

**BEFORE THE EXPERT CONSENTING PANEL**

**CONCERNING A GREEN HYDROGEN HUB IN KAPUNI, SOUTH TARANAKI**

**IN THE MATTER**

of the COVID-19 Recovery (Fast-track Consenting) Act 2020 “(the FTCA”) and the deliberations and final decision of the Expert Consenting Panel appointed under Clauses 2, 3 and 4 of Schedule 5 of the FTCA to consider applications for consents for a Green Hydrogen Hub in Kapuni, South Taranaki.

**Expert Consenting Panel:**

Richard Fowler QC (Chair)  
Robert Northcott (Member)  
Sheena Tepania (Member)  
Justine Inns (Member)

**Legal Representation:**

Govett Quilliam of New Plymouth, solicitors (Lauren Wallace).

**Comments received under Clause 17(4) of Schedule 6 To the FTCA:**

21 October 2021

**Details of any hearing if held under Clause 21 of Schedule 6 of the FTCA:**

No hearing was held (refer clause 20, Schedule 6 to the FTCA)

**Date of Hearing if held:**

Nil

**Date of decision:**

1 December 2021

**Date of issue:**

1 December 2021

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**RECORD OF DECISION OF THE EXPERT CONSENTING PANEL UNDER CLAUSE 37 SCHEDULE 6 OF THE ACT**

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## Part A: Executive Summary

1. This is an urgent application for resource consents by Hiringa Energy Limited and Ballance Agri-Nutrients Limited (“Hiringa” or “the applicants”) to develop a renewable (“green”) hydrogen hub at Kapuni, South Taranaki (“the project”). Electricity will be generated from four large wind turbines to be sited on a property known as the PKW Farm, to provide baseload power to the nearby Ballance Agri-Nutrients Kapuni Ammonia – Urea Manufacturing Plant and to produce hydrogen from water via electrolysis and fuel for commercial and heavy transport.
2. Hiringa sought a referral from the Minister for the Environment to an expert consenting panel under the FTCA. The Minister accepted that the purpose of the FTCA would be met by the project and referred it to this expert consenting panel (“the Panel”).
3. The Panel considered the application, as did the parties from whom it was required to invite comment. A catchment of other parties that the Panel would invite comment from was also identified. Comments were duly received from 16 parties. A comprehensive response to those comments was received from Hiringa, including modified suggested conditions.
4. Subject to conditions, the Panel grants consent to all of the project for a term of 35 years from the date of grant.

## Part B: The Application

5. The applicants are Hiringa Energy Limited and Ballance Agri-Nutrients Limited.
6. The types of resource consent sought are:
  - (a) land use consent;
  - (b) water permit;
  - (c) discharge consent.
7. The project sites for the wind turbines are located at 271-359 Kokiri Road, Kapuni, Taranaki, and the electrolysis plant and hydrogen production

infrastructure is to be located at 309 Palmer Road, Kapuni, Taranaki (“the Ballance Plant”).

8. Two site options had originally been proposed for the underground electricity cable alignment between the two sites in the application as filed, but eventually the applicants have elected option two, namely a route across the wind turbine site to Kokiri Road reserve, which is some 20m wide with a two lane 6m wide carriageway with grass berms either side, thence crossing Kokiri Road and proceeding along the south side of Kokiri Road across two road culverts. When nearing Palmer Road the route crosses back across Kokiri Road and heads northwards crossing Ngatimanuhiakai 21A and 21B1 Blocks and Part Section 44 Block XV Kaupokonui SD. The cable then crosses Skeet Road reserve (similar formation to Kokiri Road, with two lanes) and traverses Lot 2 DP 499347 to ultimately connect with the Ballance Plant. Ngatimanuhiakai 21A and 21B1 Blocks, Part Section 44 Block XV Kaupokonui SD and Lot 2 DP 499347 are in the ownership of the Luscombe family, contain dwellings and are farmed as one unit.
9. The project structures involve the construction and operation of four wind turbines and associated electricity infrastructure including underground power cables.
10. The proposed wind turbines will be located on the volcanic ring plain of Taranaki Maunga, and will be approximately 14km to the south east of the outer edge of Te Papakura o Taranaki (Egmont National Park) and approximately 23.6km from the mountain summit.
11. The scale of the four proposed wind turbines is significant. The maximum height of the proposed wind turbine tips is 206m and will have a total generation capacity of 24-25Mw. The wind turbines will have a rotor-diameter of 162m.
12. Aside from the construction of the turbines, the project structures involve construction and installation of the electrolysis plant and hydrogen production infrastructure within the Kapuni plant site and installation of hydrogen storage, loadout and refuelling activities, with a substation and switch room constructed near the base of turbine 3.

13. The resulting “green” hydrogen produced will be used as follows:
  - (a) Initially 100% will be combined with atmospheric nitrogen to produce ammonia and green urea at the Kapuni plant;
  - (b) Over a five year period a planned transition will occur to approximately 100 % usage as fuel for the transport sector as the hydrogen transport market develops; and
  - (c) That form of fuel will support the development of a green hydrogen and transport hub for South Taranaki.
14. Excess power generated by the wind turbines during peak electricity production will be fed into the local distribution network.

## Part C: Reasons for the Project

15. The purpose of the project is to develop an industrial-scale low emissions energy facility which produces commercially sustainable green hydrogen to be used for industrial and transport applications to enable de-carbonisation of industry, and to assist with New Zealand’s transition to a low emissions economy.
16. On 13 November 2019 New Zealand became the first country in the world to make a legally binding commitment to limit global warming to within 1.5 degrees Celsius of pre-industrial levels by enacting the Climate Change Response (Zero Carbon) Amendment Act 2019.
17. The particular focus of this project is on heavy industry and heavy transport sectors. The objective is to enable commercially viable hydrogen production to replace the highest emitting vehicles with zero emission solutions. In this regard, and outside the scope of this application, Hiringa is developing a hydrogen transport refuelling infrastructure network in New Zealand. Comprehensive network development is intended to service key routes to avoid restricting heavy transport operations and to enable the creation of regional hydrogen hubs.

18. Taranaki, and in particular the South Taranaki District, has historically been supported by an established oil and gas industry workforce and energy services supply chain. This workforce is at risk of job losses following the government announcement on 12 April 2018 that no new offshore petroleum exploration permits would be granted, signalling an end to new offshore petroleum exploration and production. Methanex, one of Taranaki's largest employers generating \$800M a year in export earnings and making up 10% of the local economy, has confirmed that 75 jobs will be lost after closing one of its plants.
19. The project offers the opportunity to create an average of 40 full time equivalent jobs over an 18-month period in engineering, design and construction.
20. The existing Ballance Plant is a significant employer in the South Taranaki District, and the Plant site provides 130 full time jobs and 20 direct contracts.

## Part D: The existing environment

21. The wind turbine site is located on the west side of Kokiri Road. The site is flat to gently sloping generally north to south, and crossed by farm tracks and tributaries of the Waiokura and Kapuni streams. The land is predominantly in pasture with some small stands of trees and hedges along with dwellings and associated garages / sheds and residential landscaping located on the farm. There are several other sheds (e.g. pump sheds, hay sheds) located across the site, with the main milking shed and feed shed located close to Kokiri Road. An underpass provides cows access to that part of the farm located on the east side of Kokiri Road.
22. South Taranaki's prevailing winds tend to be westerlies from the Tasman Sea, complemented by southeasterlies through Cook Strait. Wind speeds have been monitored at the wind turbine site, including via an 80m high Met mast installed in late 2020. The Met mast is a temporary structure and will be removed before the turbines are installed. However, the data collected confirms the wind resource (particularly the westerly wind) at the site is world class, with high-capacity factor.

23. The sites for electricity routes outside of the wind turbine site follow rural roads and road reserve until reaching the proximity of the Ballance Plant. The Kokiri Road Reserve is some 20m wide with a two-lane 6m wide carriageway with grass berms on either side. On the south side of Kokiri Road the route crosses two existing road culverts before heading northwards across three farm blocks, then crossing Skeet Road reserve to ultimately connect with the Ballance Plant.
24. Fonterra's Lactose Manufacturing Plant is located 3km to the west of the Ballance Plant and the Kapuni A Railway Line runs from the Fonterra Plant along the northern boundary of the Ballance Plant.
25. The Ballance Plant itself is located on the west side of Palmer Road immediately opposite the Kapuni Production Station and the Kapuni Gas Treatment Plant, both owned and operated by Todd Energy. These facilities together with several large scale rural industrial activities form a rural-industrial hub at Kapuni.
26. The Ballance Plant is located on flat to gently rolling land, crossed by tributaries of the Kapuni Stream with riparian planting. Approximately half of the site is occupied by buildings, equipment, ponds and sealed vehicle-accessible areas. The remaining areas are grassed, with some used for the irrigation of wastewater. Multiple gas pipelines and high voltage electricity cables are located within the site. The Ballance Plant has a two-way vehicle crossing onto Palmer Road, constructed and marked to roading standards with exiting controlled by a stop intersection.
27. Outside of the large scale industrial / rural industry sites, the land use is predominantly dairy farming and includes dwellings on most farms.
28. The broader environment constitutes the volcanic ring plain of the South Taranaki District, characterised by the andesitic cone of Taranaki Maunga, visible across much of the district. The ring plain forms a gently sloping landscape towards the coast, merging into both marine terraces and hill country to the east. The pastoral landscape includes shelter belts, boxthorn hedge rows, small wood lots and groups of amenity trees, with incised stream gullies originating from the Maunga.

29. Outside of the industrial hubs, the overwhelming existing visual theme is one of a working pastoral setting.

## Part E: The Panel's Process

30. In this part of the decision the Panel records the process it followed:

### Meetings / Site Visits

31. Three members of the Panel met and conducted an all-day site visit on 7 October 2021. The fourth member, Ms Tepania, was prevented from attending by Covid-19 alert level rules in Auckland. She subsequently visited the site on 12 November 2021 and was taken to the same locations the other three members had already visited.
32. The Panel conducted the following meetings by Zoom:
- (a) 24 September 2021;
  - (b) 27 October 2021;
  - (c) 5 November 2021;
  - (d) 18 November 2021;
  - (e) 26 November 2021; and
  - (f) 30 November 2021.

### Invitations to comment

33. By letters dated 30 September 2021 the Panel invited comments on the project from those parties listed in Clause 17(4) of Schedule 6 of the FTCA.
34. The Panel also invited comments from parties under Clause 17(5) of Schedule 6.<sup>1</sup> Comments were required by 21 October 2021. Late comments were accepted from the Department of Conservation on 29 October 2021.
35. All comments received were sent to the applicants and, in accordance with Clause 19 of Schedule 6, the Panel required their response by 2 November 2021 which was provided, along with a response to the Department of Conservation comments on 4 November 2021.

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<sup>1</sup> As listed at Appendix 1 to this decision.

36. The comments received and the applicants' responses have all been considered by the Panel. A number of them are referred to and discussed below at Part I: Evaluation of Effects.

### Further information from Applicant

37. Pursuant to Minute No.2 the Panel sent a request for further information from the applicants asking for detailed assessments of landscape and visual effects for four marae: Mawhitiwhiti Marae (Omahuru Road), Oeo Pa (South Road), Ōkare Ki Uta Marae (Taikatu Road), and Tāwhitinui Marae (South Road). It was requested that the assessment include panorama views and single frames from the marae sites showing the relationship with Taranaki Maunga and the wind turbine site as had already been provided for three other marae. The further information was provided by the applicants on 13 October 2021.

### Hearing

38. The Panel's decision was that a hearing was not required on any issue.

### Conditions

39. A set of draft conditions was developed by the Panel based, in part on those provided as part of the application. An invitation to comment on draft conditions was sent to the applicants, the South Taranaki District Council and those parties who had responded to the invitations to comment.
40. Detailed responses were received from:
- (a) Heritage New Zealand;
  - (b) Department of Conservation;
  - (c) Greenpeace Aotearoa, Environmental Defence Society Incorporated, Royal Forest & Bird Protection Society of NZ;
  - (d) Te Korowai o Ngāruahine;
  - (e) Parininihi ki Waitōtara;
  - (f) South Taranaki District Council;
  - (g) Taranaki Regional Council; and
  - (h) the applicants.

## Part F: Legal Context

41. The role of an expert consenting panel appointed under the FTCA has now been settled by a number of previous panel decisions. The lodestar guidance is the decision on the application for a Matawii Water Storage Reservoir at Kaikohe dated 27 October 2020 chaired by Judge Newhook (former Principal Environment Court Judge). Although that decision related to a project listed in the FTCA, rather than one referred to an expert consenting panel by the Minister, it nonetheless is a very useful and guiding analysis of the FTCA process and decision making. Although there are some differences with referred projects, a great deal of the analysis in the Matawii decision is applicable here.
42. While it is not intended to reinvent the wheel already settled in the Matawii decision, it is appropriate to give an indication of the track the Panel has followed in its legal analysis here.
43. The starting point is section 12 of the FTCA which sets out the relationship between the FTCA and Resource Management Act 1991 (“the RMA”). Very simply, the FTCA Schedule 6 process supplants the RMA one, but remains subject to the RMA purpose and principles.
44. For referred projects, Clause 31 of Schedule 6 of the FTCA sets out the matters to which the Panel must have regard. Relevantly for this application they are as follows:
  - (a) *“When considering a consent application in relation to a referred project and any comments received in response to an invitation under Clause 17(3), a panel must, subject to Part 2 of the Resource Management Act 1991 and the purpose of this Act, have regard to:*
    - i. *Any actual and potential effect on the environment of allowing the activity; and*
    - ii. *Any measure proposed or agreed to by the consent applicant to ensure positive effects on the environment to offset or*

*compensate for any adverse effects that will or may result from allowing the activity; and*

*iii. Any relevant provisions of any of the documents listed in Clause 29(2); and*

*iv. Any other matter the panel considers relevant and reasonably necessary to determine the consent application.*

*(b) In respect of the matters listed under sub-clause 1, a panel must apply section 6 of this Act (Treaty of Waitangi) instead of section 8 of the Resource Management Act 1991 (Treaty of Waitangi)."*

45. Clause 31(4) of Schedule 6 enables a panel to disregard an adverse effect of the activity on the environment if a national environmental standard or a plan permits an activity with that effect.

46. Clause 31(5) lists matters that a panel must not have regard to, but save for the written approvals none of those are relevant here.

47. Returning to the key criteria listed in Clause 31(1) there is an obvious kinship with section 104 of the RMA, but with the expansion to consider offset and compensation. There is also an important reference to the purpose of the FTCA. Section 4 of the FTCA provides:

*"The purpose of this Act is to urgently promote employment to support New Zealand's recovery from the economic and social impacts of COVID 19 and to support the certainty of ongoing investment across New Zealand, while continuing to promote the sustainable management of natural and physical resources."*

48. The decision in Kohimarama Retirement Home dated 23 September 2021 discussed the duality of statutory purposes, and went on to make the observation that the fact that the Minister has found the purpose of the FTCA to be satisfied for an application to be referred to an expert panel does not absolve a panel from its obligation to discretely examine that purpose (see [38] – [39] and [45]). In that decision the Panel made an apt observation as to its carriage of the two statutory purposes in that case at [47]:

*“In the language of section 4 FTCA, we accept that the project is readily able to support New Zealand’s recovery from the economic and social impacts of COVID 19 and to support the certainty of ongoing investment across New Zealand. We also accept that this can be urgently achieved. Where we are more challenged is with the assertion that the effects of the project in its present form will continue to promote the sustainable management of natural and physical resources.” [47].*

## Part G: Statutory Applications and Approvals

49. In a hierarchical statutory sequence, the relevant instruments under which consents are required are now set out in summary form.
50. The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (“NES-FW”) would require approval of the proposed culvert within the tributary of the Waiokura Stream on the wind turbine site as a discretionary activity, since it would not comply with the permitted activity conditions.
51. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (“NES-CS”) will require consent as a discretionary activity under Regulation 11 for the disturbance of soil due to the Ballance Plant being a HAIL site (because activities are undertaken on it that are included on the Ministry for the Environment’s ‘Hazardous Activities and Industries List’), the duration of the soil disturbance exceeding two months and there not being a detailed site investigation in existence.
52. The South Taranaki District Plan became operative on 22 January 2021 and several consents are required under it:
  - (a) The Wind Turbine Site does not meet the definition of “small scale renewable energy generation” and would be a discretionary activity under Energy Rule 13.1.4(a)(iii);
  - (b) The Ballance Plant would not comply with the concept plan and performance standards for the site, including the location and size of buildings and width of vehicle crossings and would be a discretionary activity under Rural Industrial Zone Rule 8.1.4(b) and (c);

(c) The Ballance Plant vehicle crossings would not meet the construction performance standards, since they will be wider than 9 metres and they would be a discretionary activity under Parking and Transportation Rule 10.1.3.

53. The Regional Freshwater Plan for Taranaki (“RFP”), as amended by the Plantation Forestry Regulations 2018, would require the following consents:

(a) The Wind Turbine Site, cable route and Ballance Plant will require earthworks volumes exceeding the permitted volumes, and earthworks and works may need to be undertaken in the winter period which would be controlled activities under Rules 25, 26 and 27.

