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Public Utilities Office  
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Dear Mr Raj

**RESPONSE TO CONSULTATION PAPER - IMPROVING ACCESS TO THE WESTERN POWER NETWORK – PROPOSED APPROACH TO IMPLEMENT CONSTRAINED NETWORK ACCESS**

NewGen Kwinana welcomes the opportunity to provide comments on the paper entitled “Improving access to the Western Power Network - Proposed approach to implement constrained network access”. This paper was published by the Public Utilities Office (PUO) on 9 August 2018. Additional detail and model outcomes were presented directly to NewGen Kwinana by the PUO on 5 September 2018, while the final modelling report was published by the PUO on 1 October 2018.

**Executive Summary**

Having reviewed the consultation paper and results from the modelling, NewGen Kwinana cannot support the move to a constrained network under the current circumstances. Following Stakeholder requests to articulate the issue and outline the benefits, the business case presented by the PUO does not justify the proposed approach.

The subsequent modelling exercise has demonstrated that there is no imminent problem with network congestion and that the potential savings to the market over a 60 year period do not demonstrate a compelling case for incurring the cost that the market and participants will bear as a result.

**Modelling Results**

In previous submissions NewGen Kwinana has stipulated the importance of the modelling to substantiate the detailed workings of the policy position. NewGen Kwinana’s understanding from reviewing the results between a fully constrained and partially constrained case are:

1. There are virtually no network constraints until 2028 in either partial or fully constrained case, with no capital investment required in the network in that time. This suggests there is little case to progress the reforms in the aggressive timeframes proposed.
2. There are no unserved energy outcomes and no capacity credit shortfalls in any modelled scenario.
3. Both the base case and high demand scenarios are higher than Western Power’s own forecast demand scenarios in its most recent AA4 submission. No low scenario is modelled.
4. It is unclear from the report as to whether the wholesale price component of ‘market payments’ is attributed to only the Net Settlement component of the market (under 10% of wholesale energy). All other wholesale energy is bilaterally contracted and is based on either existing and continuing historical prices, or the cost of underwriting a new-entrant facility.
5. A 10 year NPV benefit of \$200m is negligible (notionally \$20m/annum) when compared to the high degree of risk over such a change, and to the high cost of operating the WEM in general

6. There is no rationale to compare the NPV of the fully constrained and partially constrained case over 60 years, given there is no network capex assumed in either case.
7. The base case of maintaining a partially constrained network assumes that no investment will be made in grid infrastructure. However this fails to consider that small investments may achieve a commercially acceptable constrained outcome for generators.
8. The differences in 'market payments' appear to be back-ended to the later years of the 10 year study, given the prices in capacity and wholesale energy only diverge post 2028 and 2026 respectively.
9. The 60 year NPV assumes the average of only the last 3 years of 'market payments', which is the largest differential in the modelling.
10. Indicative market price outcomes are immaterial within the level of modelling uncertainty and sophistication. The largest change to wholesale prices is due to the gas price assumption.
11. Indicative benefits do not account for costs of implementation from both the market operator and market participants
12. Indicative benefits do not appear to account for costs of market uncertainty, including funding costs.
13. Much of the value suggested by the modelling is due to the 'merit order effect'<sup>1</sup>. The fully constrained model delivers a better merit order outcome due to a higher capacity credit allocation attracting more low-cost renewables. As there is no network augmentation assumed in either the partial or fully constrained cases, this issue appears to be related to the capacity allocation methodology (and the capacity mechanism in general) rather than being a network issue. This also suggests there is a wealth transfer (of capacity credit value) between existing generators to new entrant generators. It is unclear from both the modelling report and the consultation paper how this cost has been treated<sup>2</sup>.

The case for change, as articulated in section 2 of the consultation paper, has not been supported by the outcomes of the modelling. Considering the uncertainty in future technological advancements and the apparent lack of constraint issues in the short term, a constrained network model is not immediately required in its own right.

## Broader Reform

While the case for constrained network implementation is not supported in its own right, the consultation paper indicates that constrained network access is the preferred position from which to implement broader reforms to the Wholesale Energy Market (WEM), including co-optimised pure economic dispatch.

Based on the inadequate benefits of moving to a constrained model, NewGen Kwinana's view is that the broader reform would be better served by deferring the constrained network work stream and replacing this with reforms that are more beneficial to the WEM in incentivising the optimum future generation mix. The electricity industry is experiencing a major disruption from renewable technologies, yet the size and structure of the WEM remains largely unchanged since market start<sup>3</sup>, and is unlikely to change in the foreseeable future<sup>4</sup>. In perfect hindsight, it is unlikely such a complex and costly market would have been implemented under this scenario. It may be prudent to pause before implementing even more complex and costlier market reforms.

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<sup>1</sup> 'Modelling the impacts of constrained network access', EY, Page v

<sup>2</sup> The consultation paper mentions only constrained off costs in its transitional assistance.

<sup>3</sup> With market concentration increasing through the merger of Verve Energy and Synergy.

<sup>4</sup> The current government has not indicated any intention of splitting Synergy; and Western Power's forecast for WEM (grid) demand is flat or decreasing over the next 5 years.

With this in mind NewGen Kwinana proposes a priority on broader reforms of:

- the Reserve Capacity Mechanism (RCM) in combination with the energy and ancillary services market to incentivise the optimum generation mix. Reforming the RCM pricing on its own is not enough;
- the correct allocation of costs that are either to be newly imposed market costs, or existing costs that are either rapidly increasing as a result of new entrants, or are not being imposed on a market segment e.g. behind the meter solar.
- More appropriate price signals to consumers, particularly around the adoption of behind the meter solar and storage.

To achieve the lowest efficient cost to end consumers the existing assets must be utilised to the maximum extent possible. Without addressing the correct investment environment with appropriate cost allocations and price signals, the reform is likely to incentivise investment in a generation mix that is inappropriate and a demand pattern that is inefficient, which will lead to higher costs to the end user.

The business case for the proposed broader market reforms has not yet been established. In theory, pure economic dispatch will deliver lower costs within a perfect market. The WEM, due to its size and structure, is not a perfect market. Incurring significant cost from all stakeholders in the market to achieve marginal economic efficiency can eliminate the benefits. And in non-perfect markets, the theoretical efficiency of competition can also lead to higher rather than lower prices, which is counter to a key objective of the reforms.

The constrained access modelling results indicate that only intermittent energy from low-cost renewables and peaking capacity in the form of open cycle gas turbines are added to the market. This suggests no new entrants to competitively provide the growing ancillary service requirements which this new energy mix will impose; and for which the broader WEM reforms are seeking to enable further concentrating the market in this area.

Should you have any questions regarding this submission please contact Daniel Kurz on 08 9261 2881 or [daniel.kurz@sscpower.com.au](mailto:daniel.kurz@sscpower.com.au).

Yours sincerely

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