



## BRIEFING

### Energy Project update for 9 September 2019 Ministerial meeting

<b>Date:</b>	28 August 2019	<b>Priority:</b>	Medium
<b>Security classification:</b>	In Confidence	<b>Tracking number:</b>	0665 19-20

Action sought		
	Action sought	Deadline
Hon Shane Jones <b>Minister for Regional Economic Development</b>	<b>Note</b> the contents of this briefing ahead of your 9 September 2019 Ministerial meeting on PGF energy projects	9 September 2019
Fletcher Tabuteau <b>Parliamentary Under-Secretary to the Minister for Regional Economic Development</b>	<b>Note</b> the contents of this briefing	9 September 2019

Contact for telephone discussion (if required)				
Name	Position	Telephone		1st contact
Isabel Poulson	Manager, Strategy and Policy	Privacy of natural persons	Privacy of natural persons	✓
Eleanor Green	Policy Advisor, Strategy and Policy	Privacy of natural persons		

The following departments/agencies have been consulted
MBIE Energy and Resource Markets team

Minister's office to complete:

Approved

Declined

Noted

Needs change

Seen

Overtaken by Events

See Minister's Notes

Withdrawn

Comments



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### Purpose

This briefing provides you with information for your 9 September 2019 Ministerial meeting on Provincial Growth Fund (PGF) energy projects. This briefing provides you with background information on approved and potential PGF energy projects, as well as wider government policy which will inform decision making.


A full list of PGF energy projects currently under assessment is attached as **Annex One**.

### Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a **Note** the contents of this briefing ahead of your 9 September 2019 Ministerial meeting on PGF energy projects

*Noted*

  
Isabel Poulson  
**Manager, Strategy and Policy**  
Provincial Development Unit, MBIE

Hon Shane Jones  
**Minister for Regional Economic  
Development**

28/08/19

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## Background

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1. Budget 2019 allocated \$40 million from the PGF for investment in energy projects. On 24 June 2019 Regional Economic Development (RED) Ministers identified priorities for this allocation (Sector Investment Briefing 3942 18-19 refers). These priorities focussed on opportunities in hydrogen development and securing the renewable energy supply for New Zealand's populated off-shore islands.

## Wider Government energy policy

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2. The key objectives of the Government's energy strategy are to achieve:
  - 100 per cent renewable electricity by 2035; and
  - a zero net carbon economy by 2050.
3. A major piece of work this year led by the Minister for Energy and Resources is to develop a work programme and policies that will facilitate the achievement of these goals. Once completed this work will replace the 2011 New Zealand Energy Strategy (NZES) that outlines four priority areas for government investment: diverse resource development, environmental responsibility, efficient use of energy, and secure and affordable energy.
4. Separate to the NZES, the New Zealand Energy Efficiency and Conservation Strategy (NZECS) outlines the work programme of the Energy Efficiency and Conservation Authority (EECA). The core role of EECA, as outlined in NZECS, is to produce education and awareness campaigns to further the aims of the NZES.
5. The Government is also working on a hydrogen vision which outlines a plan for how green hydrogen can assist New Zealand in the transition to a low emissions economy. This vision will be published in early September 2019 and will feed into the developing Renewable Energy Strategy.
6. To ensure alignment with these strategies and their priorities, the PDU consults with the Energy and Resource Markets (ERM) team at MBIE when preparing advice for RED Ministers on energy projects.

## Energy and the PGF

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7. PGF priorities for energy investment are framed in the PGF position paper on energy investment '*Energy and the PGF*' (attached as **Annex Two**). The key objectives of PGF investment in energy projects are to create new job opportunities, maximise labour redeployment opportunities in the case of sunset industries, and to strengthen the capital infrastructure of New Zealand's energy sector. The PGF will prioritise investment in clean energy technology infrastructure in regions that have natural advantages in energy, ideally building on previous private investment to accelerate growth.

