

# Response ID ANON-URZ4-5F9Z-3

Submitted to Fast-track approval applications  
Submitted on 2024-05-02 13:45:54

## Submitter details

Is this application for section 2a or 2b?

2A

### 1 Submitter name

Individual or organisation name:

The Proprietors of Taheke 8C & Adjoining Blocks Incorporation

### 2 Contact person

Contact person name:

Peter Mason

### 3 What is your job title

Job title:

Chief Executive

### 4 What is your contact email address?

Email:

s 9(2)(a)

### 5 What is your phone number?

Phone number:

s 9(2)(a)

### 6 What is your postal address?

Postal address:

Level 1, GHA Centre  
1108 Fenton Street  
Rotorua 3010

### 7 Is your address for service different from your postal address?

No

Organisation:

Contact person:

Phone number:

Email address:

Job title:

Please enter your service address:

## Section 1: Project location

Site address or location

Add the address or describe the location:

The proposed hydro development is to be located in the upper Kaituna River catchment to the west of State Highway 33 bounded by land owned by the Proprietors of Taheke 8C & Adjoining Blocks Incorporation ("Taheke 8C"). Taheke 8C is made up of approximately 1,173 hectares of land incorporating farming, forestry and geothermal interests.

The proposed hydro development involves the placement of a low-level structure on the bed of the Kaituna River for the purpose of controlling and

taking water. A series of off-river canals, a head pond and intakes to a powerhouse will be located wholly within land owned by Taheke 8C, before a discharge structure returns the flow to the river.

The in-river structure will create an impoundment that will affect land administered by the Dept of Conservation, being land that was previously set aside (but never used) for aviation / airport lighting purposes.

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Do you have a current copy of the relevant Record(s) of Title?

Yes

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Proposed Taheke Hydro Development Records of Title.pdf was uploaded

Who are the registered legal land owner(s)?

Please write your answer here:

The Proprietors of Taheke 8C & Adjoining Blocks Incorporation  
Crown (Dept of Conservation)

Detail the nature of the applicant's legal interest (if any) in the land on which the project will occur

Please write your answer here:

The Taheke 8C land is Māori freehold land held in fee simple.

The Dept of Conservation administered land is held as reserve under the Reserves Act for purposes of aviation / airport lighting and is subject to a Concession in favour of Nova Energy (previously Todd Energy Ltd). This land was taken from Taheke 8C's owners via the Public Works Act. The land was then passed to Lands and Survey before eventually being transferred to Conservation, as has happened with Stewardship land elsewhere.

## Section 2: Project details

What is the project name?

Please write your answer here:

The Taheke 8C Hydro Development Project

What is the project summary?

Please write your answer here:

The Project is a run-of-the-river hydro scheme which harnesses the natural potential energy of water with low environmental impact, to generate renewable electricity needed by consumers and industry within the Bay of Plenty region.

What are the project details?

Please write your answer here:

The Project presents as a nationally and regionally significant development and potentially material contributor to New Zealand's ability to meet its greenhouse gas emissions targets and the provision of a secure supply of electricity.

The purpose of the Project is:

- to allow Taheke 8C, a Māori land incorporation with more than 1,300 shareholders, to fulfil the development aspirations for their land and bring positive effects to current and future generations.
- To enhance the use of hydro resources for renewable electricity purposes and in conjunction with geothermal resource development and biomass on Taheke 8C land and associated cascade uses.
- To support the increase of the supply of renewable electricity within the Bay of Plenty, North Island and New Zealand, which will contribute to the country's efforts to mitigate climate change and transition more quickly to a low-emissions economy.

The Project will involve the construction and operation of the following:

- A nominal 13.5 MW / 80 GWh power station;
- A low-level weir structure on the bed of the Kaituna River, an off-river series of canals, a head pond, intake and outfall structures;
- Provision of access for construction vehicles; and
- Connection to transmission infrastructure, noting part of the National Grid (Transpower's 220 KVA EDG-TRK-A and 110 VA OKE-TMI-A lines) both run through Taheke 8C's land.

To achieve this, the Project will include:

- Land disturbance and removal of vegetation, all to occur on land owned by Taheke 8C;
- Large-scale civil construction of off-river scheme components;
- The placement of a low-level structure on the bed of the Kaituna River and the diversion of water; and
- The taking, use and discharge of that water.

Describe the staging of the project, including the nature and timing of the staging

Please write your answer here:

- Confirmation of resource consents and related authorisations
- Post granting of consent, procurement of services
- Post granting of consent, financial investment decision
- On conclusion of the above, construction to commence in 2025-26.
- Completion and commissioning in 2027-28.

