



SUBMISSION

Credible pathways to a 50%
renewable energy target for
Queensland: Draft Report

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The Business Council of Australia is a forum for the chief executives of Australia's largest companies to promote economic and social progress in the national interest.

About this submission

This is the Business Council of Australia's submission to the Queensland Renewable Energy Expert Panel's (the Panel) draft report titled *Credible pathways to a 50% renewable energy target for Queensland*.

The Queensland Government commissioned the Panel to conduct a public inquiry that will guide the development of a renewable energy strategy for Queensland. The Panel's terms of reference required the Panel to investigate and report on the costs and benefits of adopting a target of 50% renewable energy in Queensland by 2030.

The Panel's draft report provides three pathways as to how the Queensland Government can meet a target of 50% renewable energy in Queensland by 2030:

- *Linear pathway*: Assumes a uniform rate of renewables build from 2020 to 2030.
- *Ramp pathway*: Features a ramp-up in effort later in the period to capitalise on anticipated falling technology costs later in the period.
- *Stronger National Action pathway*: Relies on the introduction of a national emissions reduction scheme.

The Business Council's submission reinforces the importance of a coherent national climate change and energy policy framework, highlights the specific aspects of the Panel's draft report that require further scrutiny and outlines the significant risks posed by the extremely rapid take-up of renewable energy that the Queensland Government is aiming to achieve.

Key recommendations

- ▶ *Further consideration should be given to the likely price/cost impacts of achieving the target*

In its draft report, the Panel states that the penetration of renewable energy will suppress wholesale electricity prices, enabling Queensland to achieve the renewable energy target while keeping the effect of the policy cost-neutral to customers.

This forecast is based on the heroic assumption that Queensland's thermal generators will be able to sustain operations with significantly reduced cashflows. In the event one or more of these generators are forced to close due to reduced profitability, then wholesale electricity prices will not be suppressed and they may in fact rise – potentially significantly.

In addition, this logic selectively ignores the fact that the reduced profitability of Queensland Government-owned generators will result in reduced dividends and tax equivalence payments to the Queensland Government or may even require direct subsidies to enable their continued operation. The Queensland Government would also be exposed to even greater risk of lower wholesale prices via the contracts with renewable energy project developers.

This policy will cost Queenslanders one way or another – either through higher electricity prices or higher taxes. If it did not come at a cost, then the policy would not be required.

► *Energy and climate change policies should be nationally consistent*

The Queensland Government should ensure that it has a renewable energy target that is consistent with the existing federal Renewable Energy Target (RET). State-based renewable energy targets only serve to increase the cost of renewable energy projects that are being built under the national scheme and further distort Australia's electricity markets.

► *The Queensland Government should avoid creating distortions with the federal RET*

The Queensland Government should not pursue a policy that would see it operating in the market for large-scale generation certificates (LGCs), as such an approach could significantly distort the operation of the federal RET. The introduction of a renewable energy target in Queensland should occur within the Council of Australian Government's Energy Council framework.

► *Queensland needs a managed transition away from coal-fired electricity generation*

The modelling and analysis of the effect of the ramp-up in renewable energy in Queensland may underestimate the disruption this rapid change to the energy mix will create. Given the current dominance of Queensland's coal-fired generation fleet, a more managed transition policy would seek to minimise the risks of this transition on system security and individual communities throughout Queensland.

► *Use direct government-funding, not the devaluation of assets owned by taxpayers*

Wherever possible, government policies should be funded using transparent and easy to calculate methods. The proposed strategy put forward by the Panel would involve an attempt to suppress wholesale electricity prices paid for via the devaluation of Queensland's government-owned generators, along with privately held generation assets. Such an approach will make it very difficult to properly assess the true cost of the policy, as well as significantly distorting the price signals required by private market participants to determine future capital investments.

Integrated energy and climate change policy

Unconstrained climate change would have serious economic, environmental and social consequences for Australia. The 21st Conference of the Parties meeting in Paris in December 2015 reached a historic agreement (Paris Agreement) to limit global temperature rises to 'well below two degrees Celsius'. To achieve this will require deep global emissions reductions with most countries, including Australia, eventually reducing net greenhouse gas emissions to zero.

Australia needs a suite of durable climate change policies that are integrated with broader energy policy and are capable of delivering Australia's emissions reduction targets, at lowest possible cost, while maintaining competitiveness and growing Australia's future economy.

