Submission to PUO 9 August 2018 Consultation Paper

Improving access to the Western Power network
Proposed approach to implement constrained network access

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1. Introduction

Western Power has played an integral role in Western Australia’s growth over the last 100 years. Western Power’s network is powered by a wide range of traditional and renewable energy resources and provides customers with a safe, reliable and efficient electricity supply. To date, the development of the Western Power network has been managed prudently to minimise the requirement for the construction of new lines, terminals, substations and circuits in order to reduce capital costs. This is particularly important in a time of rapid technological change and changing customer expectations of the network.

Generator access to our network is currently under an unconstrained framework which means that Western Power is required to connect generators (including by augmenting the network, where necessary) that apply for a reference service to the network and ensure these generators do not impact on the firm access rights of other generators. The current network access framework has been restricting Western Power’s ability to provide affordable connection opportunities to new generators. Therefore, Western Power strongly supports the need for a fully constrained network access regime to facilitate better utilisation of the network and the connection of new generation.

In April 2018 Western Power responded to the Public Utilities Office (PUO) Consultation Paper ‘Improving Access to the Western Power network: Implementing a constrained network access regime’. As part of our submission, Western Power highlighted benefits to implementation of a constrained network access regime, including that it:

1. Will reduce the time required for, and cost of, new generator connections compared to the current unconstrained network access model
2. Will unlock the capacity of the electricity network and make efficient use of existing infrastructure
3. Will provide a long term sustainable solution to replace the Generator Interim Access (GIA)
4. Will allow better management of power system security
5. Will place downward pressure on network prices
6. Has the potential to support regional jobs and local skills development.

Western Power is pleased to see that the 9 August 2018 Consultation Paper ‘Improving access to the Western Power Network: Proposed approach to implement constrained network access’ and corresponding 3 August 2018 Industry Forum acknowledged many of the above benefits of the constrained access framework.

Further, Western Power commends the PUO for responding to industry feedback on the need for additional evidence to support implementation of constrained access. The modelling of potential financial impacts of different network regimes undertaken with EY found that a fully constrained network access regime results in the lowest financial impact on the market. Western Power is supportive of the PUO’s conclusion that fully constrained network access is the preferred network access regime going forward.

2. Amendments to the framework governing network connections and access

Western Power is supportive of the proposed amendments to the framework governing network connections and access that will see new and existing generators granted access to the network on a constrained basis.
Western Power’s own analysis, as demonstrated in Figure 1 and Figure 2 below, suggests that implementation of a fully constrained network access regime could ‘unlock’ network capacity creating opportunities for new, low cost generation to connect to the network.

**Figure 1:** As at August 2018, green line denotes thermal constraints on Western Power’s network under the current regime.

![Map of Western Power's network under the current regime.](image)

**Figure 2:** As at August 2018, green line denotes expected thermal constraints on Western Power’s network under a fully constrained network access regime.

![Map of Western Power's network under a fully constrained regime.](image)
3. **Scheme for transitional assistance**

Western Power is supportive of the PUO’s proposed constrained access implementation plan, including the decision to minimise legislative changes required and resolve amendment of contractual agreements outside of legislative processes. Western Power is of the view that converting access rights from physical rights to access the network to rights to access compensation payments in lieu of physical access is a prudent approach to resolving inconsistencies between constrained access and existing contracts. However, Western Power urges PUO and Government to carefully consider implications and potential longer-term consequences of funding transitional assistance (compensation payments) to industry through network tariffs, which could offset any downward pressure on network costs and reduce the value of the grid to customers.

Western Power acknowledges that it is prudent for PUO to undertake negotiations with individual industry members to determine potential ‘reasonable losses’ associated with a transition to fully constrained access. However, Western Power also looks forward to further public consultation around:

- The potential compensation payment framework, including likely sunset clauses
- How an opt-in scheme could work, including ensuring Western Power is consulted in relation to proposed changes that will impact existing contracts
- Industry’s preferred approach to amending existing contracts, and opportunities for resolution of legacy contract issues
- Decision-making around relinquishment of unused firm capacity and integration of outcomes with Western Power access contracts.

