

Submitted to Fast-track approval applications
Submitted on 2024-05-02 19:35:21

Submitter details

Is this application for section 2a or 2b?

2B

1 Submitter name

Individual or organisation name:
New Zealand Energy 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:
NZ Energy Limited

Contact person:
David Inch

Phone number:
s 9(2)(a)

Email address:
s 9(2)(a)

Job title:
Managing Director

Please enter your service address:

25 Green Tree Road
Riwaka 7198
Nelson

Section 1: Project location

Site address or location

Add the address or describe the location:

South Westland, West Coast of the South Island

File upload:

West Coast Renewable Energy project Location Plans v1.pdf was uploaded

Upload file here:

No file uploaded

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

Yes

upload file:

West Coast Renewable Energy Land Parcels and Titles v1.pdf was uploaded

Who are the registered legal land owner(s)?

Please write your answer here:

Jon Douglas Sullivan and Alison Jean Sullivan and Public Conservation Land, Wilberg Scenic Reserve administered by the Department of Conservation for the Harold Creek power scheme

Westland District Council Road Reserve and Hydro Parcel administered by Land and Information New Zealand for the Dry Creek (little Man River) power scheme

Private Land owned by Kimberly Lex Landreth and Kim Landreth Family Trustee 8025 Limited; Road reserve administered by the Westland Regional Council; and Stewardship Land administered by the Department of Conservation for the Turnbull No2 power scheme in Haast, South Westland

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:

Agreements with private landowners is required (initial discussions confirm support for these projects).

Agreement is required with the Westland District Council to gain the required tenure over the unused legal road reserve to construct and operate the scheme.

An agreement with LINZ will be required to occupy the riverbed and margins.

A Concession from the Department of Conservation to occupy land is required.

Section 2: Project details

What is the project name?

Please write your answer here:

West Coast Renewable Energy Project

What is the project summary?

Please write your answer here:

West Coast Renewable Energy Project covers three locations for low impact smaller run of river hydro electricity generation which provides diversity to NZ's hydro generation portfolio.

These three projects are intended to be constructed simultaneously and some aspects will be consecutive. This will provide the scale of economies that are needed when developing small scale energy projects. Resources can be shared, and the projects will provide a sound stimulus to the South Westland economy.

What are the project details?

Please write your answer here:

The primary purpose is the production of renewable electricity that will feed the local electricity distribution network in the South Westland area. In addition the Turnbull No2 project will supply the Haast community - an area not connected to NZ's national grid.

Harold Stream hydro is a run of river hydro proposal located on farmland at the foot of the Wilberg Range near Harihari in South Westland. The forecast output of the project is 0.7MW with an annual production of 4GWh. To enable this renewable electricity production it is planned to construct a hydro-electric power scheme by diverting water from the Harold Creek, through a streambed intake structure, and penstocks, into a hydro turbine generating facility close to State Highway 6 and discharge this water back to the Harold Creek.

Dry Creek (Little Man River) Hydro Scheme is a run of river hydro proposal located on Crown Land at the foot of the Southern Alps near Whataroa in South Westland. This is close to Harold Creek project. The forecast output of the project is 5MW with an annual production of 21GWh. The proposal is to

construct a hydro-electric power scheme by diverting up to 5,000litres/second of water from the Dry Creek (Little Man River), from an intake site at approximately 195m above Mean Sea Level (m.s.l) and discharge back into Dry Creek (Little Man River) at the approximately 67m above m.s.l. The water would be conveyed from the intake to a gravel settling chamber located on the true left bank of Dry Creek (Little Man River) and transported through a buried pipeline to a new powerhouse downstream of State Highway 6.

