Response ID ANON-URZ4-5FAJ-U

Submitted to Fast-track approval applications
Submitted on 2024-05-01 14:12:05

Submitter details

Is this application for section 2a or 2b?

2A

1 Submitter name

Individual or organisation name:
South Island Resource Recovery Ltd (SIRRL)

2 Contact person

Contact person name:
s 9(2)(a)

3 What is your job title

Job title:
s 9(2)(a)

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?

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:

14.85 Hectares Moven Glenavy Road Waimate

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

No

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s 9(2)(b)(ii)

Who are the registered legal land owner(s)?

Please write your answer here:

s 9(2)(b)(ii)

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:

s 9(2)(b)(ii)

Section 2: Project details

What is the project name?

Please write your answer here:
Project Kea □www.projectkea.co.nz□ Waste to Energy plant (WtE)

What is the project summary?

Please write your answer here:

Project Kea will incinerate 365,000 tonnes of post-recycled waste destined for landfill to generate steam that will drive two turbines producing 30MW of baseload electricity for both Commercial and Domestic markets.
s 9(2)(b)(ii)

What are the project details?

Please write your answer here:

Purpose
Project Kea will incinerate waste destined for landfill to produce renewable energy in the form of electricity and/or steam, avoiding the generation of methane and the leaching of contaminants experienced by landfills.

Objectives
1.To meet the different requirements for ether commercial or domestic use the plant has two modes of operating. -- Electricity only producing 35MW electricity 30MW nett or Electricity 20MW nett and 40 tonnes/per hour of steam sent direct to industry to assist in a commercial de-carbonisation strategy
2.To produce 100,000 tonnes of grate ash and 20,000 tonnes of plasma treated hazards fly ash for the construction industry as a replacement for gravel and sand.
3. To have the ability to produce liquid food grade CO2 and supply CO2 and secondary steam for the horticulture industry via Glass house technology.
4. To recover approximately 4700 tonnes of ferrous and 800 tonnes of non-ferrous metals per annum from the grate ash for recycling.

Activities
Incineration of waste destined for landfill.
A seven-step air filter process and plasma treatment to capture toxic gases making them inert.
Produce steam to drive turbines to produce renewable energy.
Water is filtered and recycled eliminating any leaching to the land.
Using Kiwi rail to transport 50% of the waste reducing truck movements and emissions.

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

Please write your answer here:

SIRRL has received approval from the Overseas Investment Office to buy the land on which the plant will be built. The conditions of approval include the timing and staging of project Kea, as outlined below.

s 9(2)(b)(ii)

s 9(2)(b)(ii)

s 9(2)(b)(ii)

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

Please write your answer here:

Resource Management Act 1991

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

Please write your answer here:

The relevant local authorities are Environment Canterbury (Ecan) and Waimate District Council (WDC)

Both local authorities request that the Government "Call In" the project, SIRRL agreed with their recommendation.

The completed Resource Consent application is with the Enviromental Protection Agency (EPA)

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

Please write your answer here:

SIRRL has applied to purchase the land from the OIO and received approval to proceed on the 18th of March 2024

SIRRL applied to Ecan and WDC for a Resource Consent - Ecan and WDC requested it be called in by government- the application is currently with the Environment Protection Agency. (EPA)

s 9(2)(b)(ii)

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

Yes

Please explain your answer here:

A Building Consent will be required from WDC in due course.

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

Please write your answer here:

Detail Design
A macro view of the exterior design and interior has been undertaken. The incineration system has been designed.

Procurement
SIRRL intends to offer by tender the opportunity to NZ companies to build the shell and associated infrastructure. CNTY one of the JV partners in SIRRL who build and fitout a number of these plants around the world will supply all the fit-out components and complete the WtE plant to the specifications set out in the RC.

Funding
s 9(2)(b)(ii)

Site works Completion.
s 9(2)(b)(ii)

Section 3: Consultation

Who are the persons affected by the project?

Please write your answer here:

Relevant local Authorities
Environment Canterbury and Waimate District Council

Relevant IWI Authorities
Te Rūnanga o Ngāi Tahu, Te Rūnanga o Arowhenua, Te Rūnanga o Moeraki, Te Rūnanga o Waiho

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 undertaken community consultation with key stakeholder groups to assist in informing the resource consent application package. A summary of the community consultation undertaken is set out in the Consultation Summary Report Technical Report 18 In brief, this included:
Multiple media announcements on the project to keep the community informed at each stage of the project.
1. A number of public meetings to ensure that the concerns of the community are addressed appropriately.
2. A website was set up to keep the community informed and encouraged to comment on the project.
3. Meetings with individual key stakeholder groups to capture their feedback.
4. Consultation with relevant Mana Whenua groups to inform the Cultural Impact Assessment.
5. Letters to all households in Glenavy and all key stakeholder groups announcing the location of the 6. Project Kea site and a package setting out the likely detailed studies to be undertaken.

