



Improving access to the Western Power network

Alinta Energy Submission

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1 Introduction and summary

Alinta Sales Pty Ltd (**Alinta**) welcomes the opportunity to provide a submission to the Public Utilities Office (**PUO**) on the three consultation papers associated with the Electricity Reform Sector Initiative to improve access to Western Power's network:

- Implementing a constrained network access regime;
- Allocation of capacity credits in a constrained network; and
- Modelling the impacts of constrained access: Methodology and Assumptions.

The future role of network access is critical given the evolution of the WEM Wholesale Electricity Market (**WEM**) and the move to a low emissions future.

Alinta values its access rights and cautions against removing the discipline and locational signals placed on generators under the current access model in its entirety. The ability to be provided with a level of certainty regarding long run transmission access and available transmission capacity is critical to securing new investment and avoiding stranded assets. This certainty is relied upon by existing investors.

Generators are more likely to make better locational choices where they face the true costs of their locational decisions. Such decisions will co-optimize generation and transmission investment and minimize total delivered cost of energy to consumers.

Noting this, Alinta recognises that the extent to which dispatch arrangements are burdensome or ineffective warrant further consideration. Alinta considers that there are options available that can act to reduce complexity and resolve burdensome dispatch arrangements but maintain a high level of certainty for current and future investors.

First and foremost, Alinta is concerned that the case for change for a move to a fully constrained network access model has not been made sufficiently – at least in the medium term and recommends that further consideration be given to retaining a partially constrained network access model - noting that a more robust system solution would be required than the current Generator Interim Access (**GIA**) system solution¹.

2 Who is Alinta?

Alinta is an active investor in the energy markets across Australia. We have an owned and contracted generation portfolio of nearly 3000MW, including 1700MW of gas-fired generation facilities and 1070MW of thermal coal generation facilities. Alinta has a strong renewable investment strategy across Australia and is pursuing renewable energy projects at an increasing scale, including in Western

¹ Alinta has made a number of recommendations on the detail of the proposal should its recommendation for the further development of a partially constrained network access model not be accepted. These recommendations are contained in the body of this submission.

Australia. Alinta currently retails electricity and gas to more than 900,000 customers including more than 515,000 customers in west coast markets.

Alinta's operations in the South West Interconnected System (**SWIS**) as both a generator and retailer are supported by contracts with Western Power for network access. These network access contracts were negotiated and agreed in good faith and included Alinta as the access seeker paying for any necessary network upgrades as required by Western Power at the time. Furthermore, the terms and conditions of these contracts, including the allocation of rights and liabilities within the contacts, formed the basis of Alinta's critical long-term investment decisions in respect of its generation portfolio and the conduct of its business.

Alinta is also a leading investor in future renewable energy projects in Western Australia and has a keen interest in ensuring that new generation projects can connect to the SWIS in a timely, efficient and cost-effective manner, while recognising the past contributions and legal rights of existing network participants.

Given the diversity of Alinta's portfolio, its investment strategy, and first-hand experiences Alinta is well placed to provide input on this work stream.

3 Implementing a constrained network access regime

Alinta notes that a move to a fully constrained network access model should theoretically:

- Promote economically efficient supply of electricity by encouraging investment in assets with high utilisation levels;
- Remove a barrier to competition, as new entrants wouldn't be required to pay network augmentation costs; and
- Minimise the long-term cost of supply.

Noting this there are impacts on both the energy and capacity mechanisms in the WEM which need to be thought through in great detail. Specifically, new entrants will impact on existing generators (including earlier new entrants) for capacity accreditation purposes unless expressly addressed in the design. This is an unhedgeable risk which undermines past investment decisions and will inhibit future investment in both the WEM (and the network).

Alinta considers that arrangements must be provided to ensure the ongoing integrity of the Reserve Capacity Mechanism (**RCM**) and to recognise past investments of existing generators under the previous legal and contractual arrangements agreed to with Western Power; while at the same time not diluting or delaying the benefits of the move to a constrained network more broadly.

Alinta considers that the following objectives should guide the design of any reform to the current network access regime:

- **Objective 1** - To protect the ability of participants to receive Capacity Credits to a level that is reflective of the investments in network capacity they have made under the previous legal model.
- **Objective 2** - To mitigate any sudden changes to prices or margins for market participants on commencement of the new arrangements.

- **Objective 3** - To ensure distortions to the RCM design are not introduced, including unintended cross-subsidies.

Alinta looks forward to working closely with the relevant agencies to ensure that these arrangements are fit for purpose and adequately recognise existing participants' rights and contributions.

3.1 Fully constrained vs partially constrained network access

From a generator's point of view, the essential features of an access regime are the ability to choose a level of access that will be provided at a known cost, with certainty, for the life of the plant. This will ensure that wholesale competition will be maximised and generation and transmission investment is made at least cost.