Turnbull No 2 Hydro Scheme is a run of river hydro proposal located on the right bank of the Turnbull River downstream of an existing power station near Okuru in South Westland. The current power scheme has been in existence for 50 years and the activity will continue unchanged from what has been occurring and therefore the effects on the environment are now established and have been assessed on that basis. The forecast output of the project is 700 kW. As the site is to provide for resilience should the existing station be off line and to supply load growth in the Haast area the annual output will be governed by overall demand. The potential maximum energy produced is approximately 4 GWh per annum. The proposal is to construct a hydro-electric power scheme by re-diverting up to 2,500litres/second of water from the discharge of the existing power station or if that is offline from the Turnbull River, from an intake site at approximately 49m above Mean Sea Level (m.s.l) and discharge back into the Turnbull River at the approximately 12m above m.s.l. The water would be conveyed from the intake to a gravel settling chamber located on the true right bank of the Turnbull River and transported through a 1,600m long buried pipeline to a new powerhouse.

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

Please write your answer here:

Once approval is granted the first stage will be to construct the Harold Creek Scheme, however all schemes will start roughly around the same time to make the best use of resources.

Each of the three hydro power schemes can be constructed and commissioned within 18 period of commencing the project and it will be managed so they are commissioned sequentially. This means labour and resources involved will be fully employed for a period of up to 3 years to complete construction.

This will be a very good stimulus for the South Westland economy.

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, the Reserves Act and concessions under the Conservation Act. There will also be land access agreements needed from LINZ and use of road reserve from the Westland District council.

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 Westland District with the local authority being the West Coast Regional Council and Westland District Council.

nb: the district plans are being combined into one Westcoast plan called the Te Tai o Poutini Plan

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

Please write your answer here:

Resource consent applications for each of the three power schemes of this Project have been submitted to the West Coast Regional Council. These will be withdrawn when this Project is approved for the fast-track process.

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

Yes

Please explain your answer here:

Along with agreement with the Westland District Council to gain the required tenure over the unused legal road reserve to construct and operate the three power schemes, an agreement will be required with the private landowners, a Concession from the Department of Conservation to occupy land for all three power schemes and LINZ to occupy the riverbed and margins.

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

Please write your answer here:

Once approval is received work will immediately start on the detailed engineering. This is expected to take 3 months. Procurement of equipment will follow and there is normally a 6-9 mths delivery.

onsite construction of civil works can begin at the same time.

Funding will be provided by the company bankers.

Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

The applicant has met with local iwi and discussed the projects, and they are in support of them but await further detail on the projects. This has been provided for Harold creek and they are in general agreement of the project and are currently in discussion around conditions. To the best of our knowledge there is no known areas of significance to Māori that the project may intrude upon.

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:

See answer above

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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. This has been confirmed by the SAMs that are forming part of the new Te Tai o Poutini Plan

The Harold Creek site is on private property (other than the river bed) apart from a section in the Wilberg Reserve where the intake site is located and a section of pipeline traversing the margins of Harold Creek. The Reserve is administered by the Department of Conservation.

Dry Creek (Little Man River) site is fully within Crown Land (Hydro Parcel) and Road Reserve.

Turnbull No2 site is a mixture of private land, Crown Land (Hydro Parcel), Public Conservation Land and Road Reserve

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 Māori land described in the ineligibility criteria?

No

Has the applicant has secured the relevant landowners' consent?

No

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:

Each of the power schemes in this project have been under consideration/planning for 10 years with extensive monitoring and ecological studies having been undertaken.

For the proposal for Turnbull No2 power scheme:

