

D26. National Grid Corridor Overlay

D26.1. Overlay description

The National Grid is important to the social and economic well-being of Aucklanders and New Zealanders. All infrastructure owned or operated by Transpower New Zealand Limited comprises the National Grid.

Under the National Policy Statement on Electricity Transmission 2008, the Council is required to recognise and provide for the national significance of the National Grid, including through identifying and providing a buffer corridor and associated rules to avoid sensitive activities in the corridor and manage the actual and potential adverse effects of other activities on the National Grid. The National Grid Corridor Overlay crosses the coastal marine area, but no specific rules apply in this area.

Amenity values within the National Grid Corridor Overlay can be expected to be lower than elsewhere, due to the presence of the National Grid but this must be balanced against the benefits that an efficient and reliable National Grid provides.

The purpose of the National Grid Corridor Overlay is to manage sensitive activities and potentially incompatible development (including land disturbance) within close proximity to the National Grid in order to:

- prevent risks to people and property;
- protect the National Grid;
- preserve line access for inspection and maintenance;
- preserve a corridor for the operation, maintenance, upgrade and development of National Grid infrastructure; and
- manage potential reverse sensitivity effects.

Subdivision is managed so that future development achieves the objective and policies of the National Grid Corridor Overlay, including that the National Grid is not compromised and its long-term upgrading and development is facilitated in accordance with the National Policy Statement on Electricity Transmission 2008.

High voltage transmission lines pose a risk of electrical hazard in situations where development occurs too close and may result in injury to persons and/or damage to property, either as a result of direct or indirect contact with National Grid infrastructure.

Conversely, development in close proximity to the National Grid can pose risks to the National Grid itself including the potential for loss of security of supply through outages or physical damage, and through constraints on access for inspection and maintenance and undertaking line upgrades.

D26.2. Objective [rcp/dp]

[The regional coastal plan [rcp] provisions (for activities or resources in the coastal marine area) are not operative until the Minister of Conservation has formally approved the regional coastal plan part of the Auckland Unitary Plan.]

- (1) The efficient development, operation, maintenance and upgrading of the National Grid is not compromised by subdivision, use and development.

D26.3. Policies [rcp/dp]

[The regional coastal plan [rcp] provisions (for activities or resources in the coastal marine area) are not operative until the Minister of Conservation has formally approved the regional coastal plan part of the Auckland Unitary Plan.]

- (1) Require subdivision, use and development within the National Grid Corridor Overlay to be undertaken so that it:
 - (a) meets the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001);
 - (b) does not compromise security of supply and/or the integrity of National Grid assets;
 - (c) does not compromise ongoing access to conductors and support structures for maintenance and upgrading works;
 - (d) does not foreclose future cable routes into substations in roads in urban areas;
 - (e) does not foreclose operation and maintenance options or the carrying out of planned upgrade works;
 - (f) manages all activities to avoid exposure to health and safety risk from the National Grid;
 - (g) manages activities sensitive to the National Grid to minimise exposure to nuisance, such as noise and line drip from the National Grid;
 - (h) avoids the establishment or expansion of activities sensitive to transmission lines in the National Grid Yard and around substations;
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 - (i) provides for activities not sensitive to transmission lines in the National Grid Yard within the residential, business, open space and special purpose zones
 - (j) avoids buildings within the National Grid Yard in rural zones and the Future Urban Zone, except for buildings for low intensity rural activities; and
 - (k) limits, as far as practicable, potential reverse sensitivity effects.
- (2) Require structure plans to take into account the National Grid Corridor overlay to ensure that the National Grid is not compromised by reverse sensitivity and other effects from future subdivision, use and development.
- (3) Require activities within the National Grid Corridor overlay within the coastal marine area to be undertaken so that they achieve all relevant items in Policy D26.3(1).

D26.4. Activity table

Table D26.4.1 Activity table – within the National Grid Yard specifies the activity status for use, development and subdivision activities within the National Grid Yard pursuant to sections 9(3) and 11 of the Resource Management Act 1991.

