

## FTC #29: Application for referred project under the COVID-19 Recovery (Fast-track Consenting) Act 2020 – Stage 1 decision to 3 December 2020

### Application 2020-28 – Kapuni Green Hydrogen Project

Date Submitted:	3 December 2020	Tracking #: 2020-B-07359
Security Level	In-Confidence	MfE Priority: Urgent

	Action sought:	Response by:
To Hon David Parker, Minister for the Environment	Decision	TBA

Actions for Minister's Office Staff	<b>Return</b> the signed briefing to MfE. <b>Send out attached letters</b> (if agreed and signed).
Number of appendices and attachments	Titles of appendices: 1. Letters from the Minister for the Environment to relevant Ministers of the Crown.

### Ministry for the Environment contacts

Position	Name	Cell phone	1 <sup>st</sup> contact
Principal Author	Jess Hollis		
Responsible Manager	Sara Clarke	s 9(2)(a)	✓
Director	Keita Kohere	s 9(2)(a)	

## FTC #29: Application for referred projects under the COVID-19 Recovery (Fast-track Consenting) Act 2020 – Stage 1 decision to 3 December 2020

### Key Messages

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1. We are seeking your decision on one application for referral of a project to an expert consenting panel under the COVID-19 Recovery (Fast-track Consenting) Act 2020 (the Act). The applicants are Hiringa Energy Limited and Ballance Agri-Nutrients Limited.
2. The application is for the 'Kapuni Green Hydrogen Project' to develop a renewable hydrogen hub at Kapuni, Taranaki. The project involves generation of renewable electricity from wind to provide baseload power to the existing Ballance Kapuni ammonia-urea manufacturing plant and to power the production of 'green' hydrogen from water via electrolysis. Excess power generated will be exported to the local distribution network.
3. The 'green' hydrogen that is produced will initially be used to produce ammonia and 'green' urea at the Ballance Kapuni plant and is proposed to transition over a 10-year period for use as a fuel for the transport sector (as the hydrogen market develops).
4. The project includes construction, installation and operation of four 230-metre-high wind turbines and associated electricity infrastructure, an electrolysis plant and hydrogen production infrastructure, and hydrogen storage and loadout facilities.
5. The application states that this will be the first project in New Zealand to couple wind generation integration with hydrogen production.
6. We have undertaken an initial (Stage 1) analysis of this application and recommend you progress to the next stage.
7. A summary of the analysis and our recommendation for the application is provided in Table A. You are the sole decision maker for this project as it is not in the Coastal Marine Area.
8. Table B indicates how applications we have received for referred projects under the Act are advancing through the fast-track process. Table C indicates progress of Listed Projects received by the Environmental Protection Authority. We will continue to monitor and report progress to you.

### Action sought

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9. Please indicate your decision on the recommendation for the application listed in Table A.

Signature



Sara Clarke  
Manager

**Fast Track Consenting**

**Table A: Stage 1 initial assessment of project eligibility – projects where the Minister for the Environment is the only decision maker**

