

A S S

COUNTIES ENERGY

Notice of Requirement for a substation at 13 Nola Avenue, Glenbrook

21 September 2022

Bringing places and communities to life.

QUALITY CONTROL SHEET

Proposal: Notice of Requirement for

Glenbrook Beach substation

Applicant: Counties Energy Limited

Site Address: 13 Nola Avenue, Glenbrook 2681

Legal Description: LOT 5000 DP 562266, 1/2 SH LOT

2003 DP 562266

Site Area: 34.4728 Ha (Land Requirement

Area: 3358m2)

Record of Title: 1033028

Relevant Planning Document(s): Auckland Unitary Plan Operative

in Part (AUP OP)

District Plan Zoning: Residential - Single House Zone

Align File Reference: COUNT056

Special Features/Overlays: Glenbrook 3, Precinct

Natural Resources: High-Use Aquifer Management Areas Overlay - Glenbrook Kaawa

Aquifer

Controls: Macroinvertebrate Community Index - Rural

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21 September 2022

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1 Introduction

- 1.1 Counties Energy Limited (Counties Energy) owns, manages and operates the electricity distribution network that services over 46,000 home, farm and business connections in the fast-growing Counties area. The company serves an area totalling 2250km² in the southern Auckland, northern Waikato and Hauraki district areas. It receives power from the national grid at Bombay and Glenbrook then distributes it to local people via nine zone substations and an extensive network measuring over 3200km comprising lines, cables, transformers and other equipment. The company is 100% locally owned, with shares held on behalf of local people by the Counties Energy Trust.
- 1.2 Glenbrook and the wider Counties area is currently undergoing a dramatic change. The region is experiencing huge growth, and Counties Energy must build new networks to ensure they can power this growth while also increasing capacity for existing customers' ever-increasing demand for energy for new technology and innovations. The local population is expected to triple by the mid-2000s. The significant amount of residential development currently under construction and the proposed rezoning of further extensive areas of land for residential and industrial development in the Auckland Unitary Plan supports this view.
- 1.3 The following assessment provides background to the requirement, describes the nature of the proposed works, and specifically addresses the matters set out in Section 171 (1A) of the Resource Management Act. Section 171 outlines the Council's jurisdiction for assessing the Notice of Requirement. Subject to Part 2 of the Act, this document assesses the actual and potential environmental effects and proposed mitigation measures, assesses the designation against any relevant provisions of relevant policy statements and plans, and outlines the alternatives considered, why the designation is reasonably necessary, and the consultation undertaken.

2 Site and context analysis

The Site

- 2.1 The 3358m² of land subject to land requirement will be within Lot 1003 of a proposed subdivision at 13 Nola Avenue, approximately 50m south of the intersection of McLarin Road and Orawahi Road. The location and extent of land requirement is identified in the Land Requirement Plan in Appendix A.
- 2.2 The site is relatively flat and is surrounded by dense riparian vegetation along the boundaries where there are two gullies. The vegetation is located outside of the proposed lot, within proposed local purpose esplanade reserves.
- 2.3 The land subject to land requirement is zoned Residential- Single House Zone

under the AUP(OP) and is within the Glenbrook 3 Precinct. The site is irregular in shape and is accessed from McLarin Road via an accessway shared with 115 McLarin Road.



Figure 1: Zoning Map



Figure 2: Scheme Plan of Stage 5 of Kahawai Point Development

2.4 The land subject to land requirement is currently in the process of being further subdivided, to create Stage 5 of the Kahawai Point Development. A 54- lot subdivision (reference SUB60397335) is currently being processed by Auckland Council. A decision is expected on this subdivision within the next couple of months. Counties Energy intends to purchase proposed Lot 1003.

Surrounding Land use

2.5 The surrounding area has undergone changes with new residential developments being built. Land north of the land requirement area is zoned Residential- Single Housing Zone and is within the Glenbrook 3 Precinct while a small portion of land to the south is zoned Business-Local Centre Zone. The land to the south and west remains largely rural in character and is zoned either Future Urban Zone or Rural-Mixed Rural Zone.

Flood Hazards

2.6 According to Auckland Council Geomaps, there are overland flow paths and flooding in drainage gullies either side of the site.

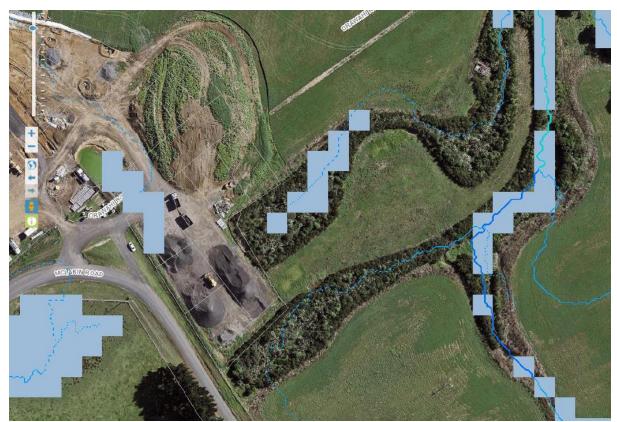


Figure 3: Flood plain and overland flow paths as shown on the Auckland Council Geomaps

3 Nature of Proposed Designation

Activity Outline

- 3.1 Counties Energy, as the requiring authority, is seeking to designate 3358m² of land at 13 Nola Avenue. The location and extent of land requirement is identified in the Land requirement plan in Appendix A.
- 3.2 The designation will be for 'Electricity supply purposes'. 'Electricity supply purposes' in reference to Counties Energy refers to substations within their catchment area
- 3.3 Pursuant to section 184(1) The designation will lapse on the expiry of 10 years after the date which it is included in the district plan unless given effect to within that period. The substation needs to be installed and made operational before the surrounding residential and commercial land can be fully developed as envisaged by the Auckland Unitary Plan Operative in Part.

