# Response ID ANON-URZ4-5F96-Y

Submitted to Fast-track approval applications Submitted on 2024-05-03 10:31:31

Submitter details

Is this application for section 2a or 2b?

2B

1 Submitter name

Individual or organisation name: Mt Ella Hydro Limited

2 Contact person

Contact person name: David Inch

3 What is your job title

Job title: Managing Director

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:

# s 9(2)(a)

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

Yes

Organisation: Mt Ella Hydro Limited

Contact person: David Inch

# Phone number: <u>s 9(2)(a)</u>

Email address: s 9(2)(a)

Job title: Managing Director

Please enter your service address:

### s 9(2)(a)

Section 1: Project location

### Site address or location

Add the address or describe the location:

DAVID

LINZ ID3622796 TitleNL9A/1014 Legal Sec 1 SO 14361 LINZ ID3651940 TitleNL9A/1014 Legal Sec 7 SO 14361 LINZ ID3601970 TitleNL5A/1029 Legal Lot 2 DP 9752 LINZ ID3625681 TitleNL5A/1028 Legal Lot 1 DP 9752 LINZ ID3601894 TitleNL9A/1014 Legal Sec 5 SO 14361 LINZ ID3618660 TitleNL5D/762 Legal Lot 1 DP 10502 Title5A/1028 5A/1029 Legal Lot 1 DP 10502 LINZ ID3652061 TitleNL9A/949 Legal Pt Lot 2 DP 10502 Title5A/1028 5A/1029 Legal Pt Lot 2 DP 10502

File upload: Mt Ella Renewable Energy project Location Plans.pdf was uploaded

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

No

upload file: Mt Ella Renewable Energy Land Parcels and Titles v1.pdf was uploaded

Who are the registered legal land owner(s)?

Please write your answer here:

REM Farming Limited > 95% of the total project footprint Public Conservation land under Stewardship by the Department of Conservation LINZ (Hydro Parcel) Tasman District Council (Legal Road Reserve)

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:

A tenure agreement is in place with the private landowner. A Concession from the Department of Conservation to occupy Public Conservation land and LINZ to occupy the riverbed and margins is also required.

Section 2: Project details

What is the project name?

Please write your answer here: Mt Ella Renewable Electricity Project

What is the project summary?

Please write your answer here:

The Mt Ella Renewable Electricity Project is a bundle of staged small-scale hydro and solar electricity generation projects based around using the existing infrastructure of the operating hydro power system and embedded distribution network owned by Mt Ella Hydro Limited and expected to produce in total 168GWh of electricity annually with a forecast project cost of \$180M

What are the project details?

Please write your answer here:

The Project's primary purpose is the production of renewable electricity that will feed the embedded network and the local electricity distribution network in the Nelson region. The injection point is in a rural part of the network and electricity supply at this point will improve security of supply and reliability for rural homes and businesses. The project will involve some upgrading of distribution lines and Transmission interconnection. The scheme will also be adopting new energy technologies like Green Hydrogen production as those technologies become economically viable. The scheme is located in the Murchison District in Nelson. This project is a Joint Venture with the landowner.

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

#### Please write your answer here:

The first step of this Project will be Watson Creek Stage 2 Hydro Scheme which is the hydro proposal upstream of an existing Mount Ella mini hydro scheme and with the addition of Stage 2 will result in a cascade system with two power stations located on farmland at Mount Ella Station. The forecast output of the project is 400 kW with an annual production dependent on load in the local area and could be up to 2.4GWh per annum. To enable this renewable electricity production it is planned to construct a second stage hydro-electric power scheme by installing a new upper diversion of water from the upper reaches of Watson Creek at approximately the 690 metre contour and pass the water through the intake structures, and penstocks, into the hydro turbine generating facilities at the 550 metre contour. The water will be discharged from the new power station directly into the existing settling structure that feeds the existing lower power station on Watson Creek with water passing through the turbines and returning to Watsons Creek.

The subsequent stages of the Mt Ella Renewable Electricity Project are:

Mt Ella Hydro Mole Stream is another farm based hydro generation proposal on an ephemeral stream which will provide similar environmental benefits as the Watson Creek scheme. The scheme would be similar in capacity and produce approx. 2.5Gwh annually.

