Rodney Power Station
 - b. details of the buildings and infrastructure to be built on the site, including a suitably detailed scaled set of drawings demonstrating the building form and elevation views
 - c. sufficient detail to demonstrate that the site is to be developed in accordance with the development concept plan in appendices [11.5.7.5](#) and [11.5.7.6](#).
 - d. the substation layout which must not exceed the dimensions set out in the substation plans in appendices [11.5.7.5](#) and [11.5.7.6](#).

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2.24 Electricity generation, transformation, transmission and distribution facilities, activities and structures

1. Facilities and structures must be limited to the electricity generation and associated structures, facilities and activities required for a power station with a nominal capacity of 480MW, including:
 - a. gas and steam turbines
 - b. generators
 - c. heat recovery steam generators and boilers
 - d. cooling plant and condensers
 - e. exhaust stacks
 - f. transformers
 - g. all works necessary to enable any connections between the power station, the national grid and/or local distribution network including electrical switchyards, substations, overhead electricity transmission and distribution lines and structures and underground electric cabling
 - h. gas reception area
 - i. gas pipelines
 - j. equipment laydown areas
 - k. control rooms and communication infrastructure
 - l. laboratory
 - m. administration offices (including dining and toilet facilities)
 - n. educational facilities related to electricity generation
 - o. water supply, treatment and storage facilities
 - p. wastewater treatment and disposal facilities
 - q. stormwater retention and disposal facilities
 - r. water intake and discharge facilities
 - s. recreational facilities primarily for staff use
 - t. depots and storage facilities, including bulk chemical storage facilities and compressed gas storage
 - u. parking
 - v. signs relating to the activity
 - w. security fencing
 - x. landscaping and earthworks
 - y. associated facilities, including water storage tanks, electrical switchyard, gatehouse (security facility with associated vehicle layby and parking)
 - z. workshop
 - aa. accessory buildings
 - ab. access and internal service roading.

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2. Electrical switchyards, substations, electricity transmission and distribution lines and structures, underground electric cabling structures and activities, and works to establish and upgrade any connection to the national grid and/or the local distribution network, may include but are not limited to the following:
 - a. earth grid
 - b. switchyard gantry structures
 - c. earthwires
 - d. bus work
 - e. disconnectors
 - f. circuit breakers
 - g. earth switches
 - h. capacitor voltage transformers
 - i. current transformers
 - j. cabling
 - k. control building
 - l. telecommunications equipment, including masts and antennas
 - m. termination structures
 - n. temporary line structures
 - o. modifications to existing structures and lines, such as tower foundation strengthening (but excluding voltage upgrades)
 - p. security fencing
 - q. temporary line hurdles and safety nets associated with Transpower line diversions
 - r. lightning and lighting masts
 - s. roading
 - t. transmission towers, poles and fittings
 - u. transmission line conductors (wires)
 - v. distribution line conductors (wires).

2.25 Exterior lighting and glare

1. All exterior lighting facilities must be designed, located and at all times directed, screened, adjusted and maintained to ensure that:
 - a. the lighting does not result in increased illuminance in excess of 5 lux in the measured ambient level (lumens/m²)* in the horizontal and/or vertical plane at any window of an adjacent household unit outside the precinct.

*One lumen is equal to 1 foot candle/square foot. One foot candle is the illuminance produced on a surface one foot from a uniform point source of one candle.

- b. All welding activities must be screened from adjacent sites outside the precinct and roads.
- c. Lighting facilities must not be constructed in a manner that may cause confusion with lights for navigation and traffic activities on public roads.

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- d. Lighting must not be constructed in a manner that direct or indirect luminance or glare causes adverse effects on traffic safety.
- e. Any lighting poles either within the precinct or the access road intersection with Inland Road must be less than 11m in height above finished ground, except for lighting poles within the substation site which must be less than 22m in height above finished ground level.
- f. Only fully cutoff luminaires with horizontal glass visors that emit no light above the horizontal plane can be used within the precinct and access road.