Western Power notes interdependencies in relation to timing for constrained access implementation, a transitional assistance scheme and potential changes to the Electricity Transfer Access Contract (ETAC). For example, Government seeks to confirm transitional amounts/contract changes in early 2020 but the AA5 ETAC will not be approved/commence until July 2022.

The PUO modelling and negotiation process may identify large compensation payments for individual generators. Western Power suggests that network augmentation to build out network constraints be considered where this would provide a lower cost alternative to these compensation payments. This network augmentation would provide lower costs to market/end users, minimise uncertainty for affected generators and has the potential to provide additional opportunity for network connection for new generation projects.

4. **Legal protection for Western Power**

Western Power supports plans for legislative changes to include legal and financial immunity for Western Power in relation to removing firm access to the network for existing generators.

5. **Efficient use of Western Power’s network – Demand management and nodal pricing**

While the Consultation Paper notes that ‘consistency in access rights is fundamental to achieving equitable network access and ultimately a more efficient energy market, Western Power is of the view that there are further policy reforms that can enhance the efficient use of the network, including demand-side management and nodal pricing.
**Demand-side management**

Western Power operates a complex business, which includes building, enhancing, and maintaining electricity infrastructure. Increasingly, we are acting as a platform for business and residential customers to choose how they want their electricity supplied and delivered. During the next five years, we will be making network changes to support customer needs. Specifically, we are considering not just augmentation of the network but also non-traditional options to deliver customer network services, such as demand management, microgrids, stand-alone power systems, storage and other emerging alternative solutions.

The PUO’s Consultation Paper indicates that a ‘partially constrained’ network access regime does not provide efficient signals for transmission, generation and demand-side investment.

Demand-side management is currently one of the most credible tools to maximise network utilisation. However, the current ‘reference demand’ approach does not align with investment drivers and therefore Western Power is increasingly providing customers in constrained regions with a ‘non-reference demand’ service. This inconsistency limits entry to demand-side management and will significantly impact the market in the future. Therefore, Western Power trusts that opportunities for consideration of mechanisms to support demand-side investment will be forthcoming in the near future.

**Locational and Nodal pricing**

The current relatively flat charging structure for generation in the WEM leaves no opportunity for a generator to be competitive if not located as close as possible to their fuel source. Hence, all the generation with a common fuel source wants to locate in the same areas. Whilst network use of system charges are locational, they may not be sufficient to counter the flat market charging structure. Many energy markets have overcome this by locational charging signals. This encourages generation to connect in areas which minimise network augmentation.

For example, the fully constrained network model outputs assume that financial benefits associated with avoided augmentation costs will see new generation connecting to the network in the Eastern Goldfields and Metropolitan areas. However, avoided augmentation costs alone may not be enough to incentivise generation in these parts of the network. Decisions around the location of future generation will be influenced by resource availability, as well as other potential policy decisions including nodal pricing, locational mechanisms and emissions reduction policies.

Western Power understands that a de facto locational pricing mechanism could be achieved through the PUO’s ‘capacity priority’ feature in its Consultation Paper on the “Allocation of Capacity Credits in a Constrained Network” published in February 2018, which proposes that allocating capacity credits in a capacity priority would be limited to the physical ability of the network to continue to accept generation output from all priority holders.

Western Power supports incorporating a locational mechanism in the allocation of capacity credits. Western Power also recommends considering whether a nodal pricing approach would offer benefits in the SWIS.

**6. Summary**

Western Power appreciates the opportunity to provide feedback on the PUO’s latest Consultation Paper regarding reforms to improve access to the Western Power’s network. Western Power is supportive of the introduction of the constrained network access framework, and we are looking forward to continuing to
work with stakeholders and Government to amend legislation and regulations to address the current limitations.