



27 April 2016

Dr Ray Challen  
Chair of the Steering Committee  
Electricity Market Review (Phase 2)  
Public Utilities Office  
Locked Bag 11  
Cloisters Square WA 6850

*Submission by email:* [electricitymarketreview@finance.wa.gov.au](mailto:electricitymarketreview@finance.wa.gov.au)

Dear Dr Challen,

**RE: Position Paper – Design Recommendations for Wholesale Energy and Ancillary Service Market Reforms**

ERM Power Limited (ERM Power) welcomes the opportunity to respond to the Electricity Market Review Steering Committee (the Committee) on the Position Paper entitled Design Recommendations for Wholesale Energy and Ancillary Service Market Reforms (the Paper).

**About ERM Power Limited**

ERM Power is an Australian energy company that operates electricity generation and electricity sales businesses. Trading as ERM Business Energy and founded in 1980, we have grown to become the fourth largest electricity retailer in Australia, with operations in every state and the Australian Capital Territory. We are also licensed to sell electricity in several markets in the United States. We have equity interests in 497 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, both of which we operate.

**General comments**

ERM Power is generally supportive of the design recommendations outlined in the Paper. The Paper is fairly extensive and discusses many areas for improvement. In particular ERM Power is supportive of the following proposals:

- Facility bidding by all market participants.
- Co-optimisation of energy and ancillary services.
- 30 minute gate closure and a 5 minute dispatch cycle.
- Ex-ante pricing.
- A single nodal reference price.
- Retention of STEM until a derivatives market is established.
- Adoption of NEMDE as the dispatch tool in the WEM.
- Retention of constrained on payments with the proposed modified calculation methodology.

More specific feedback is provided in the following section.

### **Specific comments**

The Committee has sought comment from Market Participants on various potential changes throughout the Paper. ERM Power provides comment on specific topics below.

#### *Gate closure and rebidding*

ERM Power is of the view that given there exists the potential for market power issues to arise, the existence of a formal gate closure provision may reduce the potential for gaming of the Market. ERM Power would support an even shorter gate closure of potentially 15 minutes prior to the commencement of the trading interval to allow more up to date information to flow through to participants prior to the lodgement of bids and offers. However ERM Power is not in favour of the current NEM practice of having no gate closure for the trading interval.

The Paper recognises that five minute dispatch and ex-ante pricing could result in the 5/30 minute anomaly. If there was no gate closure, the 5/30 minute anomaly could be more pronounced. It is conceivable that the presence of a formal gate closure mechanism for the trading interval would reduce the 5/30 minute anomaly, as prices for the trading interval are locked in and there is unlikely to be significant variability from one dispatch interval to another.

Also, the National Electricity Market (NEM) five minute dispatch cycle which is proposed to be adopted in the WEM relies on rebids by generators in the event of a change in maximum availability due to a plant issue to ensure accurate dispatch outcomes. ERM Power believes that rebidding of declared unit availability within the gate closure period should be allowed to ensure declared unit availability matches physical capability at all times. Rebids should be subject to the same rebid provisions as applied in the NEM. This will ensure accurate and secure dispatch outcomes for reliable supply to consumers and network system security.

#### *Ancillary services*

ERM Power supports the adoption of the NEM ancillary services markets into the WEM, including the NEM technical specifications for participants to register to supply ancillary services, to allow co-optimised ancillary services dispatch with energy dispatch. This will remove the Spinning Reserve, Load Rejection Reserve and Load Following Ancillary Services from the WEM.

Under its Frequency Control Ancillary Services (FCAS) provisions, the NEM calculates contingency raise services payments by generators based on a generator's percentage share of overall generator dispatch for each five minute dispatch interval. The Paper indicates that the WEM generator payments will be on the basis of a user-pays runway methodology; this is acceptable provided that the runway calculation is based on the scheduled unit output during the dispatch interval, and not declared unit availability.