(b) The Wind Turbine Site may require groundwater to be taken from the excavations and discharged after treatment to land and / or water surface if de-watering of the turbine foundations is required, and that would be a discretionary activity under Rule 43;

(c) The Wind Turbine Site would not meet permitted conditions if de-watering of the turbine foundations is required and if groundwater taken exceeds a daily volume of 50m<sup>3</sup> or a rate of 1.5 l/s and would be a controlled activity under Rule 49;

(d) The Wind Turbine Site includes a replacement culvert to be installed in the bed of the stream tributary on the wind turbine site to facilitate access, and that would be a discretionary activity under Rule 64 by reason of not meeting all the conditions for a permitted activity under Rule 57.

## Part H: Policy Statements in Planning Instruments

54. There are a number of relevant policy statements in the various planning instruments.

55. The most significant of these are addressed in the Evaluation of Effects later in this decision. For present purposes the following can be identified as:

(a) National Policy Statements:

- i. National Policy Statement for Renewable Energy Generation 2011 (“NPS-REG”);
  - ii. National Policy Statement for Freshwater Management 2020 (“NPS-FM”);
  - iii. New Zealand Coastal Policy Statement (2010) (“NZCPS”);
- (b) Regional Policy Statement for Taranaki;
- (c) Regional Freshwater Plan for Taranaki, Objectives and Policies; and
- (d) South Taranaki District Plan:
- i. Section 2.1 Rural Zone;
  - ii. Section 2.6 Rural Industrial Zone;
  - iii. Section 2.8 Transportation;
  - iv. Section 2.9 Hazardous Substances and Contaminated Land;
  - v. Section 2.10 Energy;
  - vi. Section 2.11 Network Utilities;
  - vii. Section 2.12 Historic Heritage;
  - viii. Section 2.7 Tangata Whenua;
  - ix. Section 2.14 Integrated Land Use and Infrastructure Planning, Urban Growth and Financial Contributions;
  - x. Section 2.18 Waterbodies; and
  - xi. Section 19 Natural Hazards.

## Part I: Evaluation of Effects

### End use of urea

56. A potential adverse effect jointly asserted by Greenpeace Aotearoa, the Environmental Defence Society and Forest and Bird was the end use and consequences from the continuing production of urea at the Ballance Plant. It is worth addressing this first. They commented that in so far as the energy (albeit “clean”) produced by the project would be utilised to produce urea as a synthetic nitrogen fertiliser, that would be a key enabler of intensive dairying, which is said to be the single largest source of greenhouse gas emissions in New Zealand, and also a direct and indirect cause of freshwater pollution. In essence, the point being made was that urea production as an end use outweighed the claimed environmental benefits of the project unless or until

the end use of green hydrogen production was entirely for the transport market.

57. As the Ngati Awa litigation<sup>2</sup> has demonstrated, the whole question of assessing whether an end use that is otherwise lawful is a disenabling adverse effect has its complexities. In this case it requires a careful review of what is proposed and the profiles of the current and intended production.
58. The Ballance Plant is the only ammonia manufacturing plant in New Zealand, and currently relies on electricity from the grid and natural gas from nearby gas fields.
59. The application asserts that urea produced locally offsets urea that would otherwise be imported – typically from production methods that have higher emissions due to use of coal and ocean transport. According to the Assessment of Environmental Effects (Appendix T6.1) 7,000 tonnes per year of urea produced by green hydrogen will offset 12,500 tonnes of greenhouse gas emissions. The Assessment of Environmental Effects (Appendix T 8.2) also states that 607,000 tonnes of urea were used in New Zealand in 2019, of which the Ballance Plant produces currently 265,000 tonnes. Since the Ballance Plant is the only ammonia manufacturing plant in New Zealand it would seem that 56% of the urea used in New Zealand is imported. 7,000 tonnes produced annually by this project from green hydrogen would be only 1.15% of the total urea used in New Zealand.
60. It should also be noted that the Taranaki Regional Council has granted consents for water take and discharges associated with the current urea production that expire in 2035.
61. Critically, the proposal is that over a five-year period the utilisation of green hydrogen will transition from 100% urea production (i.e. 7,000 tonnes per year) to entire use for fuel cells as the electric fleet is expected to increase.
62. In the view of the Panel, taking into account the very small fraction of the annual tonnage that would be immediately attributable to production from

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<sup>2</sup> *Te Runanga o Ngati Awa v Bay of Plenty Regional Council* [2020] NZHC 3388.

green hydrogen, and then the intended transition, there is a danger that to disenable this proposal on the basis of the urea production end use would be to throw the baby out with the bathwater vis-à-vis the much more ambitious and significant greenhouse gasses / climate change reductions that will be achieved through the increasing use of hydrogen fuel in heavy transport. We therefore do not consider that this is a reason to deny the availability of fast-track consenting, or to decline consent itself. However, it has some relevance to the process of transition.

### Range of effects

63. Turning then to the effects that ought to be evaluated in this application, the Assessment of Environmental Effects identified the following actual or potential effects:
- (a) Physical effects on the locality:
    - i. Landscape and visual effects;
    - ii. Shadow flicker effects;
    - iii. Rural character and amenity effect.
  - (b) Ecological effects:
    - i. Effects on terrestrial ecology including birds and bats;
    - ii. Effects on freshwater ecology;
  - (c) Noise;
  - (d) Traffic and transport effects;
  - (e) Hazards:
    - i. Hazardous installations and substances;
    - ii. Natural hazards;
  - (f) Effects on sites of significance to Māori and cultural values;
  - (g) Effects on historic heritage values; and
  - (h) Effects on people in the neighbourhood and wider community.
64. The Panel does not disagree with this identification. However, not all of these effects require detailed evaluation in this decision, and more detailed evaluation has been reserved (along with discussion of mitigation steps) for the more evident, prominent or possibly controversial effects. For the record, the Panel does not consider any effect or potential effect omitted from discussion

in this section to be disabling to the application – either discretely or cumulatively.

### Landscape and visual effects

65. An important potentially adverse effect is the visual impact of the turbines. While the site earthworks and access tracks are of minimal landscape significance, as is the removal of a short section of one hedgerow, the turbines are, by any measure, a very significant landscape issue given their height.
66. The Panel notes that full visual simulations were completed as part of the Assessment of Environmental Effects using “wire frame models” that involve inserting the turbine layout and heights into the wind farm software model and generating images from particular viewpoints. The wire frame images illustrate the scale of the turbines and their relationship to the viewpoint.
67. At a 206m tip height (when the blade is standing vertically) there are no other built elements of that height or scale on the Taranaki Maunga ring plains. Further, the form of the turbines and their dynamic movement also contribute to their visibility.
68. The assessment establishes that adverse visual effects will be experienced from a limited number of private properties, and those have been identified. The visual effects from these properties are primarily those with an open and panoramic view of Taranaki Maunga from the internal and/or external living areas. However, many land owners of these properties have extensively planted around their dwellings for wind protection and enclosure, and thus views towards the Maunga or towards the turbines are screened.
69. Given the height of the turbines, there is very limited opportunity to mitigate adverse visual effects. Really only tree planting close to the viewpoint can provide effective screening. For properties where such screen planting does not exist currently and the visual effects are high, the applicants have offered tree planting, and a mechanism for offering and completing agreements in that regard is volunteered in the conditions.
70. As to broader views, the evidence shows that at viewing distances of 2km or less, the visual effects are generally moderate, sometimes greater, but beyond

this the visual effects rapidly diminish. At distances of 3-5km or more, the dominant horizontal nature of the ring plain means that the turbines are generally visually absorbed into the wider landscape.

71. From roads and other public areas, the views are transient and ever changing as the viewpoint moves. Weather conditions also have a major influence on visibility.
72. The site is well separated from the surrounding towns and settlements and from both State Highway 3 and State Highway 45. The scale of Taranaki Maunga remains the dominant element in the landscape and its presence provides an overall context.
73. In terms of the broader impact on landscape character, the Panel concludes that while the turbines will introduce a new prominent element into the ring plain landscape, they will not visually dominate it, any more than either the Kapuni Gas Plant or Ballance Plant already do. In that sense, while the turbines will be prominent when viewed from various places on the ring plain, the nature and scale of the landscape is such that the four turbines can be successfully accommodated without significant adverse landscape and visual effects together with appropriate planting conditions for the benefit of a relatively small number of properties that are more directly adversely affected.
74. However, that does not address the adverse effect on landscape character for iwi for whom the connection with the Maunga and its influence on the wider landscape holds special value. In this sense the landscape effects of the turbines overlap with adverse cultural effects, and we will address that in much more detail later in this Section.

### Shadow flicker effects

75. Shadow flicker casting intermittent shadows as the sun passes behind rotating turbine blades is capable of becoming a tangible and irritating adverse effect on residential amenities. This has been addressed in respect of this application with conditions that refer to established international guidelines that have daily and annual temporal thresholds. The applicants have adopted those guidelines in the relevant conditions, which would only be applicable, in any event, where affected property owners have not provided written approval.

76. The Panel considers further evaluation of this effect is not required.

### Rural character and amenity effect

77. Aside from effects on visual amenity attributable to the wind turbines addressed elsewhere, there is no other discernible effect on the rural character and amenities of the area. The wind turbine site remains a working farm, and other than the occasional incursion for maintenance of the turbines, etc, the site will continue to operate in that way with stock able to graze right up to the turbines themselves.
78. The proposed facilities at the Ballance Plant site are within the Rural Industrial Zone and part of the hub of industrial activity at Kapuni. There are no discernible adverse effects on rural character and amenity values that could be attributable to that part of the project either.

### Ecological effects

79. The potential from bird-strike in respect of birds colliding with the turbines was the subject of assessments and surveys. The applicants' evidence was that the turbine site is not a key migration route for migratory birds and that the north south configuration of the turbines further reduces exposure to the striking of migrating birds.
80. The Department of Conservation nonetheless commented on this issue by observing that "not all pathways of NZ migrants are known" and therefore stated that it cannot be determined whether the turbines will have an adverse effect, and also included a request for consideration of the likelihood of bats being struck by the turbines.
81. In response the applicants set out the methodology they had followed, starting with a desktop evaluation which concluded that the site was unlikely to be a bird migrant flight path. However, for the avoidance of doubt observations had been carried out for two weeks during the peak northward movement of South Island Pied Oystercatcher in January 2020. The results of that study were that a single bird crossed the site over two weeks. Perhaps more significantly, the study observed larger numbers of birds at some distance to the east, following an existing predicted flight path east of Taranaki Maunga and in the vicinity of State Highway 3. From further analysis the expert conclusion was that the site

did not provide a core or season habitat for any of the species that the Department of Conservation had identified. The expert evaluation noted that of the five most abundant migrants, four (Banded Dotterel, Black Stilt, Eastern bar-tailed Godwit and Wrybill) have not been recorded in the area and were not recorded by the summer survey. The independent reviewer, Mr Craig, agreed with that evaluation and took the view that the department's request "appears to confuse a desire to know versus a calculation of the risk of an adverse effect."

82. The Panel accepts the applicants' evidence that the turbines do not pose a risk of collision to bats or migrating birds, and accepts the evidence that migrant species will not be present at this site in sufficient numbers to justify post construction collision monitoring.
83. The position regarding the possible presence of lizards was rather different. The Department of Conservation noted that lizard species may be present in the hedgerows or parts of the hedgerows that will be removed as part of the project. The Department recommended a lizard survey prior to any works, and if lizards are detected that a Lizard Management Plan should be prepared.
84. The applicants accepted that although the Assessment of Environmental Effects had recommended a survey and the development of a Lizard Management Plan for rescue and relocation, this had not been included in the suggested conditions. The applicants offered augmenting conditions and that issue has been accordingly addressed.

### Effects on freshwater ecology

85. Other adverse ecological effects could be those that may potentially result from discharges associated with site development and earthworks from sediment mobilising in wind and stormwater, both during and after earthworks. Sediment in runoff to streams can reduce water quality and impact on freshwater habitats. Further, crossings of water courses raise issues of impeding fish passage.
86. The ecological assessment in the Assessment of Environmental Effects concluded that the application sites have generally low ecological attributes. Nonetheless, the project does raise issues of control of possible adverse effects

during construction earthworks, under-boring of streams, design and installation of the culvert to maintain fish passage, and planting mitigation. These possible effects have been identified by the applicants to be addressed by means of conventional management plans that include detailed design for sediment control methods and mitigation measures relating to stormwater and groundwater capture, retention and filtering structures and devices to minimise adverse effects on nearby streams from the discharge/overland flow of stormwater and groundwater from soil disturbance both at the wind turbine site and at the Ballance Plant, as well as the sites associated with the power cable route. Bulk earthworks are proposed to be undertaken in summer months avoiding fish spawning season and other factors that influence potential for adverse effects.

87. The suggested control measures and management plans identified in the volunteered and standard conditions do not appear to have attracted particular comment or controversy, and the Panel accepts that with these appropriate mitigation steps there will be no or minimal adverse effects on freshwater ecology.

## Noise

88. The South Taranaki District Plan does contain assessment matters at Section 20.5.12 for large scale renewable electricity generation and activities relating to noise which refers to NZS 6808:2010 and NZS 6882:2008. Section 2.5.13 of the Plan sets a list of assessment matters for wind farm noise.
89. There are three main activities that have the potential to generate adverse noise effects:
- (a) Construction activities;
  - (b) Operation of the turbines affecting amenity values; and
  - (c) Operation of the turbines affecting stock and animals.
90. Construction activities are exempt from the noise performance standards under the plan and are managed under NZS 6803:1999 (Acoustics – construction noise). Assessment shows construction noise will be well within those requirements and confined to daylight hours in any event. While there

will be short term noise, there is low habitation in the immediate environment and the proposed distances to surrounding buildings are significant.

91. Modelling of turbine noise concludes that the maximum noise predicted at the closest dwelling house will be less than the trigger for which background sound level measurements would be required. Notwithstanding that, the applicants have had those undertaken. Those measurements show that the maximum proposed noise level with the highest noise level at any notional boundary will be well within the maximum limit specified by NZS 6808. The approach the applicants have taken therefore is that although not strictly required, noise monitoring conditions have been offered.
92. Sheep, cows and horses are not typically disturbed by wind turbines, and will graze right up to the base of the towers.
93. The expected noises from hydrogen generation and refuelling equipment at the Ballance Plant will be negligible due to the close proximity and dominance of the other surrounding activities.
94. On this evidence the Panel concludes that there will be nil or minimal adverse noise effects from the activities at the sites, either during construction or during ordinary operation.

### Traffic and transport effects

95. Other than the benefits to decarbonisation of the transport industry, there are no effects of any particular moment to be evaluated vis-à-vis the operation of the project itself once constructed. However, there will be traffic and transport effects during construction itself, and in particular the transportation associated with installation of the turbines, and to a much lesser extent, the pipelines. These have been addressed in conditions that include the provision of a transport and traffic plan during construction. On that basis the Panel does not consider there are likely to be adverse effects that have been insufficiently managed that would disenable the project.

### Hazardous installations and substances

96. Comprehensive assessment of the possible risks attributable to hazardous installations and substances was included in the Assessment of Environmental

Effects with appropriate conditions suggested, including an emergency response plan.

97. In comments subsequently provided, Generation Zero raised the issue of whether the cumulative risk associated with all surrounding hazardous facilities had been comprehensively addressed as required under the South Taranaki District Plan.
98. The Panel accepts that cumulative risk is a concern for congested facilities, but equally accepts the expert evidence that the separation distances between the refuelling station and the core Ballance Plant (and the surrounding facilities) are sufficient such that it could not be expected that an event at one facility would escalate into causing a major incident at another facility.
99. Further, it seems that there is a mutual aid agreement between Todd Energy and the Ballance Plant which will include Hiringa so that if there were an emergency in progress at one site, the neighbouring sites can take the appropriate measures to protect their plant, and to provide aid.
100. The Panel also notes with regard to the risk assessment findings undertaken by Worley NZ that the contours for the electrolyser and the refuelling station do not extend beyond the site boundary, and the lesser risk contours applicable to more sensitive receptors (e.g. schools, office buildings etc) do not extend further than the Todd Energy carpark.
101. The only exception of risk contours extending into other hazardous areas is the piping from the electrolyser to the Ballance Plant. Although a release from a buried section of hydrogen piping was not modelled, a release of the entire underground piping inventory was modelled as a release at the end of the piping (where it rises above ground at the refuelling station) to assess the worst-case consequence of a release. On account of that modelling the consequences and effects of a release from the underground piping has been assessed and the risk considered to be minimal.
102. An assessment of immediate and delayed explosion scenarios was specifically included in the risk assessment, and the results summarised in the Assessment of Environmental Effects. For the purposes of that assessment the strongest

blast strength scenario was applied and the effects from the modelled explosion scenarios assessed against various listed industry accepted criteria. The results set out in that risk assessment are considered by the Panel to be managed to a point that can be characterised as being as low as reasonably practicable.

103. Finally on this topic it is noted by the Panel that hydrogen has been used for several decades in New Zealand in the manufacturing sector without significant incident. The Ballance Plant already manufactures hydrogen from natural gas in significantly higher quantities than will be produced by the proposed works. In the view of the Panel the proposed works in that sense do not add any new hazards to the Ballance Plant, and do not increase the current risk profile for that site.

### Natural Hazards

104. The South Taranaki District Plan Section 19 states policy considerations for natural hazards and then at Section 20.5.12 identifies the following assessment matters in respect of large-scale renewable electricity generation activities:

*“the extent to which the activity may exacerbate or be adversely affected by natural hazards.”*

105. That compels some consideration of the relevant natural hazards.
106. As to risk from a volcanic event, it cannot be avoided that a major eruption of Taranaki Maunga could result in destruction of the sites. However, in so far as the site is within volcanic – generated land slide, lahar and flood hazard zones, 80% of Taranaki is also within this area. In the event of an actual or impending eruption of significant magnitude, the wind turbines would be shut down and the facilities at the Ballance Plant managed in accordance with a Hazard Management Plan.
107. In respect of seismic and land slip stability, the turbines are on relatively flat areas with engineered foundations. Risk of instability vis-à-vis these hazards is considered very low.

