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13 August 2009

Mr Lyndon Rowe
Chairman
Economic Regulation Authority
PO Box 8469
Perth Business Centre
PERTH WA 6849

Dear Lyndon

2009 WHOLESALE ELECTRICITY MARKET REVIEW

Western Power welcomes the opportunity to contribute to the 2009 review of the Wholesale Electricity Market (**WEM**) in Western Australia's electricity industry.

Western Power is heartened to see that its views on network access and planning issues raised with the Economic Regulation Authority (**Authority**) have been reflected in the discussion paper.

Western Power has also actively participated in the Australian Energy Market Commission's Review of Energy Market Frameworks in Light of Climate Change Policies and suggests this review consider recommendations noted in their 2nd Interim Report.

Western Power also acknowledges the important work already being undertaken by the Office of Energy and the Independent Market Operator relating to further WEM development.

In recognition that Western Power's system management role is ring-fenced from the rest of the organisation the attached submission addresses relevant points from a network management perspective. Responses relating to system management functions will be lodged with the Authority separately.

The attached submission forms part of Western Power's continued support for the development of the WEM in Western Australia as a significant market participant.

Western Power is keen to contribute to the review process and open to discuss any issues the Authority may wish to raise, either upon receipt of this submission or at a later date.

For further information, please contact Valentin Fyrst on (08) 9326 4560, or valentin.fyrst@westernpower.com.au.

Yours sincerely

DOUG ABERLE
MANAGING DIRECTOR

cc: Hon Peter Collier MLC, Minister for Energy
Mr Jason Banks, Coordinator of Energy

2009 Annual Wholesale Electricity Market Review

Submission to the Economic Regulation Authority

13 August 2009

INTRODUCTION

Western Power welcomes the opportunity to contribute to the 2009 review of the Wholesale Electricity Market (**WEM**) in Western Australia's electricity industry. Western Power is heartened to see that its views on network access and planning issues raised with the Authority have been reflected in the discussion paper.

In recognition that Western Power's System Management role is ring-fenced from the rest of the organisation, this submission addresses relevant points from a Network Management perspective. Responses relating to System Management functions will be lodged with the Economic Regulation Authority (**Authority**) separately.

This submission is structured in response to points raised by the Authority in its discussion paper.

Western Power is open to discuss any issues the Authority may wish to raise, either upon receipt of this submission or at a later date.

DISCUSSION POINTS

The following responds to points raised in the Authority's discussion paper.

Discussion point 1

Objective 1.2.1(a): promote the economically efficient, safe and reliable production and supply of electricity related services in the South West Interconnected System.

Network Management is of the view that the WEM Rules in their current form appear to promote the safe and reliable provision of electricity in the short to medium term. However, longer term energy security does not appear to be addressed.

Network Management and broader industry are currently engaged in discussions to promote responses to policy objectives and examples of current market failure in the interest of long-term energy security. These examples suggest there remains question of the robustness of the current framework (including the WEM Rules) and market for the long-term. Network Management supports the work of the Independent Market Operator (**IMO**) evolution plan, and Office of Energy (**OOE**) WEM road map, and is keen to participate in these and other future efforts to develop the WEM further.

Network Management suggests that the lack of a mechanism to ensure an appropriate generation mix contributes to a less than optimum generator dispatch, particularly overnight. This also raises question over the promotion of efficient outcomes.

Objective 1.2.1(c): avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions.

Network Management suggests that for the WEM Rules not to be seen to discriminate against some technologies, the true cost of intermittent generation should be passed through to those generators.

It would be appropriate to consider the introduction of a user-pays principle for intermittent generators to ensure a level playing field for all types of generation.

Discussion point 2

Network Management is of the view that applicants seeking an Access Offer in time with their proposed connection schedule join the Access Queue at an early stage in their project lifecycle. Applications submitted too early in the project lifecycle, or with incomplete details, cause delays in processing due to frequent resubmission of requirements. Thereby further increasing the risk of delays to receiving a timely Access Offer for competing applicants.

At present, Access Offers sought in some specific geographic locations of the South West Interconnected System (**SWIS**) attract longer approval times due to the scale of deep network augmentations required to open up spare capacity. From Network Management's perspective this has not discouraged applicants seeking to connect in those areas. This means Network Management is now facing large queues of applicants competing for the same capacity when and if it becomes available.