ERM Power also recommends that initially, a separate ancillary services price cap applies to the eight proposed FCAS markets to allow time for these markets to mature and new entrants to emerge.

#### *System Restart Ancillary Services Cost Recovery*

Currently, cost recovery for System Restart Ancillary Services (SRAS) in the WEM is based on 100% recovery from load. ERM Power does not support the proposed change in the Paper to the SRAS cost

recovery methodology. Whilst the NEM recovers SRAS costs on a 50% load and 50% generator basis, this breakup was imposed into the NEM at market start on an arbitrary basis, and has never been subject to any economic analysis.

ERM Power argues that the primary financial beneficiaries from SRAS are consumers of electricity. This can be clearly demonstrated by the high Value of Customer Reliability which represents the value derived by consumers for the return to service of the electrical system following a system black event. Generators, in fact, derive a much lower benefit, which is the difference between the Market Price Cap and a generator's Short Run Marginal Cost, which is a significantly lower value. ERM Power therefore supports the retention of the current SRAS cost recovery formula.

#### *Marginal loss factor calculation methodology*

ERM Power supports the adoption of the NEM forward looking loss factor methodology as proposed in the Paper. Notwithstanding, ERM Power believes that in adopting this methodology, the WEM Rules must also require that AEMO conduct a yearly back cast review, utilising actual system loads and generator unit dispatch to confirm a reasonable level of accuracy of their methodology with actual loss factor outcomes. A report setting out the results of this review should be published annually by 30 September each year and, where the forward looking loss factor calculation differs by greater than 0.2% from the calculated back cast loss factor for any connection point, contain details as to cause of this divergence.

#### *Regional Reference Node*

ERM Power supports the proposed change to the Regional Reference Node (RRN) for the WEM. In selecting the new RRN, ERM Power suggests the following selection criteria for consideration:

- A large load centre, but not necessarily the largest load centre.
- As close to the electrical centre of the South West Interconnected Power System as reasonably achievable.
- Connected to the South West Interconnected Power System by a large number of 330 KV transmission lines to reduce the possibility of pricing anomalies due to network events.
- Positioned on the 330 KV bus and not a smaller voltage bus which could be impacted by transformer outages.
- That no generator be connector to any electrical bus at the selected RRN.

#### *Adoption of the NEM Energy Adequacy Assessment Projection Framework*

Section 5.8.4 of the Paper indicates that it is not proposed to adopt the NEM's Energy Adequacy Assessment Projection (EAAP) Framework into the WEM, due to a view that the EAAP only provides useful information for hydro plant. ERM Power's experience in the NEM is that the EAAP provides a critical counterbalance to the NEM's Medium Term Projected Assessment of System Adequacy (MTPASA) process due to its detailed probabilistic analysis. The MTPASA process uses only deterministic analysis with a number of conservative input assumptions. However, in a number of instances where the MTPASA has indicated the possibility of a supply reliability issue the detailed EAAP analysis has indicated that a supply reliability issue does not actually exist.

### *Basis of dispatch*

The Paper currently indicates that dispatch of generation units is to be on a “sent out” as opposed to an “as generated” basis. This requires a generator in their bids to continuously calculate and allow for any “used in works” loads to be subtracted from the “as generated” value. It would also result in a generator having to submit more complex non-integer bids in not only the energy but also the eight proposed FCAS markets to accurately reflect this “sent out” value.

The actual “used in works” loads for a generator is not a stationary value, but is in fact a value which contains both fixed and variable values based on generator output. The variable value increases in a stepped rather than linear function with increasing unit output. Therefore generators, in attempting to co-optimize energy and FCAS bids, will face reasonably complex factors.

The NEM, like most electricity markets in the world, calculates demand based on the sum of “as generated” generator outputs. This data is readily available and reconcilable with dispatch. Generator bids and dispatch is based on simple integer values for both the energy and FCAS markets. Generator dispatch in both the energy and FCAS markets is more accurate and more transparently auditable. ERM Power recommends that in the interest of reducing the complexity for the co-optimisation of energy and FCAS bids and transparency of dispatch outcomes the WEM adopt “as generated” values for the basis of dispatch.

