Compiled Date	12/09/2024
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LGOIMA

When releasing responses to previous LGOIMA requests, names and contact details of individual requestors will be withheld to protect their privacy.

Information requested by the media, lobby groups, public sector organisations and MPs will always be published, while information specific to an individual or their property will not generally be published.

Request from:	Private Individual
Information requested:	Correspondence between WDC and SIRRL and REL
Response by:	Acting Chief Executive, Scott Baxendale

12 September 2024

Private Individual
Via Email:

Dear Private Individual

Official information request for and information or correspondence between WDC and SIRRL or REL regarding a wate to energy plant in Waimate from 2021 to date

I refer to your official information request dated 19 August and clarification on 20 August for and information or correspondence between WDC and SIRRL or REL regarding a wate to energy plant in Waimate from 2021 to date.

The information you have requested is enclosed. Some information has been redacted under section 7(2)(a) of LGOIMA to protect the privacy of natural persons, including that of deceased natural persons.

There is no charge in supplying this information to you.

You have the right to seek an investigation and review by the Ombudsman of this decision. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Council has adopted a Proactive Release Policy and accordingly may publish LGOIMA responses on the Council Website at https://www.westlanddc.govt.nz/lgoima-responses. The collection and use of personal information by the Westland District Council is regulated by the Privacy Act 2020. Westland District Council's Privacy Statement is available on our website here

If you wish to discuss this decision with us, please feel free to contact Mary-anne Bell, Business Analyst at LGOIMA@westlanddc.govt.nz, 03 756 9091.

Sincerely,

Scott Baxendale | Acting Chief Executive

SB/MB

Archived: Thursday, 12 September 2024 2:45:02 pm
From: Lisa-Marie Richan
Sent: Tue, 14 Sep 2021 18:23:32
Subject: $350 MILLION PLANT TO DELIVER RENEWABLE ENERGY-FROM-WASTE CONSIDERED
Importance: High
Sensitivity: None
Attachments:
0500 EMBARGO FINAL MEDIA PACK for 15 SEPT RELEASE 14.9.21.pdf;

Kia ora

Project Kea, a proposed $350m Energy-from-Waste plant to be built in South Canterbury, will be publicly announced today, 15 September. I wanted to make sure you were one of the first to hear the news ahead of the official statement.

Aotearoa is facing a waste crisis. Many of the South Island's landfills are older, overpacked and failing. An increase in population and more extreme weather events will put further pressure on landfills. Landfill gas from waste contains high concentrations of methane, and if not first captured, has about 30 times higher global warming impact compared to carbon dioxide

The plant will safely convert 350,000 tonnes of waste, which would otherwise be dumped into South Island landfills annually, into renewable electricity. Project Kea will be funded by South Island Resource Recovery Limited (SIRRL) a joint venture bringing together New Zealand expertise with world-leading Spanish and Chinese waste technology.

Please see attached a media release and questions and answers on Project Kea. A website will also operate from tomorrow at https://www.projectkea.co.nz/
We are reaching out to the local Waimate community and have our first drop-in meetings next week.

Yours sincerely
Ngā mihi nā
Lisa-Marie Richan

Lisa-Marie Richan (L-M) Partner (Wellington)
Government, Regulatory and Public Affairs
(GOLD WINNER, Government and Public Affairs, 2021 PRINZ Awards)

Convergence

PRINZ AWARDS SUPREME AWARD 2021

CHRISTCHURCH – WELLINGTON – QUEENSTOWN
[redacted] W. conv.co.nz

EMBARGOED UNTIL 0500 HOURS

MEDIA STATEMENT

15 September 2021

$350 MILLION PLANT TO DELIVER RENEWABLE ENERGY-FROM-WASTE CONSIDERED

Investigations have begun into the viability of building an Energy-from-Waste plant that will safely convert 350,000 tonnes of waste, that would otherwise be dumped into South Island landfills annually, into renewable electricity.

Under Project Kea, South Island Resource Recovery Limited (SIRRL)*, a joint venture bringing together New Zealand expertise with world-leading Spanish and Chinese waste technology, is looking at possible sites to build an Energy-from-Waste plant near Waimate in South Canterbury.

Using world-leading best available technology and the most stringent environmental management practices, we propose to produce a significant amount of renewable energy to be provided as steam and electricity for local industry and communities in the region.