2.26 Electric lines

1. All electric lines within the precinct must be located underground, except:
 - a. for any aboveground length not exceeding 25m where the ground level is no higher than either end of the aboveground length
 - b. any national grid lines including those necessary for connecting the transmission substation to the existing national grid overhead transmission network
 - c. electric lines for connecting the power station to the local electricity distribution network
 - d. any other electric lines and their support structures, and polemounted transformers within the precinct, which:
 - i. are located overhead
 - ii. have support structures not exceeding 18.5m in height and, in the case of transformers, the support structure is a single pole
 - iii. convey electricity at a voltage up to and including 110kV.

2.27 Electromagnetic fields and radio frequency interference

1. In areas of general public access, the operation of all electrical line connection works and works associated with switchyards and substations must comply with the general public exposure levels recommended in the ICNIRP (1998) International Commission on NonIonizing Radiation Protection Guidelines 2004 (or any other relevant legislation applicable at the time of development) for limiting exposure to time varying electric, magnetic and electromagnetic fields (up to 300GHz).
2. All electrical line connection works and works associated with switchyards and substations must comply with the Electricity Regulations 1997 and Radiocommunications Regulations 2001 (or any other relevant legislation applicable at the time of development) in relation to any radio frequency interference effects.

2.28 Gas

1. Any gas pipelines and gas reticulation equipment within the precinct must be located underground, except for:
 - a. any above ground length not exceeding 25m where the ground level is no higher than either end of the above ground length
 - b. any necessary gas reticulation control equipment including above ground gas metering, pressure control facility, compressor station and/or equipment building not exceeding 50m² in area
 - c. any pipe runs inside buildings.

2.29 Telecommunications masts and antennas

1. Poletype telecommunications and/or transmission masts must not exceed 35m in height.
2. Any necessary incidental equipment, including any above ground telephone cabinets or equipment

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buildings, must not exceed 10m² in area.

3. Each panel, circular or dish antennae must have a surface area of the largest face not exceeding 1.25m².
4. Antennae attached to buildings must not exceed 5m in height above the point of attachment to the building.
5. An activity which emits radiofrequency fields is permitted provided it meets the following conditions:
 - a. exposures to the radiofrequency fields generated by any telecommunications equipment, in conjunction, where applicable, with exposures to radiofrequency fields from existing transmitters in the vicinity, must comply with the New Zealand Standard for Radiofrequency Fields Part 1: Maximum exposure levels 3 kHz ÷ 300 GHz (NZS 2772.1:1999) (or any other relevant legislation applicable at the time of development).
 - b. prior to starting any radiofrequency emissions, the following are sent to and received by the council's manager northern consenting and compliance, or equivalent:
 - i. written notice of the location of the facility or proposed facility
 - ii. a report prepared by a radio engineer/technician or physical scientist containing a prediction of compliance with the New Zealand Standard.
6. If the report proposed under clause 2.29.5.b.ii predicts emissions will exceed 25 per cent of the exposure limit set for the general public in the New Zealand standard, then within three months of emissions starting, a report from the National Radiation Laboratory or an appropriately qualified person/organisation certifying compliance with the New Zealand standard based on measurements at the site will be provided to the council's manager northern consenting and compliance or equivalent.

2.30 Noise

Construction noise

1. A construction noise and vibration management plan must be submitted to council for approval prior to earthworks starting within the precinct to demonstrate how the construction activities will meet the provisions in clauses 2.30.2 and .2.31.
2. All construction noise during the construction of electricity generation facilities must comply with, and be assessed in accordance with, the provisions of New Zealand Standard on Acoustics – Construction Noise (NZS 6803: 1999) (or any other relevant legislation applicable at the time of development) and the approved management as required by clause 2.30.1.

Other noise

3. All activities within the precinct must be not exceed the limits set out in Table 1 below within the notional* boundary of any residential dwelling as existing at 1 August 2008 that is not located in the precinct

Table 1

Day	Hours	Noise Limit (LAeq (15 min) dB)
Monday to Saturday	6am to 6pm	55 (for dwellings within 70m of SH16)
Monday to Saturday	6am to 6pm	50 (for dwellings more than 70m of SH16)
Monday to Saturday	6pm to 6am	45 (for dwellings within 70m of SH16)
Monday to Saturday	6pm to 6am	40 (for dwellings more than 70m of SH16)
Sundays and public holidays	9am to 6pm	50 (for dwellings within 70m of SH16)

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Sundays and public holidays	9am to 6pm	45 (for dwellings more than 70m of SH16)
Sundays and public holidays	6pm to 9am	45 (for dwellings within 70m of SH16)
Sundays and public holidays	6pm to 9am	50 (for dwellings more than 70m of SH16)
All days	6pm to 6am	75 (LAFmax)

*The notional boundary is a line 20m from the facade of a rural dwelling, or the legal boundary where this is closer to the dwelling, as existing at 1 August 2008.

