Energy and the Provincial Growth Fund

Purpose

This paper outlines the Provincial Growth Fund (PGF) approach to investment in energy-related proposals.

Vision

The PGF will invest in energy projects that support increased productivity in the regions, but is not the primary source of government investment in energy projects.

Objectives

The PGF invests in commercial energy propositions (Tier 2) rather than regional energy infrastructure (Tier 3)[1]. The key objectives of investment in energy related projects are to:

- create new job opportunities in regional New Zealand and maximise labour redeployment opportunities in the case of sunset industries
- strengthen the capital infrastructure of New Zealand's energy sector (of firms, not public infrastructure) in the regions to ensure it is well positioned to take advantage of current and future demand for energy, particularly in regions that have a natural advantage in energy production

In progressing these objectives, the PGF will be mindful of supporting projects that are environmentally and economically sustainable and, where practicable, contribute to New Zealand's transition to a low emissions economy and climate change objectives.

Context

The International Energy Agency conservatively projects that in the next five years, international growth in renewable electricity generation will be twice as large as that of gas and coal combined. This reflects an increasing demand for renewable products and services both in New Zealand and in export markets.

The New Zealand Government has two operational energy strategies. The overarching strategy is the New Zealand Energy Strategy (NZES) which outlines four priority areas for government investment: diverse resource development, environmental responsibility, efficient use of the energy and secure and affordable energy. The latter three do not fit with the primary objective of the PGF, but diverse resource development aligns with the PGF's goal of increased productivity potential in the regions.

The other operational strategy is the New Zealand Energy Efficiency and Conservation Strategy (NZEECS) which outlines the work programme of the Energy Efficiency and Conservation Authority (EECA).The core role of EECA as outlined in NZEECS is to produce education and awareness campaigns to further these aims.

[1] For example: community solar panels to reduce the cost of energy to low income households, or investment to reduce regional transmission costs.

To date, the PGF has received 47 energy proposals including eleven waste-to-energy proposals, five geothermal energy proposals, and six hydrogen proposals. The PGF has also received eight proposals for feasibility studies relating to general community energy needs and security of supply. Eight projects are requesting over $10 million for significant investment in firm infrastructure related to energy.

Gaps and Opportunities

A significant proportion of New Zealand's energy resources (such as oil, gas and coal) are located in New Zealand's regions, predominantly Taranaki and the West Coast. In these regions the workforce is highly experienced in the production of energy products and service. With retraining, this workforce could potentially be redeployed to energy related business ventures in the renewable energy segment of the energy market. Investment through the PGF would reorient the capital in this sector to develop renewable energy products and services and build on the existing capabilities in these regions.

Taranaki launched its Energy Futures Action Plan in March 2018 which identifies two key initiatives for the region: a New Energy Development Centre to support new energy technology development and commercialisation, and a Hydrogen Energy Ecosystem to be established in Taranaki. The PGF has invested $950,000 towards a feasibility study related to project development, front-end engineering, consenting and Health Safety & Environment standards to inform hydrogen supply infrastructure in Taranaki.

The PGF does not expect to be a primary source of funding for energy projects. The aim is to create additionality to existing government efforts, and not duplicate work already being undertaken. There are existing government programmes and funding sources focused on energy. These include the Just Transition Unit, transition to a low emissions economy information and awareness campaigns, research and development tax credits and the $100m Green Investment Finance (GIF) fund which aims to accelerate lower emissions investment. The GIF has been established to catalyse New Zealand sectors cutting emissions output by investing in low emissions manufacturing processes, electric vehicles and energy efficient commercial buildings. The EECA technology demonstration fund also assists with this goal, providing funding for businesses to invest in more energy efficient technology to reduce their electricity use or carbon emissions.

PGF investment principles

A set of energy specific investment principles to align with general PGF investment principles have been developed. The PGF may invest in energy projects that can demonstrate the following attributes:

- energy is a comparative advantage for the region
- 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
- that the project can have development underway within the life of the PGF
- uses natural resources that are reliable, environmentally and economically sustainable
- there is no existing central government funding source.

Types of energy projects of interest to the PGF include: hydrogen, geothermal and waste-to-energy. Principles related to waste-to-energy are outlined in the *Waste and PGF* position paper.

Projects must comply with PGF criteria and must consider existing sources of government funding available before turning to the PGF. The PGF will not invest in projects such as:

- A community solar farm to reduce the cost of energy to low income households because this will not increase the productivity potential in the regions
- Funding to switch a boiler used to dry milk from coal powered to electric as this is solely targeted at lowering emissions, rather than increasing the productivity potential of the region. The GIF should be the first port of call for such initiatives
- Research and development activities for energy because there is already central government funding available for this purpose, and projects are unlikely to increase productivity of the regions within the life of the PGF. However, projects focusing on applying and developing pilots based on recent research will be considered.
- Funding to establish a commercially viable wind farm, as the markets are functioning well without the need for government intervention
- Education campaigns about reducing electricity use, as this is the core business of EECA
- Funding to solely reduce the cost of energy to a region or improving transmission infrastructure, unless this is part of a comprehensive investment package.

PGF investment priorities

The PGF will prioritise investment in clean energy technology infrastructure in the Taranaki, the West Coast and other regions that have natural advantages in energy. Given the nature of the energy industry, the PGF will ideally build on previous investment to accelerate growth.

Projects must support increased productivity potential in the regions, and the PDU will also examine the degree which they also contribute to more jobs, sustainable economic development, social inclusion and participation, Māori development, climate change mitigation, environmental sustainability, and resilience.

Given the short timeframes associated with investment by the PGF, we will progress projects that can be submitted, signed off and ideally have development underway by the end of 2020.

Next Steps

The PDU will use these principles to assess energy-related applications. Consultation and advice from other agencies will occur as required.

The purpose of this document is to provide the foundation for assessing potential PGF projects or applications against PGF objectives. Depending on an application, further information, specific to the kind of energy the project is focussed on, may be necessary. This guidance will be produced by answering the following questions, among others:

- what does the existing market look like?
- what is the energy type's growth potential?
- what sorts of opportunities are there to create more productive jobs, or a larger number of jobs?
- what are the necessary prerequisites for success in this energy type (e.g. infrastructure, access to natural resources)?
- what investments with relevance to the energy sector as a whole would be most valuable?
- to what extent does or could the energy sector benefit the wider community?
- what sorts of, and quality of, jobs does this investment provide?
- what is this form of energy production's environmental impact?
- what existing or potential Māori involvement in the project is there?