Site Development

3.4 The development of the 33kV zone substation is expected to begin within approximately 5 to 10 years in readiness for anticipated loads within that time period. It is difficult to predict with certainty when the demand will occur due to extraneous factors. A high-level concept plan for the substation has been prepared. A copy of the concept plans can be found in Appendix B.

Building

- 3.5 The specification of the buildings will not be confirmed until the tendering process However concept plans have been provided to show the layout of the facilities and the overall site plan.
- 3.6 The substation will consist of a switchroom and two outdoor transformer bays. The switchroom will be a single storey building with a basement occupying approximately 140m² of land area. The switchroom will house 11kV and 33kV switchgear, protection/control and ancillary panels, ripple plant and toilet.
- 3.7 The two transformers will be partially screened off by a concrete wall and will be installed at the site, with concrete foundations and bunding around the perimeter. Where the transformers are close to the boundaries fire walls will be installed.

Access and Parking

3.8 The substation will be accessed off McLarin Road via an existing shared accessway. A 4m new driveway will be formed/extended within the subject site. The substation includes 4 parking spaces for any persons who are required to undertake work on the substation. There will be no office as part of the substation so there will be no requirement for parking for any permanent staff on the site.

Earthworks

3.9 The substation is likely to require 1025m³ of earthworks across an area of 900m².

A geotechnical investigation has been carried out and no geotechnical concerns have been identified. The geotechnical report can be found in **Appendix C**.

Servicing, Stormwater Treatment and Oil Management

- 3.10 The substation will be connected to public wastewater line and water supply. The substation site will be an unoccupied facility with a single toilet facility. The site will have low volumes of traffic and will not have any particular requirements for stormwater treatments. A stormwater swale will be installed along the driveway of the site to provide treatment from the driveway areas.
- 3.11 Stormwater retention will be provided in accordance with the requirements of SMAF-1.
- 3.12 The transformers on the site will each contain approximately 10,000 litres of oil. It is proposed to provide bunding around the transformers which will provide emergency containment of the volume of oil, plus either 10% extra oil or a contingency for rain or fire-fighting water. The rainwater from the transformer bunded area will be reticulated through a proprietary oil plate separator during normal operation. Details of proposed servicing, stormwater treatment and Oil management could be found in Appendix D.

4 Section 171 Matters

Trade competition

4.1 Section 171(1A) states that when considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition. Issues and effects of trade competition are not relevant to this Notice of Requirement

Assessment of Environmental Effects

4.2 Section 171(1A) states that when considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition. Issues and effects of trade competition are not relevant to this Notice of Requirement

Landscape and Visual Effects

4.3 The establishment of the substation will change the site visually from what is currently on the site. The switchroom building will be single level with a basement. It will be approximately 21m long and 7m wide. A concrete wall will be installed at each of the transformer bays, and this is all that will be visible from the street. The concrete walls screening the transformers will be of a similar height to the switchroom. The buildings and structures are of a similar scale to the developments in the surrounding areas. The land requirement area is surrounded

by dense native vegetation planting which helps to screen off the substation. Although most of this vegetation is located outside of the proposed Counties Energy site boundaries (proposed Lot 1003), this vegetation is riparian planting either side of a watercourse and is proposed to be local purpose esplanade reserve under the current subdivision. Therefore, it will be afforded long term protection and should remain in place to provide added screening. Mitigation planting is also proposed south of the existing dense vegetation further into the site and to the east of the proposed substation which will provide further screening. There will also be compensation planting within the northern boundary of proposed lot 1003 as per the Boffa Miskell Kahawai Point Stage 5 landscape plan (refer to Appendix E, page 6).

- 4.4 The site is a rear site. Whilst the substation will be visible when viewed from the street, the substation will be well set back from the street (approximately 100 metres). There will concrete wall at the western end of the transformer bay to screen off the transformer. There will be a mixture of low and mid height species as well as specimen trees at the entrance to help anchor the substation. There will be a gate and fences at the end of the shared accessway and areas surrounding the fence will be planted with lower species. There will also be swale planting alongside the accessway. Details of the proposed landscaping can be found in Appendix E.
- 4.5 Although, no detailed design is available now, it is likely that the concrete panel will incorporate some design or text to modulate its form and/or have colours that are recessive, such as grey or earthy tones.
- 4.6 Overall, it is considered the proposal will have less than minor adverse effects on the visual amenity of the area and public spaces.



Figure 4 The land requirement area viewed from the shared accessway.



Figure 5 The proposed substation viewed from the street.

Noise

- 4.7 As the requirement will be for an indoor substation, the effects of noise will be mitigated through engineered design and soundproofing. The switchroom will be fully enclosed. Noise from the two transformers will be mitigated by placing the transformers towards the centre of the site which ensure sufficient distance from the neighbouring residential activities. If required however, a roof can be constructed over the transformer enclosures to ensure that any sound at the boundary of the site will not exceed 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and 45 dB LAeq/75 dB LAmax for all other times.
- In order to ensure ongoing compliance with the noise standards for the zone a number of conditions have been recommended, these can be viewed in Appendix
 F. Overall, it is considered that the adverse noise effects result from the proposed substation will be less than minor.

Traffic

4.9 The traffic that will arise during the construction of the substation would be the same as any similarly scaled project. There will be heavy vehicle movement during this period for construction materials and also for the delivery and installation of the transformers and switchgear. Once the construction has been completed however, the frequency of traffic movements will be very limited as the substation will not have an office or any full-time staff. The only traffic into the site will be from maintenance staff from time to time. The shared accessway is 7.3m wide. The width of the driveway can accommodate two-way car and truck movement.

