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Dr Ray Challen
Steering Committee Chairman
Electricity Market Review (Phase 2)
Public Utilities Office
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By email: electricitymarketreview@finance.wa.gov.au

27 April 2016

Dear Dr Challen,

RESPONSE TO POSITION PAPER: DESIGN RECOMMENDATIONS FOR WHOLESALE AND ANCILLARY SERVICES MARKET REFORMS

Introduction

Bluewaters Power welcomes the opportunity to provide comments on the issues contained within the "Position Paper: Design Recommendations for Wholesale Energy and Ancillary Service Market Reforms" (Paper) published 14th March 2016.

Bluewaters Power participates in the WA Wholesale Electricity Market as follows:

- **Generation:** 2 x 220MW (sent out) coal fired power stations, Bluewaters 1 and Bluewaters 2, located in Collie, and each "certified" by the IMO for 217MW of capacity. The power stations were both fully commissioned in 2009 (albeit 6 months apart) and typically provide ~15% to 20% of the energy consumed in Western Australia.
- **DSP Capacity:** Bluewaters Power operates a 20MW Demand Side Program through its relationship with a major contestable load (and energy off-taker).
- **Retail:** Bluewaters holds a Retail License and has long term contracts to supply ~220MW of retail load ie. Bluewaters has service responsibility for NMIs which may draw up to 220MW, representing ~7.5% of total retail energy consumption on the SWIS.

The Bluewaters assets are owned by Sumitomo Corporation and Kansai Electric. Additionally, Sumitomo Corporation has a 50% interest in the NewGen Power Kwinana Power Station (328MW CCGT).

Other relevant facts:

The Bluewaters Power Stations provide highly reliable, low cost energy to the SWIS. While the periods are not precisely parallel we wish to note that the Bluewaters Power Stations represent ~7.72% of certified reserve capacity (for 2015/16 capacity year) and expect to generate approximately 17% of the total energy generated on the SWIS for the calendar year 2015, being 3,085,500MWh of a total 18,431,000MWh. The only units generating more energy being Collie and NewGen Kwinana Power Station.

For the financial year 2015/16 the Bluewaters businesses are anticipated to contribute approximately \$4.24M in market fees, or approximately 12.3% of the total market fees of \$34.27M.

General Sentiment:

It is Bluewaters observation that the reforms as laid out in the Paper appear to be based on objective and rational considerations and wishes to commend the EMR team involved. The reforms if adopted as proposed will undoubtedly impact a multitude of enterprises to varying degrees, ourselves included. It is our view that

the nature of reform, where it is addressing widely acknowledged problems, cannot have any meaningful impact if there is no, or deliberately minimal, impact on stakeholders and participants. We also acknowledge the efforts built into the recommendations that should provide reasonable time to adjust to a new market framework.

Bluewaters has found some of the reforms proposed to be practically and materially important to the Bluewaters assets/enterprises yet lacking sufficient detail for us to provide (even qualified) support. While the reforms may be reasonable and warranted their present state is not sufficiently developed to allow Bluewaters to provide in-principle support with confidence.

Comments on Issues Raised Within the Paper:

Security Constrained market design: Bluewaters is supportive of a security-constrained market design premised on a least-cost dispatch principle.

A key consideration in order to provide unqualified support will be the development of systems which will deliver high quality market and network data to participants in order to realise the benefits as purported in the Paper. Bluewaters is keenly supportive of a design which will improve impartial dispatch (via automation) on a least-cost basis; improved dispatch forecasts and comprehensive reporting of constraint costs and occurrences.

Bluewaters questions whether the introduction of a constrained access model and its impact of the calculation of the MRCP has been factored into the forecast RCP prices as published in the Reforms of the RCM paper published 7th April 2016? Will the lower cost to add capacity to the SWIS (since no deep connection costs or major augmentation costs would be considered in the calculation of the RCP) affect the MRCP once the constrained market design is adopted?

Although the matter is likely to be resolved in another work stream Bluewaters has significant concerns relating to the loss of unconstrained access rights (which we currently enjoy) in the future and the consideration of compensation or grandfathering. Our support on this matter is given with the expectation that the PUO will give this matter proper consideration and make a rational and appropriate offer(s) in due course.

Facility Bidding: Acknowledging that there will be a burden to Synergy of 'converting' to a practice of facility bidding, in the form of development costs, time, training, changes in systems and practices Bluewaters supports facility bidding for a number of fundamental reasons.

The viability and full success of the collective reforms (with particular emphasis on the security-constrained design) proposed in the remainder of the Paper would appear to be unachievable without all participants individually bidding their facilities into the co-optimised market.

Generically it is an improbable argument to contend that one participant, and not the smallest but the largest by some margin, should be able to function within the market as a semi-black box without providing the granular transparency that all other participants must. In no way is Bluewaters suggesting that Synergy has in any way attempted to use its market power to incorrectly influence market outcomes however the fact remains that each participant should ideally be competing on the exact same playing field with the same rules.