Network Management is in the process of developing proposed amendments to the Applications and Queuing Policy (**AQP**), with a view to reduce the average connection application processing time and to ensure projects are prioritised on a more appropriate basis.

Network Management is proposing changes to the processing of applications through the introduction of:

- Compulsory enquiry phase in the connection process, similar to the National Electricity Market connection model; and

- Criteria for entry to the queue, which assess the level of readiness of an applicant's project prior to admission to the Access Queue.

The enquiry phase is intended to be a period during which Network Management and applicants discuss project requirements in depth, thereby assisting applicants in their decision-making process, outside constraints imposed later by the Queuing Rules.

The aim of the entry criteria is to ascertain whether applicants are ready to proceed and determine the risk of project slippage prior to admission to the Access Queue. Network Management is of the view that an assessment may reduce the number of applications in the Access Queue and increase the certainty that applications will proceed without variation.

Network Management suggests that these proposed changes will not limit the ability of applicants to gain connection to the SWIS, as the proposal seeks to mitigate issues facing the existing process and provide a level playing field.

In August 2009, Network Management will be holding a forum with current access applicants and other key stakeholders from industry and government to discuss and evaluate the proposal.

Discussion point 3

Network Management suggests that a bond payment, if combined with an assessment of applicants' readiness to proceed, would be an effective means to ensure connection applications are submitted when applicants deem their project is highly likely to go ahead.

In order not to place an excessive financial burden on applicants, Network Management suggests that the bond should be of an amount reasonably reflecting expected application processing costs. Network Management is of the view that applicants would be less likely to risk processing costs (between $100K and $200K) if their project is uncertain to proceed.

As part of the proposed amendments to the AQP (refer discussion point 2), Network Management suggests that it would be more appropriate to discriminate on the basis of readiness to proceed, rather than the first come-first served principle currently in place.

Given the network infrastructure demands required for new connections North and South of Perth, development options such as generation parks should be considered alongside market-based mechanisms to meet policy objectives.

Discussion point 4

Network Management is supportive of comments made under section 4.1.3 of the Authority's discussion paper. Also, please refer comments made under discussion point 9 below.

Discussion point 5

Network Management has no comment to provide at this time.

Discussion point 6

The following comments should be considered alongside comments made by Network Management under discussion point 13 of the 2008 WEM Review, outlining the significant impacts variable and non-dispatchable sources of energy can have on the management of a small interconnected system. This creates additional costs and potential risks to the security and stability of supply.

Network Management also suggested that these costs should be identified, appropriately attributed to causers and users and efficiently recovered, with implications for the market rules, technical codes and funding arrangements.

In addition, Network Management suggests that developments in wind turbine technology suggest it is possible for wind farms to contribute to a frequency keeping role.

This could conceivably be achieved by spilling power during normal operations to provide increased output capacity if the frequency drops, resulting in wind farms providing a similar response to frequency variations as conventional thermal plant.

Coupled with improvements in wind forecasting, this could reduce the impact increased wind penetration would have on frequency control, noting the limitations of timing of output.

However, this would incur costs associated with lost energy and Renewable Energy Certificates, which would need to be balanced against the cost of providing this service with conventional generation plant.

Currently, all Verve Energy conventional plant provides some degree of frequency control support. Network Management suggests that a way of avoiding discrimination between generation technologies could be a requirement on all generators to provide either a level of frequency control or to purchase it from another user.

Discussion point 7

Network Management has no comment to provide at this time.

Discussion point 8

Network Management has no comment to provide at this time.

Discussion point 9

Locational signals are provided through the transmission loss factor (consistent with normal market design), and by the cost to connect to the network. The latter signal relies on the application of New Facilities Investment Test (**NFIT**).

In the context of current work relevant to electricity supply to the Goldfields, and the issue of network support services, introducing regional Short Term Energy Market (**STEM**) prices could be appropriate. Another alternative would be a mechanism to ensure costs to supply all parts of the network are accurately accounted for.

