

7 November 2019

Mr John Pierce
Chair
Australian Energy Market Commission
PO BOX A2449
Sydney South NSW 1235

Via online submission

Dear Mr Pierce,

RE EPR0073 – COORDINATION OF GENERATION AND TRANSMISSION INVESTMENT RENEWABLE ENERGY ZONES

TasNetworks welcomes the opportunity to make a submission to the Australian Energy Market Commission's (AEMC) consultation paper on Renewable Energy Zones (REZs) for the Coordination of Generation and Transmission Investment (CoGaTI) review.

TasNetworks is the Transmission Network Service Provider (TNSP), Distribution Network Service Provider (DNSP) and Jurisdictional Planner (JP) in Tasmania. TasNetworks is also the proponent assessing the business case for Marinus Link, a new National Electricity Market (NEM) interconnector between Tasmania and Victoria. The focus in all of these roles is to deliver safe and reliable electricity network services to Tasmanian and NEM customers at the lowest sustainable prices. TasNetworks is therefore appreciative of the AEMC's efforts to review arrangements for underwriting and developing REZs.

TasNetworks supports Energy Networks Australia's (ENA) submission and would like to make several further comments with a particular focus on the Tasmanian context. The key points in this submission are:

- TasNetworks welcomes the AEMC's efforts to classify different types of REZs in order to better understand and solve their differing issues. Despite this, TasNetworks considers that the Type B classification does not cover all REZ development permutations and suggests it needs to be expanded.
- TasNetworks considers there are at least three other issues not identified by the AEMC that are pertinent to REZs, particularly Type B REZs that require further deliberation. These are:
 - the economics and nature of transmission investment;
 - the mismatch between transmission and generation asset lives; and
 - the 'chicken and egg' problem.

- Although TasNetworks considers that Type B REZ issues require further deliberation, TasNetworks encourages the AEMC to also consider whether there are other mechanisms by which Type A REZs can be efficiently and effectively developed.
- TasNetworks does not consider that any of the models in their current state of development sufficiently address the issues identified in the consultation paper. Consequently, TasNetworks considers that further work is required to develop an effective and efficient REZ framework that supports the long term interests of customers.
- In this regard, TasNetworks considers that the transmission bond model has the best chances of being remediated. However, TasNetworks highlights that this could only be effected in tandem with, and not before, implementation of the other elements of the AEMC's proposed CoGaTI access reforms.

TasNetworks responses to individual questions are provided below and we welcome the opportunity to discuss this submission further with you. Should you have any questions, please contact Chantal Hopwood, Leader Regulation, via email (chantal.hopwood@tasnetworks.com.au) or by phone on (03) 6271 6511.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'W. Tucker', with a long horizontal flourish extending to the right.

Wayne Tucker

General Manager, Regulation, Policy and Strategic Asset Management

QUESTION 1: TYPES OF REZS

Do stakeholders agree with the characterisation of these two types of REZ? Are there any other ways to characterise REZs?

TasNetworks agrees that breaking down the concept of Renewable Energy Zones (**REZs**) is a helpful step in identifying and resolving issues associated with them. As noted in the consultation paper, this is not always clear with different entities classifying and defining REZs in different ways and for different purposes.

The AEMC's categorisation splits REZs into Type A (large DCA connections) and Type B (shared transmission network), both of which can also be considered as a 'greenfield' (new) or 'brownfield' (existing) development. In both cases, an Identified User Shared Asset (**IUSA**) is required to cut into the shared network. The key differentiator between the two types thus turns on whether or not the investment would pass the Regulatory Investment Test for Transmission (**RIT-T**) and thereby result in a prescribed service.

TasNetworks notes that the Actionable Integrated System Plan (**A-ISP**) framework is not specifically mentioned in relation to the AEMC's REZ definitions. TasNetworks considers that this omission results in more confusions than clarity in terms of greenfield REZ classification. As such, TasNetworks suggests the Type B REZ might be better categorised as follows:

- Type B REZ – where a cluster of generators are connected within the shared transmission network, are identified as part of the A-ISP framework or TNSP RIT-T initiative and results in a prescribed service.
- Type C REZ - a second Type B REZ paid for by generators that does not involve or require a RIT-T and ends up being a negotiated service. That is, a funded augmentation.

TasNetworks therefore calls for further clarity from the AEMC on greenfield REZ classification so that better understanding and resolution of REZ issues can be promoted.

QUESTION 2: SCOPE OF ISSUES

Do stakeholders agree that these are the relevant issues for REZs? Are there any others? Which issue(s) do stakeholders think REZs should address?