[ENV-2016-AKL-000218: Transpower New Zealand Limited] – Addition sought, the properties affected by this appeal are identified in the Auckland Unitary Plan viewer

Table D26.4.2 Activity table – within the National Grid Corridor around National Grid substations specifies the activity status for land use, development and subdivisions activities pursuant to sections 9(3) and 11 of the Resource Management Act 1991.

Tables D26.4.1 and D26.4.2 do not apply to Transpower's activities.

Where activities are shown as permitted, the applicable zone, precinct and Auckland-wide rules also apply.

For subdivision within the National Grid Corridor overlay, refer to the relevant zone rules in E38 Subdivision – Urban or E39 Subdivision – Rural. A blank in Table D26.4.1 below means that the Auckland-wide subdivision provisions apply.

Table D26.4.1 Activity table – within the National Grid Yard

Activity		Activity status
(A1)	Establishing activities sensitive to the national grid in an existing building or a new building	NC
(A2)	Any activity including land disturbance that permanently physically impedes existing vehicular access to a national grid support structure	NC
(A3)	Network utilities (excluding buildings and structures for irrigation) and electricity generation that connect to the national grid	P
(A4)	Any storage or use of hazardous substances or hazardous wastes (excluding motor vehicle fuel tanks and the accessory use and storage of hazardous substances in domestic scale quantities)	NC
(A5)	Any activity not otherwise provided for	NC
(A6)	Any permitted activity that does not meet the permitted activity standards	RD
(A7)	Any activity, building or structure that fails to comply with the requirements of NZECP 34:2001	NC
Development		
(A8)	External building extensions for an activity sensitive to the National Grid	NC
(A9)	Any building or structure unless it is otherwise provided for below	NC

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(A10)	Fences	P
(A11)	Any new building or structure, and alterations, that is not for activities sensitive to the national grid	P
(A12)	Accessory buildings (excluding buildings containing sleeping areas) for activities sensitive to the national grid	P
(A13)	Alterations to existing buildings for activities sensitive to the national grid that do not increase the building envelope or footprint	P
Buildings and structures in addition to the above in rural zones and the Future Urban Zone		
(A14)	Horticultural structures between 8m and 12m from a pole (but not a tower) support structure	P
(A15)	An agricultural or horticultural structure located within 12m of a tower or 8m of a pole support structure that complies with clause 2.4.1 of NZECP34:2001	P
(A16)	Uninhabited farm buildings and structures, surrounding platforms and stockyards associated with milking sheds, animal feed lots and 3-sided calf rearing sheds, and alterations to these buildings and structures	P
(A17)	Uninhabited horticultural buildings and structures and alterations to these buildings and structures	P
(A18)	Principal buildings for intensive farming activities (excluding animal feed lots), milking shed buildings (excluding the surrounding platform and any stockyards), wintering barns, commercial greenhouses and immovable protective canopies	NC
Land disturbance		
(A19)	Land disturbance that complies with Standards D26.6.1.1(1)(a), D26.6.1.1(1)(b), D26.6.1.1(1)(c) and D26.6.1.1(1)(d)	P
(A20)	Land disturbance that does not comply with Standards D26.6.1.1(1)(a), D26.6.1.1(1)(b), D26.6.1.1(1)(c) and D26.6.1.1(1)(d)	RD
(A21)	Land disturbance that does not comply with Standard D26.6.1.1(1)(e) – (f)	NC
Subdivision		
(A22)	Creation of lots involving a new building platform for activities sensitive to the National Grid in the residential, business, open space and special purpose zones	NC
(A23)	Creation of lots involving a new building platform in rural zones and the Future Urban Zone	NC
(A24)	For all other subdivision on land within an urban zone the activity status listed in E38 Subdivision – Urban under Tables E38.4.1 to E38.4.5 will apply	
(A25)	For all other subdivision on land within a rural zone the activity status listed in E39 Subdivision – Rural under	

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	Tables E39.4.1 to E39.4.5 will apply	
(A26)	Subdivision for controlled activities in E38 Subdivision – Urban and E39 Subdivision – Rural that do not comply with Standards D26.6.2.1(1) and D26.6.2.1(2)	NC