Alinta values its current access rights and changes to the current transmission framework without careful consideration could undermine investment incentives, as well as create a loss of asset value for existing access rights holders when moving away from the existing "unconstrained" model.

The existing "unconstrained" model adopted in the SWIS provides strong locational signals and encourages co-optimised transmission and generation investment. Scope for change to this model of access needs to protect the access rights of existing investors.

Noting this, Alinta recognises that Western Power's ability to connect new large generators to its network under the unconstrained market design, without significant network investment, has been limited for some time and reform is needed to allow new generators to connect.

Western Australia is an attractive market for renewables investment given the natural resources and the design characteristics, with a number of renewables investments looking to connect in the WEM for many years. Alinta appreciates the work by Government, Western Power, the PUO, and the Australian Energy Market Operator (**AEMO**) during 2017 to facilitate the connection of new generation under the GIA solution and for those new generators, to facilitate the ability to obtain Reserve Capacity revenue.

Alinta considers that the GIA solution is a good first step to moving towards a constrained network access model. The GIA has, and will continue to, assist with the State's ability to meet its national Renewable Energy Target obligations in coming years, which in turn should provide significant local employment opportunities.

Alinta also recognises that the GIA, in its current form and supported by its current system, is (appropriately) an interim arrangement and therefore supports future proofing the ability for generators to access the network over time.

Noting this support, Alinta is not convinced that the case for change to move to a fully constrained network access model has been made and considers that greater thought should be given to whether further development of the partially constrained model is more appropriate at this time - noting that a more robust system solution would be required than the GIA system solution.

By retaining a partially constrained model, supported by an appropriate system solution, the need for such fundamental change contemplated in these reforms could be avoided. Further, such an approach would allow for other areas in the SWIS to be included in the partially constrained model as needs arise.

Alinta recommends a partially constrained network access model as being more appropriate for the medium term. However, should this recommendation not be accepted, Alinta’s comments on the PUO’s proposal are contained in the sections below.

3.2 Managing existing firm access rights

Alinta agrees with the PUO that the wide range of existing network access contracts present some challenges in developing a one-size-fits-all approach to managing contractual provisions that are inconsistent with a constrained network access regime.

Alinta notes that two general options have been identified to manage the transition of existing network access contracts to a constrained regime – either intervene through general legislative overrides or allow parties to renegotiate the terms and conditions of their network access contracts, or to negotiate a new access contract.

While recognising that a general legislative override would seem simpler in the short term, Alinta is strongly against this option given that it exposes all market generators, including Alinta, to significant contractual uncertainty, with the potential for significant unintended consequences due to the number of bespoke network access agreements.

Alinta considers that an alternate approach should be considered whereby generators who wish to renegotiate their access contracts with Western Power be allowed a specified time for this. At a certain point in time the legislative override could occur to capture those participants who did not wish to renegotiate directly with Western Power, and those who have not managed to reach agreement with Western Power. This alternative approach would provide participants greater certainty and government and Western Power with comfort that the contractual issues would be resolved in time for implementation.

3.3 Transitional assistance

It is in the long-term interests of consumers that investors don’t suffer large, unforeseeable risks resulting from regulatory change. Given this, Alinta considers that it is vital that any loss caused by the introduction of a constrained network access regime is appropriately compensated. This will provide both current and future investors with sufficient comfort that the market is able to transform as required, while providing sufficient regulatory certainty and investment protection.

While Alinta appreciates the PUO undertaking its modelling to investigate the impacts on generators of adopting a framework for constrained access, Alinta is broadly concerned that a transitional assistance mechanism is still *“subject to a Government decision on required transitional arrangements²”*.

Moving to a fully constrained network access regime involves a significant change to the basic premise of and underlying commercial rationale for the contracts that Alinta has with Western Power for network access. It is therefore probable that any modification of contractual commitments could lead to adverse consequences for generators that have made investments on the basis of the existing policy and regulatory framework.

² Pg 11: Improving access to the Western Power Network. Available here: <http://www.treasury.wa.gov.au/Public-Utilities-Office/Open-consultations-reviews/Constrained-Network-Access-Reform/>

Given this, Alinta is strongly of the opinion that the legislation contains the necessary heads of power for transitional assistance, noting that the impairments caused by the introduction of a constrained network access regime may not manifest until well after the regime is implemented.

With regards to the time limiting of the potential transitional assistance Alinta notes that generation assets require long term investment decisions and strongly considers that any time period for transitional assistance should appropriately reflect this.

Alinta considers that it is appropriate for the market to provide transitional assistance in this circumstance, as opposed to the State Government, as customers will ultimately benefit from the arrangements through lower prices than would otherwise occur as a result of the risk premium for current new generation investment (and future generation investment) being reduced. It will also enable the impacts of constrained capacity accreditation to be spread over time in a way that supports the original investors in the network while providing more appropriate pricing signals to new entrants.