108. Only small tributaries are in close proximity of the site which will mostly remain in permeable pasture with overland flow paths. Accordingly, risk of flooding would appear to be minimal.
109. Adverse effects from natural hazards generally, whilst always possible if they occur on a biblical scale, would otherwise appear to be very low or minimal.

### Effects on sites of significance to Māori and cultural values

110. During our deliberations we read and considered the following documents bearing on this topic:
  - (a) The Application;
  - (b) Section 17 report prepared by MfE for the Project (section 17 MfE Report), which confirms that the site of the proposal is within the rohe of Ngāruahine;
  - (c) Te Korowai o Ngāruahine CIA Report (Appendix K.1), commissioned by the applicants and prepared on behalf of those Ngāruahine hapū who wished to be part of the process;
  - (d) The Ngāti Tū CIA Report (Appendix K.2), prepared with the support of the applicants;
  - (e) The Archaeological Assessment of Effects Report (Appendix F); and
  - (f) The comments received from Te Korowai o Ngāruahine, Ngāti Tū and Ngāti Ruanui.

### Iwi and Hapū

111. Ngāruahine is one of eight iwi in Taranaki and its area of interest extends from the Taungatara Stream in the north to the Waihi Stream in the south. The area also encompasses part of Te Papakura o Taranaki / Egmont National Park, including Taranaki Maunga, and overlaps with Taranaki Iwi (west), Te Atiawa (north), Ngāti Maru (north-east) and Ngāti Ruanui (east).
112. Ngāruahine is defined by the Ngāruahine Deed of Settlement 2014 as every whānau, hapū, or group to the extent that it is composed of individuals who descend from one or more Ngāruahine tupuna including:
  - (a) Kanihi-Umutahi Hapū;
  - (b) Ōkahu-Inuāwai Hapū;
  - (c) Ngāti Manuhiakai Hapū;

- (d) Ngāti Tū Hapū;
- (e) Ngāti Haua Hapū; and
- (f) Ngāti Tamaahuroa me Titahi Hapū.

113. Te Korowai o Ngāruahine Trust (Te Korowai) is the mandated post settlement governance entity and representative body for Ngāruahine Iwi.
114. Te Rūnanga o Ngāti Ruanui Trust is recognised in the Ngāti Ruanui Claims Settlement Act 2003 as the mandated iwi representing the 8,000 uri, 16 hapū and 10 marae affiliated to Ngāti Ruanui. The takiwā of Ngāti Ruanui (South Taranaki) begins at the W'enuakura River in the South to the Pātea River (a shared area of interest with the neighbouring iwi of Ngā Rauru Kītahi). From the Pātea River, the ro'e reaches inland to W'aka'urangi and back to the coast to wa'apu o te awa o Waingongoro (mouth of the Waingongoro River) and offshore from the mouth of the W'enuakura River north to the Waingongoro River and beyond to Te Tai-o-Re'ua (the Tasman Sea).

### Engagement

115. The applicants' engagement with tangata whenua is outlined in Section 6.6 and Appendix P.1 of the Application.
116. Engagement with Te Korowai began in July 2019. In late May 2020, Te Korowai advised the applicants to engage directly with the two hapū which have mana whenua in respect of the Project Site, being Ngāti Tū and Ngāti Manuhiakai.
117. The applicants have engaged with both hapū since mid-2020 and sought to address concerns, where possible, with a view to forming ongoing and constructive long-term relationships, an approach that was confirmed and acknowledged by the hapū. This engagement resulted in the Ngāti Tū CIA Report (Appendix K.2), and a letter of support from Ngāti Manuhiakai (Appendix P.5).
118. Te Korowai advised, in comments provided under section 21, that all hapū of Ngāruahine should be considered potentially affected by the proposal and was invited to nominate a member of our Panel in accordance with cl 3(2)(b) of Schedule 5 of the Act.

119. The Minister’s Notice of Decision (under section 25 of the Act) dated 23 February 2021, requested the following information:
- (a) Sightlines of Maunga Taranaki when viewed from sites of importance to Māori – Ngāruahine hapū and Te Korowai to determine sites. These were provided in the application and summarised in Section 6 of the Assessment of Environmental Effects; and
  - (b) A CIA from the Taranaki Māori Trust Board as collective representative of Ngā Iwi o Taranaki or statement of reasons for not providing that assessment.
120. The applicants engaged with the Taranaki Māori Trust Board and its Chair provided a letter advising that the Trust Board did not intend to prepare a CIA (Appendix K.3) as Te Korowai and the relevant hapū had provided CIAs or a letter of support.
121. The applicants also met with Te Rūnanga o Ngāti Ruanui Trust and subsequently provided various documents and environmental assessments of interest to Ngāti Ruanui. Ngāti Ruanui advised they would provide a formal statement as part of the consenting process.
122. The Panel sought comments from Te Korowai, all Ngāruahine hapū, Ngāti Ruanui and the Taranaki Māori Trust Board.

#### **Te Korowai Cultural Impact Assessment (Appendix K.1)**

123. The hapū of Ngāruahine are tangata whenua within their takiwā. They have held, and continue to hold, ahi-ka-roa (long occupation) since the original inhabitants first settled the land. Ngāti Manuhiakai hapū claims ancestry from the Aotea Utanganui waka which was captained by Turi-te-Ariki-nui. During the fourteenth century, Turi, with his wife Rongorongo and their people, travelled south along the coast naming many places as they went, including the Waingongoro River. Ngateko on the Kapuni stream is one of the original landing places of the Wakaringaringa waka, captained by Mawakeroa, the other being Kaupokonui. Many of the people on that waka took up settlement in the area and the Kapuni Stream marks the boundary between the takiwā of Ngāti Manuhiakai and Ngāti Tū Hapū.

124. Ngāti Haua state their whanaungatanga rohe extends from the western side of the Kaupokonui River of the Ngāti Tū Hapū, to the eastern side of the Wahamoko Stream.

### *Methodology*

125. The CIA refers to the following sources:
- (a) Te Anga Pūtakerongo mō Ngā Maunga o Taranaki, Pouākai me Kaitake – Record of understanding for Mount Taranaki, Pouākai and the Kaitake Ranges;
  - (b) Te Korowai o Ngāruahine Draft Kaitiaki Plan;
  - (c) Hapū statements and responses;
  - (d) Te Korowai Five Year Strategy (the Five Year Strategy); and
  - (e) Ngāruahine Claims Settlement Act 2016.
126. The mitigation offered by the applicants was assessed against the draft kaitiaki plan values, interests and objectives and the CIA indicates whether these were supported, insufficient or declined. Te Korowai’s own recommended mitigation measures and conditions were developed using the Five Year Strategy which sets out four pou of Taiao, Kainga, Mahi and Ngāruahinetanga which Te Korowai focus on to build the capacity and capability of Ngāruahine uri, whānau and hapū.
127. Te Korowai asked each hapū to assess the effects of the project on their cultural values and interests. Ngāti Hāua completed an assessment to be incorporated into the Te Korowai CIA while Ngāti Tū completed its own CIA with the assistance of the applicants. Te Korowai highlighted factors which they consider prevented other hapū from being able to complete their assessments, including insufficient resources and tight timeframes.
128. The authors of the report recorded that in late May 2020, Te Korowai provided advice to the JV partners that they should engage only with two hapū (Ngāti Tū and Ngāti Manuhiakai) as the proposal would directly affect them as mana whenua.
129. It is noted in the CIA that the applicants and Ngāruahine have engaged, collaborated and agreed on a number of measures which will result in benefits for Ngāruahine. Several of these are referred to in the report and identified

below, others are independent of the consent application process and are the subject of an agreement between the applicants and Te Korowai.

### Concerns

130. The Te Korowai CIA noted that impacts of the project are likely to affect all six hapū of Ngāruahine and acknowledged that hapū responses to the project varied widely, ranging from total support, to a neutral stance, to opposition.
131. Te Korowai recorded (CIA, section 10.1) their concern that the FTCA process:
  - (a) Removes the ability for Ngāruahine to participate in RMA decision making processes as provided for in the Ngāruahine Claims Settlement Act;
  - (b) Fails to account for the ongoing Taranaki Maunga Treaty Settlement and subsequently the relationship between all Iwi of the region and Taranaki Maunga; and
  - (c) Undermines the positive relationship Te Korowai has built with STDC which would otherwise have been crucial to decision making under standard resource consent processes.
132. The CIA recorded that Te Korowai conditionally supports the proposal if there is a clear commitment from the applicants to remove the wind turbines from the proposed site at the end of their useful life or after a maximum of 35 years of operation (whichever occurs earliest). This is based on their concerns regarding the protection of the unique Ngāruahine Cultural Landscape.
133. Ngāti Haua's assessment of cultural impacts was set out in Appendix 3 of the Te Korowai CIA. The hapū expressed some concern at the short timeframe within which they were expected to come together to consider and discuss the impacts of the application on them, resulting in feelings of disempowerment and loss. They recorded their concerns as to the effects on wairua and the inability to mitigate against harm that disturbs the essence of wairua and the spiritual pathway from a person to Tupuna Maunga and the Taiao. The hapū requested a focus on Maunga Tupuna as a legal person in the CIA as an important feature and emphasised the cultural impact on hapū and iwi from a holistic, whole of Maunga, approach upholding the mana of Taranaki Maunga as their tupuna. With many uri belonging to many of the Marae in the South

Taranaki location and wider, Ngāti Haua observed that cultural practices and rituals can be practiced anywhere in Taranaki, that they are not ‘marae-centric’, but centred on Tupuna Maunga as kaitiaki.

134. Ōkahu-Inuāwai Hapū resolved by general consensus that they:
  - (a) Do not support wind turbines as part of the Hiringa Project;
  - (b) Do not support any Fast-tracking of the project which will leave hapū behind;
  - (c) Have formally withdrawn from future discussions with the applicants.
135. Tamaahuroa Titahi Hapū confirmed that they supported the applicants’ work to reduce emissions and any decisions made by Ngāti Manuhiakai and Ngāti Tū regarding the project.
136. As noted previously, Ngāti Manuhiakai provided the Minister with confirmation that they are satisfied that the potential impacts that have been identified can and will be appropriately mitigated by the applicants and that the applicants have taken their interests into account. They confirmed that they support the project in principle and look forward to working with the applicants in the delivery and operation of this exciting project.

#### *Mitigation Measures*

137. The CIA included an assessment of mitigation measures (CIA, section 11) with a large number of measures supported by Te Korowai.
138. Measures proposed by the applicants which Te Korowai indicated conditional support for included:
  - (a) Provision of material support for STEM education pathways for Māori children such as a possible education van resource;
  - (b) Assessment of wind potential siting and development of monitoring with Hapū.

#### *Recommendations and suggested conditions*

139. Te Korowai recommended further conditions (CIA, section 11.1) dealing with the end of life phase of the wind turbines:
  - (a) Development, with Ngāti Manuhiakai and Ngāti Tū, of a Turbine Decommissioning Plan for how the four wind turbines will be removed

- from the Kōkiri Road site at the end of their useful life or after a maximum of 35 years of operation (whichever occurs earliest); and
- (b) Development, with Ngāti Manuhiakai and Ngāti Tū, of an Alternative Site Plan for any new replacement turbines on a site, or sites coastward of SH45.

140. The applicants accepted conditions to this effect.
141. Te Korowai sought a number of other conditions of consent relating to matters including: support for solar/renewable energy projects for the remaining marae, not increasing water take under existing resource consents, allowing for stream monitoring and mitigating any interference from the wind turbines on radio, television, and cell phone reception.
142. In the CIA Te Korowai acknowledged that a relationship agreement had been developed with the applicants but the constraints of the fast-track process had not allowed for this to be finalised and signed.

#### Ngāti Tū Cultural Impact Assessment (Appendix K.2)

143. Ngāti Tū also claim ancestry from the Aotea waka with Turi-te-Ariki-nui and his wife Rongorongo and their people also naming the Kaipokonui River and Maraekura. The name of the flat lands adjacent to the Kaipokonui River and lying between Pukekohe Pa and the Taoratai kainga is Maraekura, the 'courtyard of the precious heirloom Huna-kiko' which Turi had brought with him from Hawaiki-Rangiatea.
144. The Ngāti Tū Hapū CIA set out a brief history and their connection to Kaipokonui River. It recorded the core cultural principles of the hapū which are centred on Mana Whenua, Mana Awa & Mana Tangata and discussed each of these principles as they relate to the application, concluding:
- (a) With a request for a Fresh Water Ecology Report and/or Stream Health Monitoring Assessment Kit Test (SHMAK) as to the ecological health of waterways in their takiwā, noting they would support more trees/riparian planting along waterways, and acknowledging the applicants will replace any riparian plant removed on farm, to enable

culverts for site access, at a 2:1 ratio and are giving consideration to go beyond single row planting.

- (b) The advantages of the wind turbines cancel out the disadvantages, noting the applicants' commitment to develop a decommissioning strategy to avoid disposal of the turbines in landfill.
- (c) In terms of the effects on migrating birds, consideration should be given to future planting of trees and potential for increased activity of birdlife, in response to which the applicants offered to plant additional trees at locations around the site including in an area Ngāti Tū Hapū approves.

- 145. The CIA acknowledged the effort made by the applicants to satisfy Ngāti Tū concerns and recorded various measures (CIA, section 4.7) that the applicants had agreed to.
- 146. In addition to the above, and while acknowledging the applicants' desire to establish a relationship with Ngāti Tū Hapū, the hapū noted they would require an annual royalty to fully support the project.

#### **Marae Viewpoints**

- 147. As noted in the Landscape and Visual Effects Assessment (LVEA) (Appendix G.1 and Addendum to Landscape and Visual Effects: Marae Assessments Prepared for Hiringa Energy, 13 October 2021) the connection between Taranaki Maunga and its wider landscape holds special value to Ngā iwi o Taranaki and siting of wind turbines in key viewshafts across the ring plain will result in adverse cultural landscape effects.
- 148. The LVEA observed that while the four turbines occupy only a small physical area, they are new elements on the ring plain and their height, form and dynamic movement will affect landscape character and may also potentially affect the cultural and spiritual connections between the maunga and the surrounding landscape.
- 149. Assessments together with visual simulations were provided in relation to the seven marae of Ngārūahine: Te Aroha Marae, Inaha Road (2.4km to closest turbine), Aotearoa Marae, Hastings Road (6.6km), Waiokura Marae, Winks Road (4.7km), Mawhitiwhiti Marae, corner Omahuru & Hastings Road (6.9km),

Oeo Pā, South Road (16.8km), Ōkare Ki Uta Marae, Taikatu Road (10.9km) and Tāwhitinui Marae, South Road (13.4km).

150. The assessment establishes that aside from Te Aroha Marae and Mawhitiwhiti Marae, the adverse visual effects experienced from the other five marae will be *very low to low*.
151. The visual effects on Te Aroha Marae (Ngāti Manuhiakai) were assessed as being *high*. The LVEA concludes that while the turbines are not located directly in front of the maunga, they are very much viewed in its context and interrupt the view to the lower sweeping slopes. The assessment considered the level of visibility and visual effects of the turbines is affected by the direction the turbine rotors are facing with a noticeable difference when the rotors are facing the dominant westerly wind direction. It is noted that Ngati Manuhiakai Hapū have provided a letter of support for the project.
152. The visual effects on Mawhitiwhiti Marae were assessed as *moderate*. The turbines are not viewed in an immediate context of the maunga and the significant distance between the marae and the Project site and the intervening vegetation will mean that while the turbines are clearly visible in this flat landscape, at this distance they are not of a dissimilar scale as some of the shelterbelt trees. Consequently, the visual effects of the turbines are moderate adverse particularly with the tall hedge on the opposite side of the road partly obscuring the turbines when viewed from the marae buildings and immediate environs. No official feedback was received from Kanihi-Umutahi Hapū.

## Potential effects on Mana Whenua

### *Cultural Landscape*

153. The CIA by Te Korowai records that the Ngāruahine Cultural Landscape describes both a physical area and the relationship and interaction between Ngāruahine and the environment. The values within this landscape are more than just visual aesthetics or concern for the natural environment. It includes the sense of place that underpins Ngāruahine identity. This cultural relationship is with the land, coastal and freshwaters, indigenous biodiversity, and Taranaki Maunga.

154. Te Korowai noted their expectations around the protection of the Ngāruahine Cultural Landscape and significant relationship of Ngāruahine uri to Taranaki Maunga have been made clear to the applicants. Their position regarding the wind turbines and occupation of the Ngāruahine Cultural Landscape is based on protecting the rights and interests of all uri, whānau and hapū of Ngāruahine.
155. The CIA noted that the cultural impacts of wind turbine technology are less well known especially in relation to the occupation of cultural landscapes and the history of renewable wind generation in Taranaki being very recent with the completion of the Waipipi wind farm between Pātea and Waverley.
156. The Te Korowai CIA concludes the impact of the turbines is not de minimis and that the impact will be high and potentially lead to cumulative adverse cultural effects. In order to address these effects Te Korowai have worked closely with the applicants to identify appropriate measures which would avoid, remedy, or mitigate these adverse effects, as presented in the CIA and set out below.
157. The comments by Ngāti Ruanui, as recorded below, highlighted their concerns regarding the dominance of the turbines on the landscape with an adverse visual landscape impact that cannot be diminished or compensated.