What are the details of the regime under which approval is being sought?

Please write your answer here:

Resource Management Act 1991

- Resource consents under the relevant national, regional and district levels.

Conservation Act 1987

- Confirmation of easements already granted by way of Concession for use of Conservation land.

Reserves Act 1977

- Confirmation of easements already granted by way of Concession for use of Reserve land.

Wildlife Act 1953

- Wildlife Authorisations may be required in relation to the management and/or disturbance of indigenous fauna within the project site.

Heritage New Zealand Pouhere Taonga Act 2014

- An archaeological authority may be required under the Heritage New Zealand Pouhere Taonga Act in relation to the potential damage of any heritage sites within the project site.

Freshwater Fisheries Regulations 1983

- Approval of the Director General of the Dept of Conservation for the damming of a river affecting fish passage.

If you seeking approval under the Resource Management Act, who are the relevant local authorities?

Please write your answer here:

- Bay of Plenty Regional Council
- Rotorua Lakes Council

What applications have you already made for approvals on the same or a similar project?

Please write your answer here:

Todd Energy sought to establish a hydro utilising Taheke 8C land in the early 2000s. A concession was agreed with the Dept of Conservation, the term of which runs to February 2070. Nova Energy as the successor to Todd is supportive of this project and would allow Taheke 8C to utilise the concession for the purpose of this Project. Confirmation of that support can be provided.

Is approval required for the project by someone other than the applicant?

Yes

Please explain your answer here:

Nova Energy and Dept of Conservation with respect to the use of the existing concession.

If the approval(s) are granted, when do you anticipate construction activities will begin, and be completed?

Please write your answer here:

Taheke 8C has contemplated this project for many years. The concepts of the project remain consistent; however, the current regulatory regime is complex as is the market for the technology we would require. Accordingly, this feedback is subject to change and Taheke 8C will provide greater detail as part of the process to follow.

In determining an indicative timeline outlining key milestones for the Project we note:

- The engineering design for the hydro scheme has not been finalised in order to allow for a competitive market approach to purchasing the power

station and to allow the original equipment suppliers to optimise plant design in their individual offers.

- The project will undertake significant procurement both in New Zealand and internationally. The detail will be set with the finalisation of design and technology to be used.
- Funding will be provided through a range of partner and finance sources. Partners with both hydro expertise and financial capacity are currently being confirmed.
- It is anticipated that site work will commence in 2025-26.
- We anticipate completion and commissioning to occur in 2027-28.

### Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

Local Authorities

- Bay of Plenty Regional Council
- Rotorua District Council

Iwi Authorities

- Affiliate Te Arawa Iwi and Hapū (represented by iwi authority Te Pūmāutanga o Te Arawa Trust) including Ngāti Pīkiao
- Ngāti Mākinō
- Te Maru o Kaituna River Authority (inclusive of other iwi down river).

NB: The owners of Taheke 8C whakapapa to Te Arawa, principally Ngāti Pīkiao and Ngāti Mākinō)

Other

- Dept of Conservation

Detail all consultation undertaken with the persons referred to above. Include a statement explaining how engagement has informed the project.

Please write your answer here:

Significant engagement has occurred with relevant iwi authorities and other stakeholders as part of the Taheke geothermal project application currently before an Expert Consenting Panel formed under the Covid Fast Track process. Various cultural impact statements and cultural values assessments are or have been prepared in relation to that process. The proposed geothermal development, along with the proposed hydro development form part of Taheke 8C's wider aspiration to develop a Green Energy Hub (as described in sections below).

Taheke 8C engages and consults with all of the parties listed above and will continue to do so as part of its on-going development of Taheke 8C land, including through the development of the hydroelectric development.

We anticipate that a record of that engagement will be provided as part of the full applications.

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Describe any processes already undertaken under the Public Works Act 1981 in relation to the land or any part of the land on which the project will occur:

Please write your answer here:

The reserve land administered by Dept of Conservation was the subject of a public works process where the land was taken for the purposes of aviation / airport lighting activities, and for which it has never been utilised. The land was then passed to Lands and Survey before eventually being transferred to Conservation, as has happened with Stewardship land elsewhere.

Prior to the taking of the land, we understand it was part of the Taheke 8C land base. No compensation was paid for the taking of that land, nor were Taheke 8C consulted when the land was transferred across government departments.