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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:

Not applicable

Section 4: Iwi authorities and Treaty settlements

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

Please write your answer here:

This comes straight from the Resource Consent applications planning report.

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?

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?

Yes

If yes, please explain:

An assessment of cultural impacts has been undertaken within the Planning report attached to the resource consent application. No customary rights exist.

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:

A comprehensive assessment of the potential adverse effects of the project on the environment has been undertaken by suitably qualified experts. Each expert has produced a Technical Report detailing the assessment undertaken and the anticipated effects on the environment.
A total of 19 technical reports informed the application and a summary of the key Technical Reports and the potential effects on the environment is set out below.
In summary there are no anticipated adverse effects on the environment beyond those minor effects currently authorised by the relevant National Environmental Standards.
Effects on air quality
1. An Air Quality Emissions Assessment Report (Technical Report 5) has been prepared by Andrew Curtis of PDP. Mr Curtis assessed the potential impacts of Project Kea on air quality issues arising from the following key sources: combustion emissions, odour emissions, dust deposition and cumulative assessment.
2. The Air Quality Emissions Assessment concludes that:
• Having assessed the worst-case conditions with air discharges from the Project Kea site, it is unlikely that Project Kea will result in adverse health effects at any sensitive receptors at or beyond the site boundary. This conclusion is based on a conservative approach to modelling of the pollutant discharges and based on the site operating 24 hours a day, and seven days a week at capacity.
• The odour discharges from the scrubber and stack have been modelled separately using an odour concentration of 500 OU/m3 each. This is in line with data from other air discharges assessments on plants with a similar level of treatment.
• The air dispersion modelling results predict that the maximum off-site combustion emission concentrations are below the relevant assessment criteria.
• With respect to the combustion emissions and magnitude of change of each pollutant, the overall conclusion is that the impact from the Project Kea site operations on the environment is unlikely to result in any adverse health effects beyond the Project Kea site boundary.
Effects on human health
3. A Human Health Risk Assessment Report ("HHRA") (Technical Report 6) has been prepared by Environmental Risk Sciences, which undertakes a human health risk assessment in relation to the potential impacts on the community located outside the Project Kea site, associated with changes to air quality arising from the operation of Project Kea. The HHRA uses the air quality modelling data results set out in the Air Emissions Assessment Report, as informational input to undertake the human health risk assessment.
4. The HHRA concludes that:
• With respect to inhalation exposures: all risks to human health are considered negligible for the duration of the EfW Plant.
• With respect to multi-pathway exposures: all chronic risk to human health are considered negligible for the duration of the EfW Plant. Emissions from EfW Plant would have a negligible impact on water quality in rainwater tanks used for drinking water. Emissions from EfW Plant would have a negligible impact on crops and produce grown in the area.
Effects on the transportation network
5. A Transportation Assessment Report (Technical Report 8) has been prepared by Commute Transportation Consultants, and it concludes that:
• With respect to the effects of Project Kea on the roading network, the critical intersection for assessment is State Highway 1/Carrolls Road. The additional traffic generated by Project Kea on the performance of SH1/Carrolls Road intersection, with the proposed upgrades, is considered negligible.
• All minor downstream intersections (e.g. Morven Glenavy Road/Carrolls Road intersection) are anticipated to operate acceptably with the proposed development.
• The implementation of the proposed transport improvements will ensure the safe operation of the roading network in proximity of the Project Kea site.
Noise effects
6. An Acoustic Report (Technical Report 7) has been prepared by SLR Consulting NZ Limited. The Acoustic Report evaluates the noise effects from the Project Kea facility against the relevant noise rules set out in the Waimate District Plan and predicts the noise levels likely to be generated by the construction and operation of the facility.
7. The Acoustic Assessment Report concludes overall that:
• Construction generated noise and vibration levels are expected to comply with the limits at surrounding properties due to the distance between the site and receivers.
• The predicted noise levels generated by the operation of the Project Kea facility can comply with the relevant daytime and night-time noise limits at the nearest surrounding noise sensitive dwellings.
• The noise effects are considered reasonable with reference to section 16 of the RMA in terms of the proposed operation, confirming the suitability of the site for the EfW facility.
Effects on landscape and visual amenity
8. A Landscape Assessment Report (Technical Report 4) has been prepared by Brown NZ Limited. The assessment focuses on the effects of the proposed main powerhouse building (up to 52.5m high) and the stack (75m high), because of their elevation within the otherwise largely flat, outwash plain of the Waitaki River. The assessment also focuses on the changes to the rural character that would arise from the proposal, and the effects on residential properties around it.
9. Overall, the Landscape Assessment Report concludes that:
• The landscape and visual amenity effects arising from Project Kea would be limited - typically of a Very Low to Low-Moderate order - less than that as surrounding mitigation planting matures.
• The proposal is consistent with the relevant objective, policy and rules framework of the WDP for the Rural Zone.
• Project Kea is considered to be appropriate from a landscape and amenity standpoint.
Effects of land disturbance (Preliminary Site Investigation)
10. A Preliminary Site Investigation Report ("PSI") (Technical Report 2) has been prepared for the Project Kea site, noting the proposed change in land use from rural to industrial. The PSI concludes that it is highly unlikely that there will be risk to human health if the activity is done on this piece of land.
Effects of earthworks
11. An Earthworks Report (Technical Report 13) details the proposed earthworks necessary for site preparatory works to establish Project Kea. It concludes that overall effects of construction earthworks will be acceptable, and will be less than minor for the following key reasons:

• The earthworks are not greater than what is necessary for this development, and reasonably anticipated by development of this size.
• The earthworks are necessary to achieve higher finished ground levels of the site to enable the proposed rail siding to connect to the existing railway platform.
• All earthworks will be contained within the Project Kea site, and any visual effects will be temporary in nature.
• The proposed earthworks will be undertaken in conjunction with the implementation of a range of sediment and erosion control measures designed in accordance with ECan's Erosion and Sediment Control Toolbox.

Effects on groundwater (construction phase)

12. The Surface and Groundwater Assessment (Technical Report 17), assess the effects of proposed earthworks on the quality and quantity of groundwater and surface water. It concludes that the proposed construction methodology, including the dewatering of the trench and discharge to ground at the location, are not likely to have significant effects to surface and groundwater quantity or quality.

13. With respect to effects on neighbouring bores, the Surface and Groundwater Assessment states the effective radius of influence of the proposed dewatering will be reduced to the Project Kea site. The proposed dewatering (and related discharge to land) are not expected to cause significant effects on neighbouring bores.

Effects on surface water and groundwater (operation phase)

14. The Surface and Groundwater Assessment (Technical Report 17), assess the potential effects of underground waste bunker and leachate collection on surface water and ground water quality, and concludes that:

"The proposed waste bunker design and operation provide a series of barriers (construction using impermeable layers) and measures (maintaining a pressure differential so that any failure results in groundwater entering the bunker instead of contaminants leaving it) to avoid contamination of groundwater during the facility operation. Furthermore, groundwater protection and monitoring are proposed, along with processes to ensure the bunker structural integrity. Therefore, effects to groundwater quality from the operation of the MSW bunker are unlikely to be significant".

Effects of stormwater discharge to surface and groundwater

15. As the Project Kea site is not serviced by a reticulated stormwater network, a stormwater management plan for the Project Kea site has been prepared and detailed in the Stormwater Report (Technical Report 12). It is concluded that with the implementation of the proposed stormwater mitigation measures set out in the Stormwater Report, the proposed stormwater management approach for the Project Kea site is appropriate and adequate, and that the overall effects of the proposed stormwater discharge will be less than minor (both in terms of quantity and quality).

16. The Surface and Groundwater Assessment (Technical Report 17) uses the above stormwater contaminant concentrations data (post-treatment) to assess the effects of the stormwater discharge on groundwater and surface water. It states that the proposed systems on the Project Kea site are designed in accordance with all relevant guidelines and best practice, and therefore, are expected to provide sufficient treatment for any potential contaminants from the Project Kea site. All expected concentrations of potential contaminants (both average and worst case sceanario) are orders of magnitude lower than the relevant maximum acceptable values and guideline values stipulated in the Drinking Water Standards for New Zealand, and therefore the discharge is unlikely to cause the receiving freshwater bodies (surface or groundwater) to exceed the limited specified in Schedule 8 (Region-wide Water Quality Limits) of the Canterbury Land and Water Regional Plan.

17. No off-site adverse effects on adjoining properties is expected due to the increased stormwater discharge on the Project Kea site.

18. The Stormwater Management Plan is designed to capture only stormwater runoff and does not include the capture of hazardous substances on the Project Kea site.

Effects of discharging domestic wastewater

19. As the Project Kea site is not serviced by reticulated wastewater network, it proposes on-site wastewater treatment system for the wastewater from staff and visitor facilities. The details pertaining to the design parameters for the domestic wastewater disposal system is set out in the Domestic Wastewater Discharge to Land Report (Technical Report 14). Based on the findings of the Domestic Wastewater Discharge to Land Report, it is concluded that the effects of the proposed domestic discharge to land will be less than minor for the following key reasons:
• With an appropriate drainage system in place, the proposed activity will have no discernible adverse effect on soil quality.
• The proposed wastewater discharge will have no discernible adverse effect on receiving groundwater quality.
• There is no direct discharge of treated wastewater to surface water bodies.
• The discharge to land is not within a Drinking Water Protection Zone.
• The system will not discharge of any hazardous substances.
• The proposed discharge is not within an area identified as an archaeological site.
• The proposed discharge will not be onto or into land that is potentially contaminated.