*The relationship to Taranaki Maunga*

158. Te Korowai CIA records that the relationship of Ngāruahine to Taranaki Maunga is ancestral, spiritual, and physical. It is their most significant wāhi tapu and has a direct effect on their wellbeing, sense of place and identity as Ngāruahine. They consider the wind turbines will obstruct and/or modify a space which is crucial to that identity. The CIA points out that the applicants' landscape and visual assessment compares the proposed wind turbines against other existing structures at the Ballance and Kapuni Gas plants and concludes the effects of the turbines will be attenuated by the existing structures and other landscape features.
159. The CIA records that Te Korowai are very concerned at the immediate impacts and potential cumulative adverse cultural effects the turbines will have on the relationship Ngāruahine uri have with their ancestor, Taranaki Maunga.

160. The CIA acknowledges that the turbines will be arranged in a way that best ensures views from all Marae and Kura Kaupapa to Tupuna Maunga within the rohe of Ngāruahine are maintained, in accordance with the respective preferences expressed by hapū and Policy 6.4 of the Draft Ngāruahine Kaitiaki Plan.
161. As noted above, Ngāti Ruanui also emphasised their connection to the maunga and the interconnection between the maunga, the w’enua and the moana. They consider the intensity of development proposed within this landscape erodes this connection and therefore the mauri of the ecosystem and the mauri of Ngāti Ruanui.
162. The applicants acknowledge the cultural significance of Taranaki Maunga and the visual effects of the turbines and have sought to minimise as far as practicable the cultural and visual impacts, and proposed a number of mitigation measures.

*Potential for precedent / Future Expansion*

163. The CIA expressed concern as to what might occur if the project and technology is scaled up and extended. Te Korowai were very concerned that the wind turbine component be limited so as not to create a means for more obstructions in the Ngāruahine Cultural Landscape or a precedent which other operators might seek to exploit and which may adversely affect their whanaunga iwi in Taranaki and Ngāti Ruanui noted similar concerns with the size of the turbines setting a precedent and benchmark for more to come. Conditions agreed by the applicants in response to these concerns are noted at paragraph [139] above.

*Impact on freshwater resources*

164. Te Korowai were concerned that there could be an increase in water abstractions from the Waingongoro River should the Project be scaled up in future.
165. Ngāti Tū considered the projected consumption of water usage to be reasonable but were concerned about the ecological health status of the waterways in their boundaries and asked the applicants to provide “A Freshwater Ecology Report”.

166. A freshwater ecological assessment was undertaken and concluded that subject to adherence to the mitigation measures any actual and potential adverse effects on freshwater ecology will be appropriately avoided and/or mitigated (Appendix J.3). We refer to our evaluation of ecological effects above.

#### Comments received

167. In comments to the Panel, Te Korowai reiterated concerns with respect to decommissioning and the need for an alternative site plan in particular and emphasised the misgivings in relation to the fast-track consenting process. In large part those comments reflected the content of the CIA and the recommendations therein, which we detailed above. The Panel have carefully considered the detailed recommendations in the Te Korowai and Ngāti Tū CIA documents and the issues helpfully raised by Ngāti Ruanui.
168. Ngāti Ruanui also provided comments highlighting their concerns regarding the impact of the wind turbines both from a visual perspective and a cultural one, with particular respect to the precedent setting nature of the proposed turbines and the risk that they could set a benchmark for more to come without iwi, hapū and the wider community to test that through the planning process.
169. Ngāti Ruanui emphasised the interconnection between the iwi, the w’enua and the awa which is acknowledged and accepted by the Crown in their Te Tiriti Settlement of 2003 and reminded the Panel that the fast-track process was not intended to undermine sound environmental decision making or the Crown’s obligations under Te Tiriti.
170. In addition to the condition with respect to development of an Alternative Site Plan referred to at paragraph [139] above, the applicants noted that a number of alternative sites for the turbines had been screened and considered with constraints around proximity to dwellings, distance from the Ballance Plant and visual impacts to nearby landowners, culturally sensitive sites and the Manaia town. The applicants were of the view that the project had considered multiple factors to enable project viability while managing and minimising the

impacts of the turbines and that the site selected is the only identified viable site for the proposed project.

#### Comments on draft conditions

171. We received comments on draft conditions from Te Korowai on 30 November 2021, expressing their fundamental concerns related to the fast-track process and the impact of the Project on their cultural landscape and relationship with the Maunga. They considered those impacts were not addressed by the Project or the draft conditions.
172. Many of the issues raised (including those related to wind turbine location and landscape) are already addressed in conditions which have been volunteered by the applicants and we acknowledge the groundwork that has been done by the iwi, hapū and the applicants to address those concerns.
173. The detailed feedback recommended amendment to conditions to ensure the provision of information to Te Korowai, Ngāti Tū and Ngāti Manuhiakai in relation to culverts and the lizard survey, and clarity regarding the opportunity for a representative from each of those hapū, to be present during earthworks. The Panel were comfortable with those suggestions and have amended conditions 36, 73 and 91 accordingly.
174. Some concern was expressed regarding the conditions related to Air Traffic Safety insofar as artificial lighting might impact on the visual clarity of the cultural landscape and the night sky with the request that aviation lighting used on the turbines should minimise glare and light trespass. We note that these matters are the subject of conditions of a Determination of Hazard in Navigable Airspace from the Civil Aviation Authority for the wind turbines, which the applicant is bound to comply with. Condition 94 requires the applicant to comply with those conditions and provide a copy of that Determination to STDC.
175. We recognise the ongoing concern regarding the potential for increased water abstraction from the Waingongoro River should the project be scaled up in the future. The current application does not seek a permit for water abstraction and any future abstraction would be the subject of a separate consenting process.

176. Our further comments on the more fundamental concerns raised are addressed in our findings on this cultural issues section below.

### Other matters considered

177. In addition to the CIAs, correspondence and comments received from iwi and hapū, the panel has considered:
- (a) Iwi/hapū management plans;
  - (b) Treaty settlements; and
  - (c) Te Tiriti o Waitangi.

### Iwi Planning Documents

178. The CIA by Te Korowai records that the Ngāruahine Environmental plan, Te Uru Taiao o Ngāruahine, is still in draft form and was scheduled to be lodged with local authorities in August 2021. The draft plan identifies the values, principles and resource management issues of significance for Ngāruahine in relation to the Kaitiaki Area. To our knowledge, the plan is yet to be finalised but we are satisfied that it has been appropriately taken into account and utilised by Te Korowai to develop their CIA, to which the applicants and the Panel have given significant consideration.
179. The Ngāti Ruanui Environmental Management Plan was published in December 2012 and describes the values Ngāti Ruanui hold fast to, including two key values of Whakapapa and Kaitiakitanga that are the basis of the plan. Maunga Taranaki is identified as a wāhi tapu which must be protected.
180. Windfarms are identified as a specific issue relating to land use with recognition that they may be developed in the future with the move towards more sustainable forms of energy generation and the Plan records the expectation that Ngāti Ruanui would seek adequate control and consent approval process to mitigate and control any negative impact of the windfarm on the landscape. Landscape protection is identified as being of particular significance in the coastal protection zone.

181. We have considered the content of the Ngāti Ruanui Environmental Plan and assessed the proposal against the wind farm policy and the Plan's concepts:  
We note that:
- (a) This development is not in the takiwā (as described by them) of Ngāti Ruanui;
  - (b) The Panel is considering this application as a discretionary activity;
  - (c) A Landscape and Visual Assessment (LVA) has been provided with the application clearly identifying key landscape features and the extent to which effects on those features may be addressed;
  - (d) The wind turbines have been designed and situated to minimise noise and negative visual impacts as outlined in the Noise Assessment and LVEA and where those effects are unable to be addressed the applicants have engaged with those affected parties to provide various forms of mitigation, many of which have resulted in agreements outside this process and those parties providing their support for the application. Draft consent conditions also provide for noise monitoring and reporting;
  - (e) The wind turbines are not located in the coastal area.
182. The applicants have acknowledged the cultural significance of Taranaki Maunga and the visual effects of the turbines and have sought to minimise as far as practicable the cultural and visual impacts and proposed a number of mitigation measures. These measures included relocating the turbines south of the Ballance Kapuni plant to PKW land, orientating the turbines in a north south configuration, and reducing the spacing between the turbines to reduce the visual impact on Maunga views from sensitive sites and the Manaia town.

### Treaty Settlements

183. The section 17 MfE Report confirmed that the Treaty settlement with Ngāruahine is the only settlement of direct relevance to the proposed Project area. Ngāruahine, the Trustees of Te Korowai o Ngāruahine Trust and the Crown signed a deed of settlement on 1 August 2014. An amendment deed was signed on 6 November 2014 and a second amendment deed was signed on 5 April 2016.

184. Legislation to enact the settlement is contained in the Ngāruahine Claims Settlement Act 2016. The purpose of that Act is to give effect to certain provisions of the deed of settlement and to record the Crown's acknowledgments and apology.
185. There are no current Treaty settlement negotiations directly relevant to the Project Site. However, the Crown is currently in collective negotiations with Ngā Iwi o Taranaki (comprising Ngāruahine along with Ngaa Rauru Kiiitahi, Ngāti Ruanui, Taranaki Iwi, Te Atiawa, Ngāti Mutunga, Ngāti Tama and Ngāti Maru) to provide an apology and cultural redress in relation to Mt Taranaki, the Pouākai and Kaitake ranges (collectively referred to as Ngā Maunga). This redress forms part of the settlements of historical Treaty claims with each of the iwi. The Taranaki Māori Trust Board is the representative body for Taranaki Iwi collectively.
186. The Project does not include an activity that will occur on land returned under a Treaty settlement or an activity that has not been agreed to in writing by the relevant landowner.
187. There are two cultural redress properties located approximately 3km north-east of the Wind Turbine Site. These are Te Ngutu o te Manu Site A, which has been vested in Te Korowai as an historic reserve, and Te Ngutu o te Manu Site B, currently a recreation reserve owned by STDC. It is understood that Te Korowai and STDC intend to negotiate a purchase of the site by Te Korowai. Te Ngutu o te Manu, or 'the beak of the bird' was a principal Ngāruahine settlement associated with the chief Tītokowaru, and the locality was a scene of clashes between Māori and colonial forces in Taranaki during the 1860s. Heritage Buildings / Objects H76 (Te Ngutu O Te Manu Memorial) and HS20 (Te Ngutu o Te Manu Pā / Battleground) are listed in the South Taranaki District.
188. We accept the Project does not impact on these two properties.
189. The section 17 MfE Report identifies that in the opening paragraphs of the cultural redress section of the Treaty settlement, Ngāruahine and the Crown acknowledged that Tupuna Koro o Taranaki (Mt Taranaki) is of great traditional, cultural, historical and spiritual importance to all iwi of Taranaki. The Ngāruahine settlement does not provide an apology or any cultural redress

from the Crown in relation to any of the historical claims relating to Tupuna Koro o Taranaki. It provides for Te Korowai and the Crown, as soon as practical, to work together with the mandated representatives of other iwi of Taranaki to develop an apology and cultural redress in relation to their respective historical Treaty claims relating to Tupuna Koro o Taranaki.

190. The Te Korowai CIA notes that settlement negotiations have been ongoing regarding historical claims for Taranaki Maunga, with Te Anga Pūtakerongo, the record of understanding (ROU), agreed between the Crown and Ngā Iwi o Taranaki in 2017. The ROU identifies that any settlement will provide for the relationship of Te Mana o Ngā Maunga and Te Mana o Te Kāhui in legislation.
191. The Maunga values contained in the ROU focus on:
  - (a) the status of Ngā Maunga as an indivisible whole and as a Tupuna;
  - (b) preserving and protecting the natural environment and features of Ngā Maunga; and
  - (c) the relationship of Ngā Iwi o Taranaki with Ngā Maunga;
192. The ROU recognises Ngā Maunga as a living being, which “encompasses all of the physical and metaphysical elements of Nga Maunga from the peaks through to all of the surrounding environs.”
193. The intention is for the collective redress deed and legislation to provide for the declaration of a legal personality for Ngā Maunga and the vesting of all Crown-owned land in Ngā Maunga, in that legal personality.
194. Statements of association by Ngāruahine of their particular cultural, spiritual, historical and traditional association with streams, tributaries and marginal strips are contained in the Deed of Settlement. The Kapuni Stream and its tributaries lie within the takiwā of Ngāti Manuhiakai, while the takiwā of Ngāti Tū includes the Waiokura Stream and its tributaries. Both streams are statutory acknowledgement areas as per the Ngāruahine Claims Settlement Act 2016. The purposes of the statutory acknowledgements are set out in section 31 of the Settlement Act, and include:
  - (a) relevant consent authorities, the Environment Court and Heritage New Zealand Pouhere Taonga must have regard to the acknowledgement in certain decision-making situations.

- (b) consent authorities must provide notices of resource consent applications affecting statutory areas to Te Korowai.
- (c) the trustees and any member of Ngāruahine can cite the statutory acknowledgement as evidence of the association of Ngāruahine with a statutory area before the relevant consent authorities, the Environment Court, Heritage New Zealand Pouhere Taonga or the Environmental Protection Authority (EPA) or a board of inquiry under Part 6AA of the RMA.

195. The statements of association indicate (among other things) that:

- (a) the wai that flows through these awa symbolises the link between the past and the present. Each awa has its own mauri and wairua which connect the hapū with the river and the spiritual world. They are significant taonga that provide both physical and spiritual sustenance.
- (b) through their cultural, spiritual, traditional and historic associations with the rivers and their environs, and associated land, flora and fauna, the hapū have a responsibility as kaitiaki in accordance with their kawa and tikanga to restore, protect and manage all those natural and historic resources and sites. This relationship is as important to present day whānau as it was to their tupuna. The continued recognition of the hapū, their identity, traditions and status as kaitiaki is entwined with the rivers in their rohe and associated lands and resources.

196. It is recognised that the Kapuni Stream and its tributaries are of significance as Statutory Acknowledgement Areas and ESC measures will be implemented to protect stream tributaries appropriately avoiding and mitigating adverse effects upon them.

197. The settlement made provision for Ngāruahine to prepare a kaitiaki plan for the kaitiaki area identifying for that area:

- (a) the Ngāruahine values and principles.
- (b) resource management issues of significance to Ngāruahine.

198. As noted previously, the application records that Te Korowai are currently in the process of preparing the Kaitiaki Plan, but to the best of the applicants' knowledge it has not yet been lodged with South Taranaki District Council or

Taranaki Regional Council or any other government department. Te Korowai CIA notes the draft Kaitiaki Plan was used as a reference when developing the CIA.

### Te Tiriti o Waitangi / The Treaty of Waitangi

199. Section 6 of the Act requires that all persons performing functions and exercising powers under it must, in achieving the purpose of the Act, act in a manner that is consistent with the principles of the Treaty of Waitangi and Treaty settlements.
200. The Te Korowai CIA identifies a number of principles which have been defined through the findings of the Waitangi Tribunal and decisions of the Courts including:
- (a) Kāwanatanga – the Crown’s right to govern and delegate resource management decision-making powers to local authorities.
  - (b) Rangatiratanga – the right of iwi to control, manage and use tribal resources according to their cultural preferences.
  - (c) Partnership – a relationship between iwi and central and local government based on the concepts of good faith, mutual respect, reasonable co-operation, and compromise.
  - (d) Resource development – the facilitation of iwi resource development.
  - (e) Spiritual principle – recognition of the spiritual relationship that tangata whenua have with the environment.
201. Case law indicates that these principles may also include active protection, good faith consultation and communication.
202. As discussed above, the processes of engagement undertaken with representatives of tangata whenua have facilitated opportunities for involvement in the development of the CIAs, relationship agreements, iwi resource development and investment, long term relationships, appropriate conditions of consent and enabled the exercise of kaitiakitanga.

### Panel findings and conditions imposed

203. We are satisfied the applicants have consulted all iwi and hapū with an interest in the Project, with a desire to determine how kaitiakitanga can be integrated

into the project, to mitigate cultural effects of the project and to find partnership opportunities that will benefit tangata whenua.

204. The applicants have resourced and supported the development of CIAs by iwi and hapū and genuinely sought to address adverse effects of concern where possible. It is clear from both CIAs that the mitigation measures suggested by the applicants during consultation are largely supported by Te Korowai and in turn, Te Korowai's recommendations and requested consent conditions have been adopted by the applicants.
205. The applicants have sought to minimise the impact on the cultural landscape of Ngāruahine and its hapū as far as practicable. These measures include relocating the turbines south of the Ballance Kapuni plant to PKW land, orientating the turbines in a north south configuration, and reducing the spacing between the turbines and considering the impact from the Marae located near the PKW farm.
206. Kaitiakitanga has been implemented via practices such as site walkovers and karakia with due diligence to identify sites of potential significance to tangata whenua, noting also that there are no known archaeological sites on the application site. The proposal avoids sites and areas of cultural and spiritual significance with hapū observation of earthworks and ongoing environmental monitoring and a discovery protocol in place if previously unknown features are discovered.
207. The Panel recognises that the proposed turbines will have an impact on the cultural landscape and the special relationship Ngāruahine and their hapū have with Taranaki Maunga for the duration that the turbines are in place. We acknowledge that while the Project Site might not be in their rohe, Ngāti Ruanui expressed a similar view given their connection with the maunga and its influence on the wider landscape.
208. Whilst we acknowledge those concerns we are cognisant of the mitigation measures undertaken by the applicants and the conditions of consent which to a large extent have satisfied Te Korowai, Ngāti Tū and Ngāti Manuhiakai, to ensure that this development is constrained to its present intensity.