Cultural Impact

- 4.10 An archaeological assessment was prepared for the Kahawai Point Special Housing Area (now the Glenbrook Precinct) in 2015 by Bickler Consultants Ltd (refer to Appendix I). A CIA was also prepared by Ngati Te Ata for the wider subdivision. The reports identified a number of archaeological sites and sites significant to mana whenua in the wider area, in particular Ngati Te Ata.
- 4.11 To ensure that the proposed substation will not have minor or more minor adverse effect on cultural and Mana Whenua values. Counties Energy has been in consultation with both Ngati Te Ata and Ngati Tamaoho and a site specific cultural values assessment has been prepared by Ngati Te Ata (refer to Appendix H). Overall, Ngati Te Ata has concluded that the proposed substation will not adversely impact upon any cultural heritage values.
- 4.12 The recommendations outlined in the site specific CIA will be implemented during the detailed design stage and construction of the substation. A condition requires accidental discovery protocol to be adhered to during construction is proposed.

Flooding Effects

4.13 According to Auckland Council Geomaps, there are overland flow paths and flooding in drainage gullies either side of the site. The land requirement area and location of the proposed substation is slighting raised above the surrounding ground level. A walk over assessment of the site has been carried out by a civil engineer and there is little risk of global or local flooding.

Potential Contamination from Oil

4.14 Due to there being oil contained within the transformers there is potential for oil spills or fires/explosions which can result in soil contamination and adverse health and safety effects. In order to mitigate these potential effects, it is proposed to provide bunding around the transformers which will provide emergency containment of the volume of oil, plus either 10% extra oil and a contingency for rain or fire-fighting water.

Ecological Values

4.15 According to an Ecology Report prepared by Boffa Miskell in 2015 (refer to Appendix I), the wetlands within close proximity to the land requirement area are restored/planted wetlands. Most of the works associated with the substation will be done away from the wetlands (approximately 15-20m). Although detailed design will be provided as part of the outline plan for works process, it is not anticipated that there will be any drainage of wetland occurring.

Electric and magnetic fields

4.16 The AUP at E26.2.5.1. (6)(a) requires that network utilities that emit electric and magnetic field emissions must comply with the International Commission on Nonionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818–836) and recommendations from the World Health Organisation Monograph Environmental Health Criteria (No 238, June 2007). The proposed substation will be designed to comply with ICNIRP guidelines.

Site Suitability

- 4.17 The site has undergone a preliminary geotechnical feasibility study which has deemed that the land is appropriate for a new substation. Any geotechnical requirements will be considered as part of the detailed design in accordance with the recommendations of the geotechnical feasibility study.
- 4.18 Preliminary site investigations were carried out by PDP in 2015 and 2016 for the entre Glenbrook Precinct Area including the site in question. It was identified that there has been has a number of historical HAIL activities on the site within elevated level of contaminants identified in soil samples taken from area within close proximity to the land requirement area. However, a consent has been

submitted for the bulk earthworks for the entire Stage 5. As such at the time of subdivision and certainly at the time when the substation will be constructed the land requirement area (Proposed Lot 1003 of Stage 5) would have been remediated to an acceptable level.

- 4.19 As outlined in the sections above, the site is a rear site surrounded by dense vegetation. Although there are overland flow paths, flood plain within proximity to the land requirement area, most of the flood hazards is contained within the planted riparian area /gullies outside the land requirement area. There are no other known hazards on the site. These factors (alongside other considerations) make the site an ideal location for the establishment of a substation. The site has the correct contour and size.
- 4.20 The substation site is also in a location that would provide optimum network capability for the distribution of energy.

Positive Effects

- 4.21 The benefits of this new substation far outweigh any potential adverse effects on the environment as it is required in order to facilitate the planned future residential growth of the area.
- 4.22 It should be noted that the requirement for this infrastructure has arisen out of a need to accommodate the scale of development that is planned and has commenced in the Glenbrook area, including the immediate neighbourhood around the proposed substation. Although some residential development (including affordable housing) in Glenbrook will be possible, without the proposed substation, this will only be possible for the short term. It is necessary to ensure the quality and security of supply for the demand in growth in the Glenbrook area of the Counties Energy Network.

Relevant Policies and Plans

When considering a notice of requirement, a territorial authority must have particular regard to:

Any relevant provisions of -

- i. A national policy statement;
- ii. A New Zealand coastal policy statement;
- iii. A regional policy statement or proposed regional policy statement;
- iv. A plan or proposed plan
- 4.23 The New Zealand Coastal Policy Statement is not applicable to the proposal. The national policy statement, regional policy statement and plan which are considered relevant in this context are the National Policy Statement on Electricity Transmission, National policy statement for freshwater management

the Auckland Regional Policy Statement and the Auckland Unitary Plan (Operative in Part) (AUP(OP)). These are considered below.

National Policy Statement on Electricity Transmission

- 4.24 The National Policy Statement on Electricity Transmission (NPSET) applies to the 'National Grid' which is defined in the NPSET as meaning, "the assets used or owned by Transpower NZ Limited." As the substation will not be used or owned by Transpower, this NPS is not considered applicable in this instance.
- 4.25 Policy 9 of the NPS provides relevant guidance on the consideration of electric and magnetic fields, but these are for higher voltages. The relevant guidance for the subject voltage (up to 33kV) sits within the AUP and is discussed in section 4.21 above.

National Policy Statement for Freshwater Management

4.26 A national policy statement for freshwater management has been developed in 2020. The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises the health and well-being of water bodies and freshwater ecosystems second, the health needs of people (such as drinking water third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. Policy 6 provides guidance on the protection of wetlands which states:

There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

4.27 With respect to protection of wetland, there are restored wetlands on the wider site but not within the area subject to land requirement. Most of the works associated with the substation will be done away from the wetlands. Although detailed design will be provided as part of the outline plan for works process, it is not anticipated that there will be any drainage of wetland occurring. If any consents are required, these will be obtained at the appropriate time.

National Policy Statement for Urban Development

- 4.28 A national policy statement for urban development has been developed in 2020. the NPS-UD recognises the national significance of having well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future providing sufficient development capacity, especially in tier 1 authority and urban environment to meet the different needs of people and communities.
- 4.29 Glenbrook and the wider Counties area is experiencing huge growth. The establishment of new substation is necessary to ensure the quality and security of supply for the demand in growth in the Glenbrook area of the Counties Energy

Network.