Ultimately, the evolution of the market in terms of its systems and participant composition will require at some point the ability to separate Synergy units from the Portfolio. Now, when a full electricity market review provides the opportunity to assess and make changes, with the blessing of its owner, there is unlikely to be a better time to take the opportunity to make these changes to Synergy's operations. We would contend that while Synergy may incur costs to conform to a new market design that it should have been reasonably foreseeable that at some point Synergy would need to modernise/adapt to some form of major market evolution. The constant reforms of the last 7-8 years have meant all other participants have had to keep abreast changes and incurred costs in doing so. There is every likelihood that on a comparable basis (costs relative to the number of facilities or MWs effected for example) that Synergy's costs will in fact be lower than most participants given their scale of economies, and thus no more burdensome than any other participants costs in adapting to market reform and remaining contemporary.

While not ideal, were the PUO to ultimately suggest that Synergy be granted some form of interim arrangements where units located at the same terminal (or similarly physically located) could be aggregated, Bluewaters would not find this objectionable if it was limited to the “transition period” of the Reserve Capacity Market reforms.

Co-optimisation of energy and ancillary services: Bluewaters supports the proposal to develop Spinning Reserve, Load Following and other ancillary service markets, and to optimise dispatch on an aggregate, least-cost basis.

Cost allocation of Load Following on a “causer pays” basis: Bluewaters is uncertain of the merits of a change to a “causer pays” methodology.

1. The proposed switch to a 5-minute dispatch cycle is estimated to reduce ‘ramping’(generator caused) discrepancies by up to 80% and potentially result in a 20% reduction in total required LFAS.
2. Developing the calculation and allocation methodology of LFAS costs according to a cause-pays concept appears fraught with complication and is still ultimately unlikely to deliver an accurate (and universally agreed) outcome.
3. Regardless of where operational costs are incurred they should ultimately be levied back to the end-use customer. In adjusting the methodology to split costs (as caused) amongst loads and generators the means must then be found to pass-through the costs to retail customers. At best the costs will be direct pass-through but more likely they’ll need to be estimated and built into supply costs. This means an initial body of work to inform all customers and agree the pass-through means; followed by the generator inefficiently factoring in a forecast costs into supply prices.

While philosophically the cause-pays methodology has merits Bluewaters is unconvinced of the benefits given the practical outcomes of passing through the costs, the complications of accurately calculating the causer and their quantity in real-time. It seems the greater benefit to the market (and lower hanging fruit) would seem to be the push to reduce LFAS requirement in general and the change in market mechanisms to allow for more competition and reduce the cost of providing that lower quantity.

Cost allocation of Spinning Reserve (“Runway” method): Bluewaters supports the proposal to alter the cost allocation methodology from the current modified runway model (the “Block” method”) to a more granular runway model. Spinning Reserve is a generation-side cost and Bluewaters believe the economic rationale for utilising the runway method is not rationally refutable.

A problem with the existing method has been that its final cost have been calculated well after the fact (although recent developments in publishing market data have improved the ability to predict the likely cost of shifting between blocks). With a Spinning Reserve market being develop Bluewaters would hope that the level of data available in real-time will allow the proper forecasting of the marginal Spinning Reserve costs attributable to the generation of an additional MW of energy above the current highest level, to allow for commercially correct decisions (supply offers) by generators in real time.

Later (or no) gate closure: Bluewaters supports a formal gate-closure window of between 5 and 15 minutes. The PUO could consider an initial 15-minute gate closure for 2-3 years and if no untoward activity arises switch to a 5-minute gate closure thereafter.

Shorter dispatch cycle: Bluewaters has no objections to 5-minute dispatch cycles.

Ex-ante Pricing: Bluewaters supports a shift to ex-ante pricing.

Retention of the Short Term Energy Market (STEM) and Scheduling Day Processes: Bluewaters, as a provider of base load energy primarily sold via underlying bilateral arrangements strongly advocates for the retention of the STEM.

Economic theory supports a premise that more options should allow for more efficient market outcomes. As both the STEM and Balancing markets are marginally priced, and there are very few other instruments available to provide (pseudo) short term hedging arrangements, it is imperative that participants providing the bulk of the market's required energy are afforded the limited options/markets available.

Removing the STEM could require that any supply shortfall experienced by a bilaterally obligated supplier may only be purchased in one non-bilateral market – thus setting the final price at the highest point on the curve for the entire shortfall. Whereas, retaining the STEM provides an additional day-ahead option to procure energy at a lower aggregate cost than one market would provide.

Bluewaters believes that STEM participation does not have to be compulsory and that no capacity refunds should be attributable to capacity not made available in STEM.

From a generation point of view, Bluewaters has found that the initial day-ahead contract position gained from STEM results, provides valuable giving day-ahead indication of run levels and allows for more efficient formation of supply offers into the Balancing Market.