Effects on flood hazard risks

20. A Flood Risk Assessment Report (Technical Report 11) has been completed to undertake flood modelling for the pre-development and post-development scenarios for the Project Kea site. Based on the findings of the Flood Risk Assessment Report, the Planning Report considers that the flood risk hazards resulting from the development of the Project Kea site are acceptable and will not significantly exacerbate the risk of flooding or damage on the adjoining properties and the overall effects will be minor.

Effects of storage and using hazardous substances

21. The Hazardous Substances Report (Technical Report 3) outlines the hazardous substances to be used and stored on the Project Kea site and the proposed mitigation measures to avoid or minimise risks due to accidental spillages.

22. Careful consideration has been given to the management of hazardous substances on the Project Kea site, with first priority being to avoid accidental spillage; and second priority being to ensure that where there is a residual risk of discharge (including accidental spillage), it is contained on-site and is not discharged into the environment (such as not entering surface water bodies, groundwater or stormwater systems).

23. All hazardous substances are HSNO approved (with the exception of the metal hydroxide sludge). All hazardous substances will be stored and handled in accordance with HSNO and manufacturer requirements. The metal hydroxide sludge will be appropriately managed through storage in a bunded tank until it is loaded to a dedicated hazardous substance tanker for removal to a certified hazardous waste treatment and disposal facility.

Effects on highly productive land

24. A Land Use Capability Assessment (Technical Report 19) has been competed for the Project Kea site. It is concluded that the Project Kea aligns with the National Policy Statement for Highly Productive Land in that it is not located on land classified as highly productive land, and therefore, ensures that highly productive land is protected for use in land-based production, both now and into the future.

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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:

A detailed assessment of the project against the relevant statutory documents has been completed. This is set out in Section 8 of the Planning Report, contained in the application package. A brief overview is provided below.
New Zealand Coastal Policy Statement 2010 (NZCPS)
1. The Project Kea site is located approximately 4km from the Pacific Ocean coastline. Project Kea is not deemed to be located within the coastal environment in the context of the NZCPS.

Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ)
2. The purpose of NESAQ is to ensure a minimum level of health protection across New Zealand. The NESAQ prohibits the use of "High temperature hazardous waste incinerators". Under the proposed Waste Acceptance Criteria, Project Kea will not accept hazardous waste, and the proposal is not classified as using a "high temperature hazardous waste incinerator". The Air Quality Emissions Assessment (Technical Report 5) undertakes an assessment of the potential air quality effects associated with Project Kea, and concludes that Project Kea meets the requirements of NESAQ.

Resource Management (National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS)

3. The NESCS seeks to ensure that land affected by contaminants in soil is appropriately identified and assessed. The Preliminary Site Investigation Report (Technical Report 2) concludes that the development of Project Kea is highly unlikely to pose risk to human health, and pursuant to Regulation 8(4)(b) of the NESCS, the change in the use of the land to enable the construction of the EfW Plant is a Permitted Activity

Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-F)

4. The NES-F regulates activities that pose risks to the health of freshwater and freshwater ecosystems through the setting of requirements for carrying out these activities that must be complied with. There is no wetland on the Project Kea site, nor its proximity. The proposed works associated with Project Kea do not trigger the need for approval under the NES-F.

National Policy Statement for Freshwater Management 2020 (NPS-FM)

5. The NPS-FM sets a national framework for how freshwater is to be managed. Te Mana o te Wai is the tenet of the NPS-FM. Whitneys Creek is located on the adjoining site to the Project Kea site. Project Kea is considered to be consistent with NPS-FW, and will enhance the Whitneys Creek environment for the following key reasons:

• The health and wellbeing of Whitneys Creek is prioritised by giving careful thought to the site layout to ensure that the main powerhouse, waste truck access and all other associated buildings are located centrally on the site, and away from Whitneys Creek.
• Consistent with Policy 3, a stormwater management strategy for the Project Kea site has been prepared to ensure that land use planning is integrated with stormwater management strategy for the site (both during the construction and operation phases), so that the effects on the environment are considered holistically.
• The Project Kea Plant does not produce a process wastewater stream, as process wastewater is recycled within the Plant. This avoids the need for process wastewater to be discharged to land, thereby avoiding all adverse effects on Whitneys Creek, being the closest freshwater receiving environment.
• The Landscape Mitigation Plan proposes a 20m deep band of lowland shrub planting and kahikatea along Project Kea site's northern boundary, beside Whitneys Creek. This will provide landscaped buffer between the Project Kea site and Whitneys Creek, thereby enhancing the biodiversity within the stream environments.