A suite of integrated energy and climate change policies should:

- be national and durable wherever possible, driven by bipartisan support
- be capable of achieving our committed emission reduction targets at lowest possible cost
- be scalable to meet future emission reduction targets while managing risk and uncertainty
- be flexible in the face of changing technology costs and consumer preferences
- be investable across all sectors and time horizons and provide confidence that long-term investment decisions can be made and adequate returns earned
- facilitate well-functioning energy markets, security of supply and cost-effective energy delivery
- regain our energy comparative advantage
- support domestic abatement wherever it is efficient and internationally recognised, to drive transformation of the Australian economy
- make use of internationally recognised abatement from overseas to ease the transition and costs
- prevent the unnecessary loss of competitiveness by Australia's trade exposed industries and be cognisant of the second-order effects of the chosen policy suite across all sectors of the economy
- avoid disproportionate impacts on vulnerable people and low-income households and provide assistance if necessary
- assist the successful transition of communities that are especially vulnerable to economic shocks or physical risks.

Key issues

The potential implications of this policy are very difficult to predict

The Panel's report states that Queensland currently has approximately 14,100 MW of installed electricity generation capacity and that to reach the 50 per cent renewable energy target under the linear pathway or ramp pathway, an additional 5500 MW in new renewable capacity will have to be available in Queensland by 2030.¹

When modelling the likely price implications of adding this renewable capacity and achieving the 50 per cent target, a key finding of the Panel's draft report is that retail electricity prices will not increase under the scheme:

Under all three pathways, policy action required by the Queensland Government to achieve the Queensland 50% target is of itself projected to be cost neutral overall to electricity consumers where the cost of funding the policy action is recovered through electricity market

¹ Queensland Renewable Energy Expert Panel draft report, *Credible pathways to a 50% renewable energy target for Queensland*, October 2016, p. 72.

mechanisms. This occurs as a result of the policy action having a projected downward pressure on wholesale electricity prices.²

The Panel found that this could be achieved due to the fact that two-thirds of Queensland's generating capacity is government-owned. As a result, the Panel concluded that the government would be in a position to 'manage any closures and ensure a smooth transition of the Queensland system while maintaining reasonable profits from the plant that remain in service'.³

However, the Panel report does note the inherent uncertainty in reaching such a conclusion:

The Panel notes that future market and economic development is inherently uncertain, and all models require approximations that limit their ability to capture all real world market conditions. This includes assumptions about strategic response of other market participants, conditions for entry and exit of capacity in the electricity market and the renewable resource of specific projects.

The Business Council is concerned that anticipating the actions taken by market participants in such a dynamic environment is very hard to predict. If wholesale prices are actively suppressed due to increased renewable energy generation entering the market, there is a real likelihood that the privately owned generators that operate in Queensland will be deterred from making continued investments. Such an environment could potentially lead to the closure of one or more of Queensland's larger coal-fired generators.

If existing coal-fired generators do not receive continued investment or there are coal-fired generator closures, this could mean that Queensland's wholesale electricity prices will not be suppressed in a manner that has been anticipated by the Panel. In such an environment, retail electricity prices would climb much higher than have been forecast by the Panel. In this scenario, it is electricity users that will be paying for the policy through higher power bills.

Alternatively, if the planned suppression of wholesale prices does succeed, then the Queensland Government exposes itself to two significant budgetary risks.

Firstly, the report explicitly concedes that the planned suppression of wholesale prices will lead to government-owned generators experiencing an estimated reduction in operating cash flow of \$600 and \$1,100 million (NPV) to 2030 under the Linear and Ramp pathways, respectively. While the Business Council is concerned that these revenue losses may turn out to be much greater than expected, even using the assumptions put forward in the report, the financial impact to Queensland taxpayers could be significant.

For instance, the government-owned Stanwell Corporation's major electricity generation assets are the 1460 MW coal-fired Stanwell Power Station and the 1843 MW coal-fired Tarong Power Station. In 2016, the Stanwell Corporation provided a dividend to the Queensland Government of over \$311 million.⁴ If the Queensland Government actively seeks to reduce the revenue generated by the assets it owns, future dividends of this size will not be available.

² *ibid.*, p. 62.

³ *ibid.*, p. 78.

⁴ Stanwell Corporation Limited, *Annual Report 2015/2016*, p. 3.

Such a reduction in revenue is something the Queensland Government should be seeking to avoid, after recently downgrading forecasts for tax and royalty revenue by \$2.713 billion over the four years to 2018-19 in its June 2016 budget.⁵

Secondly, by utilising a Contract for Difference (CfD) payment structure, the Queensland Government is exposing itself to significant market risk in terms of potential wholesale price volatility. For example, the more the Queensland Government succeeds at suppressing wholesale prices, the higher its exposure will be under its CfD with renewable energy project proponents.

