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Public Utilities Office
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Improving access to the Western Power network

ERM Power Limited (ERM) welcomes the opportunity to provide comment and feedback on the Public Utilities Office (PUO) paper on *Improving access to the Western Power network*. It is positive that the PUO is seeking feedback and comment on such a major reform item for the South West Interconnected System (SWIS). ERM provides the below commentary in order to assist the PUO in the development and thinking in relation to market reform.

About ERM Power

ERM Power Limited (ERM Power) is a listed Australian energy company (EPW) operating electricity sales, generation and energy solutions businesses. The company has grown to become the second largest electricity provider to commercial businesses and industrials in Australia by load, with operations in every state and the Australian Capital Territory. A growing range of energy solutions products and services, including lighting and energy efficiency software and data analytics, are being delivered to the company's existing and new customer base. ERM Power also sells electricity in several markets in the United States. The company operates 497 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland. It is the only retailer in Australia to operate in every state.

General Comments

The PUO has made its case for the adoption of constrained network access as a solution to enable more generators to connect to the SWIS. Grid connection has been problematic for many years with generators facing many barriers to market entry and it is understandable that the obvious solution is to adopt a constrained network environment. However, before this can happen, the rights of unconstrained access that existing generators currently have need to be dealt with in a transparent manner, such that they are not exposed to unreasonable and uncontrollable risk and are kept whole as business entities.

For any business, there is always some level of regulatory risk that they can reasonably expect. However, the potential risks which are currently being raised and discussed by the PUO are not risks that reasonable businesses should and would have factored into its original business case for investment in the SWIS. The PUO has acknowledged that existing generators will be impacted by this proposed market reform and is endeavouring to understand what the impact might be. It has also

acknowledged that there may be provision for transitional assistance subject to Government approval. ERM would suggest that if the PUO and Government are going to continue down the path to market reform as proposed in the PUO's paper, that the issue of transitional assistance is resolved earlier rather than later.

The PUO has recommended one concept of constrained network access where no entity has firm access rights. The conversation with stakeholders to date has raised many discussion points that the PUO do not address in the consultation paper, and will not be able to address without first undertaking detailed modelling. More fundamentally, the questions that have to be considered are – does this constrained network solution achieve the PUO's goals and what specifically are those goals? Clearly the PUO wants to achieve an environment where new generators can connect and co-exist with existing generators. However, existing generators have invested extensive capital to connect to the network and in some cases have also invested in the network through augmentation funding. Existing generators should be given the certainty of realising the benefits of their capital investments in the SWIS before the control is divested away from them. When considering such profound changes to the market, the PUO must ensure that sovereign risk does not deter future investment in the SWIS by private entities.

Moving to a constrained network environment should be a transitional process whereby existing generators must be given certainty of realising the benefits of their investment in the SWIS. The key to realising some of these benefits is allowing generators to continue receiving capacity credits through the Reserve Capacity Mechanism in return for their capital investment. Preserving this return on investment is key to ensuring a successful transition to constrained network access.

The PUO in its paper has said it will not grandfather firm access rights. ERM would question if that is necessarily the best option for the SWIS. It is clear that existing generators will be impacted in the constrained network access environment proposed by the PUO. However, to minimise a range of issues (including claims for compensation, litigation, etc) that are likely to arise for existing generators under the PUO's proposal, the PUO should also consider the merits of a partially constrained access environment. ERM believes there may be many more benefits to having a partially constrained access environment, some of which have been raised in this submission.

Additional to this, ERM would question whether the PUO has considered potentially offering other mechanisms of grandfathering capacity rights if it continues down the path of a fully constrained network access. Has consideration been given to whether it is firm access rights that need to be grandfathered, or is it in fact capacity rights that need to be grandfathered? Will grandfathering the capacity rights for existing generators enable a smoother transition to constrained network access? Is there evidence that grandfathering capacity rights will actually disadvantage new generators in a constrained access environment? ERM is of the view that grandfathering capacity rights will not have a direct influence on constrained dispatch. Such concepts are worthy of discussion and are likely to result in a smoother transition to a fully constrained network environment, assuming that this is the ultimate intent of the PUO and Government.

The Western Power network is clearly going to become more constrained in a constrained network access environment, yet there is no clarity around what obligations Western Power have to maintain the network, what standards will apply, nor how Western Power will manage line degradation or when there might be augmentation done. As it currently stands, the proposal by the PUO appears to allow Western Power to receive statutory immunity and also allows it to connect generators that may make the network more constrained. However, it does not appear to clearly define the specific purpose and obligations of Western Power in the constrained network environment.

Notwithstanding ERM's comments above, if the PUO is to continue towards introducing constrained network access as outlined in its paper, the rest of this submission addresses issues that were raised by the PUO in that paper.