3.4 WEM arrangements

Alinta is broadly supportive of the WEM reforms outlined in the paper and considers that these will ensure that the WEM continues to develop as an efficient and competitive market, including:

- Adoption of a security constrained market design (we consider that this could also occur within a partially constrained network access model as per Alinta's recommendation);
- Facility bidding for all participants³;
- Reducing gate closure times;
- Implementation of co-optimised energy and ancillary services markets; and
- Improving the dispatch engine.

Noting this, Alinta does not support the automatic assumption, which was made under the auspices of the EMR, that the National Electricity Market Dispatch Engine (**NEMDE**) should be the dispatch engine adopted in the WEM. While Alinta recognises that there is benefit in aligning system solutions where possible across jurisdictions, Alinta notes that NEMDE will need to be modified to take into account the Short Term Energy Market and the RCM, therefore AEMO should be required to assess the most appropriate and cost effective dispatch solution for the WEM.

To support the above reforms Alinta strongly recommends that the current market power mitigation arrangements should be reformed to allow genuine competition in the market. Alinta supports a competitive, dynamic market founded on clarity, stability, and transparency. To ensure that the broad market design effectively delivers greater efficiency and competitive outcomes market participants must be able to compete actively in the market.

Alinta considers that overly restrictive bidding constraints undermine the benefits of effective competitive dynamics in the generation sector. Alinta strongly considers a more permissive approach to bidding behaviour ex-ante (before price formation) can and should be adopted to support more dynamic and genuine competition in the market, while utilising the monitoring and review powers of the ERA to identify any materially concerning outcomes that require further investigation.

³ Alinta would be open to consideration of the implementation of smaller portfolios in the medium term for example at the power station level.

Alinta considers that the WEM's market power mitigation arrangements can and should be redesigned to better reflect regulatory practice elsewhere in the world through enabling more flexibility, reducing current levels of intrusiveness, and seeking to achieve a sustainable balance between market power concerns and the need to maintain system adequacy and security of supply.

4 Allocation of capacity credits in a constrained network

Under a constrained network access model existing generators could potentially have their capacity accreditation reduced as a direct result of the build of a new entrant generator. This is due to the available network capacity having to be shared between them for certification purposes. This "unhedgeable risk" for capacity investors is a significant concern (to both existing and new generators) as it has the ability to undermine investment decisions and distort the outworking's of the RCM.

The PUO has rightly identified that arrangements are required to manage the move to a constrained network access model due to the creation of this unhedgeable risk and that there needs to be a mechanism for generators to hedge the risk that a new entrant's investment impacts their ability to provide capacity during peak periods.

Alinta considers that as a general principle the level of certified reserve capacity received by existing generators should not be impacted by new entrants to ensure cross-subsidies do not arise and inefficiencies and other distortions to the market design do not occur.

This premise should also apply to the capacity accreditation of generators that enter the market after constrained network access is introduced. This is because they will also be potentially impacted by future investment decisions which they will be unable to react to.

As such, Alinta supports the "first come first served" prioritisation approach which should provide both more certainty for existing generators plus an efficient locational signal for new generators.

In terms of setting an appropriate timeframe for capacity priority rights Alinta Energy considers ten years to be the absolute minimum. Consideration should be given to extending priority rights to fifteen years (to align with the Benchmark Reserve Capacity Price methodology) or granting rights with a sunset clause linked to the end of the economic life of the plant⁴.

Further to this, Alinta is broadly concerned that these arrangements could discourage participants from investing in upgrades of the network as there is no guarantee that they will be the ones receiving the benefits of their network investments. For example: if a generator Gen X pays to upgrade the network and receives higher capacity crediting from the upgrade, then in a later year a new generator Gen Y builds on that line it will likely get the benefit of the network upgrade from a capacity perspective and Gen X's capacity credits would likely be reduced. Alinta notes that in other markets, such as PJM, when a network upgrade is paid for by a participant, the participant receives the rights to the upgraded capacity for a period of 30 years or the life of the upgrade.

⁴ This option would address any concerns around muting exit signals or that generators with older investments have less need to be granted rights as they would have largely recouped their costs already. Note that the remaining economic life of the plant could be determined by an independent engineering consultant.

In terms of the capacity credit prioritisation mechanism, Alinta is very concerned at the complexity of the proposal and considers that a more simplified approach could be used, see the worked example below:

Current proposal:

- If there is a line that can only transmit 300 MW. The maximum total capacity credits for that line must be limited to 300 MW
- Currently there is only a 200 MW generator (GenA) on that line so that it's not currently constrained.
- In 2025 a new 150 MW generator (GenB) decides to build on the line.
- Based on the current proposal GenA would potentially get 180 MW Capacity Credits and GenB would get 120MW Capacity Credits (so total capacity credits do not exceed the line limit) and GenB would compensate GenA for the 20MW Capacity Credits it has lost.