SIRRL Board Director, Paul Taylor says, "Waste materials that are delivered to the plant for disposal will be contained within a negative pressure bunker storage environment which eliminates any possibility of any odour from the plant. All emissions from the processing of the waste will meet strict air quality and noise standards set by central government and the regional council. "

Waimate Mayor Craig Rowley says that Project Kea is an exciting proposal which could create many benefits for the district.

"This would include new employment opportunities and is yet another example of the district's appeal to commercial operators. This initiative has yet to go through the required consenting process, but we know the growth these major enterprises can create - and that's a big positive for the Waimate District," Mayor Rowley said.

"Although its early days in our planning," says Paul Taylor, "our priority is to meet with the local Waimate community prior to the lodgment of resource consent to build and operate the $350 million plant. These meetings begin next week.

"In the construction phase, the plant will create work for over 300 people and over 100 direct and indirect roles on the plant's completion."

Mr Taylor says that these Energy from Waste plants are popular throughout the northern hemisphere especially Europe because they are providing an environmentally clean solution to a residual waste disposal problem at the same time as generating renewable energy. These plants are able to be located close to urban areas with no environmental, odour or noise issues.

All waste that goes to them needs to first have anything recyclable removed.

We are very clear that recycling is the priority and desire only waste that is otherwise destined for landfill, after any options for reuse".

"There will be no visible air discharges emitted from the plant into the atmosphere other than non-toxic condensing water vapour. Steam produced within the plant is converted into electricity and delivered to local industries as well as to the national grid.

"New Zealand is in the middle of a landfill waste crisis, as was seen with the 2019 Fox River landfill environmental disaster," says Paul Taylor.

"Waste disposed at municipal landfills grew by 48 per cent between 2009 and 2019. Our waste systems now face major challenges, exacerbated by the global and domestic impact of COVID-19.†

"Many of the South Island's landfills are older, overpacked and failing. An increase in population and more extreme weather events will put further pressure on landfills.

"Landfill gas from waste contains high concentrations of methane, and if not first captured, has about 30 times higher global warming impact compared to carbon dioxide.‡

"The recent landfill disaster following the flooding of Fox River – part of a UNESCO World Heritage site - was watched by the rest of the world and was a stark, ugly reminder of what is barely under the surface of our beautiful country.

"The breakdown of these landfills is happening now – we cannot leave this problem for the next generation to deal with.

"The proposed plant can run alongside New Zealand's essential waste minimisation and recycling efforts and, at the same time, produce renewable energy to benefit the local economy.

"The local Waimate community is the first priority for SIRRL, and we will be talking with local people to answer any questions and hear community views on the proposed plant. It is important community feedback is considered before a resource consent application to build and operate the plant is lodged later this year."

Consents will be required from both Environment Canterbury and the Waimate District Council

"We have a website https://www.projectkea.co.nz/ where anyone can learn more, including about the Energy-from-Waste process," says Paul Taylor.

Ends.

AT A GLANCE

The advantages of Energy-from-Waste plants can include a number of additional areas to help mitigate the causes of Climate Change, namely -

- *Carbon dioxide transfer for use in horticulture, greenhouses etc.*
- *Assisting in the production of hydrogen by having available energy to enable an electrolysis plant to be operated.*
- *Reducing the use of coal fired boilers in industry.*
- *Enabling water recycling technology ensuring minimum impact upon the environment.*
- *Plasma treatments to capture toxic fly ash and aid in the reduction of toxins from other industries.*
- *After the bottom ash has been filtered and metal extracted for recycling, the plasma-treated fly and bottom ash can be used for road aggregate or concrete block manufacture.*

COMMUNITY DROP-IN TIMES: Wednesday, 22 September, 4-6pm.
Thursday, 23 September, 1-3pm. **Location:** Waimate Event Centre, 15 Paul Street, Waimate.

MEDIA CONTACT: Erin Jamieson erin@conv.co.nz or 021 743 237

*SIRRL is a joint venture between Spanish company Urbaser SAU, New Zealand's Renew Energy Limited, and China Tianying Incorporated.
†Ministry for the Environment; Cabinet Paper: *Proposals for a more effective waste levy;* June 2020.
‡United States Environmental Protection Agency, *Landfill Outreach Methane Programme.*

QUESTIONS & ANSWERS

LOCAL ECONOMIC IMPACT

How much will it cost to build?
The plant will cost $350 million to build.

What employment opportunities will be available?
There will be a highly specialised build of the facility, including landscaping around it. Whoever is appointed the primary company will need to use local contractors and sub-contractors where possible and source from local suppliers where products are available.

