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DISCUSSION PAPER: ANNUAL WEM REPORT TO THE MINISTER FOR ENERGY - WESTERN POWER SUBMISSION

Western Power welcomes the opportunity to contribute to the Economic Regulation Authority's (Authority) 2011 Annual Wholesale Electricity Market Report to the Minister for Energy.

Given the System Management Division is "ring-fenced" from the rest of the Western Power organisation, this submission only addresses relevant issues from a network management perspective. Responses relating to system management functions will be lodged with the Authority separately by the System Management Division.

Western Power notes the summary of the 2010 Minister's Report in the 2011 WEM Report Discussion Paper (the Paper). It is pleasing that good progress is being made towards further considering many of the issues raised in the 2010 Report, including the Market Development Plan and the Government's (preliminary) consideration of a move to a constrained access network. Furthermore, Western Power was encouraged by the content of the Government's Strategic Energy Initiative Directions paper earlier this year. Western Power is keenly anticipating the release of the final Strategic Energy Initiative policy document in 2012.

With these things in mind, this submission has been prepared in response to the specific issues raised by the Authority in the Paper. In particular, we are pleased to provide further detail on Western Power's position with regards to the following questions raised by the Authority.

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3.1 Does the design of the Wholesale Electricity Market provide the most efficient outcomes with meeting climate change policies?

With the passage of the *Clean Energy Future Act 2011* in November 2011, Western Power considers that climate change and renewable energy policies which exist concurrently with the carbon tax and eventual emissions trading scheme should be consistent with the 'complementarity principles' adopted by the Council of Australian Governments (COAG) in 2008.

The Australian Energy Market Commission's reports *Review of implications for energy markets from climate change policies – Western Australian and Northern Territory*¹ and *Review of WA Energy Market Framework in Light of Climate Change Policies*² were commissioned by the Ministerial Council on Energy (MCE) 'to determine whether [current energy market frameworks] require amendment to accommodate the introduction of the Carbon Pollution Reduction Scheme and the expanded Renewable Energy Target'³.

The issues identified and proposed measures for consideration categorised potential areas for improvement to the design and operation of the WEM. These include:

Measures to improve connection processes

- Improving market information
- Modifying queuing policies and procedures
- Review approach for facilitating shared connections

Measures to improve access to the transmission network

- Releasing capacity by allowing new generators to connect on a constrained basis
- Releasing free capacity by relaxing the unconstrained planning criterion
- Releasing free capacity by taking steps to optimise line ratings
- Improving the augmentation regulatory approvals processes
- Reviewing methods for charging for augmentation

Western Power is pleased to note that work to resolve many of these issues is either underway, or has been proposed.

¹ Australian Energy Market Commission (AEMC), *Review of implications for energy markets from climate change policies – Western Australian and Northern Territory* (November 2008) (<http://www.aemc.gov.au/Market-Reviews/Completed/Review-of-Energy-Market-Frameworks-in-light-of-Climate-Change-Policies.html>) (First Interim Report)

² Australian Energy Markets Commission (AEMC), *Review of WA Energy Market Framework in Light of Climate Change Policies*, June 2009 (<http://www.aemc.gov.au/Market-Reviews/Completed/Review-of-Energy-Market-Frameworks-in-light-of-Climate-Change-Policies.html>) (Second Interim Report)

³ (AEMC 2009; p 4).

3.2 What impact does Demand Side Management have on the achievement of the efficiency, reliability and security objectives of the Wholesale Electricity Market?

Generator dispatch in the current Wholesale Electricity Market is not based on dispatching capacity (generators or Demand Side Management (DSM)) with the lowest short-run marginal cost. Relatively small volumes of energy are traded competitively in the WEM (via the STEM), with the bulk being traded via bilateral contracts. It is the bilateral contracts and “must-run” plant (e.g. cogeneration plant) that currently dictate the dispatch order, with wind generation also normally being allowed to generate at its maximum available output. Under the current framework, the dispatch of DSM usually only occurs as a last resort (such as in supply emergencies) rather than being based on its marginal cost.

It follows that the practice of not dispatching on lowest short-run marginal cost is likely to result in economically sub-optimal dispatch, which may be causing higher electricity supply costs than would otherwise be available in an economically efficient market.

A further issue relates to the Reserve Capacity Mechanism (RCM). While the annually fixed Reserve Capacity Price (RCP) provides a considerable degree of certainty for generators and DSM providers, it is likely that the fixed price also results in some market inefficiencies. Western Power believes that some DSM may be available at costs below the RCP, although it is also acknowledged that less DSM is likely to be offered if the process for securing it was a competitive one with no guarantee of acceptance.

Western Power is of the opinion that the current method of securing reserve capacity may not ensure it is sourced at least cost to the market.

One proposal mentioned in the Paper is that because DSM is not available all hours of the year like most generators, its treatment could be harmonised more with that of generators by eliminating the 24 and 48 hour DSM classes. The Paper also states:

“The Authority is particularly interested in two related issues:

- *The payment received by DSM providers under the RCM and how these payments relate to payments to generation plant; and*
- *The implications for power system reliability as DSM accounts for a larger proportion of total capacity in the market.”*

Western Power notes that DSM currently being offered to the WEM under the RCM is not intended to be available all hours of the year. It is being arranged as a peaking generation capacity substitute, to meet capacity requirements normally met by last-in-the-merit-order peaking generators such as diesel-fired gas turbines.

