

Submission to ERA

ERA Discussion Paper on 2016/17 Wholesale Electricity Market Report for the Minister

Public

1 September 2017



An appropriate citation for this paper is:

Submission to ERA

Western Power

363 Wellington Street

Perth WA 6000

GPO Box L921 Perth WA 6842

T: 13 10 87 | Fax: 08 9225 2660

TTY 1800 13 13 51 | TIS 13 14 50

Electricity Networks Corporation

ABN 18 540 492 861

enquiry@westernpower.com.au

westernpower.com.au

Contents

| | |
|---|---|
| 1. Approach and focus of report | 1 |
| 2. Selection of Market Reforms..... | 1 |
| 3. Prioritisation of identified Reforms..... | 2 |
| 4. Existing arrangements to mitigate market power | 3 |
| 5. Proposed market mitigation measures | 3 |
| 6. Risks with removal of Power Stations | 3 |
| 7. Determining when and how to procure support services..... | 4 |
| 8. Concerns with interim network access solution (GIA) | 4 |
| 9. Risks of a partially constrained network remaining in place | 5 |
| 10. Unconstrained network access when facilities close | 5 |
| 11. Increasing levels of intermittent generation | 6 |
| 12. Emerging changes to WA electricity sector | 6 |
| 13. Oversight and/or coordination of planning and market development..... | 7 |
| 14. Effectiveness of system management, rule changes, compliance monitoring and enforcement | 8 |
| 15. Reforms to address excess generation capacity | 9 |
| 16. Effectiveness of Reserve Capacity Mechanism | 9 |

1. Approach and focus of report

1. Based on the approach and focus for the 2016/17 WEM Report to the Minister, are there any other considerations not covered by this discussion paper that are fundamental to an assessment of the effectiveness of the operation of the WEM in meeting market objectives? If so, what are they and why should the ERA address them in its report?

Western Power Response:

The topics tabled within the 2016/17 Wholesale Electricity Market (WEM) Report discussion paper appear to be comprehensive. Western Power supports the move to a constrained network, and draws the Economic Regulation Authority's (ERA) attention to prioritising the issues identified in our response to question 3 in this document.

With respect to the effective operation of the WEM, Western Power has identified an opportunity for the WEM Rules to provide clarity as to the scope of Australian Energy Market Operator's (AEMO) accountability for power system reliability.

2. Selection of Market Reforms

2. Do market participants agree with the selection of market reforms identified by the ERA? If not, what other identified reforms should be considered?

Western Power Response:

Western Power supports moving to a fully constrained network access and security-constrained generator dispatch and dispatch engine in the South West Interconnected System (SWIS). Western Power concurs with the ERA's view that the proposal will permit network connection for new generators as well as decommission bespoke generator runback schemes.

Western Power also supports the proposal to integrate the ancillary services market with the energy market. However, during the implementation phase there is a risk that adopted model may result in insufficient schedulable generation capacity in some of the locations within the SWIS. If the integration is not managed appropriately, it could increase the difficulty in maintaining power security and voltage control in some parts of the SWIS. Western Power recommends that this risk could be addressed through stronger location signals/ incentives (for different types of new generators) to ensure power security is introduced through market reform.

Western Power has identified the following items for reform consideration:

- Formation of a state-based Reliability Committee for the purpose of defining the minimum electricity supply reliability requirements for customers and under-pinning emerging technology solutions in edge of grid locations.
- Whilst ancillary service market has been raised, the reform should be expanded to include those obligations which aid power system security and prevent cascading power system issues (like those experienced in South Australia). Issues such as inertia, fault ride-through capability and reactive power support should form part of the consideration.

3. Prioritisation of identified Reforms

The first stage of the recent market reform process identified several options that were not progressed by the previous government. Overall, 14 recommendations were made, including options to address:

- *limited competition by:*
 - *restructuring or divesting Synergy's generation assets;*
 - *introducing full retail contestability and enabling the dual retailing of gas and electricity;*
 - *the payment of concessions and subsidies to relevant customers via all retailers; and*
- *inefficient price signals by:*
 - *phasing out the retail subsidy (Tariff Adjustment Payment) currently paid to Synergy;*
 - *paying the Tariff Equalisation Contribution as an Operating Subsidy;*
 - *rolling-out advanced meters; and*
- *regulatory change by:*
 - *removing regulatory barriers that prevent Western Power substituting stand-alone electricity systems in place of network services in regional areas; and*
 - *transferring responsibility to the ERA for regulated retail electricity price setting.*

3. Should some of the reforms identified above be prioritised? If so, please explain which ones and why.

Western Power Response:

Western Power has taken the opportunity to review the tabled reforms and prioritised its top four including rationale as described below:

