

## COVER SHEET

<b>2.4 Reporoa Full-Scale Demonstration Biogas Project – <sup>Commercial Inf</sup> PGF Application</b>		<b>For: Approve</b>	
<b>Tier:</b>	<b>2 - Sectors</b>	<b>Sector:</b>	<b>Waste</b>
<b>Background &amp; context:</b>		<b>Recommendation(s):</b>	
<p><b>Applicant Organisation:</b></p> <ul style="list-style-type: none"> <li>Eco Stock Supplies Ltd</li> </ul> <p><b>Location:</b></p> <ul style="list-style-type: none"> <li>Reporoa, Rotorua</li> </ul> <p><b>Proposal:</b></p> <ul style="list-style-type: none"> <li>To build a full-scale demonstration biogas plant which will recover energy, carbon dioxide and nutrients from food waste.</li> <li>The plant will be co-located with <sup>Commercial Information</sup> tomato glasshouses.</li> </ul> <p><b>Funding Sought:</b></p> <ul style="list-style-type: none"> <li>Total project value: \$<sup>Commercial In</sup></li> <li>PGF Funding: \$8.9m (as loan or equity)</li> <li><sup>Commercial Information</sup>: \$<sup>Commercial</sup> (as equity)</li> </ul> <p><b>Background:</b></p> <ul style="list-style-type: none"> <li>Every year 327,000 tonnes of food waste goes to landfills in New Zealand.</li> <li>New Zealand has no commercial scale food waste anaerobic digesters (AD). There are over 660 AD facilities in Europe, 142 in the UK and 3 in Australia.</li> <li>The proposed Reporoa Organic Waste Recovery Facility is being built on a two hectare site within the 74.4 hectare <sup>Commercial Information</sup> glasshouse operation. This will replace current fossil-fuel dependency of the site (currently uses natural gas) and use renewable energy to power/heat the expanded facility.</li> <li>This facility will take food waste from local regions: Rotorua, Reporoa and Taupo. It will take industrial organic waste materials for significant local food manufacturers such as dairy factories, commercial bakeries, cool stores and fruit-grading facilities, and has the capacity to take milk shed washings from dairy cow and goat operations.</li> <li>This project will take 20,000 tonnes a year of food waste (which would otherwise go to a landfill) and convert it into biogas. A portion of this food waste will come from <sup>Commerc</sup>.</li> </ul>		<p><b>We recommend that the IAP:</b></p> <p>a) <b>Discuss</b> the Reporoa full-scale demonstration biogas project.</p> <p>b) <b>Note</b> MfE is supportive of this project but could not fund this project through the Waste Minimization Fund <b>Commercial Information</b>.</p> <p>c) <b>Note</b> Pioneer Energy is investing in this project and subsequent food to waste AD projects, if this project is successful.</p> <p>d) <b>Note</b> PDU will provide additional information on Eco Stock's commercial arrangements with <sup>Commerc</sup> and <sup>Commercial Info</sup> <sup>Commercial In</sup> before 15 January 2019.</p> <p>e) <b>Note</b> PDU is supportive of this application because:</p> <ol style="list-style-type: none"> <li>This project will create <sup>Comm</sup> jobs in the region;</li> <li>It will act as a catalyst for similar plants in other regions; and</li> <li>It aligns strongly with regional priorities.</li> </ol> <p>f) Consider the following funding options and <b>recommend one of the two options:</b></p> <ol style="list-style-type: none"> <li>A \$8.9m loan on commercial terms with interest rate and repayment schedule as agreed by PDU; or</li> <li>A combination of loan and equity totalling \$8.9m with loan terms and equity valuation as agreed by PDU.</li> </ol>	

<ul style="list-style-type: none"> <li>• The biogas will be used to fuel an engine for electricity and heat generation.</li> <li>• This project could act as a catalyst to build 20 regional AD biogas facilities. It will confirm the commercial viability of AD plants in New Zealand environment.</li> <li>• The Reporoa Demonstration Biogas Project will have five commercial income streams - waste disposal, electricity, carbon dioxide, heat and fertiliser.</li> <li>• Eco Stock is recognised as New Zealand’s largest domestically owned collector, processor and reseller of food waste to stock feed.</li> <li>• Eco Stock has invested over \$<sup>Commercial</sup> in this project on research. It has been developing the project for the last four years.</li> <li>• Eco Stock will operate the proposed plant and will own some equity in the project.</li> <li>• Eco Stock has identified customers and commercial terms agreed for the outputs of the facility.</li> <li>• This project will support the \$<sup>Commercial</sup> ‘permitted’ expansion programme of <sup>Commercial Information</sup> glasshouse growing operation in Reporoa, which will add further <sup>Comm</sup> direct jobs.</li> <li>• Eco Stock has commercial arrangements with <sup>Commercial I. for</sup></li> </ul> <p><b>Commercial Information</b></p> <ul style="list-style-type: none"> <li>• <b>Commercial Information</b></li> <li>• [Redacted]</li> <li>• [Redacted]</li> <li>• [Redacted]</li> </ul>	<p style="text-align: center; color: red; font-size: 2em; opacity: 0.5; transform: rotate(-15deg);">PROACTIVELY RELEASED</p>
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PGF criteria that this proposal supports:		
PGF Criteria	Assessment Commentary	Rating (1✓ to 5✓)
<b>Link with fund and government outcomes</b>		
Creates permanent jobs	<ul style="list-style-type: none"> <li>• This project will create <sup>Comm</sup> jobs.</li> <li>• <sup>Commercial Information</sup> project using biogas to grow tomatoes will create <sup>Comm</sup> jobs.</li> </ul>	✓✓✓✓
Delivers benefit to the community	<ul style="list-style-type: none"> <li>• New jobs will support the local economic development and deliver benefits to local communities.</li> </ul>	✓✓✓