### Section 4: Iwi authorities and Treaty settlements

What treaty settlements apply to the geographical location of the project?

Please write your answer here:

- Affiliate Te Arawa Iwi and Hapū (represented by iwi authority Te Pūmāutanga o Te Arawa Trust) including Ngāti Pīkiao.
- Ngāti Mākinō
- Te Maru o Kaituna River Authority (inclusive of other iwi down river).

NB: The owners of Taheke 8C whakapapa to Te Arawa, principally Ngāti Pīkiao and Ngāti Mākinō)

Are there any Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 principles or provisions that are relevant to the project?

No

If yes, what are they?:

Are there any identified parcels of Māori land within the project area, marae, and identified wāhi tapu?

Yes

If yes, what are they?:

The project will be undertaken utilising Māori land. There are no recorded wāhi tapu identified on the land associated with the Project, consistent with the findings of the Cultural Impact Assessment prepared in support of applications for the geothermal development (currently before the Expert Consenting Panel constituted under the Covid Fast provisions).

Is the project proposed on any land returned under a Treaty settlement or any identified Māori land described in the ineligibility criteria?

No

Has the applicant has secured the relevant landowners' consent?

Yes

Is the project proposed in any customary marine title area, protected customary rights area, or aquaculture settlement area declared under s 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 or identified within an individual iwi settlement?

No

If yes, what are they?:

Has there been an assessment of any effects of the activity on the exercise of a protected customary right?

No

If yes, please explain:

Upload your assessment if necessary:

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## Section 5: Adverse effects

What are the anticipated and known adverse effects of the project on the environment?

Please describe:

The anticipated and known effects of the Project include:

### Positive Effects

The Project, with run of river hydroelectricity production has the advantage of being a cost-effective and reliable energy technology. Its output can be predicted with relative certainty as it correlates with annual rainfall patterns and only gradually varies from day-to-day instead of minute-wise. Output is also positively correlated with demand, i.e. output is maximum in winter when there is more water available. As baseload generation technology, it also has a strong impact on improving the security of electricity supply and reduced costs to the consumer.

The Project will provide:

- Economic benefits and stimulus for the region;
- Employment opportunities within the region;
- Further regional electricity generation security and increased national renewable generation;
- Cleaner power and fewer greenhouse gases: the scheme will harness the natural potential energy of water reducing the need to burn coal or natural gas to generate electricity;
- Low-impact implementation: the Taheke 8C Hydro project will have a relatively low environmental impact in terms of total greenhouse gas emissions, as it will not directly produce CO<sub>2</sub> once generating electricity; and
- Low-carbon renewable electricity: the Taheke 8C Hydro Project will use the power of water to generate electricity, making it a renewable and sustainable energy source.

As a part of the Taheke Green Energy Hub, the Project will form one of two stable forms of electricity generation for a range of activities on Taheke 8C land that also includes biomass production utilising locally sourced forestry waste and wood. The Green Energy Hub will form significant economic benefits as a whole both regionally and for the Māori shareholders of Taheke 8C.

### Natural Character / Landscape and Visual

The Project involves the placement of a low-level structure on the bed of the Kaituna River, the impoundment of water behind the structure and a reduction in flow immediately below the structure with resultant effects on the natural character values associated with the site. However, the Project is in an inaccessible and isolated area with high hill areas along the river. The site cannot be seen from the road and there are no dwellings in the area.

## Hydrology

The Kaituna River hydrology is controlled by its source (Lake Rotoiti), which in turn is fed by substantial inflows from Lake Rotorua. The upstream lakes attenuate flood flows and sustain low flows (relative to the streams that flow into them from their upper catchments). In addition, flows in the Kaituna River are regulated by a management regime which aims to control water levels in Lake Rotoiti for amenity purposes, and assist in the maintenance of water quality in Lake Rotoiti and the Ohau Channel. In general, the outflow from the control gates is at least as large as the inflow from Lake Rotorua, so that the net flow is out of Lake Rotoiti.

A Hydrology Management Plan will be developed as part of a suite of conditions for the project with a view to mitigating and minimising the adverse effects of the Taheke Hydro Project on the hydrology of the Kaituna River.

Other adverse effects upon hydrology may include water contamination caused by construction. However, this activity will be short term and we propose will be managed by an Construction Management Plan (incorporating erosion and sediment controls) offered as part of conditions in the full application.

