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Improving renewable energy policy

Australia needs a nationally consistent policy on renewable energy zones

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1 Summary

Renewable energy zones (REZs) are intended to support the connection of multiple renewable generators or storage to the shared transmission network over a period to prevent the inefficient duplication of connection assets that might otherwise occur. The concept has been incorporated in the Integrated System Plan and governments are now seeking to implement a model or models for their selection, design, funding, and operation. In contrast with a participant-funded model, the expectation is that REZs will be at least partly funded by the public sector.

The efficient delivery of REZs requires a robust policy framework to identify the need, location and scale of investment and a funding and access arrangement to support the cost-effective buildout and utilisation of the REZ. Such a model should provide investment confidence and lowest cost to consumers while meeting policy requirements of low emissions and reliability.

The Technical Discussion Paper for QREZ covers many of the specific issues and questions relevant to this framework. There are several areas that are thinly covered or not addressed, and we make the following recommendations:

- Clarify and document the policy drivers for investment that lead to the case for REZs, their location and scale.
- Establish governance processes that ensure access to best market information but avoid conflicts of interest.

- Ensure there is a clear model for funding, cost allocation and risk allocation. Investors should be clear on their costs and benefits and the risks to which they are exposed. Consumers should clearly understand what they are being asked to pay for.
- Maximise alignment with the national REZ and congestion management processes being developed by the Energy Security Board; and with the NSW REZ process.
- Road test the preferred detailed model design with existing and potential market participants to identify gaps or weaknesses.
- Ensure that energy storage can be efficiently included in a REZ.

2 Introduction

This submission is made by Tony Wood and Alison Reeve of the Grattan Institute. It responds to the Technical Discussion Paper issued by the Queensland Government in November 2021. Grattan Institute is an independent think-tank focused on Australian domestic public policy. It aims to improve policy outcomes by engaging with both decision-makers and the community.

A transition to a low-emissions electricity system will be underpinned by investment in renewable energy at a pace and scale never previously seen in the history of electricity in Australia and via a distributed model that contrasts markedly with the historically centralised model of the current National Electricity Market (NEM).

The economic case for scale efficient network extensions has been recognised in Australia for many years. In February 2010, the then Ministerial Council on Energy submitted a Rule change request to the Australian Energy Market Commission relating to the introduction of a new framework for the efficient connection of clusters of new generation. At that time, the purpose of the proposed Scale Efficient Network Extensions (SENEs) was to allow the connection of multiple generators to the shared network over a period to prevent the inefficient duplication of connection assets that might otherwise occur.

The Commission's final decision was to introduce a model in which decisions to fund, construct, operate and connect to a

SENE would be made by market participants and investors within the existing framework for connections in the Rules. The Commission was concerned that a government or publicly funded model would lead to costs that would outweigh the potential benefits. No SENE projects emerged under this model.

More recent case for SENE emerged in the form of REZs through the Finkel Review and became central to the development of the Integrated System Plan by the Australian Energy Market Operator. The ESB and several states have subsequently sought to develop a model REZ framework.

The Technical Discussion Paper seeks to develop a clear and practical model for the design and access of Renewable Energy Zones in Queensland (QREZ). The effective and efficient deployment of renewable energy is critical to a successful transition to a low-emissions economy. In the case of Queensland, the key policy commitments are to achieve a 30 per cent reduction in emissions (against 2005 levels) by 2030, net zero emissions by 2050 and 50 per cent renewable electricity by 2030. The Queensland Government has also made a commitment to establish three renewable energy zones.

These state commitments side alongside, not always comfortably, national commitments and policies and the work of the Energy National Cabinet Reform Committee and of the Energy Security Board.

Market participants, most critically those who have invested or will invest in renewable energy, will have interest in the detail design of the QREZ framework particularly around risk and reward exposure. The challenge for the Government will be to manage the balance of risk exposure and cost allocation between investors and consumers.