209. With the number of wind turbines to be erected at the PKW site limited to four, the removal of the turbines after the expiry of their useful life or after a maximum of 35 years of operation subject to a Decommissioning Plan prepared in collaboration with Te Korowai, Ngāti Tū and Ngāti Manuhiakai, including an Alternative Site Plan if necessary to identify an alternative site/s coastward of SH45, we are satisfied the concerns of the iwi and hapū regarding the protection of their cultural landscape have been addressed, while also recognising the importance of the Government’s commitment to renewable energy, including as contained in the NPS-REG.
210. While we acknowledge the concerns raised by iwi in relation to the fast-track consenting process, those are not matters the Panel has any jurisdiction over.
211. We acknowledge the applicants’ intention to continue to work closely with Te Korowai and the mana whenua hapū Ngāti Manuhiakai and Ngāti Tū, to ensure the cultural impacts of the Project are understood and respected, and to build a relationship that results in positive outcomes for the hapū, Te Korowai, the broader community, and the environment. We also acknowledge the sincerity in the applicants’ response that they have developed a relationship agreement with Te Korowai and signed the agreement though the matter currently sits before Te Korowai’s Board to complete. Whether or not their Board or delegated authority agrees and executes that relationship agreement has no bearing on the decision we have reached.

### Effects on Historic Heritage

212. An archaeological assessment of effects (AAE) was undertaken to assess any potential effects on any unrecorded archaeological deposits on the Project Site (Appendix F).
213. The AAE, prepared by the project archaeologist Ivan Bruce, confirmed that there is no historic record of traditional Māori occupation at this specific location and the property contains no recorded archaeological sites.
214. A site walkover of the Wind Turbine Site and cable route with mana whenua hapū, Ngāti Tū and Ngāti Manuhiakai, and Mr Bruce occurred to determine the potential for the application site to contain archaeology and/or sites of

significance to Māori. Mr Bruce also considered the proposed works at the Ballance Plant in his assessment.

215. The likelihood of recovering in-situ archaeological evidence on the property was assessed as low and Mr Bruce recommended that all works are undertaken under an archaeological discovery protocol. His report also proposed subsurface testing for the purposes of providing some assurance to all parties that unrecorded archaeological sites do not exist in the affected area.

#### Comments received

216. Heritage New Zealand Pouhere Taonga (HNZPT) requested amendments to the proposed / draft conditions to provide greater clarity around the Archaeological Discovery Protocol (ADP) and cultural monitoring at the site. It considered it was more appropriate for the proposed condition to be in the subsequent 'Cultural' section of the conditions, rather than 'Archaeology' as iwi/cultural monitors are on site during earthworks for wider reasons than just archaeology and iwi/cultural monitors cannot replace or do the work of an archaeologist unless specifically trained as an archaeologist. HNZPT noted that the protocols for archaeological monitoring are appropriately detailed in the ADP and therefore, this clause is not required under 'Archaeology' conditions, but it is appropriate to include with the 'Cultural' conditions.
217. HNZPT also observed that the proposed archaeology condition directed the consent holder to the ADP in Ivan Bruce's report: 'Green Hydrogen Project, Archaeological Assessment of Effects dated April 2021'. It noted that including the ADP in the conditions, under that heading, will provide greater ease of use for the contractor/s and that it is appropriate to include all conditions within a single document rather than refer the contractor/s to a separate document/s. HNZPT also recommended the addition of an advice note in relation to the provisions of the Heritage New Zealand Pouhere Taonga Act 2014, to make it clear to the contractor/s and others on site that contravening the ADP protocols puts them at risk of prosecution under the aforementioned Act.
218. Comments by the Minister for Arts, Culture and Heritage supported HNZPT's view that an ADP be added as a condition of consent and the recommendation to add an advice note.

### Panel findings and conditions imposed

219. With the applicants also supportive of the amendments proposed by HNZPT, the Panel adopted those recommendations and made the requisite amendments to the Draft Conditions.

## Part J: Assessment against relevant policy statements in planning instruments

220. The project appears to be a comfortable fit with relevant objectives and policies of the NPS – REG which recognises the national significance of renewable electricity generation and the acknowledgement of the practical implications of achieving New Zealand’s target for electricity generation from renewable resources. Policy C2 directs decision-makers, when considering any residual environmental effects of renewal electricity generation activities that cannot be avoided, remedied or mitigated, to have regard to offsetting measures.
221. The NPS-FM entrenches the importance of freshwater management and recognises that protecting the health of freshwater protects the health and wellbeing of the wider environment. The policies require a level of management that ensures the health and wellbeing of the water bodies and freshwater ecosystems in the receiving environment, and that those are prioritised through appropriate erosion and sediment control measures. The project appears to be consistent with those policies in that any actual or potential effects on freshwater are largely limited to the construction period and are to be managed in accordance with best practice control and sediment control measures addressed via volunteered conditions, including conditions directed to maintaining fish passage and stream function, with riparian planting mitigation.
222. The NZCPS is generally irrelevant to this project other than to reduction in sediment loadings in runoff for stormwater systems to minimise any sediment discharge to water bodies which flow to the sea. That issue appears to be addressed through the erosion and sediment control plan provided for in conditions.

223. The RPS contains a number of policies that are of relevance. The project is consistent with Chapter 4 (Use and Development of Resources) in that it will use the natural and physical resources of the area to create social and economic benefits for people and communities. Chapter 5 (Land and Soil) is relevant in respect of the management of hazardous substances and contaminated sites, as is Chapter 11 (natural hazards). Volunteered conditions address both of these policies and, in so far as the policy urges the promotion of alternatives to hazardous substances, for this particular project there are no alternatives. Chapter 6 (Freshwater) policies are addressed in the same way and by the same measures referable to the NPS-FW as noted above. The project conforms with Chapter 7 (Air and Climate Change) policies in that it progresses the adaptation of the agriculture and transport sectors via reduction of carbon emissions, and the same observations can be made of Chapter 14 (Energy) and Chapter 15 (The Built Environment) in that regard. Similarly, the project conforms with Chapter 9 (Indigenous Bio-Diversity) in so far as the ecological values of the application site (already highly modified with dairy and industrial uses and therefore with low levels of indigenous biodiversity) are protected through maintenance of water quality and riparian areas of the streams.
224. The policy areas where possible inconsistency arise are Chapter 10 (Natural Features and Landscapes, Historical Heritage and Amenity Value) and Chapter 16 (Statement of Resource Management Issues of Significance to Iwi Authorities). Several policies are relevant amongst them, in particular NFL Policy 1 noting the special scenic, recreational, scientific and Māori cultural and spiritual values associated with Taranaki Maunga, and NFL Policy 3 which refers to the protection of outstanding natural features and landscape. Similarly, REL Objective 1 and Policies 3, 5 and 7 and CSV Objective 1 Policy 1 must be seen as envisaging the importance of the Maunga to iwi given its cultural and spiritual significance.
225. The Panel considers that it is an unavoidable conclusion that the project is not fully consistent with all the objectives and policies of these two chapters of the RPS. However, for the reasons set out in effects on the cultural and heritage values the Panel does not consider such inconsistency as problematic.

226. The RFWP details a number of objectives and policies relating to the protection and enhancement of the natural, ecological and amenity values of freshwater. On the basis of the assessment, steps and measures already referred to, the Panel does not consider the project to be inconsistent with any of these policies.
227. The STDP contains a number of objectives and policies that are of broad relevance. The project is consistent with the Rural Zone Objectives and Policies which highlight the need to provide for productive land use and that the rural environment is maintained and enhanced with adverse effects managed. Notwithstanding the presence of the turbines, the rural character and the farming operations remain unaffected. The project is consistent with the Rural Industrial Zone Objectives and Policies in that the effects of the proposed facilities at the Ballance Plant will be negligible and indistinguishable from the existing activities and their effects.
228. The project is consistent with the hazardous substances and contaminated land objectives and policies in that a thorough risk assessment process has been carried out and the location of the hydrogen facilities at the Ballance Plant avoids all of the features identified in Policy 2.9.11. Similarly, the project is consistent with the energy objectives and policies with their emphasis on the development, operation, maintenance and upgrading of renewable energy activities. There is also conformity with network utilities since the project makes use of existing utilities and upgrades their safe and efficient utilisation.
229. Natural hazards have been assessed and it is not considered the project will create, worsen, displace or increase the severity of natural hazards.
230. Objectives and policies concerning waterbodies are met. Similarly indigenous biodiversity objectives and policies are met – to the extent that they are present.
231. The proposal is consistent with integrated land use and infrastructure planning objectives and policies in that it will not rely on Council infrastructure other than roading and parts of the road reserve for the power cable. In that regard a road maintenance agreement is proposed together with a deed of easement, and those matters are addressed in the conditions.

232. With the exception of the construction period, the project does not engage the transportation objectives and policies. With regard to the construction period, a Management Plan for managing construction traffic is the subject of a volunteered condition.
233. Once again, the only objectives and policies that would appear on their face to contain policies that might be inconsistent with the project are those relating to tangata whenua. To the extent that those policies require engagement and consultation, they appear to have been met. But again the real issue devolves to the substantive recognition and provision for the relationship of tangata whenua and their culture and traditions (including mauri) with their sites and areas of cultural and spiritual significance – namely the Maunga. The Panel accepts that a potential inconsistency arises in that regard and makes the same observation made in respect in of the RPS polices on those topics.
234. With the exception of the cultural significance of the Maunga to iwi, the project is consistent with the objectives and policies of historic heritage in that there are no known features of significance, but that if any are discovered in the course of the project, appropriate steps can be taken to investigate and conserve as per conditions that have been to some extent reshaped by the Panel.

## Part K: Conditions

235. Draft conditions proposed by the applicants have been further developed by the Panel, including by reference to comments received from the persons and entities noted at paragraph 40 above. The final conditions cover the following subjects:
- (a) Wind turbine characteristics;
  - (b) Plans;
  - (c) Earthworks and construction:
  - (d) Contaminated soil;
  - (e) Culverts
  - (f) Risk management
  - (g) Noise (both construction and maintenance noise and operational / wind turbine noise);

- (h) Traffic (including management of construction traffic, vehicle access and physical road improvements);
- (i) Ecological management and mitigation;
- (j) Landscape mitigation;
- (k) Archaeology;
- (l) Cultural matters;
- (m) Communication services;
- (n) Air traffic safety;
- (o) Shadow flicker;
- (p) Hazardous substances and contaminants;
- (q) Community consultation and communication;
- (r) Complaints;
- (s) Decommissioning and site rehabilitation; and
- (t) Review.

## Condition relating to urea transition

236. The Panel recognises that the current urea production is a lawful activity utilising existing resource consents that do not expire until 2035. As such, if nothing else happens, that would be part of the permitted baseline and, as pointed out earlier, it is far from clear as a matter of law that consideration of the potentially adverse effects of an end use product in these particular circumstances is open to the Panel.
237. However, what is more relevant here is that this project is said to be justified for fast-track consenting, and that is squarely premised on the transition to utilisation of hydrogen in the heavy transport industry (and see FTCA Schedule 6 clause 31(1)(b)). Indeed at 4.4 of the Assessment of Environmental Effects it is explicitly said:
- “Green hydrogen production is planned to transition from 100% urea to the transport market over a 5 year period as the fuel cell electric vehicles market increases, with the intention to increase electrolysis capacity once green urea production falls below a minimum threshold.”
238. Absent that transition (i.e. if the proposal were simply to continue producing urea) it is difficult to see how the fast-track consenting could be justified. The proposal may or may not have succeeded as an ordinary application under the Resource Management Act. Therefore, given the reliance on transition to justify fast-tracking, it is appropriate to ensure that any consent matches that justification, and is reflected in the appropriate conditions.
239. The applicants raised a concern that part of the condition proposed by the Panel introduced an element of uncertainty to the project by enabling the South Taranaki District Council to impose fresh conditions if transition was rendered difficult in the prevailing market conditions. The Panel has reviewed this, but does not consider the condition required further amendment. As currently framed, it will be open to the consent holder to refer the market conditions in exchanges with the Council in the review process as a factor it regards as of significance to any consideration of further conditions.

## Part L: Consistency with the two statutory purposes

### Drawing the threads together

240. Drawing together the various threads required to determine this application, first consideration needs to be given to the mandatory requirements referred to above in Section F.
241. Aside from the displacement of section 8 of the Resource Management Act 1991 by section 6 of the FTCA, the Part 2 principles of the former assume prime importance, since all other considerations set out in Clause 31 of Schedule 6 of the FTCA are subject to that. However, for the reasons already discussed the application appears to be entirely consistent with those provisions.
242. Turning to the specific Clause 31(1) considerations, the evaluation of actual and potential effects on the environment set out above justifies a conclusion by the Panel that, with appropriate conditions, there are no disabling effects in terms of the legislative requirements.
243. Clause 31(1)(b) introduces the 'offset' consideration. Again, with the appropriate conditions, the Panel concludes that granting consent is justified under this criterion as well.
244. With regard to the Clause 29(2) documents (i.e. the "Planning Instruments"), it needs to be remembered as per the earlier analysis that the required consents at worst are classified as discretionary activities. A number are controlled activities or restricted discretionary activities where the ambit of exercising discretion to decline is limited. As per the Panel's above consideration of relevant policy matters, the granting of consent subject to conditions is not contrary to and mostly consistent with those policies.
245. There is no other matter in terms of Clause 31(1)(d) that the Panel considers relevant and reasonably necessary to determine the consent application.
246. Issues affecting iwi have been specifically addressed earlier. In terms of Clause 31(2) the panel has reached the view that granting consent with the appropriate conditions is consistent with Te Tiriti and with relevant Te Tiriti settlements.

247. It should also be recorded that in reaching these conclusions the Panel has disregarded the adverse effects of any activity permitted by planning instruments and any effect on persons who have given written approvals to the application.

## Part M: Final decision

248. Accordingly, pursuant to the application of the relevant statutory criteria, the Panel is satisfied that it is appropriate to grant consent on the application of the various statutory criteria for a term of 35 years from the date of grant, but on the conditions attached.

249. As required by Clauses 38 and 45 of Schedule 6 of the FTCA, persons entitled to appeal must commence any appeals within the 15 working day period from the day that they are notified of this decision.



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**Richard Fowler QC (Chair)**



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**Sheena Tepania (Member)**



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**Robert Northcott (Member)**



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**Justine Inns (Member)**

## Appendix 1 Parties invited to comment

Parties invited to comment on the Kapuni Green Hydrogen application.

	Ainsley and Philip Luscombe
	Ballance Agri-Nutrients (Kapuni) Limited
	Blair Luscombe
	Business New Zealand Incorporated
	Daniel Meyer
	Deborah and Shane French
*	Department of Conservation
	Employers' and Manufacturers' Association (Northern) Incorporated
*	Environmental Defence Society Incorporated
*	Erna and Remigi Zimmerman and Hendrik Mansvelt
*	Fonterra Limited
	Gavin and Sheryl Matoe
*	Generation Zero Incorporated
	Glyn Fleming
*	Greenpeace of New Zealand Incorporated
	Haylee Goodwin
*	Heritage New Zealand Pouhere Taonga
	Infrastructure New Zealand Incorporated
	Jono Smyth and Victoria Webster
	Kānihi Umutahi (hapū of Ngāruahine)
	Lance and Mel Graves (PKW farms)
	Lynette and Roger Luscombe
	Milinda Sanjeewa
*	Minister for Arts, Culture and Heritage
	Minister for Climate Change
	Minister for Infrastructure
	Minister for Land Information
	Minister for Treaty of Waitangi Negotiations
	Minister of Conservation
	Minister of Defence
	Minister of Education
	Minister of Housing
	Minister of Local Government
	Minister of Māori Crown Relations: Te Arawhiti
	Minister of Transport
	Nathan and Courtney Joyce
	New Zealand Fish and Game Council
*	New Zealand Infrastructure Commission / Te Waihanga
	Ngāti Haua (hapū of Ngāruahine)
	Ngāti Manuhiakai (hapū of Ngāruahine)
*	Ngāti Ruanui
	Ngāti Tamaahuroa Titahi (hapū of Ngāruahine)

Ngāti Tū (hapū of Ngāruahine)
Nick Hayes
Nicolaas van der Westhuizen
Nova Energy Limited
Ōkahu-Inuāwai (hapū of Ngāruahine)
PowerCo Limited
Property Council of New Zealand
Rangi and Heather Edwards
Robyn Smith and Valmai Sutton
* Royal Forest and Bird Protection Society of New Zealand
Sean Richardson
Shayne and Claire Graves
* South Taranaki District Council
Suzanne and Terrence Lawn
Taranaki Māori Trust Board
* Taranaki Regional Council
* Te Korowai o Ngāruahine Trust
Te Tumu Paeroa (for Māori Trustee)
* The Proprietors of Parininihi Ki Waitōtara Block
* Todd Petroleum Mining Company Limited
Transpower New Zealand Limited

*\* Denotes parties who provided a comment and were invited to comment on draft conditions*

## Appendix 2 Conditions

### GENERAL

- (1) The construction, operation and maintenance of the Kapuni Green Hydrogen Project shall be undertaken in general accordance with the information provided in “Kapuni Green Hydrogen Project Resource Consent Application and Assessment of Environmental Effects” dated August 2021 and any other documentation relevant to the resource consent applications. In the event of any conflict or discrepancy between these documents and the conditions of this resource consent, the conditions shall be determinative.
- (2) Pursuant to Clause 37 (7) and (8) of Schedule 6 of the COVID-19 Recovery (Fast-track Consenting) Act 2020, this resource consent shall lapse if not given effect to within 2 years of the commencement of this resource consent.
- (3) Pursuant to section 134(1) of the Resource Management Act 1991, this resource consent may only be exercised by the consent holder, its successor, or any person acting under the prior written approval of the consent holder.
- (4) The consent holder shall ensure that all contractors engaged to undertake activities authorised by this resource consent are made aware of the conditions and management plans that apply to this resource consent that are relevant to their work area and the measures required for compliance with the conditions.
- (5) The consent holder shall notify the Group Manager – Environmental Services, South Taranaki District Council and the Chief Executive, Taranaki Regional Council as to the commencement date of earthworks authorised as part of this resource consent, at least 20 working days before such works commence.
- (6) The consent holder shall at all times construct, operate and maintain the Kapuni Green Hydrogen Project in general accordance with all management plans submitted to, and certified by, the Group Manager – Environmental Services, South Taranaki District Council or the Chief Executive, Taranaki Regional Council as part of the conditions of this resource consent.
- (7) A copy of this consent and all certified management plans (including any certified amendments) shall be readily available and shall be produced without unreasonable delay upon request from a servant or agent of the South Taranaki District Council or the Taranaki Regional Council. The management plans include:
  - (a) An Erosion and Sediment Control Plan.