Ultimately, all of the financial risks discussed above will be shouldered by Queensland taxpayers and/or Queensland electricity users. As discussed later in this submission, to ensure policy accountability these risks should be more clearly explained to affected stakeholders.

The release of the modelling that was undertaken to inform the Panel may help to clarify some of the above concerns and we look forward to further engagement once this modelling has been made public.

National policy and legislation as a preferred approach

In its draft recommendation 4, the Panel recognises the importance of integrated climate and energy policies at the national level. The Business Council strongly supports this recommendation, as well as the thorough analysis carried out by the Panel to demonstrate the inefficiencies caused by divergent state-based renewable energy targets.

In recent years, Australia's climate change policies have been largely uncoordinated and inconsistent with broader energy policy, poorly costed and, at times, have operated in conflict with each other. At the height of this policy flux there were over 200 government programs aimed at addressing climate change.⁶

Renewable energy targets are expensive tools to reduce Australia's emissions. In 2014, ACIL Allen estimated that the cost of reducing emissions under the federal RET was between \$35 and \$68 per tonne of CO₂e.⁷

The Queensland target of 50 per cent by 2030 is proposed to operate alongside the federal large-scale renewable energy target, which requires an additional 33,000 gigawatt hours of large-scale renewable electricity generation across Australia by 2020. Queensland joined Victoria and the Australian Capital Territory in announcing renewable energy targets that are inconsistent with the federal RET.

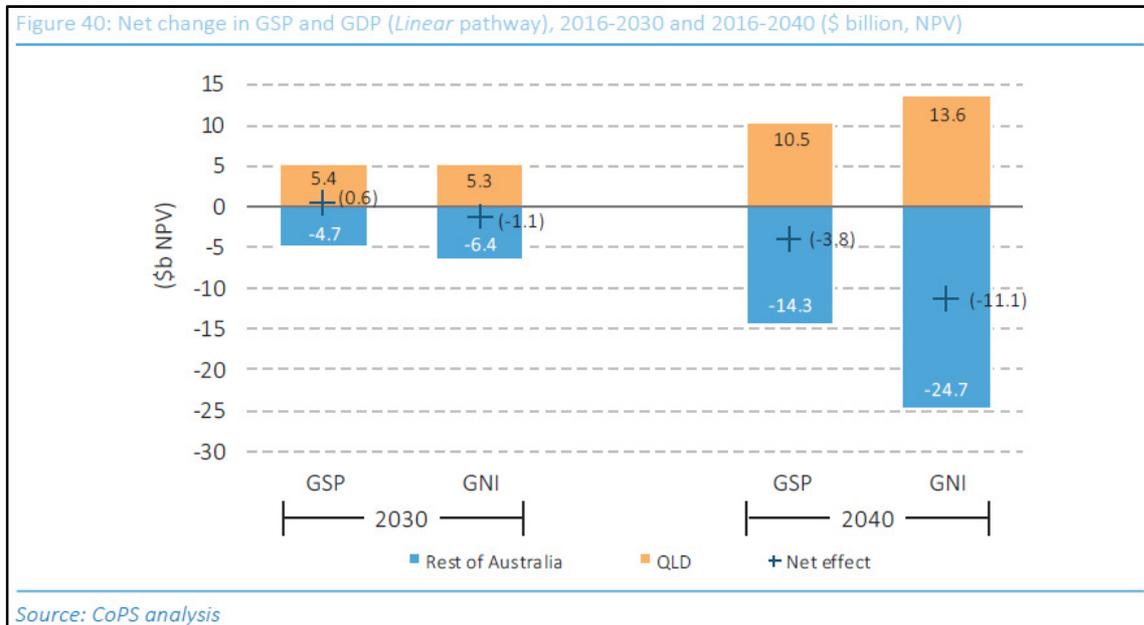
The Business Council has consistently emphasised the importance of avoiding divergent state-based renewable energy targets. This is because divergent state-based renewable energy targets do not lead to efficient investment outcomes and only serve to drive up the cost of achieving carbon emission abatement at a national level.

⁵ Queensland Government, Budget Strategy and Outlook 2016–17, p. 72.

⁶ R Wilkins AO, *Strategic Review of Australian Government Climate Change Programs*, Department of Finance and Deregulation, Canberra, July 2008.