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Table D26.4.2 Activity table – within the National Grid Corridor around National Grid substations

Activity		Activity status
(A27)	Network utilities and electricity generation that connects to the National Grid	P
(A28)	Roading activities, and network utilities or electricity generation that connects to the National Grid that are above ground or comply with Standard D26.6.1.2(1), and electricity transmission infrastructure in a road carriageway	P
(A29)	New underground network utilities (except for electricity generation that connects to the National Grid) in a road carriageway identified in Table D26.6.1.2.1 that do not comply with Standard D26.6.1.2(1)	RD
Buildings and structures		
(A30)	New buildings for activities sensitive to the National Grid	RD
Subdivision		
(A31)	Subdivision for activities sensitive to the National Grid which are listed as permitted or controlled in E38 Subdivision – Urban under Tables E38.4.1 to E38.4.5	RD
(A32)	Subdivision for activities sensitive to the National Grid which are listed as permitted or controlled in E39 Subdivision – Rural under Tables E39.4.1 to E39.4.5	RD

D26.5. Notification

[ENV-2016-AKL-000218: Transpower New Zealand Limited] – Addition sought

- (1) An application for resource consent for a controlled activity listed in Table D26.4.1 above will be considered without public or limited notification or the need to obtain written approval from affected parties unless the Council decides that special circumstances exist under section 95A(4) of the Resource Management Act 1991.
- (2) Any application for resource consent for an activity listed in Table D26.4.1 or Table D26.4.2 and which is not listed in D26.5(1) will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.
- (3) When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

D26.6. Standards

D26.6.1. Permitted activity standards

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All activities listed as permitted in Tables D26.4.1 or D26.4.2 must comply with the following permitted activity standards.

D26.6.1.1. Land disturbance within the National Grid Yard

(1) Land disturbance must:

- (a) be no deeper than 300mm within 6m of the outer visible edge of the foundations of a national grid tower support structure;
- (b) be no deeper than 300mm within 2.2m of a national grid pole support structure or stay wire;
- (c) be no deeper than 3m between 6 to 12m from the outer edge of the visible foundation of a national grid tower support structure;
- (d) be no deeper than 750mm within 2.2 to 5m of a National Grid pole support structure; except that vertical holes not exceeding 500mm in diameter beyond 1.5 from the outer edge of pole support structure or stay wire are exempt;
- (e) not create an unstable batter that will affect a National Grid support structure; and
- (f) not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34:2001.

(2) Standards D26.6.1.1(1)(a) – (d) do not apply to:

- (a) land disturbance for a network utility (excluding buildings and structures for irrigation), as part of an electricity transmission activity, or for electricity infrastructure;
- (b) land disturbance undertaken as part of agricultural, horticultural or domestic cultivation, or repair, sealing or resealing of a road, footpath or driveway (including a farm track); and
- (c) land disturbance for a network utility (excluding buildings and structures for irrigation).

D26.6.1.2. Underground network utilities in the road carriageways

(1) All network utilities within the road carriageways identified in Table D26.6.1.2.1 must comply with the following standards:

(a) the network utility is an electrical cable that has a maximum continuous current carrying capability of 250A or less, a telecommunication cable, or a gas, water supply or sewer pipe connection to one or more properties; and

(b) the pipe or cable is buried to a depth no greater than 1.2m below the surface of the road.

(2) Except that:

(a) underground telecommunications fibre cables need not comply with Standard D26.6.1.2.1(a) and (b) if they are located in an area no deeper than 1.5m below the surface and no wider than 500mm inside the underground National Grid Corridor; and

(b) underground electricity cables need not comply with Standards D26.6.1.2.1(a) and (b) if a suitably qualified expert, commissioned by both the owner of the National Grid and the local distribution lines company supplied by the particular substation, certifies that any such cable does not foreclose (physically or due to heat transfer of the transmission cable) the ability to install other underground electricity transmission cables to the substation.

