Dr Kerry Schott AO
Energy Security Board

8th September 2020

Submitted via e-mail to: info@esb.org.au

Dear Dr Schott,

Renewable Energy Zones Planning

The Australian Energy Council (the "**Energy Council**") welcomes the opportunity to make a submission in response to the *Renewable Energy Zones Planning Consultation Paper* and *Draft Rules*.

The Energy Council is the industry body representing 22 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, sell gas and electricity to over ten million homes and businesses, and are major investors in renewable energy generation.

Introduction

Renewable Energy Zones ("**REZs**") were first mooted by the Finkel Review,[1] but the Review did not define their characteristics. Since that time the Australian Energy Market Commission ("**AEMC**") has explored the concept,[2] as part of its work on the *Coordination of Generation and Transmission Investment*.[3]

The concept of REZs has now become widely included in the national and jurisdictional planning process and REZs are now used as a convenient way to describe a broad category of transmission augmentations that were always possible in the existing framework. To the Energy Council's mind, the discussions surrounding it, and its organically developed definition, have already delivered substantively on the Finkel Review's recommendation.[4]

It is therefore worth reflecting whether the codification of the REZ concept into the Rules now will add anything to what has already been achieved. Furthermore there is a risk of codifying existing functioning activities, as this may:

- add administrative burden to processes;
- slow the process of evolution and innovation in the REZ concept; and
- create boundary issues and disputes between superficial classifications.

In any case, given the demonstrated workability of the uncodified REZ in the Integrated System Plan ("**ISP**"), it is worth reconsidering whether the ESB's extraordinary rule making power granted to it under Section 90F of the *National Electricity Law* ("**S90F**") is the appropriate path for codification. The Energy Council understands S90F was legislated in order to progress urgent issues of a system security nature. That is clearly not the case with the REZ rules, which should instead be dealt with

[1] Finkel, A. *et al*., *Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future*, June 2017
[2] Australian Energy Market Commission, *Renewable Energy Zones Discussion Paper*, 14th October 2019
[3] https://www.aemc.gov.au/market-reviews-advice/coordination-generation-and-transmission-investment-implementation-access-and
[4] Recommendation 5.1

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via the traditional rule change approach, and this is particularly pertinent since the rules proposed only address Step 1 of REZ framework.

An inspection of the proposed rules suggests that the ESB expects that REZs will continue to be identified in the ISP and then progressed by the Jurisdictional Planning Bodies ("**JPBs**"). The development of prescribed monopoly assets (with guaranteed funding from customers) will remain subject to the cost-benefit requirements of the Regulatory Investment Test ("**RIT-T**") as is used for all other shared network assets.

REZs developed on a "commercial basis", i.e. shared assets with funding from, and rights granted to, connecting generators, are potentially not permissible in the existing rules. However the proposals in this package do not yet cover this group, so it is unclear how this package serves any purpose.

Furthermore, except in the rare case of new radial extension situations, REZs will generally be looped and fully integrated within the complex electrical network. The boundary of a REZ is therefore quite arbitrary, and if, for legal reasons, it is planned in some arbitrarily separate way to the rest of the network, could easily detract from optimal planning.

While REZs are now to be defined in the Draft Rules, the Energy Council can immediately see issues with how cross-border REZs are treated, however the main challenge with being able to comment sensibly on the Consultation Paper is that the topics covered are only preliminary in nature, and stakeholders' views will be affected by the matters addressed in the later step of the REZ framework, namely implementation, allocation of costs, and rights protection for foundation generators.

This adds further to the question as to whether any rules should be enacted now under S90F and before the second step consultation paper is written. The Energy Council suggests that while the Step 1 rules can be drafted now (and issued for public comment), they should not be legislated until it can be seen how they interact with the proposed Step 2 rules. At a minimum, the Energy Council recommends that when the second step consultation paper is written, it include provision stakeholders to make further comments on the topics discussed in the current consultation paper.

Discussion

Staged REZ Development

The Energy Council supports the proposal to stage REZ development to ensure that the construction of transmission assets is neither premature nor excess to requirements, however caution will need to be exhibited to ensure that REZs built in anticipation of future transmission expansions don't cause such future transmission expansions to be themselves justified, since to do so would be circular.

While the ISP sets out an optimal development path, it is a guide only, subject to revision every two years and when material changes occur, and the proposed transmission in later years may not develop, due to changes in circumstances. Thus while the development of a REZ can anticipate later transmission development, and perhaps make some limited allowance for connection to it, should it develop, it is important that the REZ assets are justified in their own right, and their justification remains valid, even when assets being built in anticipation of the future are taken into account.