Mt Ella Hydro Windfall Flat is a proposal to build a 3 - 6 stage low head high flow hydro cascaded power scheme on REM (private) land using the natural fall of the Matakitaki river as it transgresses across the property. This proposal is currently refining the concept at the preliminary engineering level. The scheme could be up to 4.8Mw in capacity and produce 25 Gwh annually.

Mt Ella Hydro PV farm is a proposal at the pre-consenting level. It is a proposal to install significant grid scale PV solar farm. More consideration will be given to this when planning for a network upgrade and/or the deployment of a hydrogen production facility. The available 80Ha equates to 70Mw of solar PV capacity and 98 GWh of annual electricity production. A smaller 1MW PV array is also proposed next to the existing small hydro thereby making use of the existing embedded distribution network.

Mt Ella Hydro Upper Matakitaki (above Windfall Flat) is a proposal to build a low head high flow hydro power scheme on Department of Conservation Stewardship Land (was until recently LINZ hydro parcel and road reserve) using the natural fall of the Matakitaki River as it transgresses down the valley. This proposal is currently at high concept level. The scheme could be up to 8MW in capacity and produce 40 GWh annually.

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

#### Please write your answer here:

Approvals for the project are required under the Resource Management Act 1991 along with a Concession from the Department of Conservation to occupy a small portion of public conservation land and approval from LINZ to occupy the riverbed and margins. Also sections of Matakitaki and Mole streams have restrictions placed on them under the MfE water conservation order.

Ecological studies in the original scheme's application indicated that field studies, found no fish, native or introduced species and or eel life in Watson Creek. This is likely due to the ephemeral nature of the lower reach of the stream before it flows into the Matakitaki River.

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

Please write your answer here:

The project is located in the Tasman District with the local authority being the Tasman District Council.

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

Please write your answer here:

Only a resource consent application for the Watson Creek Stage 2 Hydro Scheme project has been submitted to the Tasman District Council. This will be withdrawn if this larger Mt Ella Hydro Renewable Electricity Project is placed on the Fast-track Approvals process.

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

Yes

Please explain your answer here:

A tenure agreement is in place with the private landowner. As discussed above a Concession from the Department of Conservation to occupy public conservation land and approval from LINZ to occupy the riverbed and margins is also required.

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

Please write your answer here:

Work will start immediately on the procurement of equipment for the Watson Creek Stage 2 power station. This will also include discussions for equipment for the Mole and Matakitaki schemes which will be staged to follow on from the completion of the Watson Creek Stage 2 Scheme. The Watson Creek Stage 2 scheme will be a 9 month build from approval to completion.

At the same time as the above work being undertaken upgrading of the distribution network will also begin to facilitate the addition generation. It is probable that resource consents will also need to be granted by the Expert Panel for some of this work. It is likely this will also require approvals from

Transpower.

Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

Local iwi

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:

The applicant has contacted local iwi Ngati Wae Wae to discuss the potential to develop this Renewal Electricity project. To the best of our knowledge there is no known areas of significance to Māori that the project may intrude upon as was determined when the existing Watson Creek power scheme was developed in 2019.

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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:

None required.

Section 4: Iwi authorities and Treaty settlements

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

Please write your answer here:

To the best of our knowledge there is no known areas of significance to Māori that the project may intrude upon.

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?

No

If yes, what are they?:

Is the project proposed on any land returned under a Treaty settlement or any identified Maori 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:

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### Section 5: Adverse effects

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

Please describe:

This scheme has been many years in the planning with extensive monitoring and ecological studies having been already undertaken.

Ecological studies have identified, as with the existing consent, there will be a reduction of flow in the upper reach of Watson Creek due to the taking of 400L/sec and there will be some effect in this area. However, the potential adverse effect will be minor because it has been scientifically proven that there is very limited aquatic fauna habitat this stretch of Watson Creek. Ecological studies in the original scheme's application indicated that field studies found no fish, native or introduced species, and no eel life in Watson Creek. This is likely due to the ephemeral nature of the lower reach of the stream before it flows into the Matakitaki River.