## Geomorphology

The presence of an in-river structure can create two core adverse effects on a river ecosystem:

- It can lead to the disruption of longitudinal connectivity, fragmenting the river causing the potential for sedimentary build up and affecting fish passage; and

- It can alter the in-channel environment and thus physical habitat which may affect adverse effects on water and aquatic ecology.

The sediment load (bedload) for the project has been estimated at 10,000 m<sup>3</sup>/year from the Ohau Channel. Project design and the development of a Bedload Management Plan will minimise and mitigate risks of fine sedimentation, impacts on water quality and aquatic habitats, erosion and flood risk.

## Aquatic Ecology

Water abstractions and discharges can alter fish migration as barriers may prevent native fish that move from sea to freshwater as part of their life cycle, from moving upstream and downstream and accessing otherwise suitable habitat. Further, the effects on the less mobile biota, such as benthic invertebrates and macrophytes, are generally more localised than those on fish.

The Project will as part of the development of mitigation solutions develop an Aquatic Ecology Management Plan that may include all or some of the following:

- Environmental Flows: maintaining appropriate flow for fluvial ecosystem conservation, sediment transport, and overall river health;

- Fish Passage Solutions: drawing upon environmental best practice and run of river projects internationally, the Project will seek to ensure that fish can continue to migrate, and to minimise the impact on the environment, the design of the facility will be innovative and include measures such as fish ladders, which allow fish to swim upstream, and screen design to prevent fish from entering the intake box; and

- Habitat Restoration: the restoration and enhancement of riparian zones, wetlands and other critical habitats will be considered to offset the impacts of the project.

## Terrestrial Ecology

Largely in relation to construction activities, earthworks and vegetation disturbance can affect natural inland wetlands and other significant habitats. If so identified, such areas can be managed through the 'effects management hierarchy' as necessary, including through the development of appropriate ecological responses that will be described in a Terrestrial Ecology Management Plan.

## Cultural Values

The Committee of Management of Taheke 8C includes kaumatua and pukenga who represent the whanau, hapu and iwi who hold mana whenua and exercise kaitiakitanga over the Taheke 8C Land and the awa that flows through that land, as well as being kaumatua of other Te Arawa and Ngāti Pikiao iwi /hapu.

The Committee has longstanding relationships with other iwi of Te Arawa and Ngāti Māhino. The Committee has and will continue to korero with all affected iwi along the awa as it finalises the full application just as they did with the Taheke Geothermal Project.

It is acknowledged that matters relating to the Mahinga kai and the health and wellbeing of the awa will require not only discussion but also likely inclusion of conditions relating to any adverse effects caused by the project. It is also acknowledged that the values of Te Maru o Kaituna Authority will require consideration within the full application and any conditions proffered.

## Construction-related Effects

Civil infrastructure projects involve large-scale earthworks. A best practice Construction Management Plan encompassing earthworks and sediment controls, dust management, site rehabilitation and any construction-related traffic and noise will be developed to ensure these effects are managed appropriately.

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## Section 6: National policy statements and national environmental standards

What is the general assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard?

Please write your answer here:

### National Policy Statement for Renewable Electricity Generation

The objective of the NPSREG seeks to provide for the development and operation of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable electricity sources increases to levels that meet or exceed the Government's national target for renewable electricity generation.

The Project is consistent with the NPSREG, particularly with regard to Policies A, B and C1 which seek to ensure decision makers:

- Recognise the benefits of renewable electricity generation activities;

- Acknowledge the practical implications for achieving an increase in the proportion of electricity generated from renewable sources; and
- Acknowledge the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities.

In this regard, the development of the Project will provide additional renewable electricity generation capacity and contribute to security of renewable electricity supply and assist in displacing greenhouse gas emissions that would otherwise be released by the generation of electricity through non-renewable processes.

It is noted that sites suitable for hydro developments are limited, and that infrastructure required to harness the water resource will inevitably have some adverse effects on the environment. These practical implications are recognised in the NPSREG.

The practical implications and locational constraints associated with the development of renewable electricity generation activities are recognised in Policy C1 of the NPSREG. There are several factors that influence the identification of a site as being suitable for the development of a hydro project – not least being the access and availability of the hydro resource.

The Project is considered to be consistent with the stated objective and policy directives of the NPSREG.

#### National Policy Statement for Freshwater

The primary concept of the NPSFM is Te Mana o te Wai that refers to the importance of water to the health and wellbeing of the wider environment, presenting a water-centric approach to freshwater management.