- (b) A Revegetation and Landscape Management Plan.
- (c) Emergency Response Plan.
- (d) Construction Noise Management Plan.
- (e) Construction Traffic Management Plan.
- (f) Transport Plan.
- (g) Contaminated Site Management Plan.
- (h) Landscape Plan.
- (i) Lizard Management Plan.
- (j) Fire Management Plan.
- (k) Contaminant Spill Contingency Management Plan.
- (l) Decommissioning Plan.

## WIND TURBINE CHARACTERISTICS

- (8) The maximum number of wind turbines that may be installed on the Wind Turbine Site (Sections 66, 67 and 68 Block III Waimate SD) shall not exceed 4.
- (9) The maximum wind turbine height (to the vertically extended blade tip) shall be no greater than 206 metres above the finished level of the foundation.
- (10) The minimum height of the vertically extended blade tip of any wind turbine shall not be less than 43 metres above finished ground level.
- (11) All wind turbines utilised within the Kapuni Green Hydrogen Project (including any replacement wind turbines that are installed during the term of the consent) shall be of a similar size and type and have three blades.
- (12) Lattice style pylon towers shall not be used for the wind turbine structures.
- (13) The turbine towers, nacelle and rotors shall be painted off-white / light grey (RAL 7035).
- (14) The wind turbines shall be located anywhere within their individual Foundation Envelope Area as outlined in BTW Company drawing 191149-02 Sheet 1 Rev B.
- (15) Within 3 months of completion of construction of the turbines, the Consent Holder shall submit a certificate from a Licensed Cadastral Surveyor to the Group Manager – Environmental Services, South Taranaki District Council confirming the final location and height of the turbines.

## PLANS

- (16) At least 40 working days prior to the commencement of construction (building) works authorised as part of this resource consent, the consent holder shall provide

the Group Manager – Environmental Services, South Taranaki District Council with a set of final design drawings for the Kapuni Green Hydrogen Project. The final design drawings shall, as a minimum, include:

- (a) The location and spacing of the wind turbines;
  - (b) The specifications of the wind turbines, turbine platforms, foundations and hard stand areas;
  - (c) The location and specifications of the power cable and all supporting infrastructure;
  - (d) The layout, heights and specifications of all buildings and structures associated with the hydrogen facilities at the Ballance Plant; and
  - (e) The location of all fill disposal sites.
- (17) Within 40 working days of construction of the Kapuni Green Hydrogen Project being completed (or after each stage, if the project is constructed in stages), the consent holder shall provide the Group Manager – Environmental Services, South Taranaki District Council with a set of as-built plans for the following:
- (a) All wind turbines, turbine platforms and foundation areas;
  - (b) The internal access road network on the Wind Turbine Site;
  - (c) All fill disposal sites;
  - (d) All above ground, permanent supporting infrastructure; and
  - (e) All fixed, above ground structures that form part of the hydrogen facilities at the Ballance Plant.

## EARTHWORKS AND CONSTRUCTION

- (18) At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit an Erosion and Sediment Control Plan (ESCP) to the Chief Executive, Taranaki Regional Council which shall be prepared generally in accordance with the Waikato Erosion and Sediment Control Guidelines for Soil Disturbing Activities 2009. The ESCP shall be prepared by an experienced and appropriately qualified person and shall provide for the following objectives:
- (a) Minimise the volume of earthworks required for the construction of the Kapuni Green Hydrogen Project to the extent practicable;
  - (b) Maximise the effectiveness of erosion and sediment control measures associated with earthworks by minimising sediment generation and

- sediment laden runoff;
  - (c) Minimise the overall area of disturbance so as to reduce the potential impact on any vegetation, streams, wetlands and potential archaeological features within the project site boundaries;
  - (d) Ensure control and / or mitigation of the adverse effects of any dust emissions;
  - (e) Minimise the effects, and introduction, of weeds;
  - (f) Ensure that fill disposal sites are contoured to reflect the surrounding landforms; and
  - (g) Rehabilitate and re-vegetate worked areas that are not covered in hardstanding so that they are returned to pasture or their existing vegetative cover.
- (19) In order to achieve the objectives established in Condition 18 above, the ESCP shall, as a minimum, address the following matters:
- (a) An explanation of how the ESCP shall be implemented and the associated roles, responsibilities and contact details for the principal persons responsible for management during the construction period;
  - (b) A clear description of the planned staging and timing of works and the description of earthworks in each stage, including detailed site plans;
  - (c) Detailed measures for groundwater control and subsoil drainage;
  - (d) Confirmation of the volumes of cut, fill and unsuitable material;
  - (e) The location and design of fill disposal sites;
  - (f) The engineering controls, supervision and certification that will be applied to each stage of development;
  - (g) The specific erosion and sediment control measures that will be applied to each stage of earthworks;
  - (h) The engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;
  - (i) The specific dust control measures that will be applied to each stage of earthworks and fill disposal sites;
  - (j) The measures to ensure that worked areas are rehabilitated and re-vegetated as soon as practicable following earthworks;
  - (k) The identification of the vegetation or pasture types and re-vegetation

- material and techniques to be used for rehabilitation purposes;
- (l) The programme and timing of re-vegetation and maintenance activities so that stabilised surface coverage of 80% is achieved;
  - (m) The retention of surface cover in order to reduce the effects from sediment-laden stormwater runoff;
  - (n) The identification of weed management activities to be undertaken; and
  - (o) Details on the frequency of inspections and monitoring of all stormwater, dust, erosion and sediment control measures throughout each stage of construction works, including details of the experienced and appropriately qualified person responsible for inspections and monitoring.
- (20) The ESCP shall be certified in writing by the Taranaki Regional Council acting in a technical certification capacity prior to any earthworks activities authorised by this resource consent commencing and the Consent Holder shall undertake all earthworks authorised by this consent in accordance with the certified ESCP.
- (21) Any changes proposed to the ESCP shall be confirmed in writing by the Consent Holder and certified in writing by the Chief Executive, Taranaki Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.
- (22) No less than 2 and no more than 20 working days before commencing earthworks the consent holder shall notify the Chief Executive, Taranaki Regional Council ('the Chief Executive'). Notification shall include the consent number, a brief description of the work, and the intended commencement and completion date. Unless the Chief Executive advises that an alternative electronic method is required, this notice shall be served by completing and submitting the 'Notification of work' form on the Taranaki Regional Council's website:  
<http://bit.ly/TRCWorkNotificationForm>.
- (23) Before commencing any earthworks, the consent holder shall ensure that they (or their representative) meet on site with a Taranaki Regional Council officer who is directly responsible for monitoring compliance with the conditions of this consent. The purpose of this meeting shall be for the consent holder to detail the measures proposed to ensure compliance with the conditions of this consent in relation to the stormwater discharge during earthworks.
- (24) All earthwork areas shall be stabilised vegetatively or otherwise as soon as is practicable and no longer than 6 months after completion of soil disturbance

activities.

- (25) Any discharge from the sites that reaches surface water shall have a suspended solids concentration no greater than 100 g/m<sup>3</sup>.
- (26) The consent holder shall at all times adopt the best practicable option, as defined in section 2 of the Resource Management Act 1991, to prevent or minimise any actual or likely adverse effect on the environment associated with discharge of contaminants from the sites during earthworks.

## CONTAMINATED SOIL

- (27) All earthworks at the Ballance Plant associated with the hydrogen facilities shall be undertaken in accordance with the Contaminated Site Management Plan (CSMP) provided in “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021.
- (28) A copy of the CSMP shall be kept on site at all times during construction and the consent holder shall ensure the CSMP is distributed to the Project Manager and all earthworks contractors working on the hydrogen facilities at the Ballance Plant.
- (29) On completion of earthworks for the hydrogen facilities at the Ballance Plant the consent holder shall provide a Works Completion Letter to the Group Manager – Environmental Services, South Taranaki District Council confirming all earthworks have been undertaken in accordance with the CSMP. The letter shall be accompanied by soil disposal evidence and shall detail any complaints, health and safety or environmental incidents and unexpected discoveries that occurred during site earthworks with regards to soil contamination and detail how these matters were managed.

## CULVERTS

- (30) The culvert shall be constructed in accordance with drawing number 191149-05, dated 07/07/2021 and provided with the “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021. In the case of any contradiction between the drawing(s) and the conditions of this consent, the conditions of this consent shall prevail.
- (31) The culvert pipe shall have a diameter no less than 1650 mm.
- (32) The fill over the top of the culvert pipe shall be comprised of suitable soils free of wood, humus and other organic matter. The embankment shall be well compacted in uniform layers not exceeding 300 mm loose depth to achieve a compaction of at

least 95% of maximum dry density.

- (33) The fill over the top of the culvert pipe shall be no deeper than 1300 mm.
- (34) Any work carried out in the river bed shall be separated from running water, by a temporary coffer-dam and/or diversion using sand bags or some other form of contained of fill.
- (35) No less than 2 and no more than 20 working days before commencing work the consent holder shall notify the Chief Executive, Taranaki Regional Council ('the Chief Executive'). Notification shall include the consent number, a brief description of the work, and the intended commencement date. Unless the Chief Executive advises that an alternative method is required this notice shall be served by completing and submitting the 'Notification of work' form on the Council's website (<http://bit.ly/TRCWorkNotificationForm>).
- (36) Within 20 working days after completion of the installation of the culvert on the Wind Turbine Site, the consent holder shall collect and provide the following information, together with the time and date of its collection, to the Chief Executive of the Taranaki Regional Council (and, with respect to the information listed in paragraphs (e), (f) and (g), to Te Korowai o Ngāruahine Trust, Ngāti Tū and Ngāti Manuhiakai):
- (a) the type of the structure;
  - (b) the geographical co-ordinates of the structure;
  - (c) the flow of the river or connected area (whether none, low, normal, or high);
  - (d) at the structures location:
    - i. the width of the river or connected area at the water's surface; and
    - ii. the width of the bed of the river or connected area;
  - (e) whether there are any improvements to the structure to mitigate any effects the structure may have on the passage of fish;
  - (f) whether the structure protects particular species, or prevents access by particular species to protect other species;
  - (g) the likelihood that the structure will impede the passage of fish;
  - (h) visual evidence (for example, photographs) that shows both ends of the structure, viewed upstream and downstream;
  - (i) the culvert's asset identification number, if known;
  - (j) whether the culvert's ownership is;

- i. held by the Crown (for example, the Department of Conservation), a regional council, a territorial authority, the New Zealand Transport Agency, or KiwiRail Holdings Limited; or
    - ii. held publicly by another person or organisation; or
    - iii. held privately; or
    - iv. unknown;
  - (k) the number of barrels that make up the culvert;
  - (l) the culvert's shape;
  - (m) the culvert's length;
  - (n) the culvert's diameter or its width and height;
  - (o) the height of the drop (if any) from the culvert's outlet;
  - (p) the length of the undercut or erosion (if any) from the culvert's outlet;
  - (q) the material from which the culvert is made;
  - (r) the mean depth of the water through the culvert;
  - (s) the mean water velocity in the culvert;
  - (t) whether there are low-velocity zones downstream of the culvert;
  - (u) the type of bed substrate that is in most of the culvert;
  - (v) whether there are any remediation features (for example, baffles or spat rope) in the culvert;
  - (w) whether the culvert has wetted margins;
  - (x) the slope of the culvert;
  - (y) the alignment of the culvert; and
  - (z) the numbers of each other type of structure to which this subpart applies, or of wingwalls or screens, on the culvert.
- (37) Between 15 May and 31 October no work shall be undertaken on any part of the stream bed that is covered by water.
- (38) The consent holder shall take all practicable steps to minimise stream bed disturbance, sedimentation and increased turbidity during installation of the culvert, including by:
- (a) completing all works in the minimum time practicable;
  - (b) avoiding placement of excavated material in the flowing channel;
  - (c) keeping machinery out of the actively flowing channel, as far as practicable;
- and

- (d) reinstating any disturbed areas as far as practicable.
- (39) A layer of rock riprap 1.150 m thick shall be installed in the stream bed. The riprap shall extend 4 metres downstream of the culvert outlet and 4 metres upstream of the culvert inlet and up the banks on both sides of the stream. The rock shall have the following grading:
- (a) 100% less than 600 mm diameter;
  - (b) 50% greater than 450 mm diameter;
  - (c) 90% greater than 250 mm diameter.
- (40) The culvert shall not restrict fish passage.
- (41) The invert of the culvert shall be set below the existing stream bed by 330 mm so that it fills with bed material and simulates the natural bed.
- (42) The gradient of the culvert shall be no steeper than the natural gradient of the stream bed at the site.
- (43) On completion of works, the banks of the channel upstream and downstream of the culvert shall be no steeper than the existing natural banks. Where the bank consists of fill, the fill must be well compacted with batter slopes no steeper than 2 horizontal to 1 vertical.
- (44) The culvert shall remain the responsibility of the consent holder and be maintained so that:
- (a) it does not become blocked, and at all times allows the free flow of water through it; and
  - (b) the consent holder repairs any erosion, scour or instability of the stream bed or banks that the culvert causes.
- (45) The consent holder must ensure that a plan is implemented to monitor and maintain the culvert so that fish passage is maintained and does not reduce over time. Unless the Chief Executive, Taranaki Regional Council agrees to another plan that ensures appropriate monitoring and maintenance, the consent holder shall prepare a plan for that monitoring and maintenance that includes:
- (a) how the monitoring and maintenance will be done;
    - i. the steps taken to avoid any adverse effects on the passage of fish;
    - ii. the steps to be taken to ensure that the structure's provision for the passage of fish does not reduce over its lifetime;
    - iii. how often, as specified by the Taranaki Regional Council, the

information must be provided under paragraph (b) (for the purpose of reassessing the structure's effect on the passage of fish); and

- iv. a process for providing that information.

- (b) require an updated version of the information relating to the structure that was required for the original resource consent to be provided to the Taranaki Regional Council at the following times:
  - i. at the intervals required by the plan; and
  - ii. each time a significant natural hazard affects the structure.

## RISK MANAGEMENT

- (46) Prior to the operation of the hydrogen facilities, the consent holder shall provide the following documentation which demonstrates that the facilities comply with the Health and Safety at Work (Hazardous Substances) Regulations 2017 (HSR), the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 (PECPR) and the Electricity (Safety) Regulations 2010 (ESR):
  - (a) A Location Compliance Certificate under the HSR;
  - (b) A Certificate of Inspection under the PECPR; and
  - (c) A Certificate of Compliance and a Record of Inspection under the ESR.A copy of the above documentation must be submitted to the Group Manager – Environmental Services, South Taranaki District Council within 20 working days of completion of the works.
- (47) The consent holder must report to the Group Manager – Environmental Services, South Taranaki District Council and the Chief Executive, Taranaki Regional Council, any significant incidents resulting in the discharge of hazardous substances to the environment within 24 hours of the incident occurring.
- (48) The consent holder must prepare a copy of an Emergency Response Plan for all new hydrogen facilities for the Kapuni Green Hydrogen Project. The Plan shall be provided to the Group Manager – Environmental Services, South Taranaki District Council prior to operation of the hydrogen facilities and any subsequent updates to the Plan shall also be provided.
- (49) At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Fire Management Plan to the Group Manager – Environmental Services, South Taranaki

District Council to certify that the plan meets the objective below. The Fire Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objective:

- (a) Ensure measures are implemented on the Wind Turbine Site in order to minimise the potential risk, and effects, of fire.
- (50) In order to achieve the objective established in Condition 49 above, the Fire Management Plan shall, as a minimum, address the following matters:
- (a) The identification of potential sources of combustion and fire during the construction, operation and maintenance of the Kapuni Green Hydrogen Project;
  - (b) Measures to minimise or prevent the potential for fire during the construction, operation and maintenance of the Kapuni Green Hydrogen Project;
  - (c) Sources of water for fire-fighting purposes and / or fire retardants across the site of the Kapuni Green Hydrogen Project;
  - (d) Protocols for the management of different fire events (e.g. grass fires, mechanical fires) across the site of the Kapuni Green Hydrogen Project; and
  - (e) Training procedures for all site staff and contractors.
- (51) Prior to commencement of any earthworks associated with the installation of the hydrogen pipeline at the Ballance Site, the consent holder shall provide evidence to the Group Manager – Environmental Services, South Taranaki District Council that a Pipeline Easement Permit has been obtained from FirstGas.