- The noise limits in the precinct do not apply to any noise generated from the use of warning devices or sirens used for public emergency service activities.

Noise monitoring and measurement

- An operation noise monitoring plan must be prepared and submitted to council for approval. This requires appropriate noise monitoring to be carried out to confirm compliance with the noise standards set out in Table 1.
- All measurements and assessment of noise levels for activities controlled by clauses 2.30.1-3 above must be done in accordance with New Zealand Standard on Acoustics – Measurement of Environmental Sound (NZS 6801:2008) and New Zealand Standard on Acoustics – Environmental Noise (NZS 6802:2008) (or any other relevant legislation applicable at the time of development) particularly with respect to making provision for any tonal component of the noise levels associated with the plant.

2.31 Vibration

- Vibration at or within the boundary of any site adjacent to the precinct must not exceed the limits set out below in Table 2 during construction, operation and maintenance of any electricity generation facilities within the precinct:

Table 2

Time	Average Weighted Vibration Level (Wb or Wd)	Maximum Instantaneous Weighted Vibration Level (Wb or Wd)
Monday to Saturday 7am to 6pm	0.045m/s ²	1.0m/s ²
At all other times	0.015m/s ²	0.05m/s ²

- The weighted vibration levels Wb and Wd must be measured according to the British Standard for ground vibration BS6841:1987.
- The average vibration must be measured over a time period of not less than 60 seconds and not longer than 30 minutes at any point where it is likely to affect the comfort or amenity of people occupying an adjacent site.

2.32 Signs

- Signs must be structurally safe and comply with the requirements of the Building Act 2004 (or any other relevant legislation applicable at the time of development) and the requirements of the New Zealand Transport Agency Signs on State Highways Bylaw 2010 (or any other relevant legislation applicable at the time of development) regulating signs on state highways.
- Signs must be finished to a high standard and must be maintained in a safe condition, in good order and free of graffiti.
- Freestanding front yard signs must:

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- a. have a maximum height of 3.5m
 - b. have a maximum area of 7m²
 - c. be limited to a maximum of two signs visible from each road frontage of the power station site.
4. Signs associated with the substation or with transmission or distribution lines, including their support structures, must be limited to identification and/or health and safety signs.
5. No sign may affect traffic safety or control detrimentally and a sign must not:
- a. unreasonably obstruct the line of sight of any corner, bend, intersection or vehicle crossing
 - b. unreasonably obstruct, confuse, impair, or distract from the view of any road control signs and traffic signals
 - c. produce glare, or dazzle road users
 - d. display any flashing or revolving lights that would distract road user's attention
 - e. invite drivers to turn so close to the turning point that there is no time to signal and turn safely
 - f. result in a cumulative effect compromising any of 2.32.5.a-d above.

2.33 Stormwater

1. Stormwater management systems must be provided and be adequate to safeguard people from injury or illness and to protect property from damage caused by surface water.
2. Adequate provision must be made for the collection, treatment and disposal of stormwater runoff from impermeable surfaces.
3. Stormwater collection, treatment and disposal systems must be designed so they do not create or exacerbate natural hazards, or create a hazard to public health or safety.
4. Prior to the start of construction activity on the site, a stormwater plan must be submitted to council for approval and must include:
 - a. a suitably detailed set of scaled drawings setting out the proposed stormwater system layout
 - b. stormwater flow calculations
 - c. any measures required to ensure the capacity of the culverts under SH16 are not exceeded at peak flow, or, if the existing culvert capacity is to be exceeded, that the culverts are upgraded in accordance with the New Zealand Transport Agency's state highway design requirements.
5. All stormwater management systems in relation to the precinct must be provided and maintained in accordance with an approved stormwater management plan and the conditions of any consent necessary under the Unitary Plan.

2.34 Traffic, access and parking

Availability for use

1. All parking spaces, access and manoeuvring areas must be kept clear at all times for vehicle use.
2. Such areas must not be used for storage of any goods or materials or any other purpose that would prevent the parking, loading, or manoeuvring of vehicles.