Alternative proposal:

- A generator gets certified at the level available when they enter – until their priority rights roll off.
- Using the above example GenA gets 200 MW Capacity Credits and GenB gets 100 MW Capacity Credits (until GenA's priority rights roll off).

Under this alternative proposal, there is no impact on the existing generator as a result of GenB's decision and GenB is fully exposed to the impacts of its investment decision. Existing generators get Capacity Credit certainty (under a regime that is far simpler to inform Boards and Financiers about) while new investments get a locational signal, i.e. if there is no spare capacity available they will move elsewhere potentially or if there is only a limited amount available they may adjust the size of their project to reflect this.

While this alternative proposal has the same outworkings as the PUO's proposal it is a less complex approach which will be easier for current and future investors and financiers to understand.

5 Modelling the impacts of constrained access

Alinta has been concerned that industry has yet to be provided with any modelling information on the level and location of constraints in the WEM – despite this reform being on the agenda for the last four years. Given this, Alinta is supportive of the PUO providing its modelling inputs and assumptions for stakeholder consultation.

Alinta is broadly comfortable with the approach the PUO is undertaking to model the impacts of constrained access. Alinta's high level comments are below:

Section 1.2: Proposed implementation cases

As recommended above, Alinta considers that the case for change for a move to a fully constrained network access model has not been made sufficiently – at least in the medium term, and recommends that further consideration be given to retaining a partially constrained network access model. This should be reflected in the proposed implementation cases.

Section 1.4 Out of scope

At present, Alinta is not convinced that there is a clear net benefit from a move to a fully constrained network access model.

Further, a constrained access model developed by the PUO should still provide sufficient incentives for Western Power to augment the network when it is efficient for it to do so. Therefore, Alinta sees benefit to model some investment by Western Power to reduce constraints at some point in the modelling.

Section 2.3 Scenarios

Alinta is comfortable with the scope of the current scenarios. Noting this support, Alinta would appreciate more simulation parameters in respect to forced outages as 25 seems to be limited.

Section 3.2 Results analysis metrics

Alinta considers the following metrics could be added:

- Technology price setter
- Weighted Average Dispatch Prices for each technology

Section 4.3.2 Very low demand outlook

Alinta sees value in, and would be interested in, the outputs from a very low demand case.

Section 5.2.2 Calculating a generator's net revenue

With regards to LGC Revenue, Alinta considers that the assumed LGC value of \$40/LGC is high. Alinta would support a price curve in line with current market forward prices.

Section A.8 Renewable Capacity developments

Alinta notes that Yandin Wind Farm should be included in the table of renewable capacity developments. Additional information on this project can be found: <http://www.yandinwindfarm.com.au/> and in the Alinta Energy sustainability report: <https://www.alintaenergy.com.au/Alinta/media/Documents/17-162-Sustainability-Report-Online.pdf>.

Section A.10 New entrant parameters and capital costs

Alinta's comments on the Solar and Wind VOM assumptions are contained in the table below.

	FOM (\$/MWh)	VOM (\$/MWh)	Economic Life (years)
Solar PV – Fixed	30941	12 – Seems high given level of FOM	30
Solar PV – SAT	4000	10 - Seems high given level of FOM	30
Solar PV – DAT	25000	0 - Why is this zero? Is this all accounted for in FOM? Alinta would	25

	FOM (\$/MWh)	VOM (\$/MWh)	Economic Life (years)
		expect this to be higher than Solar PV – SAT.	
Wind	40000	0 – Why is this zero? Is this all accounted for in FOM?	25

Section A.11 Coal Prices

Alinta notes that it is assumed that coal prices remain constant at \$2.60/GJ in the Study Period. Alinta would have expected escalating coal prices going forward given the following:

- In theory, coal grade will reduce over the term of the study; and
- Coal retirements will put pressure on fixed costs of coal fuel (given fixed/reducing level of coal demand) putting upward pressure on prices as FOM must be recovered from fewer consumers.

6 Conclusion

Alinta values its access rights and cautions against removing the discipline and locational signals placed on generators under the current access model in its entirety.

Alinta is concerned that the case for change for a move to a fully constrained network access model has not been made sufficiently – at least in the medium term and recommends that further consideration be given to retaining a partially constrained network access model.

Please contact me on Jacinda.Papps@alintaenergy.com.au or 08 9486 3009 if you have any queries in relation to this submission.

Yours Sincerely



Jacinda Papps

Manager, National Wholesale Regulation