- Hydrological studies concluded that the volume of water extracted for generation purposes is small in comparison with the size of the river, estimated at less than 10% of the median flow and less than 30% of MALF. The loss of fish habitat from this extraction is minimal and thus posing a less than minor effect on the environment.
- Ecological studies The Turnbull River in the stretch of water between the current intake and discharge points supports native fish and trout. There is no impediment to the migration of fish both upstream and downstream of the power scheme. The current proposed intakes are located in a steep very turbulent gorges which has limited access and therefore offers limited fishing opportunities for recreational fishers. The volume of water extracted for generation purposes is small in comparison with the size of the river, estimated at less than 10% of the median flow and less than 30% of MALF. The loss of fish habitat from this extraction is minimal and thus posing a less than minor effect on the environment.
- Whitewater NZ have identified the Turnbull River as a river that is sometimes kayaked. On one occasion a kayaker has been observed "putting in" at a point opposite the power house which is well below the power scheme intake point. Given the small percentage of water diverted for the power scheme it is not considered significant for effecting kayaking. Kayakers have however raised issues with not having vehicle access to this site. This is not something NZ Energy can provide as they are not the land owners and that matter would need to be taken up between the Kayakers and the landowner.
- Scenic Values: The area between the varied water intake and the power station traverses through an extension of the upstream Venture Gorge. This is a very steep and rugged river section which features very large boulders. The proposed activity does not alter the river bed but does provide a good access track (walking) to the public who would gain a good vista of an alpine river gorge system.
- Given the construction methodology and the location of structures either in or on the margins of the Creek, long term it is unlikely that the access track and penstock would be visible from the surrounding areas as the pipeline is buried and access tracks will be formed using river bed material.
- The take/use of 2,500 litres/second of water from the Turnbull River is non-consumptive. That is, the resource is utilised briefly to turn a turbine before returning to the Turbull River system.

For the Dry Creek (Little Man River) power scheme:

- Hydrological studies concluded that below where the Dry Creek (Little Man River) exits the gorge in the Southern Alps surface flows seep into the outwash gravel fan resulting in reduced surface flow upstream of the State highway and during low flows the flow ceases altogether.
- Ecological surveys on two selected reaches of Dry Creek (Little Man River) included samples of both the fish and macroinvertebrate populations. Invertebrate communities indicated "excellent" water quality and overall stream health at both sample locations. Both reaches contained numbers of native fish (koaro) and brown trout. Koaro have a conservation status of declining. As a result the proposal will (as recommended by AEL) a) maintain a residual flow of 75% of MALF (585 l/s) past the intake during the period from (spring) October to December each year thus maintaining surface water connectivity between the intake and powerhouse locations to ensure fish passage for koaro or whitebait; b) if at all possible, deny trout access into the upper Dry Creek (Little Man River) to protect the catchment from trout invasion, and consequent adverse impacts on the ecology of resident native fish.
- The take/use of 5,000 litres/second of water from Dry Creek (Little Man River) is non-consumptive. That is, the resource is utilised briefly to turn a turbine before returning to the natural order of the Dry Creek (Little Man River) system.

For the Harold Creek power scheme:

- Ecological studies identified that the lower reach of Harold Creek above and below SH6 is ephemeral in nature as this reach goes sub-terrain with a dry, stoney bed for the 3km stretch before converging with St Georges Creek which in turn converges with the La Fontaine Stream. "Native fish were identified in all of the comparison waterways but no fish at all were found in Harold Creek upstream of SH6. This was considered to be due to the lack of access from the sea, as the waterway dries upstream of La Fontaine Creek." On vegetation, less than minor, given the construction methodology and the location of structures either in or on the margins of the Creek or traversing farmland. Long term it is unlikely that the access track and penstock would be visible from the surrounding areas as the pipeline is buried and access tracks will be formed using river bed material.
- The take/use of 600 litres/second of water from Harold Creek is non-consumptive. That is, the resource is utilised briefly to turn a turbine before returning to the natural order of the Harold Creek system.

Generic to all of these power schemes:

- Overall, the non-consumptive use of water will result in positive effects whilst providing for the health and wellbeing the energy consumers and farming community in the area.
- Given the construction methodology and the location of structures either in or on the margins of the waterways long term it is unlikely that the access track and penstock would be visible from the surrounding areas as the pipeline is buried and access tracks will be formed using river bed material.
- Careful planning means 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:

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.
Renewable generation infrastructure must be built at the source of the renewable fuel.