The Auckland Regional Policy Statement

- 4.30 The purpose of the Auckland Regional Policy Statement is to set out a policy framework for managing natural and physical resources in an integrated manner across the entire Auckland Region.
- 4.31 Section B3 of the Auckland Regional Policy Statement Ngā pūnaha hanganga, kawekawe me ngā pūngao Infrastructure, transport and energy outlines the issues, objectives and policies for infrastructure in the Auckland region. The issues directly relating to this proposal that are addressed in section B3.1 are:
 - 1. efficiency in developing, operating, maintaining and upgrading infrastructure,
 - 2. integrating the provision of infrastructure with urban growth,
 - 3. potential effects of incompatible land uses close to infrastructure,
 - 5. security of energy supply and
 - 6. resilience of infrastructure, including fuel and electricity supplies, to natural hazards.
- 4.32 Particular regard has been given to these issues and is addressed in assessment of the policies and objectives below.

B3.2. Infrastructure

B3.2.1. Objectives

- 1. Infrastructure is resilient, efficient and effective.
- 4.33 This designation will provide for a new substation which will be state of the art with all new components and equipment. Because of this it will be able to be more resilient and efficient than others of the same size.
 - 2. The benefits of infrastructure are recognised, including:
 - (a) providing essential services for the functioning of communities, businesses and industries within and beyond Auckland;
 - (b) enabling economic growth;
 - (c) contributing to the economy of Auckland and New Zealand;
 - (d) providing for public health, safety and the well-being of people and communities;
 - (e) protecting the quality of the natural environment; and
 - (f) enabling interaction and communication, including national and international links for trade and tourism.
- 4.34 The new substation will provide for the needs of new developments, both residential and commercial that are either planned or currently occurring in the

Glenbrook area. This in turn, contribute to the economy and the well-being of people and communities by allowing businesses and homes to have a secure and reliable connection to the electricity network. Without the new substation the new development will be left without a reliable electricity supply.

- 3. Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: transport and energy
 - (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character;
 - (b) the health and safety of communities and amenity values.
- 4.35 There are no other identified natural heritage, Mana Whenua, natural resources, historic heritage or special character areas identified on the site in the AUP(OP). However, the site is within a statutory acknowledgement area and Ngati Te Ata and Ngati Tamaoho representatives have been consulted. Counties Energy also proposes to consult with Ngati Te Ata and Ngati Tamaoho during the detailed design stage and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions to ensure that any adverse effects on Ngati Te Ata and Ngati Tamaoho are appropriately mitigated.
- 4.36 The effects on the health and safety of communities and amenity values have been considered for this substation. The substation will be established sufficiently away from any wetlands to ensure any ecological values associated with wetlands will not be compromised. The substation will be sufficiently setback from nearby development and will be fenced. In terms of amenity values, the external appearance of the building will be designed so that it is in keeping with buildings typical of the area. Existing vegetation within the wetland will be retained. There will also be a range of landscaping and amenity planting incorporated into the design of the facility to soften the impact of the new building when viewed from nearby developments.
 - 4. The functional and operational needs of infrastructure are recognised.
- 4.37 All components of the facility as described in section 4 of this report are functionally dependent on each other and are necessary for the purpose of providing electricity to the wider area.
 - 5. Infrastructure planning and land use planning are integrated to service growth efficiently.
- 4.38 The purpose of the substation is to improve the resilience in the existing electricity network to support residential growth in Glenbrook.

- 4.39 In order for this to be achieved, the substation will need to be commissioned within the next 5 10 years. There has been a significant amount of planning around the timing of construction and commissioning of the substation to avoid delays and issues with existing and future supply in the Glenbrook area.
 - 6. Infrastructure is protected from reverse sensitivity effects caused by incompatible subdivision, use and development.
- 4.40 Due to the location of the wetlands, the area immediately adjacent to the area where the substation will be situated is zoned as Open Space- Informal Recreation Zone. The substation will be away from any surrounding land that is zoned for commercial and residential uses. In addition, the substation will be located away from the roads. As outlined in Sections 4.3 and 4.7 of this report, the visual amenity and noise effects on nearby residential activities will be adequately mitigated. These will ensure the substation is protected from any reverse sensitivity effects from any future residential and commercial development within the Glenbrook 3 Precinct and in the nearby areas.
 - 8. The adverse effects of infrastructure are avoided, remedied or mitigated.
- 4.41 As noted above, the substation is to be situated within a Residential zone and will be generally compatible with the surrounding land uses of the area. As outlined in section 4.2- 4.20 of this report, the adverse effects of the substation are avoided and mitigated.

B3.2.2. Policies

- 1. Enable the efficient development, operation, maintenance and upgrading of infrastructure.
- 2. Recognise the value of investment in existing infrastructure.
- 3. Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.
- 4.42 The proposal is in general accordance with the policies above as there is a locational requirement for the substation to supply electricity to new residential development in Glenbrook.
 - 6. Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character

while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated.

- 4.43 There are no identified natural heritage, Mana Whenua, natural resources, historic heritage or special character areas identified on the site in the AUP (OP). However, the site is within a statutory acknowledgement area and representative of Ngati Te Ata is currently being consulted and is in support of the proposed substation They have requested that the motif of the Hei Matau or Kahawai is used for the large concrete panel that will be visible from the driveway. Ngati Tamaoho have also been consulted and have raised no concerns about the proposal. They have requested stormwater run-off from accessway and parking area to be treated.
 - 8. Avoid, remedy or mitigate the adverse effects from the construction, operation, maintenance or repair of infrastructure.
- 4.44 As discussed in sections 4.2-4.20 of this report, any adverse effects associated with establishment of a substation of this site will be avoided, remediated and mitigated
 - 9. Ensure where there is a functional or operational need for infrastructure to locate in areas subject to natural hazards:
 - (a) that buildings accommodating people are located and/or designed to minimise risk from natural hazards; and
 - (b) that risk that cannot be avoided by location or design should be mitigated to the extent practicable.
- 4.45 The substation will be located outside of any flood hazards.
- 4.46 Section B2 Tāhuhu whakaruruhau ā-taone Urban growth and form outlines the issues, objectives and policies for urban environments in Auckland. The issues directly relating to this proposal that are addressed in section B2.1 are (1) Enhances the quality of life for individuals and communities; (2) Supports integrated planning of land use, infrastructure and development; (5) Enables provision and use of infrastructure in a way that is efficient, effective and timely; (6) Maintains and enhances the quality of the environment, both natural and built; (7) Maintains opportunities for rural production; and (8) Enables Mana Whenua to participate and their culture and values to be recognised and provided for.