The very nature of the hydro scheme's infrastructure is that it creates very little effect on the environment for the following reasons:

• The intake structure is designed to take a finite amount of water (400l/s) while letting the residual flow pass on downstream. A screen in the weir allows for the extraction of water while screening to remove material that would otherwise cause potential blockages in the power system. To a minor extent, flows will be reduced, reducing potential riverbank erosion. At flood stage the river will be unaffected by the scheme in that the limited take of the system will remain finite whilst the high volume flood stage will be natural in volume.

• The take/use of the waters of Watson Creek is non-consumptive. That is, the resource is utilised briefly to generate electricity before returning to Watson Creek.

• Most of the conveyance structures will be buried and careful planning will ensure construction impacts will be minimised and temporary.

• There will be some discharge of sediments in the stream during construction but with careful planning these impacts will be minimised and temporary.

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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:

To the best of our knowledge three is just the National Environmental Standard for water monitoring that is relevant to the proposals. The National Policy Statement for Renewable Electricity Generation 2011 (NPS REG) sets out the objective and policies for renewable electricity generation. The objective and policies within the NPS REG relate to the development, operation, maintenance and upgrading of existing renewable electricity generation activities to ensure they can operate as effectively and efficiently as possible.

Watson Creek can sustainably provide renewable electricity to generate up to 400kW reinforcing the power supply to a remote farming operation and the local Murchison area.

In relation to Policy A on the benefits of renewable electricity anticipated in the NPS REG, the Mt Ella Renewable Electricity Project will:

• increase New Zealand's renewable electricity supply by 168GWh, thus avoiding, reducing or displacing the greenhouse gas emissions;

• increase security of supply of electricity to people and businesses in the local area of the Murchison District by increasing the diversity of the type and location of electricity generation. At the moment if a nearby distribution line goes out, these people either lose electricity supply or have to run their own diesel generation plant;

• reduce the capacity constraints forecast to effect the top of the South island transmission grid (Christchurch and north to Nelson);

• use renewable natural resources of water in a non-consumptive way instead of finite fossil fuels; and

• avoid reliance on imported fuels for the purpose of generating electricity.

This Project is also consistent with:

• Policy C in that this increased generation capacity will contribute to the New Zealand Government's national target for the generation of electricity from renewable resources; and

• Policy F by supplying electricity to the surrounding local community via its connection to the distribution network.

The National Policy Statement for Freshwater Management 2014 (issued by notice in the Gazette on 4 July 2014) directs Regional Councils to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. There are no long-term impacts on water quality. The hydro projects are non-consumptive water takes.

Ecological studies in the original scheme's application indicated that field studies, found no fish, native or introduced species and or eel life in Watson Creek. This is likely due to the ephemeral nature of the lower reach of the stream before it flows into the Matakitaki River.

The new National Policy Statement for Indigenous Biodiversity 2023 is clear in its description of what it applies to that - clause 1.3:

(3) 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:

The Project is relying on economies of scale to both construct and deliver the electricity to the market. There are several individual generation plants (solar and hydro) that would otherwise need to go through individual consenting processes which would take years and would be prohibitively expensive. However, when combined they provide the necessary scale to proceed with the development. This Fast-track approvals process is an essential tool and would allow the development to proceed forthwith once approval is gained. This project would start on the first stage immediately the fast-track approval is received.

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

Please write your answer here:

This Project is not complicated to approve - construction is to occur predominately on private land and this Project demonstrates a commitment to maximise the use of natural renewable resources to achieve a reliable and resilient supply of electricity to the regional community and economy. The first stage is the Watson Creek Stage 2 hydro scheme. This is a mirror of the existing scheme that was approved in 2019. The same effects are present and conditions to monitor the activity are already in place with the existing scheme.

Also relevant is that Hydro power schemes have been in existence in New Zealand for well over 100 years now. The effects on the environment are well and truly understood and measures to avoid, minimise and mitigate these effects are also well and truly known.

Large scale PV solar is also now very well understood. Like hydro, the measures to avoid, minimise and mitigate these effects from this activity can be drawn on from other similar scale developments already consented in New Zealand.

Referring this Project for the fast-track process will avoid the current bottleneck in consenting which re-invents the wheel on each and every new application, even when an activity is identical to an existing consented activity at the same location.