National Policy Statement on Electricity Transmission 2008 (NPS-ET)
6. The NPS-ET sets out provides a high-level framework that gives guidance for the management and future planning of the national grid. Project Kea complies with the minimum safe distances for construction of buildings as stipulated in the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) and the district plan requirements. Project Kea will not have an adverse effect on the National Grid infrastructure

National Policy Statement on Renewable Electricity Generation 2011 (NPS-REG)

7. The Project Kea will generate 30MW of electricity under Output Mode 1 or 20MW of electricity plus 40 tonnes per hour of steam under Output Mode 2. The generated electricity will be connected to the local supply network. The waste feedstock for Project Kea will contain a portion of biomass material. Based upon the expected feedstock composition as set out in Technical Report 1 – Operational and Technical Overview, it is expected that the electricity generated from Project KEA will be in the order of 63% renewable.

National Policy Statement for Highly Productive Land 2022 (NPS-HPL)

8. A Land Use Capability Assessment (Technical Report 19) has been completed for the Project Kea site. It concludes that Project Kea aligns with the entirety of the NPS-HPL in that it is not located on land classified as highly productive land, and therefore, ensures that highly productive land is protected for use in land-based primary production, both now and into the future.

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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:

Yes. s 9(2)(b)(ii)

South Island Resource Recovery Limited (SIRRL) initially lodged their resource consent applications with Waimate District Council and Environment Canterbury to construct and operate a waste-to-energy plant near Waimate in 2022. The applications were returned as incomplete. The resource consent applications were relodged in 2022 Again, the applications were returned as incomplete. SIRRL objected to the council's decision to reject the applications. An independent Hearing Commissioner was subsequently appointed who determined that the applications were complete and accepted them for processing.

The councils then sought the resource consent applications to be called in by the Minister for the Environment, as they did not have the staff capacity to process the applications. The councils neither advised of any staff processing capacity issues nor consulted with SIRRL in advance of seeking the applications to be called in. SIRRL supported the call-in request as it would expedite the resource consent process to a decision.

The resource consent applications are now with the Environmental Protection Agency, which is waiting for further information to be provided by SIRRL. SIRRL has been preparing the further information requested and advancing the purchase of the land through the Overseas Investment Office (OIO). Approval to purchase the land has now been received from the OIO.

In total, from the first lodgement of the resource consent applications to now it has taken 3 years. It is likely to take a further 18 months for the Environment Court to hear and decide on the applications. Appeals to the High Court are then possible. The Fast Track process has the potential to create both project certainty and will reduce the resource consent process time by 18 months which currently sits with the Environment Court.

s 9(2)(b)(ii)

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

Please write your answer here:

As the resource consent applications have been accepted for processing by the EPA, the project should not materially impact the efficient operation of the Fast Track process.

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

Central government plan or strategy

Please explain your answer here:

Waste to Energy is recognised as a source of Renewable Energy refer Ministry of Energy
The incineration of waste is also a consideration in the Waste Minimisation plan.

Will the project deliver regionally or nationally significant infrastructure?

Regional significant infrastructure

Please explain your answer here:

The primary role of the WtE plant is to produce energy in the form of electricity and steam for local industry or domestic use. s 9(2)(b)(ii)

Alternatively, the plant can supply steam direct to local dairy plants to assist in their respective de-carbonising strategies.

Will the project:

increase the supply of housing, contribute to a well-functioning urban environment

Please explain your answer here:

Project Kea will employ 108 FTE of which 43 roles are specialist positions in Waimate alone. The plant operates 24/7-52 weeks of the year.

There is insufficient housing in Waimate to meet the needs of the number of employees, required to operate the plant.

Improving the reliability of electricity to the South Canterbury s 9(2)(b)(ii)

Will the project deliver significant economic benefits?

Yes

Please explain your answer here:

Supply of 30MW of electricity into the local network as an “embedded generator” close to point of use.
Supply of Steam energy to local business to support their respective ‘de-carbonisation’ strategies.
Enablement of local business growth and development.
Increase use of Kiwi Rail main line between Christchurch and Dunedin
Project Kea rail siding is available for export of local dairy products currently transported by road.

Executive Summary of Informetrics Economic Report
Introduction
South Island Resource Recovery Limited □SIRRL□ proposes to build a waste-to-energy. facility in Waimate District. SIRRL commissioned Infometrics to assess how the proposed facility will affect the local economy, both through the construction stage and ongoing operation. We have undertaken an input-output multiplier analysis to model how the facility may potentially affect the Waimate District economy, as well as Waitaki and Timaru Districts.