B2.2. Urban growth and form

B2.2.1. Objectives

- A quality compact urban form that enables all of the following:
 - (a) A higher-quality urban environment;

- (b) Greater productivity and economic growth;
- (c) Better use of existing infrastructure and efficient provision of new infrastructure;
- (d) Improved and more effective public transport;
- (e) Greater social and cultural vitality;
- (f) Better maintenance of rural character and rural productivity; and
- (g) Reduced adverse environmental effects.
- 5. The development of land within the Rural Urban Boundary, towns, and rural and coastal towns and villages is integrated with the provision of appropriate infrastructure.
- 4.47 As discussed, the purpose of the substation is to improve the resilience in the existing electricity network to support growth in the Glenbrook. It will be constructed in a location and be of a design which will be in keeping with the existing and anticipated surrounding bult character.
- 4.48 Plan change 80 was notified 18th of August 2022 to give effect to the NPS-UD and Resource Management Act Enabling Housing Supply Act 2021. Plan Change 80 integrates the concepts and terms, well-functioning urban environment, urban resilience to the effects of climate change and qualifying matters, into the objectives and policies in several chapters of the Regional Policy Statement (RPS). A review of the Plan Change has found no provisions specifically in the plan change relevant to the proposal.

Auckland Unitary Plan (Operative in Part)

E26.2. Network utilities and electricity generation - All zones and roads

4.49 The objectives and policies of the infrastructure section of the AUP(OP) largely mirror the objectives and policies relating to infrastructure in the ARPS and have been addressed in sections above.

H3 Residential - Single House Zone

H3.2. Objectives

- 1. Development maintains and is in keeping with the amenity values of established residential neighbourhoods including those based on special character informed by the past, spacious sites with some large trees, a coastal setting or other factors such as established neighbourhood character.
- 2. Development is in keeping with the neighbourhood's existing or planned suburban built character of predominantly one to two storeys buildings.
- 4. Non-residential activities provide for the community's social, economic and cultural well-being, while being in keeping with the scale and intensity of

development anticipated by the zone so as to contribute to the amenity of the neighbourhood.

4.50 A semi-enclosed substation is being proposed. The buildings and structures of the substation will be single level in keeping with the intensity of development anticipated within the zone. The switchroom and transformers bays will be sufficiently set back from the boundaries and will be surrounded by generous open space with existing dense vegetation retained and additional vegetation proposed. These ensure that the substation will be in keeping with the amenity values of the surrounding area,

H3.3. Policies

- 3. Require an intensity of development that is compatible with either the existing suburban built character where this is to be maintained or the planned suburban built character of predominantly one to two storey dwellings.
- 4. Require development to: be of a height, bulk and form that maintains and is in keeping with the character and amenity values of the established residential neighbourhood; or be of a height and bulk and have sufficient setbacks and landscaped areas to maintain an existing suburban built character or achieve the planned suburban built character of predominantly one to two storey dwellings within a generally spacious setting.
- Require the height, bulk and location of development to maintain a reasonable level of sunlight access and privacy and to minimise visual dominance effects to the adjoining sites.
- 8. Restrict the maximum impervious area on a site in order to manage the amount of stormwater runoff generated by a development and ensure that adverse effects on water quality, quantity and amenity values are avoided or mitigated.
- 4.51 The proposed substation will be single levelled and would not be exceeding the maximum height allowed under the zone and the Glenbrook 3 Precinct. The proposed buildings will be located centrally within the land requirement area and away from the boundaries and neighbouring residential developments. The majority of the site is permeable area with landscaping.
 - 9. Provide for non-residential activities that:
 - (a) support the social and economic well-being of the community;
 - (b) are in keeping with the scale and intensity of development anticipated within the zone;
 - (c) avoid, remedy or mitigate adverse effects on residential amenity; and
 - (d) will not detract from the vitality of the Business City Centre Zone,
 - (e) Business Metro Centre Zone and the Business Town Centre Zone.

4.52 Despite a substation not being a residential activity, it supports the social and economic well-being of the community in Glenbrook and the built form is in keeping with the intensity of development anticipated within the zone. The substation is a network utility and will not detract from the viability of the Business Centre Zone.

1453 Glenbrook 3

1453.2 Objectives

- 1. Subdivision and development is undertaken in general accordance with the precinct plan.
- 4. Subdivision and development enhances and protects the coastal character within the precinct including streams, wetlands and walkways.
- 5. Significant Ecological Areas, freshwater and coastal habitats are protected, enhanced and restored to improve local biodiversity; marine water quality is maintained and enhanced.
- 4.53 The substation will be situated appropriately away from the wetlands and streams so that it any freshwater and coastal habitats are protected so local biodiversity is maintained.
 - 6. Subdivision and development occurs in a manner which reflects the coordination and delivery of infrastructure including roading, wastewater, water supply and stormwater services
- 4.54 The substation will ensure new development and subdivision can occur with appropriate infrastructure.
 - 7. Development of Glenbrook 3 embraces the Te Aranga principles of mana, whakapapa, taiao, mauri tu, mahi toi, tohu, and ahi ka
- 4.55 Although the detailed design of the substation is yet to be developed, it is anticipated that the design of the substation will embrace the Te Aranga principles of mana, whakapapa, taiao, mauri tu, mahi toi, tohu, and ahi ka. Further discussions will be held with representatives of Ngati Te Ata and Ngati Tamaoho at the detailed design stage.
 - 8. Freshwater and marine water quality is protected, with the adverse effects of stormwater runoff on the marine estuarine receiving environment and freshwater systems avoided to the extent practical or otherwise mitigated using water sensitive design principles.
- 4.56 Stormwater run-off from the site will be managed to ensure freshwater quality is protected. Swales will be proposed along the accessway of the substation.