Distance between crossings

3. The minimum separation distance between crossings serving sites within the precinct must not be less than 6m, except where they are constructed as a double crossing.
4. Crossings onto SH16 must comply with the separation requirements of the New Zealand Transport

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Agency planning policy manual and any subsequent amendments.

Formation of parking spaces, access and manoeuvring areas

5. All temporary construction parking spaces, access and manoeuvring areas required onsite must be formed, finished to a low dust surface and drained. Once established, these areas must be maintained to that standard at all times until construction is complete.
 - a. All permanent parking spaces, access and manoeuvring areas required onsite must be formed, paved to a permanent dustfree surface that is not metal, and drained. Once established, these areas must be maintained to that standard at all times.
 - b. The minimum standards of paving to be used must be those set out in the Auckland Transport Code of Practice.

Identification of parking spaces

6. All parking spaces must be clearly marked and identified in a permanent manner

Loading and servicing

7. The internal site road network must be constructed to provide for manoeuvring of all expected service vehicles and must be used by service vehicles for the loading and unloading of goods. All internal site roads must be constructed with a minimum formed carriageway width of 6m.

Number of crossings

8. There must be only one primary electricity generation facility access driveway and two secondary access driveways servicing the electricity generation, transformation, transmission and distribution facilities and associated activities.
9. Construction traffic must not access the site adjacent to the southern side of SH16 from a secondary access.
10. There must be no more than one access driveway for each separate site within the precinct and such access driveways must:
 - a. be designed and constructed in accordance with the Auckland Transport Code of Practice.
 - b. be designed and constructed in accordance with New Zealand Transport Agency's planning policy manual and subsequent amendments as it relates to the expected vehicle use
 - c. not exceed 10m in width at the boundary
 - d. not be additional to any access driveways provided for that site under clauses 2.34, 2.33 - 44 and 2.34.8.

Onsite parking

11. Onsite parking must be provided within the power generation and transmission activities area shown in the activity areas and power station site layout plan in [appendix 11.5.7.2](#).

Number of parking spaces during construction

12. A minimum of 250 temporary parking spaces must be provided within the precinct during construction of any electricity generation facilities with a nominal capacity of 240MW
13. A minimum of 100 temporary parking spaces, in addition to the permanent parking spaces, must be provided within the precinct during construction of any electricity generation facilities exceeding a nominal capacity of 240MW, but less than a nominal capacity of 480 MW

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14. Temporary parking spaces must not be located in areas where landform mounding construction is identified in an approved landscape plan is being done.

Number of parking spaces post-construction

15. 25 permanent onsite parking spaces must be provided within the power generation and transmission activities area shown in the activity areas and power station site layout plan in [appendix 11.5.7.2](#) and inside the security gates required under clause 2.34.49
16. 20 permanent visitor parking spaces and two bus parking spaces must be provided within the power generation and transmission activities area shown in the activity areas and power station site layout plan in [appendix 11.5.7.2](#) between Inland Road and the security gates required under clause 2.34.35
17. Parking for disabled and other persons must be provided in accordance with the building code
18. None of the above post construction parking space requirements apply to the national grid switching station or substation facility, which must provide four parking spaces within the facility, in accordance with the building code.

Parking space size and access

19. All parking spaces dimensions must meet the standards set out in Chapter H: Auckland wide - transport rules, of the Unitary Plan. The provisions of New Zealand Standard for Offstreet Car Parking (AS/NZS 2890.1:2004) for offstreet parking are an acceptable alternative to the Unitary Plan provisions.
20. Each parking space must be provided with appropriate access and manoeuvring areas:
 - a. to allow for entry and exit of vehicles from and to the road
 - b. for manoeuvring of vehicles within the site.
21. Access and manoeuvring areas must be designed in accordance with the parking, loading and access rules in Chapter H: Auckland wide transport rules, of the Unitary Plan. The provisions of New Zealand Standard for Offstreet Car Parking (AS/NZS 2890.1:2004) for off street parking are an acceptable alternative to the Unitary Plan provisions.
22. The maximum gradient at any point within the parking space must not exceed 6 per cent.
23. Parking space grades must comply with the provisions of New Zealand Standard for Offstreet Car Parking (AS/NZS 2890.1:2004).
24. Sufficient space must be provided on the site so reverse manoeuvring onto or off the road is not necessary.