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

Central government plan or strategy

Please explain your answer here:

Construction of new renewable generation capacity is essentially a central government priority if New Zealand is to meet its international commitments to reducing greenhouse gas emissions. Use of electricity in transport and industrial processes is forecast to increase demand for electricity significantly. Every additional capacity increment contributes to this substantial task. In addition, connecting generation capacity within distribution networks reduces the need for new investment in transmission and distribution infrastructure.

Importantly there are capacity constraints forecast to affect the top of the South Island transmission grid (Christchurch and north to Nelson). This project will assist with deferring costly transmission upgrades.

Will the project deliver regionally or nationally significant infrastructure?

Regional significant infrastructure

Please explain your answer here:

The entire Project will deliver ~168GWh of electricity each year - the annual usage of electricity of 24,000 average households (7033kWh av. Consumption in March 23 year; 2.7 people per household).

The budgeted project cost is \$180M a significant economic boost for the region.

Nelson/Tasman is a region experiencing population and economic growth. The project is also significant as it moves the region towards 100% supplied by its own renewable energy supply.

This project is most certainly regionally significant infrastructure.

Will the project:

contribute to a well-functioning urban environment

Please explain your answer here:

Electricity is essential to a well-functioning society - both urban and rural environments.

It is a forgotten essential service when it comes to district planning for new housing developments.

No consideration is given to where is the energy is going to come from to supply the new housing developments and commercial and industrial activities that have been approved. So, where land is being made available for new housing, equally renewable energy projects need to be incrementally approved to supply the power to these houses.

Additionally, now with the push for EV's, the same consideration needs to be given to "where is the power going to come from to charge the EVs". Electrification of industry will place high demand on electricity supply. It is now well established that this electricity needs to be generated from renewable sources and it needs to be generated locally

Will the project deliver significant economic benefits?

Yes

Please explain your answer here:

The economic benefits will be significant for the region during construction - employing up to 50 staff and contractors during the peak of the builds. It is expected the staged approach will take 3-5 years to complete, providing a significant boost to the local economy. The budgeted project cost is \$180M a significant economic boost for the region.

This Project is also expected to result in a lower cost of electricity for the region - providing economic stimulus to business and improving the cost of living for households. In addition, there is the economic benefit of not losing supply of electricity. The savings in electricity lost through transmission and distribution losses is estimated at greater than 11%.

Will the project support primary industries, including aquaculture?

Yes

Please explain your answer here:

This Project is embedded in the local rural economy and will support primary industries. This includes dairying and hop processing facilities. As technologies develop this will lead to on farm carbon reduction through the use of green hydrogen that will be produced at the source by this renewable electricity project.

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

Yes

Please explain your answer here:

This Project supports the use of natural resources that are continuously replenished (renewable) with minimal impact on the environment. It will have the capacity to produce green hydrogen and methanol from the renewable electricity it produces.

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

Yes

Please explain your answer here:

The project will have a significant impact on climate change mitigation. The total output of 168GWh per annum of renewable electricity will displace 34,000T/yr greenhouse gas emissions from burning fossil fuels to generate electricity. This may be avoiding members of the community using diesel generation plant as well as reducing the need to run utility-scale fossil-fueled generation plant in the North Island.

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

Yes

Please explain your answer here:

The Project improves resilience for the surrounding community – on a daily basis and during recovery from natural hazards. The generation plant will be designed to run islanded so that it can be generating when the area is disconnected from the national transmission and distribution networks.

Will the project address significant environmental issues?

No

Please explain your answer here:

No but the Project is also not expected to create significant environmental issues.

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

Yes

Please explain your answer here:

The local and regional planning documents are silent on renewable generation.

Anything else?

Please write your answer here:

This Project with make use of existing infrastructure and at the same time achieve national objectives of increasing renewable generation and reducing carbon emissions.

It provides significant regional benefits through security of supply, increased renewable generation, lower cost electricity and economic benefits through

the construction stage of the project.

It will also provide the opportunity to eventually develop a fully 100% renewable supply to the region. It is very important to note that energy infrastructure passes the test of time so investment in infrastructure is very important and necessary.

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:

The Project may be affected by climate change to a small effect due to rain fall variations and natural hazards but the design and choice of technologies will take this into account to the extent possible and options for mitigants assessed over time.

# 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:

nil

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# 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: David Graeme Inch

Important notes