- 9. Public access is provided along riparian margins and the marine esplanade reserve area.
- 4.57 It is noted that public access along the riparian margins will be provided immediately south of the site. Whilst access to the substation site will be restricted the proposed substation will be designed to take into account any pedestrian networks planned/proposed in the surrounding sites to ensure it does not restrict public access along riparian margins.
 - 10. Rural production activities can continue on the adjacent Mixed Rural and Rural Coastal zoned land.
- 4.58 The substation will be efficiently located away from land that is zoned Mixed Rural and Rural Coastal Zone and will not discourage rural activities to be established on adjacent rural zoned land.

1453.3 Policies

- 1. Embody Te Aranga principles throughout the Glenbrook 3 development, taking into account the views of mana whenua. These principles may include Mana (status of iwi and hapu as mana whenua is recognised and respected); Whakapapa (Maori names are celebrated), Taiao (the natural environment is protected, restored and/or enhanced); Mauri tu (environmental health is protected, maintained and/or enhanced); Mahi toi (iwi and hapu narratives are captured and expressed creatively and appropriately); Tohu (mana whenua significant sites and cultural landmarks are acknowledged); and Ahi ka (iwi and hapu have a living and enduring presence and are secure and valued within their rohe).
- 4.59 Although the detailed design of the substation is yet to be developed, it is anticipated that the design of the substation will embrace the Te Aranga principles of mana, whakapapa, taiao, mauri tu, mahi toi, tohu, and ahi ka. Further discussions will be held with representatives of Ngati Te Ata and Ngati Tamaoho at the detailed design stage.
 - 3. Provide a generally low intensity of development appropriate to a coastal settlement, but with the opportunity for higher density smaller sites for affordable housing.
- 4.60 Although the substation is not a residential activity the substation will be designed to have a similar building height to the surrounding development in keeping with the low intensity development character anticipated in the Precinct.
 - Avoid subdivision, use and development prior to availability of bulk water, wastewater and road infrastructure to service development in the Glenbrook 3 precinct.'

- 4.61 The substation will ensure new development and subdivision can occur with appropriate infrastructure.
 - 10. Protect and enhance natural streams, wetlands and coastal marine environment by stormwater management, planting of riparian margins, yards, and stream and marine esplanade restoration.
- 4.62 The substation will be situated with sufficient set back from the wetlands and streams.
 - 11. Require subdivision and development to achieve SMAF1 mitigation through the use of a single device or combination of devices.
 - 13. Maintain the existing catchment hydrology for rainfall events up to the 95th percentile through management of stormwater at-source and employing water-sensitive design principles prior to the discharge of stormwater to existing watercourses.
- 4.63 The majority of the site will be covered by permeable surface in the form of grass and vegetation. Although the detailed design of stormwater disposal will be developed at a later stage when the substation is being established, it is proposed that stormwater retention will be provided to achieve SMAF1 mitigation.
- 4.64 The site was a special housing area and is now covered by Glenbrook 3 Precinct provisions. The site is excluded from Plan Change 78 which was notified on 18 August 2022. Therefore, no assessment against the provisions of Plan Change 78 is required.

Considerations of Alternatives

Alternative Sites

4.65 In the lead up to finalising the site selection for this requirement there were twelve other properties which were considered for the location of the substation. The different locations were all within the wider area. Key criteria for the choice of site were the size and contour of the site and the proximity to the existing Counties Energy 110kV substations.

Alternative Methods

4.66 Given that the proposal is for a semi-enclosed substation, the alternative to designating the site was to apply for a resource consent for the construction of the substation and associated site works as a discretionary activity. If this course of action was taken, then the intention would have been to designate around the substation once the development was completed in order to give the site further protection. This option was not selected because it was decided that the existing network was capable of meeting the demand of the new developments in the

short term and the substation will not be built for some time.

Reasons for Designation

- 4.67 When considering a requirement, a territorial authority must have particular regard to:
 - whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought
- 4.68 Glenbrook and the wider Counties area is currently undergoing a dramatic change. The region is experiencing huge growth, and Counties Energy must build new networks to ensure they can supply this growth while also increasing capacity for existing customers' ever-increasing demand for energy for new technology and innovations. The local population is expected to triple by the mid-2000s. The significant amount of residential development currently under construction and the proposed rezoning of further extensive areas of land for residential and industrial development in the Auckland Unitary Plan supports this view.
- 4.69 Therefore, the work and designation are deemed necessary to meet the future demand for electricity that is anticipated with the development of Glenbrook and wider area.

Part 2 matters

- 4.70 Section 171 of the Act requires territorial authority consideration of a Notice of Requirement subject to Part 2 of the Act (purposes and principles).
- 4.71 Section 5 of the Act imposes a duty to promote the sustainable management of natural and physical resources while endeavouring to avoid, remedy or mitigate adverse effects of activities on the environment.
- 4.72 The proposed Notice of Requirement will provide for the future energy needs of the future development of the immediate area
- 4.73 The relevant Part 2 matters are identified and assessed below:

Section 5

- 4.74 Section 5(2): The distribution of electricity to the Glenbrook area will clearly enable people and communities to provide for their social, economic and cultural well-being and their health and safety in all areas of their lives.
- 4.75 Section 5(2)(a): The distribution of electricity will help to sustain the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations, in particular the distribution network in Glenbrook.
- 4.76 Section 5(2)(b): The mitigation measures and the proposed designation conditions

- detailed in the consideration of environmental effects will safeguard the life supporting capacity of ecosystems and soil.
- 4.77 Section 5(2)(c): Taking into account the mitigation measures and proposed designation conditions, the consideration of environmental effects concludes that the work will be conducted in a manner that effectively avoids, remedies and mitigates any adverse effects on the environment.
- 4.78 The provision of electricity to the Glenbrook area is required to enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety to meet the foreseeable needs of future generations. The avoidance, mitigation and remediation measures associated with the proposal will safeguard the life-supporting capacity of air, water, soil, and ecosystems (section 5(2)).

