Queensland Government

The Hon Dr Anthony Lynham MP
Minister for Natural Resources, Mines and Energy

Refs CTS 01011/20

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Mr Neil Laurie
The Clerk of the Parliament
Parliament House
Cnr George and Alice Streets
BRISBANE QLD 4000

Dear Mr Laurie

Thank you for your letter of 5 February 2020, concerning e-petition No. 3168-19, received by the House on 4 February 2020 and referred to me for response, regarding the development of a strong export economy around hydrogen, international High Voltage Direct Current (HVDC) connectors, and other emerging renewables export industries.

It is considered that demand for Queensland resources will continue to grow, driven by global population growth. Customers such as India, China, and Japan will continue to need steel; a key factor in the strength of Queensland's metallurgical coal export market. Queensland also has created an entirely new liquefied natural gas industry, with exports now totalling $15 billion a year.

However, Queensland has much to gain from harnessing renewable resources such as solar and wind, including the opportunity for Queensland to diversify its economy.

Renewable energy plays a vital role in supporting a low-carbon economy. Transitioning Queensland's electricity generation to 50 per cent renewable energy by 2030 through the Queensland Renewable Energy Target (QRET) will significantly reduce emissions from the electricity sector.

By creating a positive environment, the Queensland Government has facilitated significant levels of private sector investment and enormous growth in the sector in a short time. Since December 2016, 35 large-scale renewable energy projects have commenced operations, become financially committed or are under construction, representing more than $5.5 billion in investment and more than 5000 jobs in construction.

Queensland also has around 20,000 megawatts of renewable energy project proposals in earlier stages of development. This highlights the extent of Queensland's renewable energy resources, enabling Queensland to meet its own energy requirements and offering the potential for the State's renewable resources to be exported beyond our borders. This is already occurring through interconnection with the National Electricity Market but could be expanded through more ambitious means, such as the creation of hydrogen or transmission connections with other countries.

The potential opportunity to link high quality renewable generation sources in Australia to Indonesia and Singapore through HVDC connection has been examined through a number of studies. While HVDC connection of this nature is technically feasible, this kind of project faces engineering, environmental, commercial and legal challenges. Project proponents are currently working to overcome these challenges, which is a necessary first step to pursuing commercial ventures within the National Electricity Market.

In May 2019, the Queensland Government released the *Queensland Hydrogen Industry Strategy 2019-2024*. The strategy sets out the vision that *'by 2030, Queensland is at the forefront of renewable hydrogen production in Australia, supplying an established domestic market and export partners with a safe, sustainable and reliable supply of hydrogen'*.

The Queensland Hydrogen Industry Strategy focuses on supporting innovation; facilitating private sector investment; ensuring an effective policy framework; building community awareness and confidence; and facilitating skills development for new technology. As part of the Queensland Hydrogen Industry Strategy, a $15 million industry development fund has been established to support hydrogen projects in Queensland.

In addition to potential export opportunities, hydrogen may also provide new domestic opportunities for Queensland, including decarbonising transport, advanced manufacturing; and shifting to renewable energy focused electricity systems. In energy systems specifically, hydrogen can play a role as energy storage, an additional load for renewable generation, and as a supplier of clean energy to remote locations that currently rely on diesel.

I provide you with this response for tabling in accordance with Standing Order 125(3). Any enquiries regarding this response can be referred to Mr Simon Zanatta, Chief of Staff, on telephone 3719 7360.

Yours sincerely

Dr Anthony Lynham MP
Minister for Natural Resources, Mines and Energy