Traffic management

25. A construction traffic management plan prepared by a suitably qualified independent traffic engineer must be submitted to council for approval prior to:
 - a. earthworks starting within the precinct for the initial establishment and construction of any electricity generation facilities
 - b. the start of construction of each stage of the electricity generation, transformation, transmission or distribution facilities within the precinct.
26. The construction traffic management plan must:
 - a. describe the extent of all physical works required either on public roads or within the precinct
 - b. outline the construction programme for the project and provide a summary of expected construction truck traffic movements, including any special construction events or activities, or other oneoff activities, involving the movement of materials and goods to or from the site that may

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be required outside the hours of 6am and 7pm on weekdays or Saturdays (refer to clause 2.34.39 of this rule)

- c. set out the strategy for controlling and managing traffic on the public road including appropriate road marking and improvements during construction, and the coordination of all traffic-related issues including but not limited to the safe and convenient movement of stock, school buses, sightseers and other road users along or across Inland and Sheffield roads and State Highway 16 in the vicinity of construction
 - d. set out the strategy for controlling and managing traffic on State Highway 16 and/or the North Auckland Railway Line during the diversion of the existing transmission lines and the construction of new lines
 - e. describe how schools, residents along the routes to be used by construction traffic and the public will be kept informed of construction timing and implementation
 - f. detail the methods proposed to avoid and remedy the potential deposit of debris onto public roads
 - g. identify the extent of public notification required and the mechanisms needed to ensure the safety, convenience and efficiency of the road network operation
 - h. include a travel demand management plan detailing how the commuter traffic to and from the site by onsite workers will be minimised
 - i. set out the plan for monitoring, review and refinement of the measures described to ensure the effectiveness of the Traffic Management Plan measures
 - j. set out the temporary speed limit restrictions to be used to ensure the safety of road users and the public
 - k. provide written records of consultation and correspondence with the relevant road controlling authorities on the content of the proposed traffic management plan and over dimension vehicle management plan.
27. A site and transport safety supervisor must be appointed for the construction of any electricity generation facilities within the precinct. The contact details for the appointed person must be included in the traffic management plan.
28. The approved traffic management plan must be supplied to the New Zealand Transport Agency's network management consultant in accordance with the latest version of the Code of Practice for Temporary Traffic Management at least 10 working days prior to work starting.
29. All construction traffic in relation to the precinct must be operated in accordance with the approved traffic management plan.
30. There must be no transport of materials and goods to or from the site on Sundays or public holidays.
31. Construction involving the movement of materials and goods to or from the site must only take place between 6am and 7pm weekdays or Saturdays, except:
- a. where otherwise specifically provided for in the traffic management plan for special construction events or activities, or other one off activities
 - b. for over dimension/overweight vehicles.
32. The effectiveness of the plan must be reviewed monthly throughout the construction period to make provision for any additional measures needed and to ensure the continued safe operation of the road network.

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Vehicle access design

33. Vehicle access to electricity generation, transformation, transmission and distribution facilities within the precinct must be provided by way of a primary site access entranceway off Inland Road and corresponding upgrading of Inland Road in accordance with [appendix 11.5.7.7](#) Realignment of Inland Road and alterations to SH16.
34. The electricity generation facilities' primary site access entranceway must be located at least 60m from State Highway 16 road reserve boundary.
35. Security gates for the electricity generation facilities' primary site access entranceway must be recessed within the site by at least 40m from the Inland Road carriageway edge.
36. A 12m sealed carriageway must be formed between the state highway and the primary site access entranceway.
37. There must not be less than 8m of seal width on Inland Road, from the primary site entranceway to any additional permanent entranceway.
38. Kerb and channel must be provided on both sides of sealed sections of the primary site access entranceway and upgraded Inland Road.
39. During construction public roads must not be used for vehicles waiting or queuing to enter or leave the construction site.
40. The primary site access entranceway for any electricity generation facilities within the precinct must be designed as a priority controlled rural intersection, and must comply with the design requirements defined in Austroads Part 5: Intersections at Grade (2005).
41. Any secondary site access driveway within the precinct onto a local road must be designed in accordance with council's Standards for Engineering Design and Construction and must not exceed 10m in width at the boundary.
42. Any secondary site access driveway within the precinct onto State Highway 16 must be designed and constructed in accordance with the New Zealand Transport Agency Planning Policy Manual and any subsequent amendments as it relates to the expected vehicle use.
43. All permanent vehicle crossings must be formed, paved to a permanent dustfree surface that is not metal, and drained.
44. Nameplates for the section of Inland Road realigned in accordance with clause 2.34.33 must meet the requirements of Auckland Transport Code of Practice (ATCOP) and be installed prior to opening the realigned section of road.