Work for up to 300 people is expected in this build phase, and once the plant is built, more than 100 direct and indirect roles will be created at various levels of management and skill levels.

What will be the actual energy outputs for the region?
The Energy-from-Waste facility will produce approximately 30MW of electricity to the local network or alternatively a combination of electricity plus heat (steam) to local industry dependent on the demand. Any electricity not consumed in the local network will be supplied to the national grid.

Will there be opportunity for local businesses and specific wider industry?
As well as the provision of electricity supply, SIRRL is keen to hear from businesses interested in horticulture, concrete block manufacture, container port, transport, and similar industries, along with any company or venture where proven Energy-from-Waste technology can benefit their business. Most EfW plants develop 'Business Clusters' around them to utilise the many outputs created. There will also be numerous housing and service-related business opportunities created for the local economy.

Is Waimate going to be a 'guinea pig' for this technology?
Not at all. There are more than 2,500 Energy-from-Waste plants operating worldwide, with Europe the leaders in using Energy-from-Waste technology. This facility will utilise the best available and proven technology, which has evolved and improved over the past 25 to 30 years in Europe.

Most European countries are committed to using Energy-from-Waste plants as a viable and environmentally safe alternative to landfills. Scandinavian countries and Switzerland no longer permit landfill use and are currently mining redundant landfills to remove the environmental danger

of ongoing emissions and leachates. The waste from the mined landfills is then processed and energy extracted.

The use of Energy-from-Waste plants has now accelerated worldwide with most northern hemisphere countries including US and Asia also adopting the technology as the alternative to landfills. In 2019 Australia approved its first Energy-from-Waste plant in Perth which is now under construction. NSW and Victoria proposals for plants are well advanced into the planning stages and final consenting process.

Energy-from-Waste plants have now been recognised by most developed countries as an important step, a viable environmental and economic solution to the landfill issues and fit perfectly within the standard internationally accepted waste hierarchy cycle.

However, we have plenty of room in New Zealand for landfills compared to most European countries. Next to its people, land is New Zealand's most important asset, why permanently render this land as unusable for future generations by putting more holes in the ground and dumping waste into them, not to mention environmental risk of disasters such as the West Coast's Fox River landfill disaster, and contamination from leachates.

RECYCLING

So, it's not a replacement for recycling?
Absolutely not. The Energy from Waste plant will never compete with recycling, and it must go hand-in-hand with waste reduction, reuse, and recycling. SIRRL will insist that both waste minimisation and recycling steps be taken before waste is sent to the plant for processing and conversion to renewable energy.

Is it true that countries that encourage waste disposal using Energy-from-Waste have low recycling rates as a result?
No. Countries with higher recycling rates in Europe are the ones that use Energy-from-Waste plants the most and have lower landfill use. Waste minimisation and recycling should always be the priority and should be a major focus for local councils, along with central legislation that encourages individuals and businesses to recycle.

WASTE ORIGIN

Where do you expect the majority of waste you will process will come from?
Waste, minus any recycling, is expected from commercial and domestic waste suppliers, councils, and refuse transfer stations, throughout the South Island. Other non-recyclable waste will come from construction companies and contractors – especially with the current and expected large amounts of waste expected from New Zealand's new housing needs and associated building boom.

How much material do you expect to receive that will still be able to be recycled?
We are very clear that recyclable material must be removed before we receive the waste.

AIR QUALITY AND EMISSIONS

By burning waste, won't the plant release vast amounts of pollutants that contaminate the air?

No. Air emissions from the processing at our Energy- from-Waste plant will meet strict air quality standards as set by the New Zealand Government and regional councils.

Many European Energy-from-Waste plants use a 5-step flue gas treatment (FGT) process to eliminate any toxic emissions. SIRRL will use the best available technology, which will include a 7-step FGT system to ensure that it comfortably meets not only New Zealand's RMA standards but also the more stringent European Standards.

How will you ensure the emissions data will be available, so these standards can be seen to be met and are within the consented limits?

Project Kea's Energy-from-Waste data showing levels of all relevant emissions will be continuously available online for real time measurement and reporting of all emissions during the energy conversion process.

This will be available to the public 24/7 as well as the regulators to demonstrate the plant's ongoing operation within consented limits.

Conversely, landfills do not have independent continuous measurement of the amount of greenhouse gases emitted and, in particular, the quantity of fugitive methane escaping into the environment. In addition, any data supporting assumed effectiveness of landfill gas capture systems is often deemed commercially sensitive and therefore not easily transparent to the public.

