

2 October 2017

Low-emissions economy inquiry
New Zealand Productivity Commission
P O Box 8036
The Terrace
Wellington 6143

By email: info@productivity.govt.nz

Dear Steven,

Re: Issues Paper – Low-emissions economy inquiry

Pioneer Energy (Pioneer) welcomes the opportunity to make submissions to the NZ Productivity Commission (Commission) on its Issues Paper.

Background on Pioneer Energy

Pioneer owns 13 hydro power stations, 2 wind farms, two landfill gas electricity facilities, 1 co-generation plant and 80MW of thermal heat plant on 15 industrial and institutional customer sites, each one CEMARS accredited under EnviroMark's international monitoring and measurement programme. Pioneer's power plants have a total capacity of approximately 35MW_e and generate around 370GWh per annum. Pioneer's power-generating assets are all embedded within local distribution networks – referred to as distributed generation.

Pioneer also has a strong focus on energy efficiency – offering products and services to customers that assist them to efficiently use electricity. We offer business customers the opportunity to efficiently use other forms of energy, such as biomass, wood waste and heat, in their food processing and manufacturing operations.

Pioneer is owned by the Central Lakes Trust and over the 16 years since inception the Trust has distributed over \$80 million to local community initiatives.

Pioneer strongly supports efforts to reduce emissions. As discussed above, Pioneer is committed to ongoing CEMARS certification of our thermal heat plant. A partner electricity retailer, Ecotricity¹, provides the only electricity in New Zealand to be 100% renewable and carboNZero Certified. It only sources electricity from wind, hydro and solar.

Pioneer is a member of the Independent Electricity Generators Association Incorporated (IEGA). We support the IEGA submission.

¹ <https://ecotricity.co.nz/ethical-electricity/>

NZ Emissions Trading Scheme

We note that the primary incentive mechanism currently in place in New Zealand to drive a change in behavior is the NZ Emissions Trading Scheme (NZ ETS).

At the same time it appears the government's plans relating to meeting our obligations under the Paris Agreement are heavily weighted towards using imported emission offsets.

The use of imported emission offsets worked in New Zealand's favour during the Kyoto period when carbon prices collapsed. However, under the Paris Agreement it is much more likely, in our view, that international market access will be constrained and liquidity low initially. There is a higher probability of market scarcity for emission reduction units and higher carbon prices. Further:

- international markets for emission reduction units lacked adequate quality control during the Kyoto period. The arrangements under the Paris Agreement are addressing this issue. However, the outcome is currently uncertain as parties have agreed to review the implementation plans and unit accreditation processes for international trading rules after 2020
- the Paris Agreement includes nations meeting their own obligations before trading in units with other nations. Initially, at least, inter-government bilateral trading is a likely outcome before open market trading occurs
- whilst obligations are voluntary, a "name and shame" regime is proposed to ensure nations are held to some level of account for their undertakings. The potential to damage New Zealand's reputational brand of Pure NZ should not be underestimated.

Overall, Pioneer suggests heavy reliance on imported units is likely to increase New Zealand's economic exposure and trading risks.

At this stage it appears the NZ ETS price will be only a domestic unit trading price, controlled by the government through artificial price caps and the discretionary release of domestically traded units into the carbon market. This price may be different from the carbon unit prices faced by the government in international bilateral trades. The domestic carbon price could be further compromised by international carbon options relating to various trade based deals. Pioneer submits transparency about any government bilateral and option deals are important. New Zealand business should be given the opportunity to supply emission reduction units at the same price as the government is prepared to pay for units from overseas projects – adjusted for the risk / certainty of delivery.

While the agriculture sector remains outside the NZ ETS in terms of fugitive emissions, Pioneer supports more action to reduce emissions associated with domestic processing of primary products. In our view, the target to reduce the emissions intensity of the industrial and process heat sectors is unambitious. Further emission reductions can be achieved through better process efficiencies and fuel substitution.

Pioneer agrees with the Commission that

"... other supporting measures – direct regulations, certain infrastructure investments, education, information provision, and others – should also be part of the mix.