**Project to progress**

Project details	Project description	Project funding	Is the Project ineligible for referral? [s18(3)]	Assessment against the purpose of the Act					Any other relevant matters [s19(f)]	Recommendation	Decision
				Economic benefits and costs for people or industries affected by Covid-19 [s19(a)]	Effect on social and cultural wellbeing [s19(b)]	Likelihood project will progress faster under the Act [s19(c)]	Public benefit [s19(d)]	Potential for significant adverse environmental effects [s19(e)]			
<p><b>Application name</b></p> <p>Kapuni Green Hydrogen Project</p> <p><b>Applicant</b></p> <p>Hiringa Energy Limited ("Hiringa") and Ballance Agri-Nutrients Limited ("Ballance")</p> <p><b>Project location</b></p> <p>271 – 359 Kokiri Road, Kapuni, Taranaki (the "PKW Farm" – site for the wind turbines).</p> <p>309 Palmer Road, Kapuni, Taranaki (the "Ballance Kapuni Plant").</p> <p>The applicant is proposing two options for underground electricity cable alignment between the PKW Farm and the Ballance Kapuni Plant, as follows:</p> <p>Option 1 – via 414 Kokiri Road, 15 Palmer Road and Kokiri Road legal road reserve.</p> <p>Option 2 – via unnumbered land on Palmer Road, Skeet Road legal road reserve, 1101 Skeet Road and 1128 Skeet Road.</p>	<p>To develop a renewable hydrogen hub including generation of renewable electricity for baseload power to the Ballance Kapuni ammonia-urea manufacturing plant, to produce green hydrogen from water via electrolysis and provide excess power to the local distribution network</p> <p>The resulting 'green' hydrogen will be used as follows:</p> <ul style="list-style-type: none"> <li>initially 100% will be combined with atmospheric nitrogen to produce ammonia and green urea by the Ballance Kapuni Plant</li> <li>over a 10-year period a planned transition to approximately 90% usage as a fuel for the transport sector as the hydrogen transport market develops</li> <li>in support of the development of a green hydrogen energy and transport hub for South Taranaki.</li> </ul> <p>Excess power generated by the wind turbines during peak electricity production will be fed into the local distribution network. This is expected to be approximately 11.9MW.</p>	<p>Provincial Growth Funding (PGF) has been received for the project of \$9(2)(b)(ii)</p> <p>It is also noted that funding under the Infrastructure Reference Group (IRG) 'Shovel Ready' Infrastructure Projects fund has been provisionally approved (as at August 2020) for the wider development/establishment of a nationwide network of hydrogen-fuelling stations.</p>	<p>The project is not disqualified from referral as, based on available information, it does not:</p> <ul style="list-style-type: none"> <li>include any prohibited activities</li> <li>include land returned under a Treaty settlement</li> <li>occur in a customary marine title area or protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.</li> </ul>	<p>The applicant estimates that:</p> <ul style="list-style-type: none"> <li>the project will provide an average of 40 FTEs over an 18-month period covering engineering, design and construction</li> <li>ongoing operation of the renewable hydrogen hub will support work for over 150 existing staff and contractors at the Ballance Kapuni site</li> <li>direct economic benefits for New Zealand include the reduction in imported crude and fossil fuels, and urea.</li> </ul>	<p>The project has the potential for direct positive effects on the social wellbeing of the community in the short term by:</p> <ul style="list-style-type: none"> <li>creating additional employment and economic activity in a small rural area</li> <li>creating the potential for training opportunities targeted at young people during the design and construction phases, showcasing different opportunities in renewable energy and green hydrogen production.</li> </ul> <p>The project may create pressure/high demand on housing during the construction phase in the short term.</p> <p>The project may adversely affect residents living in close proximity to the turbines. These effects could be assessed further by a panel.</p> <p>The applicant has indicated ongoing engagement with Te Korowai o Ngāruahine Trust, Ngāti Tu and Ngāti Manuhakai, but provided no specific details of the outcome or direction of this engagement or any</p>	<p>The applicant considers that the fast-track process is likely to be faster than standard RMA processes given the nature of the project, and the potential for public notification and Environment Court appeal/s.</p> <p>Feedback will be sought on the use of the Act or standard RMA processes from South Taranaki District and Taranaki Regional Councils.</p> <p>We note that developments involving wind turbines tend to receive a high level of public interest, and the wind turbines proposed are of a significant height.</p>	<p>Based on the information provided we consider the project may result in the following public benefits:</p> <ul style="list-style-type: none"> <li>generating employment by the creation of an average of 40 FTEs over an 18-month period covering engineering, design and construction</li> <li>providing infrastructure that will contribute to improving economic and employment outcomes</li> <li>assisting to improve environmental outcomes for air quality by lowering the level of emissions generated from combustion of natural gas at the Ballance Kapuni Plant</li> <li>assisting to improve environmental outcomes for air quality and assisting New Zealand's efforts to mitigate climate change and transition more quickly to a low-emissions economy (subject to a successful future transition to the use of the green hydrogen as a fuel in the transport sector).</li> </ul> <p>Given that the project involves exporting excess power to the local distribution network, comment should be sought from</p>	<p>The project has the potential for adverse environmental effects, including:</p> <ul style="list-style-type: none"> <li>temporary construction effects including from traffic and earthworks</li> <li>landscape and visual amenity effects of wind turbines</li> <li>noise effects of turbines particularly for dwellings in close proximity</li> <li>ecological effects due to the potential for bird strike on the wind turbines</li> <li>effects on cultural values</li> <li>effects relating to the storage and use of a hazardous substance.</li> </ul> <p>The applicant has provided details of mitigation measures to address potential adverse effects and has confirmed that technical experts have completed a range of necessary technical assessments. The applicant advises that none of the environmental assessments undertaken for the project conclude that the proposed activities will result in significant adverse environmental effects.</p>	<p>The application states that this will be the first project in New Zealand to combine wind generation integration with hydrogen production.</p> <p>The applicant has provided details of engagement that has taken place on the project with various Government Ministers during the period from 2017 to 2020. The applicant has advised that feedback to date has been positive.</p> <p>The Ministry of Business, Innovation and Employment (MBIE) website states that "Green hydrogen has the potential to play a significant role in our energy system and could play an important role in decarbonising parts of our economy". MBIE consulted the public on green hydrogen challenges and opportunities, and the Government's role, in September 2019.</p> <p>An internet search of information relating to green hydrogen production in New</p>	<p>a. agree to progress the Kapuni Green Hydrogen Project to Stage 2 of the process. The project warrants further analysis because it has the potential to achieve the purpose of the Act.</p> <p>b. agree to seek further information from the applicant on the timing of a Cultural Impact Assessment and existing easement rights that may affect the ability to undertake the project.</p> <p>c. agree to seek comment from:</p> <ul style="list-style-type: none"> <li>Ministers listed in s21(6) of the Act</li> <li>Minister for Economic and Regional Development</li> <li>Minister for Māori Development</li> <li>Minister of Energy and Resources</li> <li>Minister for Rural Communities</li> <li>Minister for Trade and Export Growth.</li> </ul>	<p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p>