How much less greenhouse gases will this plant produce compared to New Zealand's landfills?

All existing methods of waste disposal, including recycling and landfill, generate greenhouse gas emissions. The proposed Energy-from-Waste plant will not produce methane and overseas data shows that it will produce less greenhouse gases than a landfill of the same amount of waste.

We will be undertaking detailed analysis of comparative greenhouse gas emissions from a New Zealand context and including this analysis in our resource consent application.

How do Energy-from-Waste plants compare in the production of carbon dioxide?

On the basis of the recommended default emissions factor (DFE) provided by the Ministry for the Environment of 1.1 tonne of CO_2e** per tonne of waste, and the Energy from Waste CO_2 emissions factor provided by the Danish Energy Agency of 0.198 to 0.407 of tonne of CO_2e[1] per tonne of waste, we can clearly demonstrate that the Project Kea Energy-from-Waste facility will reduce New Zealand's greenhouse gas emissions.

The reduction of CO_2e per tonne of waste ranges between 63-82%, depending on the residual waste stream.

At 350,000 tonnes per annum, Project Kea's Energy- from-Waste facility could reduce CO_2e emissions by up to 300,000 tonnes each year.

***CO_2e = carbon dioxide or equivalent*

Isn't the plant simply burning waste as an easy option, while also still producing carbon dioxide?
We understand this concern comes from those who used to believe burning all waste was an easier alternative to recycling and minimisation. We certainly do not believe this. This plant processes waste that would otherwise be dumped in a landfill (and creating methane greenhouse gases). Energy-from-Waste plants, unlike landfill operations, do not create methane emissions.

The proposed plant will use world-leading and proven Energy-from-Waste technology and New Zealand's stringent environmental management practices.

Air emissions will meet strict air quality standards set by the New Zealand Government and regional councils. There will be no visible air discharges emitted from the plant into the atmosphere other than non-toxic condensing water vapour.

Water vapour is now considered one of the most potent greenhouse gases. Won't this count against the Energy-from-Waste technology that you are proposing with Project Kea?
Increasing levels of water vapour are primarily a consequence of increasing atmospheric temperatures (i.e., increased humidity). This increased humidity is proposed to then contribute to an atmospheric temperature increase further in its own right.

Accordingly, the primary focus should be to reduce the primary greenhouse emissions that cause the temperature increase in the first place.

Methane emitted by landfills is the second largest contributor to global climate change.

Disposal of toxic fly-ash is a particular concern for landfills, how will this plant dispose of fly-ash safely and efficiently?
The Energy-from-Waste plant will have provision for the removal and recycling of metals from the bottom ash. The fly-ash will be treated with Plasma thermal technology and the resulting inert 'glass like slag' will be crushed and added to the bottom-ash, for potential use as roading aggregate and for concrete block manufacture.

SIRRL's joint venture will use the best available Plasma thermal technology which is proven in other parts of the world to safely convert toxic fly-ash into a glass-like substance that can be potentially used as an aggregate in construction and roading. This is a vast improvement on the alternative practice elsewhere in which the fly-ash would be encased into concrete blocks and these blocks buried in a landfill designated for hazardous substances.

Through further processing and recycling of the bottom and fly-ash, SIRRL will demonstrate its commitment to supporting the international and New Zealand Government-approved waste hierarchy, and the circular economy.

Can you ensure there will be no threat to the environment or to the health of employees or locals by using a plasma furnace?
Plasma treatment is a well proven process where the fly-ash is converted into a molten substance, under the extreme temperatures generated by an electric arc, and then rapidly cooled. This results in the fly-ash becoming an inert glass-like material with contaminates bound within and no longer free to enter the environment.

Plasma treatment is currently the best available technology worldwide for disposing fly-ash which converts it from a hazardous waste into an inert product suitable for use as an aggregate in concrete or road bases.

Emissions from the plasma furnace are cleaned to remove contaminates with the resulting discharge meeting both New Zealand and European Union standards for air discharge.

Alternatively, why don't you just build more modern gas-capturing landfills that are also popular in Europe?
Energy-from-Waste plants have double the benefit of removing waste while creating a reliable and constant renewable source of energy. Use of that renewable energy, such as electricity, steam and hot water, by local industry has additional economic spill overs and also has the potential to attract new businesses to the area.

ENERGY PRODUCTION

You describe the energy the plant will produce as 'substantially renewable', how much is this in actual terms?
Energy-from-Waste technology is one of the most robust and effective alternative energy options to reduce greenhouse gas emissions and limit the need for fossil fuel use by traditional power plants. As biomass, all the organic waste is renewable while that which originated from fossil fuels (such as non-recyclable plastics and textiles) is not. For each batch, the percentages depend upon the waste composition.