Our approach
Our analysis is based on information provided by SIRRL on the magnitude and nature of their proposed construction and operational expenditure. We have not independently verified these inputs. We have used our regional input-output multiplier model to determine the potential direct, indirect and induced GDP and employment effects of construction and operation on the local economy. We have assumed that the effects will be distributed across Waimate, Timaru and Waitaki in proportion to the allocation of the construction and operation expenditures and the relative size of their local industries. Timaru and Waitaki are much larger than Waimate, and accordingly they get a greater share of the economic benefits of the proposed facility.
Waimate is small, interconnected to Timaru and Waitaki
Waimate is a small district with a population of 8,290 in 2021, making it the fifth smallest territorial authority in New Zealand. Although its population growth has been lagging the rest of New Zealand over the past decade, its employment growth has been strong. Waimate, Timaru and Waitaki are strongly interconnected, and 9.3% of working Waimate residents commute out of the district for work, the majority going to Timaru, and to a lesser extent Waitaki. Waimate’s economy is highly concentrated in the primary sector, accounting for 41% of the district’s jobs. The proposed facility would help the district to diversify, thereby improving its overall economic resilience and potentially reducing commuting.

Construction expenditure of $242m
Construction of the proposed facility is expected to be worth $242m for suppliers in New Zealand, manifesting as an increase in demand for the non-residential construction industry. We have modelled this as being spread over two years across Waimate, Timaru and Waitaki in proportion to their current share of employment in non-residential construction. This means that 6% of the construction impact goes to Waimate, 24% to Waitaki, and 70% to Timaru.

Construction supports 359 jobs per year
Construction of the facility is estimated to support 359 full time equivalent (FTE) jobs per year over the two-year construction period, the majority spread across contractors, subcontractors and suppliers. Most of these jobs are expected to accrue to Timaru and Waitaki businesses, as there is limited construction capacity within Waimate District.
6 Economic Impact of proposed Waste to Energy facility – September 2022
Increased construction employment will boost household income, which creates an induced effect as workers spend some of their incomes locally. The induced effect is estimated to add 2 jobs per year in Waimate and 57 across Timaru and Waitaki over the period of construction of 2 years.

Construction boosts Waimate employment by 0.7%
In total, the effect of construction amounts to a 0.7% increase in total employment in Waimate, and a 1.0% increase across Timaru and Waitaki per year over the two-year construction period, compared to 2021 employment. For the construction industry, employment is expected to be 6.3% higher in Waimate and 5.9% higher across Timaru

and Waitaki.

Construction adds $93.9m per year to GDP
Construction of the facility is estimated to add $93.9m (in 2021 prices) to the gross domestic product (GDP) of Waimate, Waitaki and Timaru annually over the two-year construction period. This includes a $4.8m annual increase in Waimate and a $89.1m annual increase across Timaru and Waitaki over the two-year construction period.
s 9(2)(b)(ii)

s 9(2)(b)(ii)

Operation of the facility is estimated to support a total of 165 FTE jobs per year across Waimate, Timaru and Waitaki. Of the 165 jobs, 108 are estimated to be located in Waimate and 57 spread across Timaru and Waitaki.
Operation boosts Waimate employment by 3.2%

Operation of the facility is expected to increase employment in Waimate District by 3.6%, and employment across Timaru and Waitaki by 0.2%. The effect is most pronounced in the electricity, gas, water and waste services industry as it includes 100 jobs at the facility itself.

Employment boost across many services industries
Beyond the facility's direct employees, there is an appreciable increase in employment across transport, postal and warehousing, adding 18 jobs across Timaru and Waitaki, which reflects the contractors involved in logistics operations at the facility. Construction employment increases by two jobs in Waimate and 11 jobs across Timaru and Waitaki, associated with electrical contractors, landscapers, and other maintenance personnel contracted to maintain the facility. Demand for these industries spurs on additional demand for their suppliers, while increases in household incomes further raise demand for industries such as retail, administrative, food and other services.
7 Economic Impact of proposed Waste to Energy facility – September 2022
Operation adds $77.3m to GDP

Operation of the facility is estimated to contribute $77.3m per year to the GDP of Waimate, Timaru and Waitaki districts. This is mainly driven by the direct effect on Waimate, with the facility estimated to add $48.0m directly to Waimate's economy.
Greater GDP contribution than dairy product manufacturing

The estimated $48.0m GDP contribution from operation of the facility would make it the third largest industry in the Waimate, ranking ahead of dairy product manufacturing ($38.0m). The proposed facility would rank behind dairy cattle farming ($126.5m) and sheep, beef cattle and grain farming ($56.5m). This highlights that the economic contribution of operating the proposed plant is very significant for Waimate.
Scope to enhance local benefits
We have assumed that the impact of the facility's construction and operation will benefit the districts where suppliers are based. In construction, it is common for contractors to commute across districts for projects, so it is reasonable to expect a large proportion of the construction benefits to fall on Timaru and Waitaki. However, given the long-term nature of the facility's operation, contractors and their staff may relocate to Waimate. This would give rise to a greater economic benefit for Waimate (at the expense of Timaru and Waitaki or indeed other districts). This would help reduce Waimate residents commuting out of the district for work and potentially grow the district's population

Will the project support primary industries, including aquaculture?

Yes

Please explain your answer here:

The project has the ability to run in two operational modes of energy output:

Mode 1 produces an output of 30MW of electricity to the local grid for use by any user connected to that grid, and
Mode 2 produces a combined output of 20MW of electricity and 40 tonnes/hr of high-pressure steam.