The objective of the NPSFM follows this concept and seeks to ensure that natural and physical resource are managed in a way that:

- Firstly, prioritises the health and wellbeing of water bodies and freshwater ecosystems;
- Then, the health and needs of people; and
- Then, the ability of people and communities to provide for their social, economic, and cultural wellbeing.

It is acknowledged that the placement of a structure on the bed of the Kaituna River will result in some loss of river extent and values. However, it is noted that the proposed form of a run of river scheme has been recognised as the least environmentally impactful of hydropowered developments, with residual effects managed in accordance with the 'effects management hierarchy'.

Also of relevance to the Project is the potential for the construction activities to impact on freshwater resources (including wetlands) via the potential discharge of sediment to surface water bodies during construction activities. Through design, the Project can avoid adverse effects on these values as far as practicable, with the policy expectations of the NPSFM with respect to applying the effects management hierarchy and mitigation / compensation to be implemented where necessary. These mitigation / compensation measures can be addressed through management plans and through development of consent conditions to be proffered as part of the consent process.

Overall, it is considered that with careful design and management of the construction of the Project the policy directives of the NPSFM will be achieved – particularly those that set specific instructions for how adverse effects on wetlands and streams should be managed and prioritised.

#### National Environmental Standards for Freshwater

The NESF regulates activities that pose risks to the health of freshwater and freshwater ecosystems. Of particular relevance to the Project are the rules in the NESF relating to the provision of fish passage and activities that may affect natural wetlands and streams. Resource consent will be required for activities associated with the Project construction, including earthworks, within, or within 100 m of natural wetlands.

The effects management hierarchy under the NPSFM will be applied to the construction activities requiring consent under the NESF to ensure that potential adverse effects on wetlands and streams within the project site are avoided as far as practicable. These measures will ensure that any adverse effects are no more than minor.

#### National Policy Statement for Highly Productive Land

The NPSHPL is potentially relevant in relation to aspects of the Project construction and parts of the transmission corridor. However, the Project is situated on "specified Māori land" and qualifies as specified infrastructure deeming the development of the Project a use of highly productive land that is not inappropriate, allowing for it to occur.

#### National Policy Statement for Indigenous Biodiversity

For completeness, it is noted that the NPSIB is not relevant to the Project as clause 1.3(3) of the NPS states:

"Nothing in this National Policy Statement applies to the development, operation, maintenance or upgrade of renewable electricity generation assets and activities and electricity transmission network assets and activities. For the avoidance of doubt, renewable electricity generation assets and activities, and electricity transmission network assets and activities, are not "specified infrastructure" for the purposes of this National Policy Statement".

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## Section 7: Eligibility

Will access to the fast-track process enable the project to be processed in a more timely and cost-efficient way than under normal processes?

Yes

Please explain your answer here:

#### Process

Consenting of a hydro development under the Resource Management Act 1991 is extremely difficult and typically takes multiple years. It is costly, lengthy, and challenging. Applications for hydro developments are generally publicly notified processes attracting submissions from a range of parties with hearings an inevitability, requiring the preparation of extensive evidence and legal submissions. Appeals to the Environment Court if required can an additional 1-2 years to the consenting timeframe.

Consideration of the Project under the fast-track provisions will likely result in a more timely and cost-efficient way to confirm the authorisations necessary for the proposed hydro development.

## Māori Land Development

Consideration of this Project under Fast Track will enable Taheke 8C to progress its aspirations of a Green Energy Hub, following the Taheke Geothermal Project which is currently completing its consent application through the Covid fast track regime. It is Taheke 8C's desire to progress more of its downstream projects including any consents for its Biomass project through the Fast Track process as well. Forming a consistent framework of conditions reflecting Taheke land and conditions and we hope enabling efficiencies for the fast-track process along the way.

## Multi-agency authorisations

Authorisations are required under:

- Resource Management Act (resource consents required under the national, regional and district provisions)
- Conservation Act (access concessions)
- Reserves Act (access concessions)
- Wildlife Act (Wildlife Authorisations for potential disturbance of lizard and bat habitat), and
- Potentially, Heritage New Zealand Pouhere Taonga Act (archaeological authority).

Consideration of the requirements of these various authorisations through one process reduces the risks of delays (applications being considered sequentially) and provides greater visibility of process and clarity of outcomes.

## Geographical Nature and Scale

The Project involves use of public space (bed of Kaituna River) and is extensive in scale resulting in the heightened possibility that when making a notification assessment the relevant local authority may seek public notification of any application. Public notification could result in large delays and increased consenting costs.

What is the impact referring this project will have on the efficient operation of the fast-track process?