Project details	Project description	Project funding	Is the Project ineligible for referral? [s18(3)]	Assessment against the purpose of the Act					Any other relevant matters [s19(f)]	Recommendation	Decision
				Economic benefits and costs for people or industries affected by Covid-19 [s19(a)]	Effect on social and cultural wellbeing [s19(b)]	Likelihood project will progress faster under the Act [s19(c)]	Public benefit [s19(d)]	Potential for significant adverse environmental effects [s19(e)]			
	<p>The project works involve the following activities:</p> <ul style="list-style-type: none"> <li>• installation of four wind turbines with up to 24 MW of generation capacity on the PKW farm. The wind turbines will have a hub height of approximately 149metres and a rotor diameter of 162metres, resulting in an overall maximum height of approximately 230metres.</li> <li>• construction and installation of electrolysis plant and hydrogen production infrastructure within Ballance's Kapuni Plant site.</li> <li>• construction and installation of hydrogen storage, loadout and refueling facilities within the Balance Kapuni Plant site.</li> <li>• installation of underground power cables and associated buildings and structures to convey electricity from the PKW farm to the Balance Kapuni Plant.</li> </ul>				<p>assessment of effects on cultural wellbeing. It is anticipated that cultural effects associated with the placement of the wind turbines have potential to be significant. Ngāruahine were recognised under their Treaty settlement as kaitiaki over the area which includes the project site. Additionally, tributaries of Kapuni and Waiokura Streams cross the site and all are subject to statutory acknowledgements under the Ngāruahine Claims Settlement Act 2016. Therefore, it is considered appropriate to invite comment from Te Korowai o Ngāruahine Trust (the iwi authority), and Ngati Tu and Ngati Manuhiakai (the 2 relevant Ngāruahine hapū) at this referral stage.</p>		<p>Powerco at this referral stage (as the network utility provider who own and operate the 33KV network lines to which a connection is proposed).</p>	<p>We note that there is a 'High Pressure Gas and Liquid Petroleum Pipeline' shown as extending through Part Lot 1 DP 13121 in the Proposed South Taranaki District Plan maps. Details on any potential effects on the existing pipeline/s, including any consultation undertaken to date with the relevant utility provider/s, will be requested from the applicant.</p> <p>We note that the Minister does not require a full Assessment of Environmental Effects and supporting evidence to make a referral decision, and that an expert consenting panel will consider the significance of effects should the project be referred.</p>	<p>Zealand shows that there is some scepticism, including among academics, regarding the use of green hydrogen, primarily due to energy inefficiency concerns in the production process (which has direct implications for the economics of the technology). We anticipate there may be feedback on this from relevant Ministers.</p>	<p>d. agree to seek comments from relevant local authorities.</p> <p>e. agree to seek comments from the following other persons (as enabled under s21(3)):</p> <ul style="list-style-type: none"> <li>• Te Korowai o Ngāruahine Trust</li> <li>• Ngati Tu</li> <li>• Ngati Manuhiakai</li> <li>• Powerco</li> </ul>	<p>Yes/No</p> <p>Yes/No</p>

Signed:

Hon David Parker  
Minister for the Environment

Date