In accordance with section 2.3.7.1(a) of the Technical Rules, Network Management generally seeks to achieve an 'unconstrained'[1] network. However, in areas with 'constrained'[2] capacity, such as in the Goldfields, the 'unconstrained' assumption inherent to a system wide STEM price is inappropriate.

The third paragraph of section 4.6 in the Authority's discussion paper refers to transparency of network connection opportunities as a promoter of more efficient locational signals for new generation. A more appropriate location signal could be reflected by a transmission headworks scheme[3] and/or generation parks scheme[4] where the cost to connect could reflect the long run marginal cost of augmentation of the network in those particular areas.

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[1] In accordance with the definition in Chapter 10 (Glossary) of the National Electricity Rules *unconstrained* means *free of constraint.*

[2] In accordance with the definition in Chapter 10 (Glossary) of the National Electricity Rules *constrained* means *a limitation on the capability of a network, load or a generating unit such that it is unacceptable to either transfer, consume or generate the level of electrical power that would occur if the limitation was removed.*

[3] A transmission headworks scheme could be an option to provide a solution to funding power capacity upgrades to the shared transmission network.

[4] A generation parks scheme would publish recommended locations for future new generation and associated required capacity.

Network Management suggests the Authority consider the Australian Energy Market Commission's (**AEMC**) 2nd interim report[5] as part of the 2009 WEM Review. The AEMC report includes further discussion on the benefits of providing clearer locational signals to new generators.

Discussion point 10

Network Management understands that it is in the long-term interest of market development to install tariff quality metering at Verve Energy's generation sites.

However, following internal discussion and a meeting with the Independent Market Operator (**IMO**) in September 2008, Network Management is of the view that the key benefits of installing tariff quality metering at those generation sites in the current system would not have a material effect on the allocation of common costs, as their apportioning between generators and retailers would only vary marginally.

The majority of market fees are paid by Verve and Synergy as the dominant generator and retailer (refer market rule 9.13).

As quantities for Verve and Synergy are determined by the generator Supervisory Control and Data Acquisition, any adjustment by the installation of tariff meters would equally impact Verve and Synergy contributions to market fees. However, the proportion of market fees owed by each would remain the same.

In September 2006, it was estimated that procuring and installing the required plant would cost around $7.2 million and take two to three years to complete, as works would have to occur during planned outage maintenance.

Based on current market conditions, Network Management suggests that the estimated cost is likely to have significantly increased. An updated estimate would take at least three months to obtain upon initiation from a relevant party. The investment would be subject to the regulatory test and NFIT, and would likely attract a capital contribution from the nominated party under these tests.

Network Management has no comments on the key benefits and costs of using estimated meter readings for the first round of settlement instead of waiting for all interval meters to be read by the metering data agent.

Discussion point 11

Network Management has no comment to provide at this time.

Discussion point 12

Network Management has no comment to provide at this time.

Discussion point 13

Network Management has no comment to provide at this time.

Discussion point 14

Network Management has no comment to provide at this time.

[5] Review of Energy Market Frameworks in light of Climate Change Policies, at http://www.aemc.gov.au/

Discussion point 15

Network Management is of the view that short-term generation capacity is a significant issue and is a consequence of the current evolution of the market structure and design which assigns a total amount of annual generation required (for a period two years in the future) and achieves this through the Reserve Capacity Mechanism (**RCM**).

Whilst there has been positive introduction of new generation in the SWIS, a disconnect remains between the RCM and the planning and regulatory approvals process to support the network augmentation, which needs to be reviewed.

This causes a number of issues, including:

- The IMO aggregates the total future demand for the SWIS, which forms the basis for the Capacity Credit process. This does not send any locational signals and can result in new generation plant being located in areas which are not the most suitable for load requirements.
- The problems with management of the queue and its relation to the assigning of capacity credits is emerging as an issue which soon could impact on future availability of generation capacity.
- There is a mismatch between the long-term market framework and the physical requirements of Network and System Management. The further the underlying objectives conflict, the greater threat that medium- and short-term generation capacity may not be achievable without significant costs to the broader industry.

Network Management is of the view that generation capacity in the short-term (less than 2 years) is a matter of concern as the type and availability of generation plants may not be at the optimal mix and reliability. The heavy reliance on gas presents capacity issues during gas curtailments (e.g. Varanus Island).