Bluewaters understands that merchant/capacity-oriented participants may wish to support the removal of the STEM in order to encourage greater price volatility (though it is unlikely this is the stated argument used to support the removal of STEM). Bluewaters does not believe that the purpose of the energy market is price volatility for merchant/opportunistic gain. The market is premised on a preference for bilateral contracting and energy supply having a co-relationship to underlying/typical energy demand. As such, the market design should provide mechanisms which support that outcome and the STEM is such a mechanism.

Bluewaters wishes to emphasise that the STEM should be retained (if not enhanced) and not only if "... the cost to retain the STEM is not excessive." Though "excessive" is not defined the sentiment in the paper is that the decision to recommend retaining the STEM is more related to it not being a nuisance and as long as its cost to maintain is low. Bluewaters sees the STEM as an advantage not available in the NEM. Generators who generate each day or who may be on the margin on a given day, gain a great deal of benefit from having a day-ahead profile to prepare/fine tune real-time offers or to otherwise plan maintenance etc given the advanced notice of their generation requirements the next day.

Bluewaters supports retaining the bilateral nomination process; supports the removal (ASAP) of resource plans and an extension of the STEM window by one hour (also ASAP).

Utilisation of NEMDE: Bluewaters supports the adoption of the NEM Dispatch Engine (NEMDE).

Changes to the location of the Reference Node: Bluewaters is unable to provide support to a change in reference node from Muja to another location (preferred as a load centre rather than a generation centre) for the following reasons:

- The actual practical and/or commercial impacts on our own business, and the market at large, is simply not explained or modelled for our review.
- Although theoretically the relativity of loss factors between two points should be unaffected the reality is that potentially thousands of supply agreements are in place and many will need modification as a result of the change.

Bluewaters would prefer to see this item reviewed as a separate piece of work (perhaps via the MAC or a separate working group) after the EMR project where the global effects to market, existing contracts etc can be considered with proper consideration and a change in reference node progressed with greater transparency and the support of a proper cost-benefit analysis.

Basis for dispatch (as-generated or sent-out): Bluewaters strongly supports dispatch on a sent-out basis as we considers that methodology more logical and accurate. Bluewaters sympathises with Synergy's dilemma and would think that consolidating all units on one (sent out) dispatch method should be the preferred solution

particularly where a relatively cheap solution can be implemented (either through facility side modifications, or via customised NEMDE algorithms).

Removal of Constrained Off Payments: Bluewaters believes there are two types of constraints that should be considered (separately).

Where the network is functioning without unplanned (network) outages and a participant is constrained, Bluewaters supports a mechanism of no constrained-off payments. This is because the network is fully available and the constraint has occurred as expected - based on an economic dispatch and loading of a line.

Bluewaters suggests that where a constraint occurs because of unplanned network outages a facility which would otherwise normally be dispatched, should be eligible for constrained-off payments. Funding for the payments need not be garnered from electricity market participants (who are not responsible for the cause), rather it should be funded by the entity responsible for making the capacity of the network available (Western Power).

There is a new (triangular) network-customer-generator framework presently touted as a better model for extracting commercial and service efficiencies in the Networks space. The PUO could consider whether it might be appropriate that Western Power pay for its equivalent of “forced outages”. Those penalties could fund a pool that is dispersed in arrears to any facility genuinely (subject to a test administered by AEMO) constrained-off as a result.

The PUO could also consider that if the owner of the network was a private investor, would they be held responsible (via commercial incentives) for network performance and the level of forced outages, or would they be immune to the economic impact caused to the participants paying for access to that network? If a private owner would be held accountable, should it be any different if the owner is a government entity?

The penalties incurred by Western Power should not subsequently be recovered from the market (at least not via the equivalent of the allowable revenue function). Should the network fail to properly maintain it, and incurring penalty costs associated with that failure, then it should be borne by its owners whomever they might be now or in the future. There are very few genuine commercial penalties imposed on Western Power for failing to properly maintain their electricity network – the system to date has passed the commercial costs to generators and retailers. When a generator fails to make capacity available they generally pay a penalty to the market. The Network owner should have genuine penalties (or “incentives” depending on whether you are a glass half-full or half-empty individual) for failing to maintain a reliable network.

Western Power may, in an attempt to avoid unplanned outages, raise maintenance costs and we would expect those higher published costs to be passed through to customers, thus applying some pressure to Western Power to find the correct balance between appropriate maintenance and excessive maintenance.

Changes to Non-STEM settlement cycle: Bluewaters supports the implementation of a single settlement cycle/process.

Energy Price Limits - Single Energy Market Price Cap: The Paper proposes that the ERA assess the risks and benefits of a single energy price cap. Bluewaters is firmly of the belief that retaining a non-liquid and liquid price cap is an important element of the energy market and should be retained. Bluewaters notes we will be keen to provide input into any such review.

Yours sincerely,



Andrew Stevens
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