Table D26.6.1.2.1 Underground network utilities in the road carriageways

Substation	Road	Distance
Henderson	Lincoln Park Avenue, Triangle Road, Cartmel Avenue	250m
Hepburn Road	Hepburn Road, Akatea Road, Bancroft Crescent	250m
Mangere	Tennessee Avenue, Massey Road, Ferguson Street, Driver Road	250m
Mt Roskill	May Road, Richardson Road, Nirvana Way, Ellis Avenue, Jana Place, Subritzky Avenue, White Swan Road	500m
Otahuhu	Bairds Road, Hellabys Road, Gilbert Road, Kaitawa Street	250m
Pakuranga	Golfland Drive, Nandina Avenue, Ti Rakau Drive, Greenmount Drive	500m
Penrose	Gavin Street	500m
Wairau Road	Wairau Road	250m
Wiri	Te Irirangi Drive, Great South Road	500m

D26.6.1.3. Fences

- (1) Fences must:
 - (a) be located at least 5m from a National Grid support structure; and
 - (b) be no more than 2.5m in height.

D26.6.1.4. Buildings and structures

- (1) Buildings, structures and alterations including uninhabited horticultural buildings and structures (except those subject to Standard D26.6.1.6) and uninhabited farming buildings, structures and surrounding platforms and stockyards must be located at least 12m from a National Grid support structure.

D26.6.1.5. Accessory buildings

- (1) Accessory buildings must:
 - (a) be located at least 12m from a National Grid support structure;
 - (b) be no more than 2.5m in height; and
 - (c) have a floor area of no more than 10m².

D26.6.1.6. Horticultural structures between 8m and 12m from a pole support structure

- (1) Horticultural structures between 8m and 12m from a pole (but not a tower) support structure must:
 - (a) be no more than 2.5m in height;
 - (b) be removable or temporary, to allow a clear working space 12m from the pole where necessary for maintenance purposes; and
 - (c) allow all weather access to the pole and a sufficient area for maintenance equipment, including a crane.

D26.6.2. Controlled activity standards

All controlled activities must comply with the following controlled activity standards.

D26.6.2.1. Subdivision

- (1) The design and construction of subdivision including land disturbance and the location of buildings and structures must comply with NZECP34:2001.
- (2) The design and construction of subdivision must maintain vehicular access to any National Grid support structure.

D26.7. Assessment – controlled activities

There are no controlled activities in this overlay.

D26.8. Assessment – restricted discretionary activities

D26.8.1. Matters of discretion

The Council will restrict its discretion to all the following matters when assessing a restricted discretionary resource consent application:

- (1) subdivision:
 - (a) effects of the subdivision on the efficient operation, maintenance, upgrade and development of the national grid;
 - (b) risk of electrical hazards affecting public or individual safety, and the risk of property damage;
 - (c) the ability to provide a complying building platform;
 - (d) location, design and use of the proposed building platform or structure as it relates to the national grid;
 - (e) the nature and location of any vegetation associated with the subdivision to be planted in the vicinity of the national grid;
 - (f) where the proposed subdivision is part of a more extensive greenfields development, consistency with the planned future form and character of the area or zone, and the potential impacts on the National Grid, including reverse sensitivity effects and potential effects on the operation, maintenance, development and upgrade of the affected part of the National Grid; and
 - (g) technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
 - (h) the matters for discretion set out in E38 Subdivision – Urban under E38.11.1, where the land under subdivision is within an urban zone, and provided the matters are not inconsistent with matters listed as (a) to (g) above; and
 - (i) the matters for discretion set out in E39 Subdivision – Rural under E39.11.1 where the land under subdivision is within a rural zone, and provided the matters are not inconsistent with matters listed as (a) to (g) above.
- (2) land disturbance that does not comply with Standard D26.6.1(1)(a) – (d):
 - (a) the degree of non-compliance with the standard(s) and the effects on the efficient operation, maintenance, upgrade and development of the national grid;