Increased utilisation and returns of Maori asset base	<ul style="list-style-type: none"> <li>N/A</li> </ul>	
Enhanced sustainability of natural assets	<ul style="list-style-type: none"> <li>N/A</li> </ul>	
Mitigation of climate change effects	<ul style="list-style-type: none"> <li>This project will generate electricity from food waste and will help New Zealand to achieve its low carbon emissions target.</li> </ul>	✓✓✓
<b>Additionality</b>		
Adding value by building on what is already there	<ul style="list-style-type: none"> <li>New Zealand generates food waste which currently goes into landfills. This project will leverage the food waste to generate energy.</li> </ul>	✓✓✓
Acts as a catalyst for productivity potential in the region	<ul style="list-style-type: none"> <li>This plant, if successful will act as a catalyst for similar plants in other regions. Over 20 food to energy AD plants will be built in New Zealand and create <sup>Commercial</sup> jobs</li> </ul>	✓✓✓✓
<b>Connected to regional stakeholders and frameworks</b>		
Alignment with regional priorities	<ul style="list-style-type: none"> <li>Aligns with Waikato Regional Council's Waikato waste and resource efficiency strategy 2015-18.</li> <li>Aligns with Bay of Connections' Energy Strategy.</li> </ul>	✓✓✓✓
Support from local governance groups (inc. Councils, Iwi/Hapu)	<ul style="list-style-type: none"> <li>Rotorua Lakes District Council and Waikato Regional Council are supportive of this project.</li> <li>Local iwi are supportive of this initiative and would invest in the project in future.</li> </ul>	✓✓✓
<b>Governance, risk management and project execution</b>		
Robust project management and governance systems	<ul style="list-style-type: none"> <li>Eco Stock has 11 years of experience in collecting, processing and reselling food waste to stock feed in New Zealand.</li> <li>A project steering committee will be formed including the project manager, <sup>Co-ercia</sup> and the two engineering firms for the construction phase with appropriate project management tools in place.</li> </ul>	✓✓✓✓
Risk management approach	<ul style="list-style-type: none"> <li>Risks are identified with mitigations.</li> </ul>	✓✓✓
Future ownership / operational management	<ul style="list-style-type: none"> <li>Investors along with the applicant will own the plant.</li> <li>The project will have five commercial revenue streams and will provide sustained income for the future.</li> </ul>	✓✓✓✓
<p><b>The purpose of this briefing is to consider recommending PGF funds to the Reporoa Full-Scale Demonstration Biogas Project.</b></p>		

**Risks Issues:**

- There are build risks in terms of delays and cost over-runs. It will be de-risked with geotechnical studies and options analysis to handle certain areas. There will be robust project management support from WSP Opus.

**Eligibility points of note:**

- *Due diligence*:- Full due diligence is to be completed. It is a condition of approval that due diligence is to be to the satisfaction of the Head of PDU Investment team.
- *Conflict(s) of interest*:- Based on the information provided no conflict of interest is evident noting that full due diligence will inform this item further.
- *Illegal Activity*:- Based on the application information provided and feedback from other agencies there is no indication that the applicant or project has been involved in, or associated with illegal activity.
- *Alignment with Regional development plans*:- Aligns with Waikato Regional Council's Waikato waste and resource efficiency strategy 2015-18 and with Bay of Connections' Energy Strategy.
- *Commercial funding availability*:- Given the nature of the project which is to build a new plant using innovative technology access to commercial funding is not considered a reasonable option.

**Consultation undertaken or implications:**

<b>Legal</b>	N/A	<b>HR</b>	N/A	<b>Finance</b>	N/A	<b>MBIE policy</b>	N/A	<b>Other</b>	MfE
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MfE's Waste Minimization Fund Panel had the following comments on this project:

1. The application is well rounded and the Panel acknowledges the need for this kind of facility;
2. The Panel acknowledges the high cost of the capital expenditure required for a system of this type;
3. Commercial Information
4. Commercial Information

<b>Supporting proposal:</b>	Yes
<b>Appendices:</b>	Yes - Applications Commercial Information
<b>Sponsor(s):</b>	N/A
<b>Manager/Author of paper:</b>	DG Investment Team