Section 6

4.79 Section 6(e) – The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga. The site is in a statutory acknowledgment area, consultation is currently being held with Mana Whenua and it is proposed that further consultation with Mana Whenua will occur prior and duration the construction of the substation. It is proposed that the design will incorporate the motif of Hei Matau or Kahawai as recommended by Ngãti Te Ata. reflect the relationship of Maori and their culture and traditions with their ancestral land.

Section 7

- 4.80 Section 7(b) The efficient use and development of natural and physical resources: It is considered that the proposal will result in the efficient use and development of natural and physical resources. The proposal is the development of a zone substation which will facilitate the distribution of electricity.
- 4.81 Section 7(c) The maintenance and enhancement of amenity values: The majority of substation equipment will be housed inside a building to give particular regard to the surrounding environment. Noise emissions and visual amenity have been addressed by design and as such it is considered that the proposal will meet the requirements of section 7(c).
- 4.82 Section 7(f) Maintenance and enhancement of the quality of the environment: The proposal will enhance the security of the electricity supply to the Glenbrook. The mitigation measures and proposed designation conditions will avoid, remedy and mitigate any adverse effects on the environment. Therefore, it is considered that the proposal will meet the requirements of section 7(f).

Section 8

- 4.83 In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).
- 4.84 It is considered that the proposal will take into account of the principles of the Waitangi (Te Tiriti o Waitangi) as Mana Whenua has been consulted regarding the proposal and their feedback will be incorporated into the design of the substation and associated landscaping and stormwater management.

5 Notification Assessment

Public notification assessment

- 5.1 Section 169 of the RMA is the relevant section with regard to the notification of a NOR and outlines that a territorial authority must decide whether or not to notify the NOR. Section 169(1) states:
 - If a territorial authority is given notice of a requirement under section 168, the territorial authority must, within 10 working days, decide whether to notify the notice under—
 - (a) subsection (1A); or
 - (b) sections 149ZCB(1) to (4), 149ZCC(1) to (4), 149ZCE, and 149ZCF, which apply with all necessary modifications and as if—
 - i. a reference to an application or notice were a reference to the notice of requirement; and
 - ii. a reference to an applicant were a reference to the requiring authority; and
 - iii. a reference to the Minister or the EPA were a reference to the territorial authority; and
 - iv. a reference to an activity were a reference to the designation.
- 5.2 Section 149ZCB requires the council to publicly notify the application if the applicant has requested the application to be notified or if a rule or national environmental standard requires public notification of the application or notice or if the activity is likely to have adverse effects on the environment that are more than minor.
- 5.3 In this case, public notification of this NOR is not required for the following reasons:
 - Counties Energy does not request public notification of the NOR.
 - There is no rule or national environmental standards that requires the activity to be notified.
 - As outlined in the assessment above the proposed substation is not likely to result in any minor or more than minor effects on the environment.

Limited Notification

- 5.4 Section 149ZCC requires Council limited notify an application or give notice to any affected person unless a rule or national environmental standard precludes limited notification of the application or notice. The Council must give limited notification of the application or notice to an affected protected customary rights group or affected customary marine title group even if a rule or national environmental standard precludes public or limited notification of the application or notice.
- 5.5 Council must decide that a person is an affected person, in relation to an activity, if the adverse effects of the activity on the person are minor or more than minor (but are not less than minor). In determining affected persons Council may disregard an adverse effect of the activity on the person if a rule or national environmental standard permits an activity with that effect and in the case of a controlled activity or a restricted discretionary activity, must disregard an adverse effect of the activity on the person if the activity does not relate to a matter for which a rule or national environmental standard reserves control or restricts discretion and must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11.
- 5.6 There are no adversely affected persons who are affected to an extent that is minor or more than minor and whom must be notified of this NOR for the reasons outlined in Sections 4.2-4.20 of this report and the assessment below.

Mana Whenua

- 5.7 It is noted that there are a number of sites of significance to mana whenua in the wider vicinity, but none identified on or near the land requirement area.
- 5.8 Counties Energy has consulted with Ngati Te Ata and Ngati Tamaoho prior to lodgement and met with the representative of Ngati Te Ata, Karl Flavell on site in August 2022. A Cultural Impact Assessment has been prepared by Ngati Te Ata. Overall, Ngati Te Ata is supportive of the proposal. Ngati Te Ata has requested that the motif of the Hei Matau or the Kahawai is used for the large concrete panel that will be visible from the driveway. Counties Energy will be incorporating this into the design of the substation.
- 5.9 Feedback was received from Ngati Tamaoho via email. No concerns were raised. Ngati Tamaoho has requested Counties Energy to treat stormwater run-off from accessway and parking area and they defer any comments regarding artworks to Ngati Te Ata.
- 5.10 Counties Energy also proposes to consult with Ngati Te Ata and Ngati Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed

design addresses their suggestions to ensure that any adverse effects on Ngati Te Ata and Ngati Tamaoho are appropriately mitigated.

All adjacent persons

- 5.11 The potential adverse effects of the activities that would occur at the site under the proposed designation, are proposed to be mitigated through conditions to be imposed on the designation, which include an accidental discovery protocol, the management of vibration, construction and maintenance noise, compliance with hazardous substances, radio frequency design standards and guidelines, and standards for maximum lighting spill, electric and magnetic fields operational noise, and maintenance of proposed vegetation.
- 5.12 The site is a rear site and is mostly separated from land zoned for residential use and commercial use by a riparian area zoned as Open Space Zone. The following sections will address effects on specific persons owning the residential sites adjacent to the land requirement area.