Please write your answer here:

The Project is a nationally significant renewable electricity project that will have a nominal installed capacity of up to 13.5 MW baseload. It meets the eligibility criteria, and it will benefit from the cost and process efficiencies of the fast-track process. It is, simply put, the exact type of application that the fast-track process is intended to apply to.

Initial assessments have been initiated in relation to the design of the scheme and, as a result, the Project will be ready to be considered under the fast-track process, the effects are capable of appropriate management by way of conditions recommended by an Expert Panel, and listing the project in Schedule 2A of the Bill will not adversely affect the efficiency of the fast-track process and efficient operation of the process.

Taheke 8C is not aware of any consenting issue that would materially negatively impact on the efficient processing of an application for the Project in line with the timeframes and processes set out in the Bill.

Has the project been identified as a priority project in a:

Not Answered

Please explain your answer here:

The Project is not specifically identified as a priority project, however renewable electricity development is a key plank of numerous central government, local government and other plans/policies.

The National Policy Statement for Renewable Electricity Generation records that the need to develop, operate, maintain and upgrade renewable electricity throughout New Zealand is a matter of national significance, as are the benefits of renewable electricity generation.

A review of the New Zealand Energy Strategy is currently being advanced and through the Climate Response Act 2002 New Zealand has committed to reaching net zero emissions by 2050 and has previously set a target 100% renewable electricity by 2030. The Project will have a material role in contributing to that target for renewable electricity.

The Minister for RMA Reform has recently confirmed:

"on renewable energy, we intend to deliver on our ambitious policy called Electrify New Zealand, which aims to double renewable energy in New Zealand" (<https://www.beehive.govt.nz/speech/speech-new-zealand-planning-institute>).

The Project's nominal capacity of 13.5 MW will contribute positively and materially to the target of Electrify New Zealand. Accelerated electrification through renewable electricity generation represents New Zealand's best opportunity to meet our international and statutory climate change commitments, including as now set under the Climate Change Response Act 2002.

The Climate Change Commission's He Pou a Rangi final advice to inform the Government's plan to meet New Zealand's greenhouse gas reduction goal for 2026-2030 recommended building new renewable projects in the first, second, and third emission budget periods. The Project is consistent with that recommendation.

Will the project deliver regionally or nationally significant infrastructure?

National significant infrastructure

Please explain your answer here:

The Project represents nationally and regionally significant infrastructure.

As noted in the National Policy Statement for Renewable Electricity Generation, the need to develop renewable electricity generation activities throughout

New Zealand and the benefits of renewable electricity generation are matters of national importance.

By generating an estimated 80 GWh of renewable electricity per year, enough to power around 10,000 average New Zealand households, the Project will be recognised as significant infrastructure both nationally and regionally.

Will the project:

contribute to a well-functioning urban environment

Please explain your answer here:

The Bay of Plenty Region and Rotorua specifically imports much of its electricity needs. To the extent that the site will provide additional reliable and renewable electricity to the National Grid, it will add to the security of electricity supply to these urban areas, and in turn, contribute to the overall function and resilience of these areas.

Will the project deliver significant economic benefits?

Yes

Please explain your answer here:

The economic benefits include:

- Injection of additional spending and employment opportunities, particularly during construction
- Increased demand for jobs over five years of construction preparation and implementation;
- Stimulus of business and employment flowing into other sectors that either supply inputs into the project, or service demands from increased incomes for local residents directly or indirectly working on the project;
- Addition of spending and employment opportunities during operation and maintenance of the operating hydro plant;
- Generation of around 80 GWh of electricity each year from a renewable resource with lower carbon emissions than thermal fired generation and is baseload generation that is less intermittent than other renewable generation from wind or solar supply.
- Benefits in lower costs to the New Zealand electricity system by:
  - o Reducing the need to import power from the Grid to meet Rotorua and upper North Island demand; and
  - o Improving security of electricity supply in the central North Island, by adding to the capacity and diversity of generation in the region.

Will the project support primary industries, including aquaculture?

Yes

Please explain your answer here:

The Project provides an opportunity for stable locally based electricity generation and therefore the exploration of new products from wood including biofuels, biochemicals and bioproducts. These would be co-products with conventional wood products but provide additional revenue streams for forest and landowners.

Will the project support development of natural resources, including minerals and petroleum?

Yes

Please explain your answer here:

The project will support the development of the waters of the Kaituna River for the purpose of electricity generation. It will also support the use of other natural resources through the Green Energy Hub and through local commercial opportunities using locally sourced electricity generation.

