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Advancing climate action in Queensland

The Australian Energy Council (the Energy Council) welcomes the opportunity to make a submission to the Department of Environment and Heritage Protection (EHP) Advancing climate action in Queensland paper (the Paper).

The Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The Energy Council supports durable, national policy to achieve an effective reduction in emissions and a smart and dynamic energy industry. The need for state intervention is not substantiated, and Queensland should use its position in the Council of Australian Governments (COAG) to support policy change that achieves effective emissions reduction at least cost.

The Energy Council has provided a submission to the Renewable Energy Expert Panel outlining the challenges and opportunities for Queensland in pursuing a 50 per cent renewable energy target by 2030. This represents a near-term target in the context of long-lived energy assets. As such, and considering Queensland's available renewable resources it is likely that such a target will be primarily met by wind and solar PV, both of which are intermittent sources of generation. The Energy Council does not support a state based renewable energy target because it is not a least cost method to achieve emissions reduction. The Australian Energy Market Operator (AEMO) is working to understand how it can ensure power system security with high share of renewable energyⁱ: increasing intermittent renewables at scale reduces emissions but ultimately increases prices as well as system security risks and these dynamics between environment policy and energy markets should be fully understood before committing the state to arbitrary targets.

The Energy Council acknowledges and shares the concern expressed in the Paper that a lack of national leadership to reduce emission may increase the difficulty in adjusting toward Australia's 2030 emissions reduction target. However, a fragmented jurisdictional approach is counterproductive to the national emissions reduction effort. The energy policy decisions taken in Queensland will have impacts in the National Electricity Market, on industry and on investment into the future.

Queensland can support the national emissions reduction target through a range of state-based actions including exploring off-grid or small grid energy solutions to reduce dependency on diesel power, land clearing reform, research and development of emissions reduction strategies and renewable integration strategies.

Understand the solutions to integrate new, low emissions technology to Queensland's network

The Queensland Productivity Commission's (QPC's) modelling shows that solar PV capacity in Queensland is projected to grow over the next 20 years without additional Queensland Government interventionⁱⁱ. To maximize the efficient integration of intermittent renewable generation, Queensland should work to understand the power quality and capacity impacts of high shares of intermittent generation in South East Queensland. The

recent wholesale market volatility and the need for ancillary services playing out in South Australia are an accidental experiment in high shares of variable generation. Planning for the structural shift in electricity generation will assist to smooth the transition toward lower emissions energy generation and ensure the most efficient use of new technologies.

Queensland can mitigate the impact of the structural shift to lower emissions electricity generation by working with AEMO and market participants to understand the renewable resources in the State, network constraints, wholesale market and consumer bill changes that will be impacted on by a high share of intermittent generation. Queensland can also work toward least cost, durable and nationally consistent policy with other jurisdictions as part of the COAG Energy Council.

Reducing reliance on liquid fuel to lower emissions in the long term

One development of new technology that has the potential to deliver efficiency gains across the transport energy sector, is greater uptake of electric vehicles. Using spare network capacity at off-peak times (e.g. overnight) to charge EVs would be almost costless but would improve the efficiency and operation of the electricity network. In effect, with sensible incentives for users to charge at off-peak times, such as time-of-use or maximum demand network tariffs, more than 500,000 EVs could be charged without requiring major new electricity infrastructure while also mitigating emissions from transport fuel. If vehicle-to-grid technology can be effectively commercialised, this policy also has the benefit of mitigating the need for network upgrades as the population grows (to the extent that charging of vehicles lowers peak demand for energy).

Queensland can provide information and support for off-grid and fringe of grid energy solutions which reduce dependency on diesel power. The availability of distributed generation and battery storage means that in some regional locations, renewable power may be more cost effective than relying solely on a network connection or diesel generation. Allowing competitive businesses to provide new and innovative solutions to regional power supply challenges can help demonstrate the reliability of the technology while lowering emissions.

The Energy Council does not support a State based target for renewable energy because it is not least cost policy and can result in energy market distortions. Emissions reduction is most effectively achieved nationally, with a durable and consistent strategy to decarbonise Australia's economy while also providing power system security.

Any questions about our submission should be addressed to Emma Richardson, Policy Adviser by email to emma.richardson@energycouncil.com.au or by telephone on (03) 9205 3103.

Yours sincerely,



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ⁱ 2016, AEMO, <http://www.aemo.com.au/Electricity/Market-Operations/Power-system-security>

ⁱⁱ Queensland Productivity Commission, 2016, <http://www.qpc.qld.gov.au/files/uploads/2016/03/Solar-Draft-Report-FINAL.pdf>