Persons at 113 McLarin Road

- 5.13 The site is located to the west of the land requirement area immediately adjacent to the accessway of the substation. Currently there is a new dwelling being constructed on the site. The site is not immediately adjacent to where the substation will be built. As outlined in the Section 4 of this report, the proposed substation building will be single level, sufficiently set back from the boundaries and will be surrounded by dense vegetation. Whilst 115 McLarin Road (to the rear of 113 McLarin Road) is currently vacant it is understood that a new dwelling will be constructed on the site. In addition to the mitigations proposed, it is anticipated that the substation will also be screened by the future development on 115 McLarin Road when viewed from 13 McLarin Road. Therefore, the adverse visual amenity effects on persons at 113 McLarin Road will be less than minor.
- 5.14 With respect to adverse effects associated with noise from the substation, it is noted that the transformers will be located centrally within the land requirement area sufficiently separated from the residential development at 113 McLarin Road. Counties Energy have proposed a condition to ensure that any sound at the boundary of the site will not exceed the permitted noise levels under the zone which are 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and 45 dB LAeq/75 dB LAmax for all other times.

Persons at 115 McLarin Road

5.15 The site is sharing its north-eastern boundary and the accessway with the proposed substation. The site is currently vacant. However, it is understood that a new dwelling will be built on the site. The substation will still be visible when viewed from 115 McLarin Road. However, adverse visual amenity on persons at 115

McLarin Road will be mitigated to a less than minor degree by locating the substation sufficiently away from 115 McLarin Road and having vegetation around the boundaries to provide screening. The substation building will be one storey in height and the transformer bay will be screened by a concrete wall at the western end.

- 5.16 In terms of access, it is noted that the proposed substation will not adversely affect the access to and from 115 McLarin Road. Whilst the substation will be sharing the accessway with 115 McLarin Road, the accessway is wide enough for the intended use. The substation will be unoccupied with only 2-3 maintenance visits per week, much less than a residential use. The shared accessway is 7.3m wide. The width of the driveway can accommodate two-way car and truck movement. As such, no traffic conflicts are anticipated. A formal easement is in place for the shared use of the driveway. The driveway is straight with sufficient visibility and there will be space for vehicles of all sizes to turn within the land requirement area, so that they may exit the site in a forward gear.
- 5.17 With respect to adverse effects associated with noise from the substation, it is noted that the transformers will be located centrally within the land requirement area sufficiently separated from the residential development at 115 McLarin Road. Counties Energy have proposed a condition to ensure that any sound at the boundary of the site will not exceed the permitted noise levels under the zone which are 55 dB LAeq between Monday to Saturday 7am to 10pm and Sundays 9am to 6pm and 45 dB LAeq/75 dB LAmax for all other times.

Persons at 6 and 8 Orawhia Road

- 5.18 These sites are located to the north-western side of the land requirement area. These sites are separated from the land requirement area by the riparian area which is densely vegetated. The vegetation will help to partially screen off the substation. The substation will be centrally located within the land requirement area approximately 60m away from 6 and 8 Orawhia Road. Any part of the substation that will not be screened off by vegetation will only be visible from 6 and 8 Orawhia Road at an angle. Therefore, the adverse visual amenity effects on persons at 6 and 8 Orawhia Road will be less than minor.
- 5.19 With respect to adverse effects, it is noted noise from the substation will be attenuated by the separation disturbance and vegetation buffer around the land requirement area. It is anticipated that noise generated from the substation will comply with the permitted levels allowed under the Auckland Unitary Plan Operative in part, a condition is proposed to this effect.

Persons at 80 and 149 McLarin Road

5.20 80 McLarin Road is located on the other side of McLarin Road. It is noted that the site is zoned Future Urban Zone and is currently undeveloped. The substation will

be located more than 100m from 80 McLarin Road. The transformers and switchroom will be below the maximum height allowed under zone. There will be concrete wall at the western end of the transformer bay to screen off the transformer. Although no detailed design is available now, it is likely that the concrete panel will incorporate some design or texture to modulate its form and/or have colours that are recessive, such as grey or earthy tones. Overall, it is considered the adverse visual amenity on persons at 80 McLarin Road result from the substation will be very similar to having a residential development within the proposed allotment (Lot 1003). Due to the separation distance, it is anticipated that noise level when measured from the boundaries of 80 McLarin Road will comply with the levels permitted by the Auckland Unitary Plan Operative in Part.

5.21 149 McLarin Road is located to the south of the site but not immediately adjacent to the land requirement area (approximately 120m away). The site has a rural zoning and currently have a number of sheds and residential buildings located to the north-eastern side and centre of the site. It is expected that the substation will be unlikely to be visible from 149 McLarin Road once the area to the south of the land requirement area is developed into residential and commercial developments due to the fact that the height of the substation structures will be a height similar to all other residential buildings in the area and the dense vegetation surrounding the substation. Due to the separation distance, it is anticipated that the permitted noise level will be complied with.

6 Conclusion

6.1 Counties Energy Limited requests Auckland Council proceed to process this Notice of Requirement pursuant to section 169 of the RMA and anticipates Council's recommendation in due course as per section 171(2) and (3). The NoR application addresses all relevant matters under section 171 of the RMA and it is therefore requested the designation be confirmed without modification.

Appendix A – Land Requirement Plan

Appendix B - Concept Plans

Appendix C -Geotechnical Investigation Report

Appendix D- Infrastructure report

Appendix E- Landscape Design Statement

Appendix F-Proposed Conditions

Appendix G - Consultation Ngati Tamaoho

Appendix H- Cultural Impact Assessment

Appendix I – Ecology Report

Appendix J – Archaeological Assessment Report

Appendix K-Preliminary Investigation Reports

Appendix L –Record of Title

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