The steam is available for use by adjacent industries requiring process heat to either expand their activities or alternatively offset current coal usage to support their de-carbonisation efforts.
Secondary steam and CO2 can be made available for the development of Glass tunnels for use in horticulture.

Refer to Technical Report 1 for further information.

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

Yes

Please explain your answer here:

The nature of the project means it does not directly create development of natural resources. Rather the objective is to recover the material and energy benefit from those resources already extracted as opposed too simply discarding them to landfill. The project enables not just the extraction of energy for the production of electricity but also facilitates the capture and recycling of both ferrous and non-ferrous metals and produces a significant source of aggregate for use in concrete and construction which in turn reduces the burden on existing or new quarries.

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

Yes

Please explain your answer here:

The plant emits no methane gas which is by far the most potent of greenhouse gas emission. The plant can be converted to capture CO2 for use in agriculture glass house technology or filtered to capture food grade liquid CO2.
The plant can also supply steam direct to a nearby dairy plant as a substitute for coal burning boilers reducing CO2 emissions.

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

Yes

Please explain your answer here:

The electricity generated by the WtE plant by passes the national grid and supplied direct to s 9(2)(b)(ii) the local network. As a result, any disruption to the national network will not affect the local market.

In the case of a local disaster effecting the output from the WtE plant s 9(2)(b)(ii) is still able to obtain supply from the National Grid.

Will the project address significant environmental issues?

Yes

Please explain your answer here:

The plant emits no Methane, is capable of supplying steam or electricity to local business, it can supply grate ash and treated fly ash as a replacement for aggregate. It has the capability to capture CO2 for horticulture glass house technology, recycles both ferrous and non-ferrous metals and all water used in the generation of electricity, or the supply of steam is recycled.

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

Yes

Please explain your answer here:

A detailed assessment of the project against the relevant local and regional planning documents has been completed. This is set out in Section 8 of the Planning Report, contained in the application package. A brief overview is provided below.

Canterbury Regional Policy Statement 2013 (CRPS)

1. An assessment of Project Kea against the CRPS provisions is set out in Section 8.10 of the Planning Report. Project Kea is consistent with the outcomes anticipated by the CRPS, including by:

• With respect to Chapter 4 (Provision for Ngāi Tahu and their relationship with resources), the applicant has consulted and provided the full resource consent application to the relevant mana whenua authorities to enable the preparation of a cultural impact assessment.
• With respect to Chapter 5 (Land-use and infrastructure), for Project Kea, the land use component and its infrastructure servicing needs have been considered in an integrated manner. The infrastructure needs of Project Kea (water supply, domestic wastewater and stormwater disposal) are all able to be serviced on site, without a need for reliance on a reticulated system.
• With respect to Chapter 7 (Freshwater), potential effects of Project Kea on the freshwater resources (both on quantity and quality), in particular on groundwater and on Whitneys Creek, has been considered in an integrated manner as part of the EfW Plant design and site layout, bulk earthworks design, domestic wastewater disposal system and the stormwater management strategy for the site. Project Kea will enhance the freshwater environments and biodiversity for Whitneys Creek.
• With respect to Chapter 14 (Air Quality), the Air Quality Emissions Assessment (Technical Report 5) concludes that Project Kea meets the requirements of NESAQ, and that it is unlikely to result in adverse health effects at any sensitive receptors at or beyond the Project Kea boundary. Therefore, the proposal is consistent with the applicable objectives and policies of the CRPS.
• With respect to Chapter 19 (Waste Minimisation and Management), Project Kea fits into policy framework for waste management and minimisation.

Canterbury Air Regional Plan 2017 (CARP)

2. An assessment of Project Kea against the CARP provisions is set out in Section 8.11 of the Planning Report. Project Kea is consistent with the outcomes anticipated by the CARP, including by:
• The Air Quality Emissions Assessment (Technical Report 5) concludes that it is unlikely the proposal will result in adverse health effects due to air emissions from the Project Kea operations.
• The air dispersion modelling results predict that the maximum off-site combustion emission concentrations are below the relevant assessment criteria, the magnitude of change in the ambient air quality will be less than minor or negligible.
• The Air Quality Emissions Assessment has not identified any offensive, objectionable, noxious or dangerous effects on the environment resulting from Project Kea that are required to be avoided.
• Project Kea will utilise the proven best available techniques defined by the Industrial Emissions Directive 2010/75/EU to minimise off-site effects.