However, the industry has developed sophisticated processes to recycle and recover energy from residual (non-recyclable) household waste which would previously have ended up in methane-producing landfill sites.

WASTEWATER

How can you be sure that there will be no contaminants going into the local water supply?
The plant will have two separate wastewater treatment systems.

The first is for the treatment of domestic wastewater, such as showers, toilets etc., which will be biologically treated and discharged into consent-approved drip fields and/or used for local irrigation around the facility landscape. This is common approved practice in New Zealand and is used in most businesses and homes.

The second is for the treatment of industrial wastewater. This will undergo stringent treatment to remove contaminants and is then 100%recycled back into the industrial process and doesn't leave the plant. This is another example of how the plant will use best available technology to minimise impact on the environment.

Once you treat the industrial wastewater what will you do with the contaminants that you extract from the process?
Contaminants removed from the wastewater will be returned into either the combustion or Plasma process. This results in the contaminates being captured within the fly-ash and treated accordingly.

SMOKE, NOISE AND ODOUR

Will smoke be visible emitting from the plant, and will the design include chimney stacks?
The facility will feature an exhaust stack and, due to the very high level of flue gas treatment, the only visible discharge will be non-toxic condensing water vapour.

What about noise?
Various methods of noise reduction will be employed such that the noise levels from the plant will comply with the noise levels permitted by the consent for a rural environment.

What about odour emissions?
No smell will come from the plant. The hopper that holds the waste material for disposal is well contained in the heart of the building. There will be no smell emitting outside this structure. The receival hall of the plant (where the delivery vehicle unloads the waste material) and the waste bunker is permanently under negative pressure (vacuum) to ensure all odours remain within the plant footprint. The negative pressure air flow is drawn into the furnace thus incinerating any odour elements.

Will you be keeping dangerous goods onsite?
All processing materials and fuel storage meets the standards and regulations under New Zealand's Hazardous Substances and New Organisms Act, known as HSNO. There is no storage of potentially explosive or dangerous materials on the property.

Have you briefed the local emergency services and volunteer fire brigade?
Our plant operations will strictly cover all codes, regulations and cover emergency procedures on build and consent. The local emergency services will be fully informed.

Will the facility take and process external hazardous waste?
No. The facility will not be processing any hazardous or medical waste.

TRAFFIC MOVEMENTS

What about vehicle movements to and from the site and the effects on local people?
There would be approximately 70 truck movements per day, via State Highway 1, and not through the Waimate township.

The intent is to migrate a significant amount of the waste from truck to travel by rail over the medium term. The actual timeline for this and other details are currently subject to KiwiRail discussions.

EFFECTS ON LOCAL COMMUNITY

Won't an Energy from-Waste plant be incongruous with the rural community and its environs?
The facility will be built in a style and functionality that best fits into the local environment and is visually acceptable.

We will consider potential leisure activities, mindful of health and safety regulations and welcome ideas from the community, within the grounds of the facility.

For example, in the Northern Hemisphere, as well as other leisure activities close to plants, many Energy-from-Waste plants have leisure activities such as climbing walls or even controlled skiing that can be seen on the CopenHill Energy-from-Waste plant in Denmark.

PUBLIC CONSENTING PROCESS

How will the public be consulted on this project?

The local Waimate community is the first priority for open and detailed communication from SIRRL. SIRRL will be consulting with people in Waimate to answer any questions and hear community views on the proposed plant. It is important community feedback and other feedback is considered before a resource consent application to build and operate the plant is lodged later this year. More information is available via the website at www.projectkea.co.nz.

Consents will be required from both Environment Canterbury and the Waimate District Council, and we have asked for this project to be publicly notified. The first public information drop-in centres will be held on Wednesday, September 22, 2021.

These will be complemented with local media information, direct mail to local people and subsequent public information sessions, particularly up to the consent lodgement of Project Kea expected prior to Christmas 2021.

IWI

Have you consulted local iwi on this project?

We are currently discussing Project Kea and its possible economic opportunities and partnerships with local iwi/hapū of Te Rūnanga o Waihao, based in Waimate.

WASTE SUPPLY AND INDUSTRY

How do you know that you will receive enough waste to keep operating?