These diesel-fired peaking generators are rarely dispatched, because their short-run marginal cost of generation is relatively high. It is on the hottest days of the year, and in gas supply emergencies, that they are most likely to be dispatched.

There is therefore a valid role in the market for the 24 and 48 hour DSM classes. If the DSM in these classes costs less to provide to the market than generation capacity for the same duty, then the DSM will improve the economic efficiency of the market.

It is recognised that there is a limited amount of such capacity required for this peaking duty. This requirement should be taken into account in assessing how much capacity is useful in each DSM class.

The Value of Demand Response DSM

Dispatchable demand management has a different value to the market depending on whether it is a curtailable or interruptible load, or a standby generator. The value to the market is also influenced by whether it is available for varying hours each year or requires different notice periods.

Generally, demand response could be considered to be more valuable if it:

- a) requires less dispatch notice to achieve the demand reduction. The shorter the notice period the more valuable it is operationally, similar to the "start up time to full output" of a generator. Interruptible loads (instantaneously interruptible – zero notice period) are the most valuable because they can be used for spinning reserve and frequency restoration
- b) is available for more hours of the year; and
- c) is lower cost.

A mechanism that pays different amounts per megawatt for capacity, to reflect these different values, would seem to better reflect the value to the market of such capacity.

The more standardised and constrained the DSM categories are made, the less DSM will be offered to the market with the possible outcome of having to pay for more expensive generation plant to cover the same duty. There needs to be an appropriate balance between standardisation and ruling out valuable DSM capacity.

Western Power is currently investigating whether any of the DSM that has been, or is being, arranged for the RCM (260 MW now, and up to 500 MW by 2013/14) is located in constrained network areas that will need augmentation in the next few years. If any of this DSM can be used for network support it may allow some network augmentation to be economically deferred and therefore provide additional value to the market.

Ultimately, the market and regulatory framework should provide better commercial incentives for Western Power to implement non-network solutions such as demand management and network control services to defer network augmentation.

3.3 How effective is the Rule Change process, and its governance structure, in promoting the efficiency, reliability and security objectives of the Wholesale Electricity Market?

The Independent Market Operator (IMO) has a dual role which includes both the administration and development of the Market Rules. By its very nature, the dual role presents potential conflicts and tension. Western Power is of the view the IMO has managed this well.

Western Power believes the current Rule Change process has generally resulted in appropriate changes to the Market Rules, but that does not necessarily mean that the process for the development of the Market Rules can not be improved.

Simple rule changes can be implemented with confidence under the existing process, but more complex changes require extensive information and deliberation which can be challenging to MAC members in terms of time commitments. Western Power believes the IMO has been astute in assessing all of the advice it receives from MAC members and fundamental changes such as the Market Evolution Plan have been appropriately referred to specialist working groups to provide advice to the MAC. However, improvements could still be made in better delineating between simple and complex changes.

3.4 Are there any other strategic, policy or high-level issues that are impacting on the effectiveness of the Wholesale Electricity Market in meeting the Wholesale Market Objectives.

Western Power's views regarding strategic policy issues are detailed in its submission to the Strategic Energy Initiative Discussion Paper. As discussed in that submission, electricity pricing is a fundamental issue currently hindering the achievement of a number of the Wholesale Market Objectives including encouraging competition, minimising the long term cost of electricity and managing electricity use. Furthermore, cost reflective pricing is an essential precursor to full retail contestability for the domestic market.

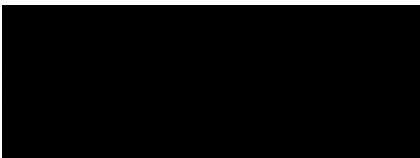
The significant steps the current State Government has taken towards moving electricity prices towards cost reflectively are acknowledged. However, as stated in our submission to the SEI, Western Power believes it is important that the state government publicly state a timetable through which the market will be required to progressively move to a fully cost reflective position. This also requires the individual tariffs to be structured cost reflectively.

A further consideration relates to improvements in energy efficiency and energy conservation, which have the potential to significantly benefit the market through reduced demand (including peak demand). This, in turn, will extend the life of our existing network infrastructure and reduce the need for future network investment. Other than intrinsically motivated corporate, social and environmental responsibility commitments, there are currently few other incentives for any major market participants to directly participate in energy efficiency initiatives.

Western Power is also keen to see the market evolve more dynamically in the future to enable new technologies and innovations and new parties to participate. These may include electric vehicle users, electric vehicle infrastructure providers and distributed generation (both electricity and thermal energy), which we expect will appropriately contribute to the costs of building and maintaining the network.

Western Power is pleased to be able to contribute to the 2011 WEM Report process. We would welcome an opportunity to further discuss the above matters and any other issues the Authority may wish to raise.

Yours sincerely



PHIL SOUTHWELL
GENERAL MANAGER REGULATION AND SUSTAINABILITY