Comments addressing PUO's paper

The PUO presents its paper on a conceptual level and notes that comments will be used to inform decisions on a constrained network access regime. This raises significant concerns as the results of an in-depth study of the impacts of a constrained regime have not been made visible to market participants, which would allow for informed decision making around the potential costs to market participants, the profitability of new generators and potential early retirement of existing generation facilities.

Further to the above concerns of ERM, the papers currently published by the PUO do not satisfactorily justify such a significant and costly change to the market. ERM is concerned that the time allocated to complete this reform is not sufficient to achieve the stated goals and that other solutions that may prove more optimal to solving the stated congestion issues should also be considered. In addition, no costing or detailed timeframe has been presented for the implementation of the proposed new capacity allocation system, or the more sophisticated market clearing system that may be required. Furthermore, insufficient time has been allowed to manage the potential contractual inconsistencies between generators and Western Power and third party contracts.

ERM brings the PUO's attention to the WEM Objective "[a]void discrimination in that market against particular energy options and technologies".¹ It is therefore concerning that the PUO has identified a key reason for the reform to be "improving access to the network for newer generation technologies, particularly renewables".² If the PUO is considering market reform to aide in the introduction of further renewable generation in favour of the commitment made by existing (predominantly thermal) generation, then the objectives of the WEM will be somewhat conflicted.

Network Utilisation

The PUO notes that there are areas of the network which are currently under-utilised. ERM would like to draw attention to the WEM Objective to "facilitate efficient entry of new competitors",³ which would not necessarily be furthered by the reform which is currently under consideration. It is noted that the areas of the network which are best located for capturing renewable energy are generally located at the extremes of the network (Geraldton, Bunbury, Merredin) where generation already exists and demand levels are low. Despite the intentions of the PUO to discourage such inefficiencies via the implementation of measures such as transitional assistance and first-come-first-serve capacity credit tie-break resolution, the reality of locational benefit and federal renewable energy policy is likely to still outweigh system constraint considerations in business case decision making. Therefore to accommodate new large-scale renewable energy generators, network augmentation is most likely required, rather than constraining existing generators and potentially dispatching more expensive generation from non-congested areas.

Implementation Timeline

The PUO intends to have all market systems prepared for a 1 October 2022 introduction. However, ERM believe a number of timelines within the body of work should be extended, considering the scope

¹ Wholesale Electricity Market Rules 1.2.1 (c)

² Public Utilities Office, *Improving access to the Western Power network: Implementing a constrained network access regime*, 16 February 2018, p. 3

³ Wholesale Electricity Market Rules 1.2.1 (b)

of work to be completed. In our view, for example, a two year timeline to conduct detailed design with industry consultation is unlikely to be sufficient to allow for robust discussion and adequate drafting of rules. Nor do we believe two years is sufficient for AEMO to build and adequately test the required dispatch system, given timelines of past reforms in both the east and west coast markets. ERM would suggest that a more detailed timeline should be outlined to ensure that there is sufficient time allocated for each of these tasks.

ERM would like clarification on whether time has been allocated for market participants to make updates to their systems as this will be required.

Further considerations for the implementation timeline would be managing existing generator connection agreements under the new regime, and managing any new generator connection requests which are made around the time of implementation. Under an access arrangement timeline, new standard form agreements will need to be approved by the ERA for use in the next Access Arrangement period. Will this occur prior to 2020? Will not having a connection agreement in place for 2022 onwards prevent market participants from participating in the certification process for the 2022-23 Capacity Year?

Beyond a 1 October 2022 go-live date, provision must be made for connections to be made under the GIA scheme should the new arrangements not be in place and operational. Further, should an issue occur in the months preceding the go-live date which prevents implementation, the method and revised timeline for implementation must be considered.

Network and Market Information and Systems

The PUO notes that it will be essential to modify network connections and access arrangements, alongside other Wholesale Electricity Market adjustments. If the proposed changes to access arrangements proceed, Western Power must publish a network map which identifies all locations where network connections will create congestion and which generators will be affected. In addition, the map should indicate which areas have remaining capacity without creating congestion to allow new generators to consider locations where they can connect without being subject to a reduction in either capacity credit allocation or energy output. Similar information is available in the NEM in the form of the National Transmission Network Development Plan (NTNDP) and Western Power should make this information available in the WEM.

The PUO also note that market systems and processes will need to be updated to allow for automatic management of network congestion, including the introduction of facility bidding, market co-optimisation and five-minute dispatch. Key to this discussion is that a market management system similar to that currently implemented in the National Electricity Market (NEM) could achieve these goals. However, in accordance with this change, a change to the data management model that AEMO currently employs in the WEM is highly probable. Data must be made readily available to all participants, including constraint equations, facility SCADA reports (simultaneously with dispatch) and more transparent information regarding the use and activation of ancillary services. It is also noted that if the above changes are being made to the market dispatch system, that it is worth including discussion on ex-ante pricing as an element of this reform package.