TasNetworks considers there are at least three other issues pertinent to REZs that require recognition and further deliberation. These include:

1. The economics and nature of transmission investment – 'lumpy' transmission investment, at scale, is most often more efficient and comes at a lower overall cost to customers than undersizing and/or building transmission infrastructure in an uncoordinated fashion.
2. The mismatch between transmission and generation asset lives – transmission infrastructure investment horizons are typically longer than generation investment timeframes. In particular, newer Variable Renewable Energy (**VRE**) generation which can have investment horizons decades less than the transmission investment required to connect them. This also means that any generator led REZ development will need to recover the costs of transmission over shorter timeframes and thereby increasing generation costs.
3. The 'chicken and egg' problem - where generators are unwilling to commit to a REZ without transmission infrastructure being built but where such commitment is required for projects to pass a RIT-T to allow TNSPs to build it.

The net effect of these factors is that REZ development will typically be less costly to customers when transmission infrastructure is built ahead of generation and treated as a prescribed service. However, this necessarily invokes the risk that transmission investment will not be maximally utilised, at least initially. This can then raise the hurdle for the investment to pass the RIT-T.

TasNetworks considers that the A-ISP and RIT-T frameworks should deal with some, if not most, of the Type B greenfield REZ developments. That is, where the least regrets system optimisation and a RIT-T assessment is sufficient to justify these REZs being developed as a prescribed service. In contrast, there is little to coordinate and facilitate the development of the Type C greenfield REZs. However, to the extent that these developments are not shown to be efficient via the A-ISP framework or a separate TNSP led RIT-T analysis, and where generators do not wish to develop them as a Type A REZ, it might be questioned whether these investments are in the long term interests of customers.

TasNetworks acknowledges that mechanisms for developing Type C REZs have been enacted internationally. For example, the PJM model uses Auction Revenue Rights (**ARRs**) as an incentive for their development in the US. However, TasNetworks notes that such an approach runs the risk of resurrecting the third pillar of the earlier CoGaTI access model which, with all its commensurate complexities and shortcomings, the AEMC has wisely decided not to pursue. TasNetworks therefore urges extreme caution in attempting to borrow and apply such an approach in the NEM given its potential for deleterious investment and customer outcomes.

QUESTION 3: TYPE A REZS

Do stakeholders agree with this assessment of type A REZs? Have stakeholders experienced issues when connecting to a DCA? If so, have they been managed or is a regulatory solution required for these issues? Are there any other barriers to facilitating a type A REZ?

TasNetworks agrees with the AEMC's assessment of the issues with Type A REZ development put forward in the consultation paper. However, TasNetworks notes that no solutions are proposed with the AEMC's focus appearing to be more on solving Type B REZ issues. Although TasNetworks considers that Type B REZ issues require further deliberation, TasNetworks encourages the AEMC to also consider whether there are other mechanisms by which Type A REZs can be efficiently and effectively developed.

QUESTION 4: TYPE B REZS

Do stakeholders agree with this assessment of type B REZs? Are there any other barriers to facilitating a type B REZ?

TasNetworks notes that the AEMC considers a lack of incentives for generators to collectively fund shared network assets as the primary barrier preventing Type B REZ investment. TasNetworks agrees that a lack of incentives is an impediment. Nonetheless, as described above in the answer to Question 2, TasNetworks sees other issues are as much, if not more, important in hindering Type B REZ development. Further consideration of these issues is required if effective and efficient investment in Type B REZs is to occur.

QUESTION 5: STAKEHOLDERS' VIEWS ON MODELS

What are stakeholders' views on the five models presented in this paper for REZs? In particular, do stakeholders think the preferred model (described above) should be pursued further? Are there any other ways of addressing the 3 issues identified in this paper that have not been considered?

TasNetworks does not consider that any of the models in their current state of development sufficiently address the issues identified above. Consequently, TasNetworks recommends that further model development is required. To this end, TasNetworks offers the following comments to aid the AEMC's continued deliberations with the intent that a practicable and efficient REZ investment and development model results.

Preferred Model

TasNetworks considers the consultation paper reads as if the AEMC's preferred model is a variant of the one proposed by Energy Networks Australia (**ENA**) in response to the CoGaTI Directions Paper. It

should be noted that the ENA model was raised in the context of promoting a pragmatic alternative to the AEMC's third pillar¹ of the access framework reform and which the AEMC has sensibly decided not to pursue further. In this sense, there are a number of key differences between the ENA model and the AEMC's preferred one. For example, under the ENA model, the entire transmission investment is a prescribed service, has to pass the RIT-T and any revenue raised from the auction of long-term hedges is used to offset customer Transmission Use of System (**TUoS**) charges. These elements all differ in the AEMC's preferred model.

TasNetworks considers that the AEMC's preferred model has a number of shortcomings. These include:

- The AEMC model would seem to have to rely on third party funding to work. This is because TNSPs are unlikely and/or unable to make speculative investments² and the suggested incremental RIT-T would be unlikely to pass³.
- It is not clear how the hedges would work if implemented ahead of the CoGaTI access reforms as indicated in the consultation paper. That is, given the mechanism for actually funding hedge payouts would not exist at the time the hedges were sold.
- The model would result in REZ investments providing both a prescribed and a negotiated service. This would create considerable complexity in assigning operation, maintenance and replacement expenditure costs from a regulated TNSP perspective.
- As described, the price of hedges would appear to be set by TNSPs to reflect the underlying cost of the investment. This is reminiscent of the approach under the Optional Firm Access reform with all its associated difficulties.