The Climate Change Commission Advice to Government report in May 2021 shows that even after following their advice, the amount of organic waste predicted to be going to landfills in 2035 exceeds 3,000,000 tonnes per annum.

With approximately 25% of the population of Aotearoa living in the South Island, this equates to 750,000 tonnes per annum, still going to South Island landfills, which far exceeds the 350,000 tonnes per annum proposed as part of Project Kea. The facility will convert this organic waste known as biomass combined with construction and demolition waste, into renewable energy.

The Government will be increasing landfill levies from the current $10 to $60 per tonne by 2024 and further increases are suggested beyond that date. Declines in waste are also a result of better consumables packaging and improved recycling. These initiatives are greatly supported by SIRRL.

Surely the plant will favour waste that produces the most energy when burned that are recyclable and easiest to source like paper and plastic?

It would not be economical to build a plant reliant on burning plastics, cardboard, or paper to create more energy as best-practice recycling dramatically reduces the availability of those sources of energy.

Proven Energy-from-Waste technology has developed better methods of combustion to increase the energy from non-recyclable waste destined for methane-producing landfills.

Paper from waste has a relatively low energy value due to waste being mixed with moisture laden waste products. The main source of plastics and cardboard is in the packaging of products. Within Europe more countries have adopted policies that encourage alternative packaging to avoid non-recyclable plastic. As a result, companies such as Coca Cola are adopting either new forms of biodegradable packing or fully recyclable plastic.

SIRRL subscribes to the circular economy for Aotearoa and will insist on the removal of recyclables before waste is delivered to the Project Kea Energy-from-Waste plant. With European countries refining their waste minimisation and management practises for the last 30 years, a recent study concluded that those countries who recycle the most of their waste are the largest users of Energy-from-Waste technology. More about this at https://www.cewep.eu/municipal-waste-treatment-2019/

Aren't Energy-from-Waste technologies known to destroy innovation in the waste sector, such as combining plastics with asphalt to make roads last longer and creating fence posts from non-toxic waste materials?
No. Energy-from-Waste plants encourage innovative industry and opportunities while also helping to mitigate the causes of climate change.

These include carbon dioxide transfer for use in horticulture such as greenhouse food production; assisting in the production of hydrogen by having available energy to enable an electrolysis plant to be operated; enabling water recycling technology, ensuring minimum impact upon the environment; plasma treatments to capture toxic fly-ash; and, after bottom ash has been filtered and any remaining metal extracted for recycling, the plasma-treated fly and bottom ash can be used for roading base aggregate and concrete block manufacture.

Don't such plants reduces jobs? There are estimates that every job created in the incineration industry removes many more in landfill, recycling and reuse industries?
The Project Kea Energy-from-Waste plant is expected to initially provide work for 300 people while being built, and once the plant is operating, more than 100 direct and indirect roles will be created at various levels of management and skill levels.

Businesses, new and established, requiring higher and secure local energy supply are also expected to be attracted by Project Kea – creating further employment opportunities.

These types of Energy-from-Waste facilities go against the circular economy, which tries to keep goods in circulation. Instead, don't these plants perpetuate our current make-use-dispose mentality?
No. SIRRL is an avid supporter of the circular economy for Aotearoa and especially the need for thorough removal of recyclable material before being sent to its Energy-from-Waste plant.

The urgent issue is that Aotearoa has a landfill crisis with many at risk from methane emissions, toxic liquid leaching into our waterways, increasing extreme weather events and coastal erosion. The consequences of recent environmental disasters, including the widespread contamination following the collapse of the Fox River landfill, are stark evidence of this. Information on the perilous state of many of the nation's landfills can be read at https://www.stuff.co.nz/environment/124123042/more-than-300-old-dumps-at-risk-of-coastal-erosion-and-flooding

Project Kea's proven Energy-from-Waste technology also reduces the production of harmful greenhouse gases, particularly methane created by landfills.

Energy-from-Waste plants seem to only make marginal sense in economies that produce coal-fired electricity – and then only as temporary measures until cleaner energy is available?
Project Kea will produce renewable energy from biomass (organic waste) – the proportion depending on the waste being processed. Energy-from-Waste technology creates energy in many forms, the most common being electricity, steam, and hot water. This energy can be used by companies as an alternative to using coal as a source within their manufacturing requirements. In Europe, an increasing number of businesses are building new facilities near Energy-from-Waste plants to take advantage of the energy available.