Discrete Nature of REZs

The proposed definition for a REZ is that it is "a discrete geographic area in one or more participating jurisdictions …".

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The Energy Council does not believe that the Rules can be so definitive about REZs, since it is likely that there will not be a clear geographic delineation of their area. Adjacent areas are likely to enjoy similar renewable resources, therefore any boundary will be nominal in nature, and a function of transmission availability. Furthermore, although the transmission system was initially developed in a linear fashion, current and future expansions are changing the power system's characteristics to be more meshed in nature. Accordingly the boundaries between the transmission system and putative REZs become even more blurred, and therefore the suggestion that they are contained in "a discrete geographic area" can't be upheld.

The proposed definition also talks about an area "in one or more participating jurisdictions …". While it is logical to consider that REZs may extend across state borders, given responsibility for planning will rest with the JPBs, there may need to be further detail in the proposed Rules to allocate responsibility to a lead JPB, with the other JPB taking a supporting role.

Seeking the Best Solution

It will also be important to ensure that just because JPBs have responsibility for planning REZs, they don't regard transmission extensions to REZs as the sole solution, without considering the problems to be solved. While the premise of REZs is to facilitate the connections of solar and wind generation, transmission augmentation may not be the best means to assist this process, and non-network solutions, for example which increase local system strength, may be faster and more cost-effective.

To this end, while the ISP may trigger a REZ design report, it may also be helpful if it could be initiated by the JPB.

Support of the Participating Jurisdiction

The proposal to codify the need for support from a state government is both unnecessary and detracts from national, independent planning. This adds a non-economic political angle to the development of the industry which is entirely inconsistent with the original purpose of the National Electricity Market.

REZ Design Parameters

The Energy Council supports the REZ design parameters suggested in the consultation paper,[5] and suggests they be augmented by:

- not just specifying the "MW of generation capacity projected in each stage of the REZ", but also the volume of storage expected (MWh), and the MW of demand-side response expected within the REZ as well, since both these parameters, and their operations, will affect the ultimate design of the REZ; and
- in addition to "the proposed location at which each REZ stage will connect to or be integrated with the rest of the transmission network", the proposed location of any planned transmission network should also be included.

REZ Design Report

The REZ Design Report will be an important document which will form the basis for investment, and the Energy Council is supportive of requiring the JPB to consult widely in its preparation.

Initially the Energy Council suggests that the minimum consultation period should be six weeks, rather than four, to allow interested parties to become aware of the consultation, and to have adequate time to prepare a thoughtful submission. However the larger question relates to the assessment of the likelihood of new renewable energy generation connecting.

[5] p.13

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It is likely that the JPB will receive numerous expressions of interest from developers in various stages of project development, and it will be important to limit the risk of overbuild by not including those projects which have little likelihood of success. To this end, the timeframe for the REZ to be "on the development path within 12 years"[6] may be too long for meaningful assessment and forecasting to occur, particularly as technology & generation costs, and transmission assets may change materially in the meantime, thereby affecting the likelihood of new renewable generation being developed in the proposed REZ. Instead the Energy Council recommends that the period for a REZ to be developed be shortened to 10 years, thereby aligning with the term of the *Electricity Statement of Opportunities*, and reducing the chance of the JPB's assessment being wasted effort.

In addition, rather than requiring the JPB to make its own qualitative assessment of possible projects, the Energy Council recommends that the confidence that projects will proceed be linked to the Australian Energy Market Operator's ("**AEMO's**") Generation Information Page,[7] by requiring that only "Maturing", "Advanced", "Committed*" and "Committed" projects are included, with "Emerging" and "Publicly Announced" projects excluded.

It will also be useful for investor, stakeholder and community confidence for the inputs into the REZ Design Report to be open to scrutiny. Subject to commercial confidentiality needs, the practice of AEMO to publish input assumptions and supporting data, make available consultation minutes & recordings, and upload submissions to its website, is suggested as a model for the JPBs.

Conclusion

In conclusion, while the concept of renewable energy zones is helpful in considering the issues facing new variable renewable energy generation development, in practice there are difficulties in accommodating them within the increasingly meshed transmission network. Identifying these difficulties is exacerbated by the delay in publishing Step 2 of the proposed REZ framework, and the Energy Council believes that the full extent of the framework needs to be consulted upon before rules are made under the extraordinary powers granted by S90F.

Any questions about this submission should be addressed to the writer, by e-mail to Duncan.MacKinnon@energycouncil.com.au or by telephone on (03) 9205 3103.

Yours sincerely,

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Australian Energy Council

[6] p.12
[7] https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information