### *Constrained-off payments*

While it is not clear what the future treatment of current Electricity Transfer Access Contracts (ETACs) are, constrained-off payments should not be removed until the position surrounding existing ETACs has been clarified. ERM Power would need to understand what the potential abolishment of ETACs means for dispatch and how this interacts with the capacity market before it can contemplate the removal of such payments.

Historically, the Bilateral market and Short Term Energy Market (STEM) results in Market Participants entering into physical contract positions for electricity. Since Market Participants are committed to provide the energy, it would therefore not seem reasonable for those generators who have been constrained off not to be compensated, given that they are suddenly faced with a risk exposure that previously did not exist.

In addition, the Paper proposes that the WEM move to a security constrained market design. Currently little if any information exists with regard to possible future network constraints, network line ratings or load in the WEM’s electrical sub-regions or better still bulk supply points. This lack of information fails to allow participants the ability to form views regarding the possibility of generator dispatch outcomes being impacted by constraints into the future, to allow a risk management approach to future contracting levels. Also, current WEM rules require mandatory offers to maximum unit capability in the STEM. This can result in a generator being exposed to the Balancing Market when network conditions impact and constrain off unit dispatch.

ERM Power is in favour of retaining some sort of equitable constrained-off payment mechanism that will see generators who are bilaterally contracted compensated for the intervals they are impacted.

### *Eligibility of Capacity Credits for small intermittent non-scheduled generators*

Whilst ERM Power agrees that, in general, small intermittent non-scheduled generators will attempt to dispatch as often as they physically can, the critical factor is that they will attempt to dispatch. In

practice, output at any time cannot be guaranteed and therefore there will be a large number of periods where small intermittent non-scheduled generators will not be available to dispatch, and therefore provide no useful output to the South West Interconnected Power System (particularly during times of high system demand).

Also, dispatch outcomes for small intermittent non-scheduled generators may impact dispatch of scheduled generators in a security-constrained market design. In fact, where a small intermittent non-scheduled generator's position in the network would normally result in this generator being assigned a high value co-efficient (closer to 1.000) in a constraint equation, dispatch from this generator could impact the dispatch of the scheduled generator by a multiple factor if the scheduled generator has a low co-efficient in the constraint equation.

For these reasons ERM Power does not support allocation of Capacity Credits for small intermittent non-scheduled generators

### *Settlements*

ERM Power's preferred position is to reduce the Non-STEM settlement timeframe. Conceivably, the STEM and non-STEM invoice could be combined into a single weekly invoice using the STEM week as the billing period, but payment terms changed to the 2/20 business days used by the NEM. This would extend the payment terms for STEM transactions and bring forward the payment terms for the Non-STEM transactions. The advantages of this would be:

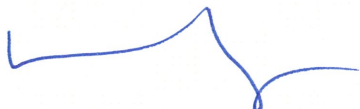
- Reduced prudential requirements
- A single invoice would minimise the administrative burden on participants as market participants already process weekly STEM invoices
- Payment terms for energy would be similar regardless of whether a participant sources its energy from the STEM or Non-STEM

We acknowledge that access to accurate interval meter data may currently be an issue. However, if Meter Data Providers had similar obligations to provide data as their east coast counterparts do then alignment of the STEM and Non-STEM billing period with a reduced settlement cycle may be more efficient for the market.

The target go-live date of 1 July 2018 should allow Market Participants time to address potential mismatches between AEMO and customer invoicing and payment terms. Further, the introduction of a preliminary statement together with supporting information on a similar basis to the NEM would be useful.

Please contact me if you would like to discuss this submission further.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Wendy Ng', with a stylized flourish at the end.

Wendy Ng  
Commercial Manager WA  
08 6318 6416 – [wng@ermpower.com.au](mailto:wng@ermpower.com.au)