For these reasons, TasNetworks does not consider that this model should be considered further.

Open Seasons

TasNetworks agrees with the AEMC's assessment on open seasons and considers that they are likely to only be applicable to Type A REZs. This is because open seasons would seem to provide little in the way of an additional incentive to generators to drive investment on the shared network and thereby Type B REZs. In terms of further comments, TasNetworks reiterates the points from the TasNetworks submission to the CoGaTI directions paper:

- TasNetworks notes that open seasons have been tried in a range of industries in different parts of the world. TasNetworks considers that open seasons could be relatively straight forward to introduce in Australia and that they could be incorporated within the AEMC's CoGaTI access proposal.
- Despite this, TasNetworks considers open seasons risk further exacerbating the lag in transmission development timeframes. In particular, in those jurisdictions such as Tasmania where a longer open season would be required to leverage coordination and scale efficiencies. That is, given the lower volume of generation enquires and applications.
- TasNetworks considers that an open season may have to be accompanied by a restriction on generators connecting outside a REZ to mitigate free-riding and congestion issues. This may not be feasible given current access arrangements, nor desirable depending on the technical characteristics of the particular transmission network. Moreover, it could lead to investment being stymied inside the REZ.

¹ Where the aggregate of Financial Transmission Rights (**FTRs**) would comprise an access standard TNSPs would have been required to build the network to.

² Per the comments below on the TNSP speculative investment model.

³ Since the additional generation needed to justify the investment would be by definition uncertain.

For these reasons, TasNetworks considers that open seasons can only be, at best, a supplement to other mechanisms for facilitating REZ development rather than an option in its own right. Moreover, TasNetworks recommends that if open seasons are to be used, TNSPs are afforded the flexibility to set the length of the window based on their unique understanding of their local jurisdictions.

Speculative Investment

As noted in the consultation paper, TNSPs could undertake speculative investments under the current framework. The key deterrent being that the costs and risks associated with such investment would not be compensated for, or worse, would fall upon customers. To remedy this, major changes would be required to both the National Electricity Rules (**NER**) and the National Electricity Law (**NEL**). It is an open question whether these could be pursued in the implementation timeframes the AEMC has stated. In particular, given that recent changes to the Rate of Return Instrument have effectively limited the discretion for the AEMC to make any rules regarding rate of return determinations. TasNetworks therefore considers that any REZ model that relies on speculative investment by TNSPs will be unworkable and suggests they are not considered further as part of the CoGaTI reforms.

PIAC Model

TasNetworks acknowledges the continuing efforts of the Public Interest Advocacy Centre (**PIAC**) in developing a cost recovery model to underpin REZ development. TasNetworks notes that the key change in the latest iteration of the PIAC model acknowledges that it is inappropriate for TNSPs to bear investment risk. Instead, a 'speculative investor' is now proposed to fulfil this role.

Although agreeing that TNSPs should not bear the investment risk, TasNetworks does not see that the changes proposed will address the deficiencies with the model. Amongst other drawbacks, these include:

- the risk that if no investor arises to take on the speculative risk then no investment will take place, even if the project is identified as efficient in the ISP or as part of the actionable ISP framework;
- as highlighted by the AEMC, a failure to address free-rider and dispatch problems; and
- an assumption that REZs can and will continue to be distinguished easily from the shared network. This is unlikely to hold true into the future and raises serious issues about competition, pricing and revenue differences between regulated and unregulated parts of REZs and the broader transmission network.

For these reasons, TasNetworks does not consider that the current PIAC model, or its numerous variants, be investigated further.

Transmission Bond Model

TasNetworks agrees with the AEMC's assessment of the transmission bond model and its shortcomings. Namely, that:

- costs to consumers could be inefficiently high even were a transmission asset highly utilised;
- that it would be difficult to enforce the prohibition on connecting to the augmentation; and
- concerns that the length of time-limited denial of connection rights to non-instrument holders would inhibit efficient REZ development.

Nevertheless, TasNetworks also agrees that there may be merit in further exploring how the transmission bond model could be improved. For example, rather than impose restrictions on subsequent generators connecting, the model could be combined with the right to bid to obtain long-term FTRs. If combined with a stricture that the investment had to also pass a RIT-T, this would seem to address many of the concerns above. TasNetworks notes that this is more or less the model put forward by the ENA in its earlier response. However, TasNetworks highlights that it could only be

effected in tandem with, and not before, implementation of the other elements of the AEMC's proposed CoGaTI access reforms.