In relation to Policy A on the benefits of renewable electricity anticipated in the national direction NPS-REG, the Harold Creek hydro power scheme will:

- sustainably provide renewable water fuel to generate 4GWh per annum, enough to supply electricity to 440 households
- increase New Zealand's electricity generation capacity by 0.7MW that uses renewable fuel, thus avoiding, reducing or displacing the use of fossil fuels and 800 t/annum of Co2e greenhouse gas emissions;

The Dry Creek (Little Man River) hydro power scheme will:

- sustainably provide renewable water fuel to generate 21GWh per annum, enough to supply electricity to 3,300 households
- increase New Zealand's electricity generation capacity by 5MW that uses renewable fuel, thus avoiding, reducing or displacing the use of fossil fuels and 4,200 t/annum of Co2e greenhouse gas emissions;

The Turnbull No2 hydro power scheme will:

- sustainably provide renewable water fuel to generate 4 GWh per annum, enough to supply electricity to 440 households
- most importantly, this scheme will provide renewable energy to back up the current power supply to the Haast Area, offsetting the need to burn diesel, and provide greater resilience during periods where the current supply is interrupted. The proposed powerhouse is immediately adjacent to the desired location of connect to the local distribution – minimising the cost of this connections;

Overall, there will be an increase the security of supply of electricity to people and businesses in the South Westland district, providing resilience and reducing reliance on long-stringy transmission network supplying electricity from south-east of the South Island or North Island.

Any impact on fish will be minimised by the design of the intakes so that they only obstruct a small section of the flowing river therefore avoiding restrictions on fish passage; and have screens to prevent entry of trout and any koaro that might swim into the intake.

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 minimal and temporary impacts on water clarity during construction. There are no long term impacts on water quality.

There are no National Environmental Standards relevant to this Project.

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 that would otherwise need to go through individual consenting and DoC concession 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 public land away from the public. 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 will be the Harold Creek hydro scheme which is very similar in design and effects as the Watson Creek scheme that was approved in 2019. The same effects are present and conditions to monitor the activity are already in place with that 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.

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. In particular the duplication of processes when requiring a DoC concession.

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 and over to the Westcoast). 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 ~26GWh of electricity each year to the Westcoast- the annual usage of electricity of 3,700 average households (7033kWh av. Consumption in March 23 year; 2.7 people per household). This is very significant for this region.

There is already a transmission constraint for the upper South Island which includes the Westcoast. This additional generation will help in improving resilience and security of supply on the Westcoast.

Haast is a region in itself and relies 100% on the power generated from the Turnbull power station. This is nearing maximum peak capacity and so new generation must be built soon to maintain a reliable supply of electricity to this region. It cannot come from anywhere else. It is not connected to the national grid.

In addition, the uptake of EVs will place a large capacity burden on the power system in South Westland. New generation will be needed to meet this growing demand.

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 the energy is going to come from to supply the new housing developments 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. The same can be said for commercial and industrial activities. They all need electricity.

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 EV's".

This is also incredibly important for South Westland as this is a major tourist route which will start having a big uptake of EV's.

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 20 staff and contractors during the peak of the builds. It is expected the staged approach will take 3-4 years to complete, providing a significant boost to the local economy.

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 13%. These losses will also reduce.

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 general farming. Tourism should also be considered under this category. It is a huge contributor to the regional economy and is heavily dependent on electricity. 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 25GWh per annum of renewable electricity will displace 5,000T/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:

Yes, the regional plan supports renewable generation.

Anything else?

Please write your answer here:

New generation is needed on the Westcoast and South Westland. Growing demand from important industries like tourism and now with the uptake of EVs this is going to push the networks capacity to maximum.

In Haast the generation capacity was peaking at maximum prior to Covid and once tourism returns to pre covid levels, new generation is going to be needed. This means it needs to be built now.

Incremental increase in generation through these small-scale schemes is needed to meet the growing demand.

Does the project include 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:

There have been a few minor compliance breaches taken against the applicant relating to monitoring reporting at one hydro power station in the North Island. But no enforcement action has been taken.

There have been no non-compliances with the power schemes in South Westland. The applicant can provide further information if required.

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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