But burning waste and contaminated plastics creates a greater environmental impact than burning the equivalent oil they are made from?
Project Kea will use the latest proven Energy-from-Waste technology to remove contaminants from plant emissions, therefore reducing the effect on the environment. Coupled with continuous monitoring of flue gas composition to ensure that regulatory requirements for air discharge quality are consistently met.

Archived: Thursday, 12 September 2024 2:44:00 pm
From: [redacted]
Mail received time: Wed, 21 Sep 2022 21:23:22
Sent: Wed, 21 Sep 2022 21:22:50
To: Simon Bastion; Bruce Smith
Subject: RC Lodged
Importance: Normal
Sensitivity: None
Attachments:
SIRRL MEDIS RELEASE FINAL EMBARGOED UNTIL 0500, 22 SEPTEMBER 2022 .docx;

Hi Simon and Bruce
Refer attached

Kevin Stratful *Board Director, SIRRL*
[redacted] W: projectkea.co.nz

PROJECT KEA

Southland Resource Recovery Ltd

MEDIA RELEASE

EMBARGOED UNTIL 0500, THURSDAY, 22 SEPTEMBER 2022

SIRRL LODGES APPLICATION FOR RESOURCE CONSENT

South Island Resource Recovery Limited (SIRRL), the joint venture company proposing to build an Energy-from-Waste (EfW) plant near Waimate in South Canterbury, known as Project Kea, has lodged its consent application with Environment Canterbury (ECan) and Waimate District Council (WDC).

In their application, SIRRL formally asked ECan and WDC to publicly notify the consent application.

Following ECan's initial assessment processes, the consent application will be made available to the public by ECan on their website at www.ecan.govt.nz

SIRRL Director Paul Taylor said that the starting point for Project Kea was researching Energy-from-Waste plants around the world to understand what would best meet Aotearoa New Zealand's unique environmental conditions.

"During that research SIRRL identified what was the best operating practise and the best technology available. We then sought advice from leading experts in their respective fields to undertake extensive reports on the impact of such a project on local communities, its benefit to Aotearoa New Zealand, and as a producer of alternative power sources for local industries," says Paul.

"Had those reports clearly demonstrated that such a plant would have a negative effect on the health of people, the environment or the waste minimisation strategy of local and regional community groups, SIRRL would not have gone ahead and lodged its resource consent application".

"In total, SIRRL has had prepared 18 reports assessing different aspects of the proposed plant and this demonstrates the extent SIRRL undertook to ensure only independently proven fact and science-based information is included in the application, and to make that information available to the public for their considered review."

Of those 18 reports, nine directly address key specific issues and concerns that have been raised by members of the community thus far. These are human health, air quality, flood risk, visual impact, traffic effects, waste type, noise levels, economic impact, and an analysis of the facilities' climate change impact when compared to landfills.

These nine key reports can be summarised at a high level as follows:

- **Human Health** – Consultant https://www.enrisks.com.au/ **Objective –** to assess any potential human health effects through inhalation or ingestion of emissions from the plant. **Outcome** – Confirmed no identifiable risk to human health through inhalation or ingestion through consumption of rainwater or locally grown produce.

- **Air Quality ---** Consultant (https://www.pdp.co.nz/ **Objective –** to assess levels of contaminants released to air and the resulting air quality. **Outcome** – Confirmed that air quality will be compliant with the National Environmental Standard (Air Quality) and the Canterbury Air Regional Plan.

- **Waste Acceptance Criteria –** Consultant, Renew Energy Limited (REL) * **Objective –** to specify what waste would be accepted by the plant. **Outcome** – Reiterates the plants intention to divert non-recyclable waste from landfill maximising the component of "renewable" electricity produced.

- **Flood Risk—** Consultant (https://www.babbage.co.nz) **Objective –** to assess the risk and impact of the site under a 1 in 500 year flood event. **Outcome –** Plant to be constructed above the 1 in 500 year flood plain with minimal displacement of flood water to neighbouring properties.

- **Visual Design –** Consultant (https://www.brownltd.co.nz) **Objective** – to assess landscape and visual amenity effects on community and local residents. **Outcome** – Determined that the effects to local residents would be typically low and that the plant is consistent with the relevant objective, policy, and rules framework of the Waimate District Plan.

- **Transport movements –** Consultants (http://www.commute.kiwi/) **Objective** – assess the likely impact and effects of increased traffic on the local roading network including safety considerations. **Outcome** Confirmed primary traffic path via SH1 and Carrolls Rd and the project will undertake significant upgrades to both Carrolls Rd, SH1 intersection and level rail crossing.