Reform to the power system security and reliability framework is likely to be a logical inclusion in the change. It is noted that further real time transparency in the declaration of 'High Risk' and 'Emergency' states would be desirable for market participants to allow them to make better informed decisions and to potentially commit or de-commit their facilities which may assist in the management of the power system operation.

Regulatory Certainty

The PUO is advocating for the principles of; timeliness of implementation, certainty for Western Power and generators, limited regulatory intervention and minimising administrative burden and cost. These principles should all contribute to providing certainty for Western Power and the generators to allow for forward planning and informed investment decisions to be made. This certainty would be best implemented by managing regulatory intervention to the utmost minimum level possible, as any level of intervention is likely to erode the confidence of generators.

Generation Firm Access Rights

As discussed above in General Comments, the proposed removal of grandfathered rights to unconstrained access may be viewed as desirable by regulators and new entrants to the market, it must be recognised that the grandfathering of rights was introduced to compensate generators for their significant investment in both the generation assets and the transmission network. These rights must either be protected or compensated in full to represent the sovereign intervention in the market, and to reassure all current and potential future investors that their investment will not be subject to undue interference without adequate compensation.

Transitional Assistance

The PUO has noted consideration of a transitional assistance regime. It is of the utmost importance to agree to a transitional assistance scheme before any further progress is made and a clear definition is provided. While the PUO notes that 'constrained-on' payments will continue, it is important to identify that the transitional assistance goes beyond energy and to capacity credits and the costs incurred to change systems and renegotiate contracts. ERM encourages the PUO to reconsider its approach to transitional assistance to ensure it has appreciation of the scope of these additional costs and the potential impact on the viability of some generators in the WEM.

Furthermore, ERM believe the PUO should consult confidentially with parties to understand the true impact of these changes and should not be discouraged by the need for confidential consultation. The changes being introduced to the market are amongst the most significant changes to ever be made to the market and must be introduced in an effective and meaningful manner to ensure that the reform achieves the stated goals, and avoid the unintended consequence of wealth transfer from existing generators to new generators.

The design of transitional assistance must be an administrative option. Furthermore, ERM believes that funding should be administered via the State Government, otherwise the regime becomes a transfer of wealth from one generator to another through no fault of any generator. ERM considers it would otherwise be a grossly unfair outcome and therefore must be addressed immediately. In recommending the market solution, the PUO should further consider that the transitional assistance program will require analysis of the other costs and wealth transfers raised above. Accordingly ERM believes it is not possible to avoid the administrative solution proposed, at the very least for the other costs portion of the assistance.

The PUO has raised constrained off payments as an issue that is currently being evaluated. Given the existence of a bilateral market, it does not make sense for constrained off payments to be removed. Removal of constrained off payments could create distortions in the market resulting in bilateral contracts being significantly impacted and market participants being reluctant to offer bilateral contracts leading to less options for access to wholesale energy contracts, and therefore ultimately increased costs to customers.

Finally, as noted in the General Discussion above, the capital contributions made by existing generators must be considered with compensation arrangements enacted, particularly to the extent that

generators will no longer have firm network access.

Wholesale Electricity Market Arrangements

The PUO has noted that Southern Terminal should become the new Regional Reference Node (RRN) due to the desire to locate the RRN at a major demand centre. This is a valid consideration which ERM considers suitable based on the information provided. The PUO must however ensure stakeholders are provided with all details of the dispatch outcomes and financial modelling used to model Southern Terminal as the new RRN to ensure that all parties have the information available to make an informed decision.

Other changes to WEM arrangements include the introduction of mandatory facility bidding and co-optimisation of energy and ancillary services. These appear to be complimentary changes required to introduce a constrained network environment effectively. It is noted, however, that 5-minute dispatch would be desirable for the PUO and AEMO while introducing the constrained network regime, more details are required on the settlement of dispatch volumes and how the price will be set before this can be properly evaluated.

Summary

The design and implementation of constrained network access must preserve the access rights of existing generators, or otherwise their capacity rights. Further analysis and interrogation by the PUO of transitional assistance issues is needed, but these issues may be easier to resolve if existing generators are not as exposed to additional risk.

The PUO is undertaking this process as it considers that the generation mix in the SWIS is changing and the needs of the system will be different. In acknowledging this, the PUO should give strong consideration to the possibility of retaining a partially constrained network access regime where existing generators have capacity rights grandfathered but may still be dispatched with new generators in a constrained manner.

It is not in the interest of the WEM that the design of the constrained network access regime creates wealth transfer from existing generators to new generators. Introducing sovereign risk in the market will erode confidence and may act to discourage new entrants rather than encourage them.

Please don't hesitate to contact me at wng@ermpower.com.au or on 08 6318 6416 if you would like to discuss any of ERM's views outlined in this submission.

Yours sincerely



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