Vehicular access to parking spaces

45. Every parking space must have access from an existing formed road access.
46. Any motor vehicle occupying a parking space must have ready access to a site access road at all times without requiring the movement of any other vehicle occupying another parking space.
47. Vertical clearance to overhead obstructions must comply with the provisions of New Zealand Standard for Offstreet Car Parking (AS/NZS 2890.1:2004) for offstreet parking.

3. Assessment - Restricted discretionary activities

3.1 Matters of discretion

The council will restrict its discretion to the matters below for the activities listed as restricted discretionary in the precinct activity table:

1. The erection, upgrading, addition to or alteration of buildings, offices and accessory buildings for

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electricity generation facilities and any other structures associated with electricity generation.

- a. site layout, landscape works, fencing and lighting
- b. architectural design, form, colour, materials and external appearance of buildings
- c. the safety, operational and functional requirements of all network utility operators on the site
- d. the suitability of measures to monitor and control noise on the site
- e. facilities and methods for managing hazardous substances.

3.2 Assessment criteria

The council will consider the relevant assessment criteria below for the restricted discretionary activities listed above.

1. The erection, upgrading, addition to or alteration of buildings, offices and accessory buildings for electricity generation facilities and any other structures associated with electricity generation.
 - a. Buildings
 - i. The proposed buildings should be in accordance with the development concept plan in Appendices 11.5.8.5 and 11.5.8.6.
 - ii. The building design, form, colour, materials, structure and external appearance should achieve the architectural features and the design objectives shown in the development concept plan.
 - iii. The development should comply with the controls in clause 2.30 for noise.
 - iv. The development should comply with the control in clauses 2.16-2.21 relating to hazardous substances.
 - b. Landscape works
 - i. The proposed landscape works should be in accordance with the proposed landform and contours and the vegetation planting plan set out in Appendices 11.5.8.3 & 11.5.8.4.
 - ii. The planting proposals over the whole of the precinct should be consistent with the vegetation planting plan and appropriate for integrating the landform in the landscape and reducing the prominence and contrast of buildings and structures from public areas and surrounding sites (as existing at 1 August 2008) so that while the power station will be visible from some locations, it will not generally appear to be visually dominant in its rural setting.
 - iii. The development should comply with the controls in clause 2.6 for landscaping and in 2.11.5-2.11.8 for ecologically sensitive areas.
 - iv. The development should comply with the controls in clauses 2.25 for exterior lighting and glare and in 2.15 for fencing.
 - c. General matters
 - i. The following general matters are accepted and will not be disputed:
 - development of the site in accordance with the outline plans in the appendices and development controls, including noise, is appropriate to achieve the objectives for the precinct
 - the constraints imposed on achieving these measures by the technical and operational requirements of electricity generation and transmission
 - the requirements for safety, operation, maintenance, and upgrading, of the electricity generation, transmission, telecommunications and other utility infrastructure should not be compromised.

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4. Special information requirements

1. An application for an activity listed as restricted discretionary in the Activity Table must be accompanied by:
 - a. accurate perspective images of views of the buildings and infrastructure to be built, including form and elevation views
 - b. details of the site layout, security fencing and lighting to be used within the precinct
 - c. identification of any relevant radiofrequency, hazardous substance or other hazards, including hazardous induced voltages, earth potential rise (EPR) hazards from pylons, increased EPR hazard from the switchyard, and noise interference on telecommunications circuits
 - d. an acoustic design certificate from a recognised acoustic consultant demonstrating that the noise limits for the precinct will not be exceeded by the final design details of the facilities and methods for monitoring and managing procedures for storing and containing all hazardous substances and associated sources of contamination on the site.

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