## NOISE

### Construction and Maintenance Noise

- (52) Noise from all construction and maintenance works associated with the Kapuni Green Hydrogen Project shall be measured and assessed in accordance with the requirements and limits of “NZS6803:1999 Acoustics – Construction Noise.”
- (53) At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Noise Management Plan (CNMP) to the Group Manager – Environmental Services, South Taranaki District Council to certify that the CNMP meets the objectives in this Condition 53 (a), (b) and (c). The CNMP shall be prepared by an appropriately qualified and experienced acoustical consultant. The

CNMP shall be generally in accordance with Section 8 and the relevant annexures of “NZS6803:1999 Acoustics – Construction Noise”, which detail the relevant types of construction to which the CNMP is to apply, and the procedures that will be carried out to ensure compliance with the Standard. The objectives of the CNMP shall be to ensure construction works are:

- (a) Designed and implemented to comply with the requirements of “NZS6803:1999 Acoustics – Construction Noise”, as measured and assessed in accordance with the long-term noise limits set out in the Standard;
- (b) Implemented in accordance with the requirements of Section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise from the Wind Turbine Site does not exceed a reasonable level; and
- (c) Implemented so that, where practicable, heavy vehicle movements do not occur between the site and State Highway 3 or 45 between 10 pm and 7 am (unless necessary for the completion of delivery of project components or over-sized loads to the site).

(54) In order to achieve the objectives established in Condition 53 above, the CNMP shall include those matters set out in Section 8 and Annex E of “NZS 6803:1999 Acoustics – Construction Noise” and shall, as a minimum, address the following matters:

- (a) The operating hours for the construction works and any time restrictions on the operation of heavy vehicles, machinery and equipment;
- (b) Details on the machinery and equipment to be utilised during the construction works, and any required mitigation measures associated with the operation of the machinery and equipment;
- (c) Predictions of sound levels from the machinery and equipment to be utilised during the construction works;
- (d) Details on the noise monitoring programme to be undertaken during the construction works;
- (e) The procedure for the reporting of any exceedances of “NZS6803:1999 Acoustics – Construction Noise” to the Group Manager - Environmental Services, South Taranaki District Council; and
- (f) The procedures for the reporting and logging of noise related complaints, including the need for additional monitoring following the receipt of noise

complaints.

### **Operational Noise (Wind Turbines)**

- (55) The wind turbines shall be designed, constructed, operated and maintained so that sound levels from the Wind Turbine Site comply with the requirements of “NZS6808:2010 Acoustics – Wind Farm Noise.” For the avoidance of doubt, this condition shall require the wind turbines to be designed, constructed, operated and maintained so that the Wind Turbine Site sound levels shall not exceed the background sound (LA90 (10 min)), plus 5 dB or a level of 40 dB (LA90 (10 min)), whichever is the greater.
- (56) For the purpose of demonstrating compliance with Condition 55 above, sound from the Wind Turbine Site shall be measured and assessed in accordance with “NZS6808:2010 Acoustics Wind Farm Noise” within the notional boundary of any residential dwelling in existence or authorised by a resource consent or building consent at the date of notice of the decision on the “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021 under s 114 of the Resource Management Act (excluding dwellings on properties on which wind turbines are to be located, or where the property owner provided written approval to that application and where this approval has been provided to the Group Manager – Environmental Services, South Taranaki District Council).

*Note: For the avoidance of doubt, and for the purpose of compliance with Conditions 55 and 56, the “Reference Test Method” shall be adopted for testing whether the Wind Turbine Site has tonal special audible characteristics, as prescribed as Annex C to ISO 1996-2:2007, in accordance with Appendix B of “NZS6808:2010 Acoustics – Wind Farm Noise.”*

- (57) Noise monitoring of the wind turbines must be undertaken by the consent holder if reasonably requested by the Group Manager – Environmental Services, South Taranaki District Council and the results provided to Council within 2 weeks of the monitoring being undertaken.

### **Compliance Testing**

- (58) A compliance assessment report shall be prepared in accordance with Section 8.4.1 of “NZS6808:2010 Acoustics – Wind Farm Noise” by an appropriately qualified and experienced acoustical consultant and shall be submitted to the Group Manager – Environmental Services, South Taranaki District Council for certification within three months following the date any wind turbine first generates electricity and

again within three months of electricity being generated from the last turbine to be commissioned. Measurement positions used for compliance testing shall include (but not be limited to):

Site #17 – 492 Manaia Road

Site #30 – 1291 Skeet Road

Site #4 – 232 Kokiri Road

Site #108 – 69 Thomas Road

Alternative positions shall be selected if the owner / occupiers do not allow noise monitoring to take place at any of these sites. Any alternative position shall be agreed to by the Group Manager- Environmental Services, South Taranaki District Council, prior to undertaking the noise monitoring.

## TRAFFIC

(59) The routes, vehicle types, traffic movements and traffic generation related to the Kapuni Green Hydrogen Project shall be in general accordance with those described in the Traffic Impact Assessment by BTW Company appended to “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021.

### **Construction Traffic Management Plan**

(60) At least 30 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Construction Traffic Management Plan (CTMP) to the Group Manager - Environmental Services, South Taranaki District Council to certify that the plan meets the objectives in this Condition 60 (a) to (g). The objectives of the CTMP shall be to:

- (a) Ensure all specific legislative requirements (e.g. statutes, regulations and / or bylaws) and consent conditions in relation to construction traffic are adhered to;
- (b) Encourage a culture of road safety awareness and commitment;
- (c) Ensure best practice in transport safety;
- (d) Ensure emergency services are not obstructed;
- (e) Minimise disruption to the surrounding community, farming operations, rural services and rail operations;
- (f) Minimise traffic generation; and
- (g) Encourage the participation of the surrounding community in maximising

safety and minimising disruption.

- (61) In order to achieve the objectives established in Condition 60 above, the CTMP shall, as a minimum, address the following matters:
- (a) The construction programme and the associated traffic volumes estimated for each construction phase;
  - (b) Driver protocols aimed at ensuring safe driving practices and full compliance with the law, including speed limits, appropriate following distances, observing engine braking restrictions, and affording priority to other traffic;
  - (c) The details of the intended traffic arrangements and provision for the delivery of over-dimension and over-weight loads to the project sites;
  - (d) The nature and timing of road / intersection improvements to be implemented;
  - (e) The traffic management measures to be implemented at intersections, level crossings, stock crossings and access points to local properties;
  - (f) The timing of construction traffic to minimise disruption to, and potential safety issues for, the operation of school bus services;
  - (g) Requirements for the monitoring of construction traffic;
  - (h) Signage to warn drivers approaching the Wind Turbine Site;
  - (i) Communication arrangements with affected residents, South Taranaki District Council, Waka Kotahi / New Zealand Transport Agency (Waka Kotahi/NZTA), KiwiRail, schools, emergency services and other key stakeholders, including provision of prior notice of traffic arrangements and any road closures; and
  - (j) The ongoing review and evaluation of the contents of the CTMP throughout the period of construction works.
- (62) The CTMP shall be prepared by a suitably experienced and qualified traffic engineer and in consultation with Waka Kotahi/NZTA and the Group Manager – Environmental Services, South Taranaki District Council.
- (63) The consent holder shall distribute copies of the CTMP certified by the Group Manager - Environmental Services, South Taranaki District Council to emergency services and landowners / occupiers with access to the local construction traffic routes at least 10 working days prior to the commencement of construction works

authorised as part of this resource consent.

- (64) At least 30 working days prior to the commencement of transportation of the wind turbine components to site, the consent holder shall submit a Transport Plan for the transportation of the wind turbine components to the Group Manager – Environmental Services, South Taranaki District Council to certify that the plan meets the objectives in Condition 60 (a) to (j).
- (65) The Transport Plan shall, as a minimum, address the following matters:
- (a) Scheduling of traffic loads including component types, configuration and timing;
  - (b) Traffic demand management – scheduling to minimise effects on the road network;
  - (c) Detailed route planning including swept paths, components and truck/trailer configurations, passing bays, bridge capacities, use of adjacent road network and specifically Kokiri Road;
  - (d) Details of a trial run over road network mimicking the actual loads, prior to the actual transport of the wind turbine components;
  - (e) Nature and timing of any road improvement works required with the objective that any physical works will be undertaken proactively prior to the relevant activity commencing with contingency to amend or improve road improvements once the activity commences;
  - (f) Road safety including minimising effects on existing activities including school buses;
  - (g) Temporary Traffic Management including any specific plans;
  - (h) Operational requirements;
  - (i) Communication with stakeholders including relevant Road Authorities, Emergency Services, the community and road users generally;
  - (j) Feedback received from STDC, NPDC, Port Taranaki and Waka Kotahi/NZTA and how this feedback will be addressed;
  - (k) Permits – all necessary permits be obtained for over-mass and over-dimension loads from the respective Road Controlling Authorities;
  - (l) Contingency planning; and
  - (m) Continuous improvement – ongoing review of activities including receiving feedback.

## Vehicle Access

- (66) The entrance to the Wind Turbine Site off Kokiri Road and the entrances to the hydrogen storage and refuelling facilities off Palmer Road shall be designed and constructed to Type H Standard in accordance with Land Development and Subdivision Infrastructure Standard (Local Amendments Version 3) based on NZS 4404:2010 prior to any other construction works on the sites taking place.

#### **Physical Road Improvements**

- (67) Prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall complete any upgrades of roads and intersections that have been identified as being required in the certified CTMP and/or Transport Plan. Any upgrades to intersections shall be undertaken in accordance with Austroads Design Guidelines (Austroads Part 4A: Unsignalised and Signalised Intersections) and the CTMP and to the satisfaction of the Group Manager - Environmental Services, South Taranaki District Council. Any upgrades to state highways shall also be undertaken to the satisfaction of Waka Kotahi/NZTA.
- (68) The consent holder shall, in consultation with the Group Manager – Environmental Services, South Taranaki District Council, undertake and agree the results of a baseline survey of the condition of all local roads to be used for construction traffic prior to the commencement of construction works authorised as part of this resource consent.
- (69) The consent holder shall:
- (a) Maintain the roads to be used by construction traffic in accordance with the South Taranaki District Council’s Local Amendments to “NZS 4404 Land Development and Subdivision Infrastructure” and to the design approval of the Group Manager – Environmental Services, South Taranaki District Council;
  - (b) Ensure that on completion of construction activities for the Kapuni Green Hydrogen Project, the roads used by construction traffic are in no worse condition to that which existed prior to the commencement of construction as documented in the baseline survey conducted as a requirement of Condition 68; and
  - (c) Prior to the commencement of the construction works authorised as part of this resource consent, the consent holder will, for the duration of the construction works, enter into a road maintenance agreement with the South Taranaki District Council (as Road Controlling Authority) for any roads that are expected to experience an increase in traffic volumes of

150% or more and continue for the period of that increase in traffic volumes.

- (70) Prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall obtain an over-dimension and / or over-weight load permit from the relevant issuing authority(s) for any over-dimension or over-weight loads travelling to the projectsites. The consent holder shall abide by the requirements of any such permit issued. The consent holder shall also provide the Group Manager – Environmental Services, South Taranaki District Council with a copy of any over-dimension and / or over-weight load permits issued.

## ECOLOGICAL MANAGEMENT / MITIGATION

- (71) At least 20 working days prior to the commencement of construction works on the Wind Turbine Site authorised as part of this resource consent, the consent holder shall submit a Revegetation and Landscape Management Plan to the Group Manager – Environmental Services, South Taranaki District Council for certification that the Plan meets the objective of this Condition 71. The Revegetation and Landscape Management Plan shall be prepared by a suitably experienced and qualified person and shall provide for the following objective:
- (a) Restore the ecological values of the riparian habitat disturbed as a result of the access track construction works at a 1:2 ratio with a similar 'like for like' habitat as per the Freshwater Ecology Assessment by BTW Company Limited appended to "Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects" dated 18/08/2021.
- (72) In order to achieve the objective established in Condition 71 above, the Revegetation and Landscape Management Plan shall, as a minimum, address the following matters:
- (a) A clear description of the timing of any restoration works proposed;
  - (b) The detailed measures proposed to restore the ecological and amenity values of the riparian habitat;
  - (c) A planting plan for the riparian margins, which includes details on the proposed indigenous plant species to be planted and intended planting densities; and
  - (d) Requirements for monitoring, and annual reporting, of on-site

enhancement works (including riparian revegetation and plant survival rates).

### Lizard survey

- (73) Upon finalisation of infrastructure plans and associated extents and locations of vegetation clearance (including associated grassland), including the earthworks footprint, a lizard survey must be conducted in these clearance areas by a suitably qualified and experienced herpetologist prior to works commencing. The lizard survey report shall be provided to the Department of Conservation, the Group Manager – Environmental Services, South Taranaki District Council, the Chief Executive, Taranaki Regional Council and Te Korowai o Ngāruahine Trust, Ngāti Tū and Ngāti Manuhiakai. .
- (74) If indigenous lizards are detected during the lizard survey outlined in Condition 73, then a Lizard Management Plan (LMP) must be prepared by a suitably qualified and experienced herpetologist to minimise effects of the project on indigenous lizards and lizard habitat. The LMP, which must be submitted to the Department of Conservation and the Group Manager – Environmental Services, South Taranaki District Council and the Chief Executive, Taranaki Regional Council at least 20 working days prior to the commencement of works, must include (but is not restricted to) the following:
- (a) An assessment of indigenous lizards present within the site;
  - (b) Methods and timing for lizard salvage and relocation, or a description of alternative mitigation measures if the project herpetologist considers salvage to be unsuitable. This should be determined in consultation with the Department of Conservation;
  - (c) Identification of an appropriate relocation site/s (if lizard salvage and relocation is being conducted) and measures to enhance the habitat quality of the relocation site (or sites) for lizards prior to relocation, such as habitat enhancement or pest control; and
  - (d) Any ongoing management requirements, such as post-release monitoring or pest control.

*Note: To survey, capture, relocate, or otherwise disturb lizards, a Wildlife Act Authority (“permit”) must be obtained from the Department of Conservation.*

## LANDSCAPE MITIGATION

- (75) At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall write to the owner(s) of the dwellings at the following addresses, informing them of their entitlement to landscape mitigation at the cost of the consent holder:

DWELLING ID	ADDRESS
4	232 Kokiri Road
6	168 Kokiri Road
70	425 Inaha Road

*Note: Conditions 75 to 78 of this resource consent shall not apply if an alternative mitigation agreement is entered into between the consent holder and the property owner or if the property owner provided their written approval to the “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021 or a letter of support for the Kapuni Green Hydrogen Project and where this approval / letter of support has been provided to the Group Manager – Environmental Services, South Taranaki District Council.*

- (76) The written offer required by Condition 75 above shall inform the owner(s) of the dwelling that they may request the consent holder to undertake and maintain landscape mitigation relating to views from dwellings on the property prior to, or after, construction of the Kapuni Green Hydrogen Project.
- (77) Within 40 working days of the date any wind turbine first generates electricity, the consent holder shall repeat the offer required by Condition 75 above to the owner(s) of any dwelling who have not already accepted the offer. The consent holder shall expressly state that the offer shall remain valid for 24 months following the date any wind turbine first generates electricity.
- (78) Where requested by the owner(s), the consent holder shall undertake on-site mitigation planting on those properties. The mitigation planting shall be set out in a property specific concept plan that is provided in draft form for approval by the owner(s) within 60 working days of the owner requesting mitigation planting. The concept plan will typically consist of trees or other planting planted within the general vicinity of a dwelling on those properties to intercept views towards the four wind turbines and lessen any adverse visual impacts.
- (79) Following approval of the concept plan by the owner(s), the consent holder shall implement the concept plan at a practicable time agreed between the consent holder and the owner(s), but preferably during the first planting season (May – September) following the approval of the concept plan.

- (80) Subject to Condition 81 below, the consent holder shall maintain the planting for 12 months following the completion of the planting. The maintenance of the planting shall include the consent holder replacing any trees that die within the first 12 months following the completion of the planting.
- (81) In the event that any owner(s) advises the consent holder that they wish to maintain the planting themselves, the consent holder shall pay the owner(s) the sum of money allocated in the cost estimate for maintenance set out in the approved concept plan.
- (82) In the event that any owner(s) advise the consent holder that they wish to implement the concept plan themselves, the consent holder shall pay the owner(s) the sum of money allocated in the approved concept plan on the agreement that the owner(s) shall carry out the planting themselves.
- (83) A copy of each concept plan, and confirmation that the works have been implemented and maintained (or that arrangements have been made for the owner(s) to implement and / or maintain the planting themselves in accordance with Conditions 81 and 82 above), shall be provided to the Group Manager – Environmental Services, South Taranaki District Council within 20 working days of the completion of such works or arrangements.
- (84) At least 20 working days prior to the commencement of construction works at the Ballance Plant authorised as part of this resource consent, the consent holder shall submit a Landscape Plan to the Group Manager – Environmental Services, South Taranaki District Council for certification that the Plan meets the objective in Condition 84(a). The Landscape Plan shall be prepared by a suitably experienced and qualified person and shall provide for the following objective:
- (a) To provide part screening of the hydrogen storage and refuelling facilities and mitigate the visual effects of the facilities when viewed from Palmer Road.
- (85) In order to achieve the objective established in Condition 84 above, the Landscape Plan shall, as a minimum, address the following matters:
- (a) A clear description of the timing for the landscaping planting proposed;
- (b) Planting species, location, quantity and size at time of planting.
- (86) All planting identified in the Landscape Plan shall be in place to the satisfaction of the Group Manager – Environmental Services, South Taranaki District Council

within 12 months of commencement of operation of the hydrogen facilities.