Will the project support climate change mitigation, including the reduction or removal of greenhouse gas emissions?

Yes

Please explain your answer here:

By generating an estimated 80 GWh of renewable electricity per year, the Project will act to displace thermal generation and avoid associated greenhouse gas emissions. If that generation was from coal, the equivalent emissions would be approximately 70,000 tonnes CO<sub>2</sub> per year; if from gas, the equivalent emissions would be approximately 35,000 tonnes CO<sub>2</sub> per year.

Will the project support adaptation, resilience, and recovery from natural hazards?

Yes

Please explain your answer here:

Improved resilience in electricity supply by providing a source of renewable power that is less affected by meteorological hazards of climate change than other forms of renewable generation (such as wind and solar).

Will the project address significant environmental issues?

Yes

Please explain your answer here:

Climate change presents an existential threat to people and their communities. The Project will help address this issue by contributing to New Zealand's renewable electricity targets and its necessary decarbonisation journey.

Is the project consistent with local or regional planning documents, including spatial strategies?

Yes

Please explain your answer here:

Bay of Plenty Regional Council

The Regional Natural Resources Plan ("RNRP") contains various chapters that are relevant to the Kaituna proposal, including:

- Chapter 5 Land Management
- Chapter 6 Discharges
- Chapter 7 Water Quantity and Allocation
- Chapter 8 Beds of Water Bodies.

In summary, an assessment of the rule framework for the activities generally associated with hydro development are to be assessed as discretionary activities, meaning resource consents would be required and the consent authority could decline or grant the consent.

When processing an application for resource consent, the consent authority will also assess the proposal against the relevant objectives and policies of the RNRP. Whilst not exhaustive, various key objectives and policies relating to water allocation and damming have been identified, including: Policy 66, that:

- Establishes a default low flow allocation regime where the allocatable flow is equivalent to the Q5 7-day low flow minus the instream minimum flow requirement; and
- Allows for consideration of water allocation to new hydro schemes on a case-by-case basis where the instream minimum flow requirements are set in accordance with Policy 68.

In turn, Policy 68 allows for the derivation of an instream minimum flow requirement specific to a waterway based on new or improved scientific knowledge and where the effects (including cultural) are no more than minor.

Policy 81 relates to new damming and diversion activities and requires compliance with standards that include:

- Ensuring a sustainable residual flow to maintain the instream minimum flow requirements;
- Avoiding, remedying, or mitigating bank stability issues; and
- Providing for landscape values, natural character, recreational use, public access to and along the margins of rivers and lakes, and Māori cultural values.

Method 177 sets out the process and methodology to determine an appropriate instream minimum flow requirement and describes the series of evidence-based and values-based judgments that are required.

Overall, an assessment of the nature of the Project's activities against the regional planning provisions suggests the Project is not inconsistent with the RNRP.

Rotorua Lakes District Council

The underlying zoning of the Project site in the Rotorua Lakes District Plan ("RDP") is Rural with various Significant Natural Areas within proximity of the proposed development. The Taheke 8C Development Area also relates to the site, providing for the economic and social wellbeing of current and future generations through the establishment of activities including renewable electricity (with a focus on geothermal development), commercial businesses and tourism.

The RDP identifies key Strategic Directions for the district including in relation to renewable electricity, including:

- Objective SDRE-O1 that promotes the development and operation of renewable electricity generation resources and activities that contribute to the economic, cultural, and social wellbeing of Rotorua District, region and New Zealand. The objective is supported by:
  - o Policy SDRE-P1 that seeks to enable the efficient development, operation, use, maintenance and upgrade of renewable electricity generation developments;
  - o Policy SDRE-P3 that recognises the practical implications and constraints associated with the development and operation of renewable electricity generation activities, due to resource location, and functional and technical requirements; and
  - o Policy SDRE-P5 that recognises and provides for the national, regional and local benefits of renewable energy generation activities and resources in relation to climate change, security of supply and social, cultural and economic wellbeing.

The RDP also contains various district-wide and area-specific policy matters that are relevant to the Project proposal, including:

- Energy, infrastructure and transport;
- Natural Environment values;
- General matters (including earthworks);
- Rural Zone matters; and
- Development area matters (including Taheke 8C development area).

In summary, an assessment of the rule framework for the activities generally associated with hydro development are to be assessed as discretionary or potentially non-complying activities (depending on detailed design considerations).