Canterbury Land and Water Regional Plan (CLWRP)

3. An assessment of Project Kea against the CLWRP provisions is set out in Section 8.12 of the Planning Report. Project Kea is consistent with the outcomes anticipated by the CLWRP, including by:
• There are no direct discharges proposed to surface water bodies or groundwater of untreated sewerage, wastewater, hazardous waste, organic waste or leachate or untreated industrial or trade waste.
• Both the proposed stormwater discharge to land and domestic wastewater discharge to land ensure that the systems are designed to treat contaminants prior to discharge.
• The storage and use of hazardous substances on the Project Kea site will use the best practicable option, with first priority being to avoid accidental spillage; and second priority being to ensure that where there is a residual risk of discharge (including accidental spillage), it is contained on-site and is not discharged into the environment (such as not entering surface water bodies, groundwater or stormwater systems).
Waimate District Plan (WDP)
4. An assessment of Project Kea against the WDP provisions is set out in Section 8.13 of the Planning Report. Project Kea is consistent with the provisions of the WDP, including by:
• With respect to Section 4 (Rural Zone), the Landscape Assessment Report (Technical Report 4), concludes that with Project Kea, a level of rural amenity would be maintained that is consistent with the range of activities anticipated in the Rural Zone. The amenity and character of the wider environment in which Project Kea is to be located would be substantially maintained, with adverse effects largely confined to the area immediately around the main powerhouse building and the stack.
• Policy 6I recognises that the "Rural Zone may be the most appropriate environment for some utility, industrial, service or commercial uses to establish, provided the amenity and character of the rural area is maintained". The resource consent application includes a range of supporting reports, which collectively reach the conclusion that with the establishment of Project Kea, the amenity and character of the rural environment will be maintained.
• With respect to Section 7 (Signs), the scale of the proposed signs on the building façade are commensurate with the scale of the building and will not dominate with regard to visual appearance of the building. Building façade signs of this size are common in rural New Zealand environments to identify large industrial buildings (such as dairy factories) as for easy site identification.
• With respect to Section 12 (Hazardous substances), Project Kea site will use the best practicable option, with first priority being to avoid accidental spillage; and second priority being to ensure that where there is a residual risk of discharge (including accidental spillage), it is contained on-site and is not discharged into the environment (such as not entering surface water bodies, groundwater or stormwater systems).

Anything else?

Please write your answer here:

South Island Resource Recovery has received permission from the OIO to purchase the land situated in Wiamate, OIO have also confirmed the land purchase is not in breach of the National Interest test.

Both Ecan, and Waimate District Council asked the government to call in the project which SIRRL supported.

The entire application is with the Environment Protection Agency, including the following supporting documentation.

1. Operational and Technical Overview Report, prepared by Babbage Consultants Ltd ("Babbage")
2. Preliminary Site Investigation Report, prepared by Babbage.
3. Hazardous Substances Report, prepared by Babbage.
4. Landscape Assessment Report, prepared by Brown NZ Ltd
5. Air Quality Emissions Assessment, prepared by Pattle Delamore Partners Limited ("PDP")
6. Human Health Risk Assessment, prepared by Environmental Risk Sciences Pty Ltd
7. Acoustic Assessment Report, prepared by SLR Consulting NZ Limited
8. Transportation Assessment Report, prepared by Commute Transportation Consultants
9. Life Cycle Analysis Report, prepared by SLR Consulting Australia Pty Ltd
10Economic Impact of Project Kea, prepared by Infometrics
11.Flood Assessment Report, prepared by Babbage.
12.Stormwater Report, prepared by Babbage.
13.Earthworks Report, prepared by Babbage.
14.Domestic Wastewater Discharge to Land, prepared by Babbage.
15.Electrical Safe Distance, prepared by Babbage.
16.Waste Acceptance Criteria, prepared by Renew Energy Ltd ("REL")
17.Surface and Groundwater Assessment, by Babbage.

18.Consultation Summary Report, prepared by Babbage.
19.Land Use Capability Assessment, prepared by Babbage.

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?

No

If yes, please explain:

A detailed assessment of the project has been undertaken against potential natural hazards. In summary, the Project Kea Plant is suitably located and designed to mitigate against the impacts from natural hazards, including:
• Flooding: A detailed flood risk assessment (Technical Report 11) has been undertaken to compare the pre-development and post development scenarios including potential displacement of floodwater to adjacent properties and areas. The flooding assessment model is based upon a 500-yr event and concludes the site is located within a Low Risk Flood area (as per the Waimate District Plan definition) and that flood water displacement to neighbouring properties are not expected to have any adverse effects on the current agricultural operations.

• Coastal inundation: The Project Kea site is not affected by future coastal inundation due to rising sea level, as the site is located further inland from the coast and is deemed to have zero risk in this regard.

• Earthquake: Earthquake risk will be mitigated during the detailed engineering design process in accordance with the relevant NZ design codes and standards.

• Landslide: The flat topography of the project site and wider surrounding area mitigates against land slide risk.

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:

1. There have been no compliance and/or enforcement actions taken against the applicant by any entity with enforcement powers under the Acts referred to in the Bill.

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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:
s 9(2)(a)

Important notes