⁷ ACIL Allen Consulting, *RET Review Modelling: Market Modelling of Various RET Policy Options*, August 2014.

This loss of efficiency is represented in Figure 40 of the Panel's draft report, where any gains to Queensland's Gross State Product (GSP) are outweighed by a larger loss in Australia's Gross Domestic Product (GDP).



The Panel noted the overall negative net economic effect of the proposed scheme when it correctly explained that (emphasis added):

These results are consistent with expectations as the subsidisation of renewable energy into Queensland in effect diverts more efficient investments (from both the electricity and other sectors) from other states and territories to Queensland resulting in a gain in Queensland GSP but a loss of economic activity across the rest of Australia. **Under the modelling outcomes, these subsidised investments in effect reduce capital and labour productivity over time, leading to lower incomes, investment and GDP.**⁸

If the Queensland Government wants to make an increased contribution to Australia's emissions reduction challenge and avoid inflating the cost of renewable energy projects, it should look to drive national, integrated energy and climate change policy through the COAG Energy Council.

Avoiding distortions to the federal RET policy framework

Like Queensland, a range of jurisdictions across Australia (South Australia, Victoria and the Australian Capital Territory) have committed to (or are considering committing to) aspirational or legislated renewable energy targets that are more ambitious than the federal RET. If state-based renewable energy targets lead to the construction of more renewable energy projects than are needed to meet the federal RET, this could render some renewable energy projects financially unviable if the price of LGCs falls dramatically in an oversupplied market.

If the Queensland Government is to proceed with the policy approach that has been proposed in the Panel's draft report, the Queensland Government should not become a

⁸ Queensland Renewable Energy Expert Panel draft report, *op. cit.*, October 2016, p. 108.

participant in the LGC market as this could further distort the market's operation. Market participants bidding into the Queensland scheme should retain any LGCs and the price risk of these instruments. This approach would minimise the risk that the federal scheme could be over or under built.

Transitioning to a lower-emission economy should be gradual and orderly

The Business Council is very concerned at the rate of transformation that will be required to meet the Queensland Government's 2030 renewable energy target. As discussed above, the Panel may have underestimated the potential for existing sources of generation to close or significantly scale down their operations.

The linear pathway and ramp pathways would require Queensland to undergo a radical shift in its energy mix. If the ramp pathway is utilised, then the rate of the transformation in the late 2020s is even more pronounced, although likely to be less costly.

The recent price volatility in South Australia demonstrates the tensions that can arise if the market is forced to rapidly move towards renewable energy generation. South Australia's price volatility is a result of a variety of factors, including the large penetration of intermittent renewable energy, the withdrawal of thermal capacity (coal and gas) as a result of low energy prices over the last few years, the upgrade of the transmission interconnector and the cost of gas-fired generation.

Australia needs to manage the transition away from emissions intensive generation in an orderly manner that supports capital decision making and ensures system reliability at lowest possible cost to customers. Unilateral action, such as Queensland's aggressive state-based renewable energy target, will only serve to make this transition more disorderly and unpredictable than it needs to be.

Using transparent government-funding that avoids price distortions

The Panel has suggested that Queensland's renewable energy target could be reached by allowing the revenue of its government-owned generation assets to be significantly reduced over time. While the Business Council does not agree with the predicted level of devaluation that would be required and the likely longer-term effect of this approach (as discussed earlier), the Business Council is also concerned about the opaqueness of using such a mechanism to fund government policy.

Queensland voters should be allowed to understand the trade-offs between higher taxes or reduced services, higher electricity prices and policies that promote the rapid penetration of renewable energy. Wherever possible, policies such as Queensland's renewable energy target should be directly funded from the budget to ensure transparency and accountability. Should the Queensland Government offer contracts for difference to support new renewable energy projects, the high-level terms of these contracts should be made public to ensure adequate transparency.

Conclusion

This submission identifies a range of uncertainties and concerns that the Business Council has identified with the Queensland Government's stated policy and some of the key findings of the Panel. The Business Council's preferred approach is for the Queensland Government to not proceed with the introduction of its aggressive renewable energy target, as state-based renewable energy targets only serve to increase the cost of renewable energy projects that are being built under the national scheme and further distort Australia's electricity markets. If the Queensland Government proceeds with the introduction of a mechanism to deliver their renewable energy target, the Business Council considers that it should be scaled back, at the very least, to ensure it is aligned with the federal RET and does not distort investment.

BUSINESS COUNCIL OF AUSTRALIA

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