- (87) The landscaping must be maintained including replacing plants where necessary to provide effective visual screening, for the duration of the consented activity to the satisfaction of the Group Manager – Environmental Services, South Taranaki District Council.

## ARCHAEOLOGY

- (88) The Archaeological Discovery Protocol will apply to the unexpected recovery of artefacts or archaeological material encountered during earthworks undertaken as part of this project. The following procedure will be adopted if archaeological evidence is discovered, or is reasonably suspected to have been discovered during earthworks involved in this project:
- (a) If a contractor observes potential archaeological material or artefacts, the contractor must cease works. The project supervisor should be called to the location of the find. Construction work at the site will cease in the area of the discovery, for a reasonable period of time, to allow a site inspection by a qualified archaeologist.
  - (b) The project supervisor will contact the project archaeologist to confirm the find. The project archaeologist must inform the Heritage New Zealand Pouhere Taonga (HNZPT) regional archaeologist as soon as a find is confirmed. The relevant Iwi representatives should be advised of the find at this time, if not prior.
  - (c) The site must be secured in a way that protects the site as far as possible from further damage. Temporary fencing with a 5m buffer around the find is recommended.
  - (d) If kōiwi tangata (human remains) are encountered during earthworks or erosion, no further modification of the site concerned shall occur until the project archaeologist, local Iwi, HNZPT and the NZ Police have been advised and their responses received.
  - (e) The conditions of any authority under the Heritage New Zealand Pouhere Taonga Act 2014, any resource consent under the Resource Management Act 1991, COVID-19 Recovery (Fast-track Consenting) Act 2020, Protected Objects Act 1975, Coroners Act 2006, or any equivalent replacement legislation that may result from an archaeological discovery, are to be observed. Kaumātua will be given the opportunity to conduct karakia and

such other religious or cultural ceremonies, as required.

- (f) Earthworks activity on-site can recommence as soon as the archaeologist and other relevant parties have given approval (this may include the HNZPT, local Iwi and the New Zealand Police, depending on their involvement). Works may recommence in another area on-site away from the find at the discretion of the project archaeologist.

*Notes: All archaeological sites are protected under the Heritage New Zealand Pouhere Taonga Act 2014. An archaeological site is defined as a place associated with pre-1900 human activity, where there may be evidence relating to the history of New Zealand. This includes pre-1900 sites associated with Māori and non-Māori activity.*

*The Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful to modify, damage or destroy any archaeological site, where an archaeological assessment has indicated potential for archaeological material and whether the site is recorded or not. Application must be made to Heritage New Zealand Pouhere Taonga for an Authority to modify, damage or destroy an archaeological site.*

*The Act provides for substantial penalties for unauthorised destruction or modification. In the event that archaeological material is encountered during this project the archaeological evidence will most likely relate to prehistoric Māori occupation. Such evidence is expected to take the form of shell; bone; charcoal or cracked rock; artefacts including intact or partial stone implements; flaked stone; and obsidian; or in-filled pits and/or earthworks.*

## CULTURAL

- (89) The consent holder shall ensure that site inductions for all contractors working on the Kapuni Green Hydrogen Project include a cultural component which provides details of mana whenua iwi and hapū for the project area, the cultural significance of the project area to mana whenua and the protocols in place related to earthworks monitoring and archaeological discovery.
- (90) The consent holder shall provide Ngāti Tū and Ngāti Manuhiakai hapū an opportunity to perform a karakia to bless the project site/s prior to works commencing.
- (91) The consent holder shall provide an opportunity for a representative both of Ngāti Tū and Ngāti Manuhiakai hapū to be present on site during any earthworks for the Kapuni Green Hydrogen Project.

## COMMUNICATION SERVICES

- (92) The consent holder shall undertake an independent assessment, prepared by a

person qualified in communication reception, of television reception at any residential dwelling either existing or consented at the date of notice of the decision on the “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021 under s 114 of the Resource Management Act located within the intended coverage area, if it receives any complaints (within 12 months of the first wind turbine as part of the Kapuni Green Hydrogen Project being commissioned) from occupants of that dwelling that post construction television reception is impaired. If the television reception quality is found to be impaired as a result of the operation of the Kapuni Green Hydrogen Project, the consent holder shall undertake the best practicable measures to provide reasonable television reception.

- (93) The consent holder shall undertake an independent assessment, prepared by a person qualified in radio reception and transmission, of radio reception if it receives any complaints (within 12 months of the first wind turbine as part of the Kapuni Green Hydrogen Project being commissioned) from users of radio transmitters that post construction radio reception or transmission is impaired. If the radio transmission quality is found to be impaired as a result of the operation of the Kapuni Green Hydrogen Project, the consent holder shall undertake the best practicable measures to provide reasonable radio reception.

#### AIR TRAFFIC SAFETY

- (94) The consent holder shall comply with all conditions of the Determination of Hazard in Navigable Airspace issued by the Civil Aviation Authority under Part 77 of the Civil Aviation Rules dated 12 August 2021 and, prior to commencing installation of the wind turbines, will provide a copy of that Determination to the General Manager – Environmental Services, South Taranaki District Council.

#### SHADOW FLICKER

- (95) The consent holder shall ensure that shadow flicker effects at any residential dwelling existing or consented at the date of notice of the decision on “Kapuni Green Hydrogen Project – Resource Consent Application and Assessment of Environmental Effects” dated 18/08/2021 under s 114 of the Resource Management Act (excluding dwellings on properties on which wind turbines are to be located, or where the property owner has provided their written approval to the Kapuni Green Hydrogen Project including the effects of the shadow flicker and

where this approval has been provided to the Group Manager – Environmental Services, South Taranaki District Council) shall be no greater than 30 minutes per day, and a total of 30 hours per year.

## HAZARDOUS SUBSTANCES / CONTAMINANTS

(96) At least 20 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall submit a Contaminant Spill Contingency Management Plan to the Group Manager – Environmental Services, South Taranaki District Council for endorsement acting in a technical certification capacity to certify that the plan meets the objectives in this Condition 96 (a) and (b). The Contaminant Spill Contingency Management Plan shall be prepared by a suitably qualified and experienced person and provide for the following objectives:

- (a) Ensure measures are implemented on the site of the Kapuni Green Hydrogen Project in order to minimise the potential risk, and effects, of a spill of hazardous substances, fuels or other contaminants; and
- (b) The use, handling or storage of hazardous substances during the construction, operation and maintenance of the Kapuni Green Hydrogen Project complies with the requirements of the Health and Safety at Work Act and its associated regulations.

(97) In order to achieve the objectives established in Condition 96 above, the Contaminant Spill Contingency Management Plan shall, as a minimum, address the following matters:

- (a) The identification of designated bulk fuel storage, contaminant storage facilities and re-fuelling locations;
- (b) Measures to ensure that all contaminant storage or designated re-fuelling areas are bunded or contained in such a manner so as to prevent the discharge of contaminants;
- (c) Requirements for all mobile fuel tankers to carry spill kits;
- (d) Details on the contents of the spill kits;
- (e) Records of the names of operators trained in spill response and remediation;
- (f) Measures to ensure that all machinery is regularly maintained in such a manner so as to minimise the potential for leakage of contaminants;

- (g) Measures to ensure that no machinery is cleaned, stored or refuelled within 20 metres of the bed of any waterbody;
- (h) Measures to ensure that all contaminants are removed from the site at the end of the construction works, except for those required for the on-going maintenance and operational activities at the Kapuni Green Hydrogen Project;
- (i) Details of an internal and external notification procedure in the event of a spill of contaminants; and
- (j) The identification of measures to be undertaken to remediate a contaminant spill, including instructions for removing and disposing of contaminated material in a manner suitable to ensure no further contamination occurs.

## COMMUNITY CONSULTATION/COMMUNICATION

(98) The consent holder shall establish and publicise a web page and email so that members of the public may raise matters with, or make an enquiry of, the consent holder during the construction of the Kapuni Green Hydrogen Project. The web page and email shall be established at least 10 working days prior to the commencement of construction works authorised as part of this resource consent, and shall be maintained until the completion of construction works. The web page and email addresses shall be publicised by the following means:

- (a) Via the consent holder's website or social media;
- (b) Via an advertisement in the South Taranaki Star and the Taranaki Daily News;
- (c) Via the site signage at the entrance to the Kapuni Green Hydrogen Project on Kokiri Road; and
- (d) As part of the Construction Traffic Management Plan distributed to landowners / occupiers with access to the local construction traffic routes.

(99) At least 40 working days prior to the commencement of construction works authorised as part of this resource consent, the consent holder shall establish and co-ordinate a Consultative Group for the Kapuni Green Hydrogen Project. Subject to the conditions below, this group is to be consulted, as a minimum, at least six monthly during the construction phase and over the first two years of the operation of the Kapuni Green Hydrogen Project. Thereafter, the frequency of

consultation is to be determined by a majority of the Consultative Group itself. Individual Consultative Group members may, with the agreement of the Group Manager – Environmental Services, South Taranaki District Council, call meetings at shorter intervals to deal with any interim matters that need to be addressed before the next scheduled meeting.

- (100) The objective of the Consultative Group will be to facilitate information flow between the consent holder’s management team and the community and will be an on-going point of contact between the consent holder and the community. The functions of the Consultative Group shall also include acting as a forum for relaying community concerns about the construction and on-going operation of the Kapuni Green Hydrogen Project to the consent holder’s on-site management team, developing acceptable means of addressing (where possible) and managing those concerns, and reviewing the implementation of measures to resolve and manage community concerns.
- (101) The consent holder shall be responsible for convening the meetings of the Consultative Group and shall cover the direct costs associated with the establishment and operation of the meetings. The consent holder shall be responsible for the keeping and distribution of the Consultative Group’s minutes to all participants in the Consultative Group. A person independent of the consent holder shall chair the meeting. The chair of the Consultative Group shall be appointed by the Group Manager – Environmental Services, South Taranaki District Council.
- (102) The consent holder shall notify its intention to establish a Consultative Group for the Kapuni Green Hydrogen Project by public notice. The consent holder shall invite, as a minimum, the following parties to participate in the Consultative Group:
- (a) A representative of property owners and occupiers on local roads surrounding the Wind Turbine Site identified for use by construction traffic;
  - (b) A representative of property owners who own land adjacent to the site as identified in BTW drawing 191149 – GIS – 105 Sheet 1 Rev 5;
  - (c) An elected representative of the South Taranaki District Council; and
  - (d) A representative each from Ngāti Tū and Ngāti Manuhiakai hapū.
- (103) No owner or occupier of any property on which the Kapuni Green Hydrogen Project is located may be a member of the Consultative Group. The consent holder shall not be in breach of this condition if any one or more of the parties specified above

do not wish to be members of the Consultative Group or to attend any particular meeting.

- (104) The Consultative Group shall cease to exist when a 75% majority of the Consultative Group vote that it is no longer necessary.
- (105) The consent holder shall maintain and keep a Complaints Register to record any complaints about construction works and operation of the Kapuni Green Hydrogen Project received by the consent holder in relation to traffic, noise, dust, television or radio reception interference, shadow flicker or any other environmental effects. The register shall record, where this information is available, the following:
- (a) The date, time and duration of the incident that resulted in the complaint;
  - (b) The location of the complainant when the incident was detected;
  - (c) The possible cause of the incident; and
  - (d) Any corrective action taken by the consent holder in response to the complaint, including the timing of the corrective action.
- (106) The Complaints Register shall be available to staff and authorised agents of the South Taranaki District Council and to members of the Consultative Group at all reasonable times upon request. Complaints received by the consent holder that may infer non-compliance with the conditions of this resource consent shall be forwarded to the Group Manager – Environmental Services, South Taranaki District Council within 48 hours of the complaint being received.

## DECOMMISSIONING AND SITE REHABILITATION

- (107) The wind turbines shall be removed from the site, either at the end of their useful life or the end of the term of this consent, whichever occurs earliest, in accordance with a certified Decommissioning Plan as per Conditions 108-110.

*Note: For the purposes of this consent, “useful life” means the period of time that the wind turbines remain fit for purpose and structurally sound. For the avoidance of doubt, structurally sound means free from flaw, defect or deterioration to the extent that the turbines remain capable of adequately and safely accommodating the wind turbine blades and motors. (When the turbines are rendered obsolete and uneconomic to modify or repair or when a period of 35 years has passed, they are to be decommissioned from the site in accordance with the conditions of this consent).*

- (108) At least 80 working days prior to the commencement of decommissioning of the wind turbines authorised as part of this resource consent, the consent holder shall

submit a Decommissioning Plan to the Group Manager – Environmental Services, South Taranaki District Council for endorsement acting in a technical certification capacity to certify that the plan meets the objectives in this Condition 108 (a) – (c). The Decommissioning Plan shall be prepared by a suitably qualified and experienced person and provide for the following objectives:

- (a) Decommissioning of the wind turbines and associated infrastructure in a manner that complies with all legislative requirements;
- (b) Leaving the land in a condition that is safe and suitable for the subsequent land use (as agreed with the landowner); and
- (c) Ensuring that the components and infrastructure are disposed of in a way that maximises re-use and recycling. For any parts that cannot be reused or recycled, ensuring that they are not sent to landfill but are disposed of in an environmentally responsible way in accordance with industry best practice.

(109) The Decommissioning Plan shall include but not be limited to:

- (a) Details on all infrastructure to be decommissioned, including details, method and location of reuse, recycling or disposal and the reasons why the options have been chosen;
- (b) Details of specific infrastructure to remain on-site post-closure and reasons why it will remain on site;
- (c) Scheduling and timing for decommissioning;
- (d) Details for finished ground cover at completion of decommissioning and future intended land use;
- (e) A Transport Plan for the transport of wind turbine components and any other infrastructure offsite addressing the matters in Condition 65 (a) – (m);
- (f) Details of management, any ongoing maintenance, monitoring and reporting proposed by the consent holder to ensure post-closure activities are carried out in accordance with the conditions of this resource consent.

(110) The Decommissioning Plan shall be prepared in collaboration with Te Korowai o Ngāruahine Trust, Ngāti Tu and Ngāti Manuhiakai, and evidence of this shall be submitted to the Group Manager – Environmental Services, South Taranaki District Council. If hydrogen production associated with the Project is to continue at the Ballance site after the duration of the consent, the Decommissioning Plan shall also

include an Alternative Site Plan that is to be prepared in collaboration with Ngāti Tu and Ngāti Manuhiakai. The Alternative Site Plan shall, as a minimum, contain a process to identify an alternative site, or sites, situated coastward of SH45 to locate any replacement wind turbines on.

## REVIEW

- (111) Pursuant to Sections 128 to 131 of the Resource Management Act 1991, the South Taranaki District Council or the Taranaki Regional Council may, 1 year after the commencement of this resource consent, and at 5 yearly intervals thereafter, serve notice on the consent holder of its intention to review any or all of the conditions of this resource consent for any of the following purposes:
- (a) To review the effectiveness of the conditions of this resource consent in avoiding, remedying or mitigating any adverse effects on the environment that may arise from the exercise of this resource consent (in particular, the potential adverse environmental effects in relation to ecology, archaeology, noise, hazardous substances, earthworks, traffic and roading, visual, landscape and amenity effects);
  - (b) To address any adverse effects on the environment which have arisen as a result of the exercise of this resource consent that were not anticipated at the time of commencement of this resource consent, including addressing any issues arising out of complaints; and
  - (c) To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this resource consent.

## TRANSITION FROM UREA PRODUCTION

- (112) Over a five year period, on the dates specified below, the consent holder shall provide a written report to the South Taranaki District Council as to progress in achieving the transition of green hydrogen production from utilisation entirely for the purposes of urea production to utilisation in the transport market.
- (113) The dates specified for the purposes of Condition 112:
- (a) By 30 June 2023; and
  - (b) Each anniversary thereafter until 30 June 2028.
- (114) Pursuant to s 128(1)(a)(iii) of the Resource Management Act 1991, the South

Taranaki District Council may review this condition at any time after 30 June 2028 for the purpose of assessing progress of the transition referred to in Condition 112 above, and/or to propose new conditions to ensure that that transition progresses or continues.

#### **Peer Review**

(115) The consent holder shall provide the results of long-term monitoring undertaken in accordance with this resource consent to the Group Manager – Environmental Services, South Taranaki District Council in the event that this is required for the peer review of any of the management plans or reports identified in the above conditions. The Group Manager – Environmental Services, South Taranaki District Council may have any plan or report reviewed by an independent expert at the consent holder’s cost. In addition, the results of the long-term monitoring shall be provided to Te Korowai o Ngāruahine Trust and Ngāti Tū and Ngāti Manuhiakai hapū.