- **Noise levels** - Consultants **(**https://www.slrconsulting.com/) **Objective** – assess noise levels and compliance with noise limits in the Waimate District Plan. **Outcome –** Plant achieves daytime and night-time compliance with noise limits.

- **Life cycle –** Consultants (https://www.isaconsulting.com/en) **Objective** assess the global warming potential (GWP) of the plant when compared to alternative landfill. **Outcome** – Concludes that the proposed Energy-from-Waste plant has a lower GWP than a modern designed landfill containing the equivalent quantity of waste.

- **Economic benefits -** Consultants https://www.infometrics.co.nz/ **Objective** to ascertain the economic effects of the proposed plant on the Waimate and wider region's economy. **Outcome** - Concluded the plant would meet the Waimate District Council's diversification plan and create real jobs and economic benefits to the community.

"From local feedback we have received, SIRRL believes that these reports will provide the necessary facts and science to questions raised and validate our belief that an Energy-from-Waste plant is a socially and environmentally responsible component of Aotearoa New Zealand's overall waste management strategy," says Paul.

"The plant will have the capability to operate in two modes - 30MW of electricity or 20MW of electricity, and 40TPH of steam. Both modes will be able to supply energy to local residential and commercial users.

"An important feature of this proposed Energy-from-Waste plant is how it will recycle the process wastewater stream. There is no wastewater discharge to land or any surface water body.

"Wastewater from such facilities can contain significant and very damaging contaminants, and for this reason the technology used in our proposed plant will treat all process wastewater, with the contaminants being sent back to the furnace and the water being 100% recycled.

"This arrangement means that there is no process wastewater discharge to the environment.

"The capture and treatment of fly-ash with the plant's Plasma technology will convert the hazardous fly-ash into a high-grade industrial aggregate suitable for concrete manufacturing. After the recycling of metal products, the grate ash will also be available to be used in both roading aggregate or concrete products.

"SIRRL has consistently said that as soon as the consent application was lodged, we would ask ECan to release these expert reports. There is understandably high community interest in these, particularly as the plant will be using technology new to Aotearoa New Zealand.

"As well as addressing the South Island's current landfill crisis and considerably assisting in lessening Aotearoa New Zealand's climate change-causing methane emissions from future landfills, there is also significant interest in the economic impact of the $360 million plant.

"With the resource consent application now lodged, SIRRL is planning a public information day in Waimate to discuss the plant and to answer further questions on the technology and how it will operate. SIRRL will advise of these dates once they have been confirmed.

"Should the resource consent be approved, SIRRL would also invite the local community to have a 'watching brief' over the operation of the plant and, along with plant management, continue to watch over its performance going forward," says Paul

ENDS.

CONTACT: Paul Taylor, SIRRL Director paul@sirrl.co.nz **More information** is also available on the **Project Kea website** at www.projectkea.nz

*REL is a New Zealand registered company representing shareholders who are funding the development of Project Kea. REL has the responsibility to secure the Municipal Solid Waste needed to operate the plant and to work closely and transparently with the regulator to ensure only acceptable waste is received at the plant.

PROJECT KEA

South Island Resource Recovery Ltd

APPENDIX - ***LIST OF 18 EXPERT REPORTS***

REPORT	PREPARED BY
Operational and Technical Overview Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Human Health Impact Report	Environmental Risk Sciences (EnRiskS) https://www.enrisks.com.au/
Air Quality Assessment	Pattle Delamore Partners Ltd (https://www.pdp.co.nz/)
Preliminary Site Investigation Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Visual Design Report	Brown NZ Ltd (https://www.brownltd.co.nz)
Hazardous Substances Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Domestic Wastewater Discharge to Land Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Waste Acceptance Criteria Report	Consultant Renew Energy Limited (REL) *
Flood Risk Assessment	SLR Consulting Ltd (https://www.slrconsulting.com/en)
Transport Movements Report	Commute Transportation Consultants (http://www.commute.kiwi/)
Surface and Groundwater Assessment	Babbage Consultants Ltd https://www.babbage.co.nz/
Noise levels Assessment	SLR Consulting Ltd (https://www.slrconsulting.com/en)
Life Cycle Assessment Report	SLR Consulting Ltd (https://www.slrconsulting.com/en)
Stormwater Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Economic Impact Assessment	Infometrics Ltd https://www.infometrics.co.nz/
Earthworks Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Electrical Safe Distance Report	Babbage Consultants Ltd https://www.babbage.co.nz/
Consultation Summary Report	Babbage Consultants Ltd https://www.babbage.co.nz/