1. Transition to a fully constrained Network – the Generator Interim Access (GIA) system is an interim solution and will require replacement with AEMO dispatch systems under a constrained access regime to ensure the ongoing ability to connect future generation seeking access to the Western Power network.
2. Regulated advanced metering (AMI) – advanced metering is a key enabler for tariff innovation/reform and a range of network, metering and market benefits. Installation of advanced meters as a mandated new and replacement policy under the *Electricity Industry (Metering) Code 2012* should be progressed.
3. Tariff reform – the current pricing approach in the Western Australian (WA) electricity industry is not sustainable. The way prices are charged bears little relationship to the cost of supply, resulting in inequity between customers. Western Power supports tariff reform that allows cost recovery for building and maintaining peak capacity, to support the safe and reliable delivery of energy to our customers – now and into the future. In the short to medium term, this would involve increasing the fixed network component of tariffs and introducing time of use tariffs; an equitable approach for modifying customer behaviour and charging for different network usage. Western Power's overall approach is to ensure customers pay their fair share of network costs - no more, no less.
4. Standalone Power Systems/Micro Grids – Western Power considers that alternatives to traditional network supply for existing customers should be provided for within the regulatory and legislative

framework. This was a feature of Western Power's rule change proposal to the Australian Energy Market Coordinator (AEMC) in August 2016¹.

4. Existing arrangements to mitigate market power

4. Do Market Participants consider that the existing arrangements to mitigate and address exercise of market power in the energy markets are sufficient?

(a) if not, what other measures could be introduced and what benefits would these bring?

(b) if current measures are sufficient, would Market Participants benefit from having additional guidance around placing their market bids (?) What additional information would be useful?

Western Power Response:

No comments.

5. Proposed market mitigation measures

5. Do interested parties have concerns around the proposed market power mitigation measures on the transitional capacity pricing arrangements and/or in a future capacity auction?

(a) Are there any situations where such measures will be ineffective and if so, why?

(b) What alternative market power mitigation mechanism could be considered?

Western Power Response:

No comments.

6. Risks with removal of Power Stations

6. What risks can be identified with the removal of power stations from the network that currently provide dispatch support services?

Western Power Response:

Western Power has identified the following risks associated with the removal of power stations from the network that currently provide dispatch support services:

- There would be a potential reduction in the level of service provided to loads (the Technical Rules requires only townships to be made whole, whereas currently the Market Operator's role is to use reasonable endeavours to keep all loads supported).
- There may be a lack of sufficient generation in the area which can replace existing facility providing dispatch support services.
- There is an incorrect perception that the retiring plant leaves the same amount of capacity as a reference service available for a new applicant.

¹ <http://www.aemc.gov.au/Rule-Changes/Alternatives-to-grid-supplied-network-services>

- There would be increased complexity where a Network Operator becomes involved in generation dispatch under the Network Control Services (NCS) provision.
- A potential increase in cost – this is attributable to generators who are capable of providing a service also receiving capacity credits.

7. Determining when and how to procure support services

7. More generally, what changes are necessary to deliver economically efficient outcomes in determining when and how support service contracts should be procured?

Western Power Response:

The support services contracts are the responsibility of the Market Operator and not the Network Operator. Therefore, if a contract is required when the system is operated outside of the Technical Rules, Western Power is of the view that it should be funded by the market.

8. Concerns with interim network access solution (GIA)

8. What concerns, if any, do stakeholders have with the interim network access solution (GIA) currently in development?

Western Power Response:

Western Power believes the current unconstrained approach to network access is no longer fit for purpose, nor does it meet the needs of new generators seeking network connection. Maintaining an unconstrained network has cost implications for both generators and Western Power making it harder for projects (including renewables) to connect to the network.

Western Power supports structures that encourage broader efficiencies in the energy market, including the adoption of a constrained network. Nearly all networks around the world operate under a constrained connection regime, including the National Energy Market (NEM). Constrained networks not only allow generators to connect at lower cost, they also drive faster renewal of generation sources because low-cost new generation has more certainty of despatch over legacy generators. As a result, the combination of a more widely understood operating model and improved economics acts as an incentive to invest, and therefore can attract new capital to WA (particularly renewable energy generation).

Western Power's strong view is that, the GIA solution is only an interim arrangement. The purpose of the GIA solution is to allow the market to continue connecting generation while a new permanent network access framework is implemented, ideally by 2020.

In addition to being undesirable for the GIA to remain in place in the long term, there are practical limitations to its lifespan, specifically:

- The GIA tool is integrated with Western Power's supported system and has a finite life (until AEMO introduce their Energy Management System (EMS) and market systems to the WEM).
- Limited scalability of the GIA tool as compared to a permanent Wholesale Electricity Market security-constrained generator dispatch engine solution (WEMDE).
- Constraint equations in the GIA tool are not comprehensive, for example, abnormal system conditions (planned and forced) are not taken into consideration. Further, the constraint equation

is only applicable when the system is normal, not for when the system is abnormal or frequency control ancillary services.