Network Management suggests the Authority consider the AEMC's 2nd interim report as part of the 2009 WEM Review.

Discussion point 16

Network Management has no comment to provide at this time.

Discussion point 17

Network Management supports comments made in the Authority's discussion paper relating to the STEM playing a valuable role in price information, which can be used in determining whether or not there is a net market benefit for new facilities investment.

Also, refer comments made about regional STEM prices under discussion point 9, as regional STEM prices are likely to be required in the event of a move to a 'constrained' market model.

Discussion point 18

Network Management has no comment to provide at this time.

Discussion point 19

Based upon access applications and enquiries received, Network Management is of the view that the Reserve Capacity pricing signals have promoted a large proportion of wind and peaking generation plant.

As the network is operated on an 'unconstrained' basis, there is potential for non-peaking plant to be displaced by facilities requiring less time to be brought into service (e.g. diesel generators).

In terms of mix of plant, Network Management suggests that the RCM provides incentive for the connection of additional wind farms, which are currently providing capacity payments over and above the contribution they are making to the peak load. Network Management acknowledges that this issue is currently under review by the IMO.

Discussion point 20

Network Management is of the view that the long regulatory process and disconnect between the queuing approval process and IMO RCM, create a substantial impediment to fast-tracking new developments, including renewables.

The following issues stem from this disconnect:

- Long processing times, exacerbated by what can be categorised as "speculative" applications who do not expedite their applications in a timely manner. The 'first come, first served' nature of the management of the queue can be exploited by customers who perceive a market advantage in maintaining a position in the queue regardless of whether their application is at a stage where it can progress to completion.
- Unconstrained operation of the network requires Network Management to consider all contingency events when modelling their system and augment the network to cater for such events regardless of impact duration or probability.
- Maintaining confidentiality of applications and their associated works which may prevent Network Management from being able to optimise augmentation scenarios by forming a combined approach. Further transparency of the length of the queue would also provide a clearer signal to applicants as to available capacity and amount of competition.

Proposed amendments to the AQP being developed by Network Management, and outlined in discussion point 2 above, will contribute to the resolution of issues arising from this disconnect.

Network Management suggests the Authority consider the AEMC's 2nd interim report as part of the 2009 WEM Review. The AEMC report includes further discussion on interactions between the connections process, regulatory approvals process and the RCM.

Discussion point 21

Network Management has no comment to provide at this time.

Discussion point 22

Network Management has no comment to provide at this time.

Discussion point 23

Network Management is required to consider alternative options in the development of network capacity augmentation plans as part of its regulatory obligations under the *Electricity Networks Access Code 2004*. Alternative options include, amongst others, the use of embedded generation and Demand Side Management (**DSM**).

Network Management has developed a series of discrete projects in order to build up a knowledge base regarding DSM options, their effectiveness and associated implementation costs, with a view to enable network planners to carry out technical and financial analysis to determine the viability of DSM options compared to the traditional poles and wires options.

Network Management has included these DSM projects in its proposed revised access arrangement as a non recurrent distribution operational expenditure.

However, Network Management is of the view that it is not currently adequately incentivised to actively promote and develop DSM resources as alternatives to supply side network augmentation.

Given better regulatory incentives including funding for research and trials, more DSM would become available which in turn would have benefits across the entire energy supply chain.

Network Management suggests the Authority consider recent determinations by the Australian Energy Regulator in respect to DSM for network operators as part of the 2009 WEM Review.

Discussion point 24

Network Management is of the view that the structure of the WEM is appropriate in its current form, taking into account the historical basis and evolution of energy trading in Western Australia, and recognises that details of its design will require change over time.

Moreover, Network Management suggests that structural issues relevant to market participants would remain a secondary consideration, provided that the regulatory structure and associated rules remain and evolve in a robust and economically sound manner.

Network Management understands and promotes the need for cost reflective retail tariffs and full retail contestability for the market to reach its potential in terms of investment and price.

Network Management welcomes comments about the road map process in section 2.2 of the Authority's discussion paper and strongly supports this concept being developed under OOE leadership.