In terms of the potentially non-complying discretionary activities, the consent authority can only grant consent if satisfied that the adverse effects of the activity are minor, or the application is for an activity that is not contrary to the objectives and policies of the RDP. As a project of this nature is likely to carry effects that are more than minor, a careful 'weighing up' exercise of the enabling and constraining objectives and policies of the RDP would be required.

Overall, an assessment of the nature of the Project's activities against the district planning provisions suggests the Project is not inconsistent with the RDP.

Anything else?

Please write your answer here:

What is the Taheke Green Energy Hub?

The Taheke Green Energy Hub will be made up of:

- Geothermal electricity generation, utilising the geothermal taonga within Taheke 8C lands; Hydroelectricity generation, utilising the waters of the Kaituna that flow through Taheke 8C lands;
- Biomass production, utilising the forestry resources present on Taheke 8C lands and fuelled by the electricity generated on Taheke 8C lands;
- Potential future green hydrogen and green diesel production, when those markets mature; and
- A range of downstream or cascade commercial developments that utilise the steam and fluid made available from geothermal extraction for tourism and other activities.

Generation derived from the Taheke Green Energy Hub will create capacity sufficient to displace 85% of the electricity currently imported into the Bay of Plenty region, reducing the region's current energy deficit to 12% of its annual demand. Generating baseload electricity and therefore without the vagaries that attach to wind and solar generation, the electricity is produced in a location that is immediately beside existing infrastructure of the National Grid and that is strategically located close to electricity demand.

From a portfolio perspective, having both geothermal and hydro generation available would enable Taheke 8C to:

- Plan for continuity of generation through scheduling of plant outages and maintenance such that one plant could be operational whilst the other was unavailable; and
- To scale up generation when regional or national peaks occur (primarily in winter).

The production of biomass pellets is the next step for the Taheke Green Energy Hub. Biomass use in New Zealand is expected to grow due to the advantages associated with the fuel source, including the development of New Zealand's successful forestry sector and the good plant growing conditions with space to grow trees. As a fuel source, biomass has a low emissions profile and is affordable. Utilising wood and wood waste (wood chips, wood pellets, forest residues, logs, sawdust and pulp) from forestry on Taheke 8C land and locally, the Taheke Biomass Project will be powered by electricity generation from on our whenua.

Further downstream projects (horticulture, milk production and others) will be brought online as they have by other generators. The intent is to optimise the use all available resources to build a sustainable and diverse portfolio of renewable commercial ventures on and for Taheke 8C.

Conclusion

Taheke 8C is ready to seize the opportunity that the Fast Track Application process offers it for the Taheke Hydro Project, just as it has with the related Taheke Geothermal Project. We welcome the opportunity to meet with Ministers to discuss this and the wider Taheke Green Energy Hub initiative. It has the very real potential to provide substantial economic benefit to Taheke 8C's Māori owners, the Rotorua district, and New Zealand as a whole. It allows the owners and kaitiaki of the land to exercise mana motuhake – to stand on their own feet and provide for future generations and the wider community. We seek the Government's support to continue to move forward with our aspirations.

For its role in the Taheke Green Energy Hub, the Taheke Hydro Project breathes new life into an already partially approved power station, which will have a low environmental impact. Taheke 8C believes this project meets multiple renewable energy, net-zero and related Government objectives.

At Taheke 8C we know we have the resources, we have the capacity, we have the infrastructure that includes the roading networks and transmission in place and we are ready.

We look forward to your positive consideration of this project.

Does the project includes an activity which would make it ineligible?

No

If yes, please explain:

## Section 8: Climate change and natural hazards

Will the project be affected by climate change and natural hazards?

Yes

If yes, please explain:

As a renewable electricity project that is subject to water flow there is the potential for it to be affected by climate change and natural hazards should they occur in their vicinity. In addition to the impact of lower precipitation caused by global warming significant weather events could result in significant sedimentation build up causing damage to the weir and turbines. With this in mind planning and plant design will factor in such events and consent conditions will recognise both minimum flows and requirements where water levels are significantly lower than optimum.

## Section 9: Track record

Please add a summary of all compliance and/or enforcement actions taken against the applicant by any entity with enforcement powers under the Acts referred to in the Bill, and the outcome of those actions.

Please write your answer here:

Not applicable

Load your file here:

No file uploaded

## Declaration

Do you acknowledge your submission will be published on environment.govt.nz if required

Yes

By typing your name in the field below you are electronically signing this application form and certifying the information given in this application is true and correct.

Please write your name here:

Peter Mason

Important notes