- Network capacity is tied-up via reference services to existing generators.
- Payment for forced outages by the WEM when the GIA tool does not adequately cover the situation (e.g. planned or forced outages).
- Limited transparency in the current GIA tool whereby market participants may experience difficulties in assessing risks that have commercial implications because the constraint coefficients are not published.

The GIA tool provides the market with limited visibility of expected future network congestion compared to WEMDE. As many of the GIA generators are non-scheduled generators, that tend to offer lower cost energy, constraining such generators over existing generators would mean the lower cost energy is not available for the market.

9. Risks of a partially constrained network remaining in place

9. What are the risks of having a partially constrained network if it becomes the final network access solution?

Western Power Response:

Refer to response provided under question 8.

10. Unconstrained network access when facilities close

10. In a scenario of increasing network constraints, the ERA is interested in hearing stakeholders' views on what happens to the currently unconstrained network access once facilities close?

(a) Should the unconstrained access become available to other generators or new generators in the network once the plants close? If so, how should this be valued and offered to market?

(b) Alternatively, if access rights are retained by a Market Participant what issues does this present for other stakeholders?

Western Power Response:

In response to 10(a): In the event that a facility closes, any spare capacity that becomes available is released in accordance with section 23 of the Application and Queuing Policy (AQP):

23 Release of contracted capacity

Without limiting the circumstances by which spare capacity becomes available on the network, when an existing user reduces contracted capacity at one connection point and that reduction increases spare capacity, then any application for that spare capacity must be processed by Western Power in accordance with clause 24 and clause 24A, regardless of whether the user makes a concurrent connection application at that or another connection point.

However, it should be noted that Western Power is obliged, as a prudent Network Operator, to ensure a fit for purpose approach in developing the network. Furthermore, Western Power must have regards to

minimal practical asset build in line with a diversification of need. This may result in less of the full retiring capacity being available to new applicants.

In response to 10(b): If the access right is retained then, any available capacity would remain with the access rights owner and not be available to the market through the normal connection application process as defined in the AQP and referred to in answer 10(a).

11. Increasing levels of intermittent generation

11. In response to an increasing level of intermittent generation, what planning and coordination arrangements need to be established or strengthened to ensure all aspects of effective WEM operation are considered; including policy, operational efficiency, market development and customer engagement and protection?

Western Power Response:

Refer to comments provided under question 12.

12. Emerging changes to WA electricity sector

12. Which of the changes emerging in WA electricity sector represent the greatest opportunity or threat to the effective operation of the WEM in meeting the Market Objectives? Please explain why.

Western Power Response:

The current WA electricity market structure and associated regulatory framework do not always encourage cost-efficiency from market participants. The market was established in 2006 at a time when the electricity supply chain was linear with clear demarcations between the responsibilities for generation, network transmission and distribution, and retail on the assumption of centralised generation.

Some of the existing rules and regulations are no longer entirely relevant for the WA energy system – nor arguably for any modern energy market. Generation, network transmission and distribution, and retail are no longer as clearly defined in the new environment; evolving products and services can incorporate combinations of these activities.

For the electricity network to support better customer outcomes and lower cost delivery, the regulatory structure must remove barriers to the efficient supply of network services.

Western Power believes emerging market changes combined with timely adjustments to the regulatory framework has the capacity to further enhance consumer outcomes. Opportunities exist to:

- Ensure efficiencies in the WA energy system - by adopting structures that encourage the efficient use of and removal of costs from the electricity system. For example, the adoption of a constrained network access regime for the SWIS and implementation of retail and network tariff reforms.
- Enable the development of an evolving network - by adopting a modular network structure, where efficient solutions can be deployed to existing customers in alignment with up-to-date network technology (e.g. islanded infrastructure solutions such as stand-alone power systems as an alternative to more expensive poles and wires investment).
- Creating a platform for customer choice - by enhancing consumer choice about how they access and manage their electricity consumption. Western Power's proposed deployment of advanced meters in AA4 will provide an essential platform for greater consumer choice. However, in order to

maximise consumer choice, further reforms to the retail market including the adoption of appropriate regulatory frameworks to facilitate new innovative products and services, such as cloud battery storage and peer-to-peer trading are still required.