- (b) risk of electrical hazards affecting public or individual safety, and the risk of property damage;
 - (c) the risk to the structural integrity of the National Grid; and
 - (d) technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (3) new buildings for activities sensitive to the National Grid in the National Grid Corridor around substations:
- (a) effects of the development on the efficient operation, maintenance, upgrade and development of the substation;
 - (b) risk of electrical hazards affecting public or individual safety, and the risk of property damage; and
 - (c) technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (4) new underground network utilities (except for electricity generation that connects to the National Grid) in a road carriageway that do not comply with Standards D26.6.1.2(1), (2)(a) and (2)(b):
- (a) the degree of non-compliance with the standard(s);
 - (b) the effects on the efficient operation, maintenance, upgrade and development of the national grid, including foreclosing options to install underground cables to the substation; and
 - (c) technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (5) buildings and structures that do not comply with Standards D26.6.1.3, D26.6.1.4, D26.6.1.5 and D26.6.1.6:
- (a) the degree of non-compliance with the standard(s);
 - (b) the effects on the efficient operation, maintenance, upgrade and development of the national grid;
 - (c) risk of electrical hazards affecting public or individual safety, and the risk of property damage; and
 - (d) technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.

D26.8.2. Assessment criteria

The Council will consider the relevant assessment criteria for restricted discretionary activities from the list below:

- (1) subdivision:
 - (a) whether the requirements of Policy D26.3(1) will be met;
 - (b) whether a building platform complies with national grid corridor rules, including those relating to sensitive activities;
 - (c) the extent to which the location, height, scale, orientation and use of the any proposed building platform, structure or planting will compromise the efficient operation, maintenance, upgrade and development of the National Grid;
 - (d) the extent to which the subdivision design and consequential development will minimise the potential reverse sensitivity on and amenity and nuisance effects of the National Grid;
 - (e) any implications arising from any technical advice from an Electrical Engineer specialising in transmission or the National Grid operator;
 - (f) the assessment criteria set out in E38 Subdivision – Urban under E38.11.2, where the land under subdivision is within an urban zone and provided the matters are not inconsistent with matters listed as (a) to (e) above; and
 - (g) the assessment criteria set out in E39 Subdivision – Rural under E39.11.2 where the land under subdivision is within a rural zone, and provided the matters are not inconsistent with matters listed as (a) to (e) above.
- (2) land disturbance that does not comply with Standards D26.6.1(1)(a) – (d):
 - (a) whether the requirements of Policy D26.3(1) will be met;
 - (b) where more than one standard is not complied with, consideration of the cumulative effects of the non-compliances; and
 - (c) any implications arising from any technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (3) new buildings for activities sensitive to the National Grid in the National Grid Corridor around substations:
 - (a) whether the requirements of Policy D26.3(1) will be met;
 - (b) the extent to which the location, height, scale, orientation and use of the any development will compromise the efficient operation, maintenance, upgrade and development of the National Grid;

- (c) the extent to which the development will minimise the potential reverse sensitivity on and amenity and nuisance effects of the National Grid; or
 - (d) any implications arising from any technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (4) new underground network utilities (except for electricity generation that connects to the National Grid) in a road carriageway that do not comply with Standard D26.6.1.2(1):
- (a) the implications in terms of the continuing ability to install operate and maintain underground cables to the substation;
 - (b) where more than one standard is not complied with, consideration of the cumulative effects of the non-compliances; and
 - (c) any implications arising from any technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.
- (5) buildings and structures that do not comply with Standards D26.6.1.3, D26.6.1.4, D26.6.1.5 and D26.6.1.6:
- (a) whether the requirements of Policy D26.3(1) will be met;
 - (b) the extent to which the non-compliance will compromise the efficient operation, maintenance, upgrade and development of the National Grid;
 - (c) where more than one standard is not complied with, consideration of the cumulative effects of the non-compliances; and
 - (d) any implications arising from any technical advice from an Electrical Engineer specialising in transmission or the National Grid operator.

D26.9. Special information requirements

- (1) An electrical engineering assessment prepared by a suitably qualified person may be required.