## Emerging renewable energy technology

8. In line with *Energy and the PGF*, priority projects for investment are hydrogen, geothermal and waste-to-energy projects. These projects can create regional jobs and contribute to the goal of transitioning New Zealand to 100 per cent renewable energy. These kinds of energy projects have proven technology. However, they can struggle to raise the capital needed to transition from the research and development stage to commercialisation due to the risk profile of emerging clean energy technology.

## Off-shore (New Zealand territory) Island Investments

9. *Energy and the PGF* recommended against investment in commercialised renewable energy technology such as wind or solar power, as these projects should be funded by the private sector. However the situation is different for off-shore islands where economic development is inhibited by energy constraints. Energy supply is often insecure and expensive for populated off-shore islands. In the case of Stewart Island and the Chatham Islands, the islands are not connected to the mainland grid and get their energy supply from diesel generators. These generators are very expensive to run, leading to high energy costs for the islanders and environmental concerns from carbon emissions and the risk of diesel spills.
10. On 7 August 2019 RED Ministers approved in principle a \$3.36 million project to invest in two wind turbines on Stewart Island to reduce the cost of energy for the islanders and increase the energy security of the island. The current kWh (unit) cost of energy on Stewart Island is \$<sup>Commercial Information</sup>/kWh which is about <sup>Commercial</sup> per cent more than power on the mainland. The ability for the economy of Stewart Island to develop is constrained by these costs. Similar growth constraints exist in the Chatham Islands.
11. Based on these circumstances, RED Ministers have directed the PDU to focus on investments in these two locations, which will have a substantial impact on these islands energy costs, and create confidence for businesses in the future economy of the islands.

## PGF energy investments to date

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12. To date, the PGF has invested in six energy projects, four of which are hydrogen related projects in Taranaki. PGF energy investments to date are as follows:
  - Bay of Plenty - \$8,900,000 – Reporoa Full Scale Demonstration Biogas Project: To build a full scale demonstration biogas project, in Reporoa, which will recover energy (as power and heat), carbon dioxide, and nutrients from food waste;
  - Southland - \$<sup>Commercial Information</sup> – Stewart Island Wind Power: Establishment of two wind turbines on Stewart Island;
  - Taranaki - \$50,000 – H2 Taranaki Roadmap Development: To develop a regional plan for Taranaki's transition from oil and gas to hydrogen production;
  - Taranaki - \$100,000 – Clean Energy Development Centre: Feasibility and planning activities for the establishment of Taranaki as a global player in the emerging Hydrogen industry;
  - Taranaki - \$950,000 – Hiringa Hydrogen Supply Infrastructure Feasibility Study: Funding for front end engineering design, planning and cost estimation which will support investment decisions on the establishment of hydrogen supply infrastructure in the Taranaki region; and
  - Taranaki - \$259,934 – First Gas Hydrogen Transmission Roadmap: Feasibility study to demonstrate that: (1) a regional hydrogen economy in Taranaki can extend to the rest of NZ; (2) the existing gas network can be repurposed to transport hydrogen and support a demonstration project.

## Principles for Energy Investment

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13. In *Energy and the PGF* a set of energy specific principles, aligned with general PGF investment principles, were developed. The PGF may invest in energy projects that demonstrate the following attributes:

- energy is a comparative advantage for the region;
- the project builds on existing proven technologies operating successfully on a commercial scale;
- the science behind the project is internationally proven;
- independent assessment of the technical, environmental and economic analysis;
- community input and engagement has been undertaken;
- have investment and involvement by expert players seeking to establish small to large scale development, either at a commercial scale or pilot stage leading to full commercial operation;
- leverages existing capability and skills in the region and seeks to build additional capability;
- the project can have development underway within the life of the PGF;
- uses natural resources that are reliable, environmentally and economically sustainable; and
- there is no existing central government funding source.

## **Annexes**

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### **Commercial Information**

Annex Two: Energy and the PGF position paper