This brief submission reflects Grattan's policy focus and consists of two sections; the first considers the need for greater policy clarity and connectivity to support the QREZ framework; the second considers several policy-related design issues.

3 Broad issues arising from the Technical Discussion Paper

Clear policy objectives and linkages

The case for a REZ framework and any specific REZ investment, its size and location should flow from an identified economic case that itself flows from an over-arching policy driver. Investments in renewable energy may be required to support emissions reduction policy, renewable energy policy or industry development policy. In our view, this requires clarification of the objectives and establishing better links between the NZ2050 target, interim, including 2030, emissions reduction targets, the 50per cent renewable energy target and the REZs.

A robust economic assessment

The REZ zones identified in the Paper and their suggested initial, lack supporting rationale. Advice to the Minister for a specific or “declared REZ” should include analysis that shows the costs to consumers will be higher without the Declared REZ (note this is not a benefit/cost test - the transition is unlikely to be costless); and that the REZ is the least cost REZ at the time of decision..

Incorporate risk assessment

A decision to proceed with a REZ means that an investment will be made by the Government and paid for by consumers. The consequence is a transfer of financial risk from investors to

consumers and this risk needs to be recognised as it will be crystallised in costs. The advice to the minister should include an assessment of the upper and lower bounds of the potential costs, where the upper bound is the cost of a severely under-utilised investment – “we built it, and no-one came”. This advice should be published so that the public know what they are potentially paying for.

A nationally consistent REZ framework

Any decision to proceed with a REZ and the renewable investments that follow will interact with the existing NEM structure. The potential for unintended consequences should be a considered element in the decision-making framework. This includes interaction with the developments being undertaken by the ESB for resource adequacy and transmission planning, including congestion management.

The Paper lists system characteristics that will have specific values in each jurisdiction. These differences are more quantitative than qualitative. They do not, per se, justify tailored REZ solution for each NEM jurisdiction. Therefore, the development of the QREZ model should proceed in close coordination with the work of the ESB on both the REZ framework and post-2025 transmission reform.

The Government should consider the relationship with the NSW New England REZ, given that it is geographically contiguous with the Southern QREZ. It is likely that both states would benefit from a joint framework in that area, to avoid inefficient investment flowing from an arbitrary state border.

Practical testing of the final QREZ model

As the government develops its preferred QREZ model(s) some form of practical testing should be undertaken with stakeholders to assess the potential for unintended consequences.

4 Specific issues raised in the Technical Discussion Paper

Desired attributes should focus on outcomes

The list of desired attributes (Table 1) is generic and would benefit by being more tightly defined. For example:

- A decision to proceed with a REZ should be based on a clear cost assessment.
- It must be clear to investors in renewable energy and storage projects what they will be asked to pay for and what they will get in return.
- The model must be clear on how the cost of over-investment will be allocated, both initially and in the longer term

Decisions should be well-informed and avoid conflicts of interests

Powerlink is in the best position to identify the potential case (i.e., demand and supply) for a REZ, although this could also be done by AEMO. Presumably, the outcome of the work on REZ funding and cost allocation will determine the level of costs that will be incorporated into Powerlink's regulated asset base.

To prevent another round of 'gold-plating' in network investment, such as was seen in the 2010s, and higher costs to consumers, the decision to proceed should be based on an independently

commissioned economic assessment by a third party, i.e., not Powerlink.

Greater clarity on funding and cost allocation

The Paper is open on details regarding the funding of REZ assets. This will need to be closed out as the model design is finalised. It is unclear why any form of government REZ funding, as described in Table 2, would be required, or justified. There is no perfect model for funding and cost allocation, and different options carry different risks for participants and consumers. The funding model for the overall REZ, generator connections, shared network and unallocated costs needs at the least to be clear to all.

Energy storage needs to be explicitly considered

The framework should provide more detail on how storage will be treated within REZs

Practical details

Investors will need more detail on how the full range of practical financial obligations and benefits will be structured, including for example, guaranteed network capacity limits.