Western Power has identified the following risks associated with changes emerging in the WA electricity sector:

- Failing to respond - the greatest risk confronting consumers and the market is delays in adopting a modern regulatory framework which meets the changing needs of consumers. Western Power strongly supports the Government's recent announcement to introduce fully constrained network access and modernise the Access Code.
- Inadequate policy framework to support renewables - the future is renewable, whether it be connected to Western Power's transmission or distribution network. However, without an appropriate framework to integrate renewables into the energy supply chain there is a risk power system security could be compromised. Western Power strongly supports the development of a framework to ensure that, when renewable generation systems connect to the network, appropriate mechanisms are in place to manage technical issues such as inertia, fault ride-through capability and reactive power support. Policy makers will also need to ensure alignment with the diffused regulatory instruments governing different parts of the energy sector.
- Lack of locational price signals for generators - the reduction in scheduled generation capacity and changes to the reserve capacity mechanism approach may eventually result in insufficient schedulable generation capacity in the right locations in the SWIS, making it difficult to maintain power system security and voltage control in some parts of the SWIS. Western Power recommends that stronger location signals/incentives (for different types of new generators) be introduced through market reform.

13. Oversight and/or coordination of planning and market development

13. The ERA is interested in stakeholder views on arrangements for oversight and/or coordination of planning and market development in the WEM.

Western Power Response:

Reliability Institutional Arrangements

The power system security and reliability standards in WA are currently outlined within the *WEM Rules*, *Network Quality and Reliability of Supply Code* (NQRS Code), Western Power's Technical Rules and its Access Arrangement, and the *Electricity Networks Access Code*. There are inconsistencies in reliability requirements between these instruments and amendments are required to address emerging technologies and changing consumer requirements.

Western Power suggest that consideration be given to delegating decision making authority for reliability standards to the existing Wholesale Electricity Market Rule Change Panel or a similar independent panel and establishing a Reliability Advisory Committee (RAC) to enable more timely updates and alignment between the NQRS Code, the Technical Rules and the WEM Rules. Given the changes likely to be needed to address the emerging technologies and consumer requirements, the supporting secretariat should be adequately resourced to ensure it can consider and process changes in a timely manner.

Western Power proposes that the core responsibilities of the RAC include providing advice on:

- Power system reliability standards
- Frequency operating standards
- System restart standards (following a major blackout event)
- Jurisdictional standards relating to network reliability (within the NQRS Code)
- NQRS Code amendments
- Technical Rules amendments
- WEM Rule changes relating to reliability.

The inclusion of Technical Rule Amendments and WEM Rule changes for reliability within the core responsibilities of the RAC will assist in the alignment between the NQRS Code, the Technical Rules and the WEM Rules.

The design of the RAC should ensure it:

- Minimises conflicts of interest
- Promotes the ability to leverage existing expertise and efficiencies
- Strengthens and clarifies accountabilities for reliability
- Ensures flexibility and powers to consider matters outside of the WEM Rules
- Provides a least cost option to customers whilst achieving the required level of performance.

Western Power also proposes that, as a major network service provider in the WA electricity market, a Western Power representative should be a core member of the RAC and that such a committee consist of between five and nine members to ensure there is sufficient representation on issues discussed.

Western Power proposes that a public consultation be undertaken when establishing the model and the RAC's initial terms of reference, and any other documents governing its function.

14. Effectiveness of system management, rule changes, compliance monitoring and enforcement

14. Are there any concerns that the ERA should consider when it assess the effectiveness of"

(a) AEMO (including capacity as System Management) in carrying out its functions under the Regulations, Market Rules and Market Procedures?

(b) The Rule Change and Procedure change process?

(c) The compliance monitoring and enforcement measures in the market Rules and Regulations?

Western Power Response:

Western Power is conscious of the inconsistencies between the Technical Rules and the WEM Rules as they relate to the obligations of AEMO and Western Power. In assessing AEMO's performance the ERA should also consider these inconsistencies in its assessment. Further work is required to reform the WEM Rules and Technical Rules to ensure they are relevant to today's market and work cohesively.

In assessing the effectiveness of the rule change process the ERA should consider the Rule Change Panel's future resourcing requirements. There is likely to be an increased volume of Rule change requests going forward, to address emerging technologies and potential market reforms.

Western Power is concerned that over time an increasing number of market participants have become non-compliant with aspects of the WEM Rules or the Technical Rules. As the market becomes increasingly dynamic and complex, Western Power's ability to grant exemptions from compliance with the Technical Rules will be eroded. Further consideration of enforcement measures in the WEM Rules and the Technical Rules is required in order to ensure ongoing system security.

15. Reforms to address excess generation capacity

15. Although reforms to address excess generation capacity have not been in for long, do Market Participants see this as improving the effectiveness of the market? If so, how is this demonstrated?

Western Power Response:

No comments.

16. Effectiveness of Reserve Capacity Mechanism

16. Are there concerns stakeholders have that the ERA should consider when it assess the effectiveness of the Reserve Capacity Mechanism?

Western Power Response:

No comments.