The timing of interventions is another factor to consider. The World Bank (2015) notes that focusing in the early stages of a transition on policies that do not hurt owners of existing capital may be more effective in the long-term because they reduce resistance to change, even

though they may be less economically efficient. This is consistent with applied forward reasoning which argues that in order to successfully prioritise the long-term, policies must entrench support over time while expanding the populations they cover (Levin et al., 2012).²

The remainder of this submission describes our ideas about initiatives that could be undertaken to drive New Zealand's transition to a low-emissions economy.

For all policy decisions and legislation, a requirement that:

- all government agencies, including independent agencies, must consider the Government's climate change policy settings and international climate change obligations in all regulatory cost-benefit analysis, any related decisions and subsequent primary or secondary legislation or rulings. This would include using a standard forecast price for carbon emissions in any capital investment business case. One government agency should be responsible for determining the forecast carbon price which would be published for use by central and local government
- the NZ ETS remain the primary market mechanism for all climate change related regulatory decisions. That is, officials or regulators cannot create alternative carbon market mechanisms. The Commission should recommend to government any changes needed to the NZ ETS to ensure this
- encourage (educate) private businesses to use this forecast carbon price in their investment decisions

In the electricity sector:

- retain capacity based pricing and reserves markets as they are required to support a 90% renewable electricity supply. This will encourage even greater economic activity as electricity gains a higher share of primary energy
- implement government policy that supports diversity in the market for electricity generation given the increasing economic demands on electricity sector investments. This will ensure a level playing field for generation connected to local networks and consumer-owned micro-generation
- improve the processes for parties to contract with local network companies to provide services that avoid/reduce/defer costs in the local network (Avoided Cost of Distribution). This should ensure a level playing field for all service providers who could be battery storage options and consumer-owned, network owned or third party owned generation. This is particularly important as local networks face a change in the pattern of use of their network due to rapid growth in electric vehicle connections
- consider the life-time emissions profile of renewable electricity generating plant given wind, hydro and solar generation have lower emissions over the life of the asset than geothermal generating plant
- note that electricity consumers may drive trends towards lower emissions technologies, even though this may not be theoretically economically efficient from a national perspective

² Source: New Zealand Productivity Commission (2017) Low-emissions economy: Issues paper. Available from www.productivity.govt.nz, Page 56

In relation to investment in industrial heat process equipment:

- implement more ambitious emission reduction targets for the industrial process heat sector so that this sector is better aligned with targets for the electricity and transport sectors
- implement complementary measures to ensure the government's procurement policies and standards require all government agencies to reduce emissions to meet the targets. For example, when making a decision is made to invest in new boilers in schools and hospitals. These same policies and standards should also apply to local government investment – to reduce the use of thermal fuels
- allocate the same quantity of government funds to contract for local carbon reduction options as is allocated to international carbon reduction options markets – and at the same option price
- ensure the forest industry has clearer incentives, through the NZ ETS or complementary measures, to recover the maximum available forest residues from plantation harvests for use as fuel (substituting fossil fuels in boilers).

In relation to Waste to Energy investments:

- allocate to investors in waste to energy equipment NZ ETS units equivalent to the avoided methane emissions captured through waste to energy conversions. This requirement would recognise fugitive methane emissions are the highest priority climate change issue and would provide sufficient incentive to avoid landfill or other petrochemical gas flaring

Regulation of Electricity Network Businesses should:

- recognise that pricing of network services to incentivise investment in non-network infrastructure could result in a lower long-term carbon footprint (than expanding network capacity to import more grid-connected generation)
- encourage all regulated utilities to include climate change and emissions reduction targets in their Asset Management Plans and investment decisions (with incentives to exceed and penalties for not meeting these targets). This reflects the very long-life of infrastructure investments and impact of climate change on these assets (eg high winds, coastal erosion)
- Network emission costs should account for losses of electricity on the distribution network. These losses should be calculated using a standard formula for peak system losses valued at the marginal thermal carbon abatement costs in the energy market.

We would welcome the opportunity to discuss this submission with you.

Yours truly



Fraser Jonker
Chief Executive