31 May 2013

Mr Marc Tutaan
Australian Energy Market Commission
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SYDNEY SOUTH NSW 1235

Submitted via www.aemc.gov.au

Dear Mr Tutaan

Management of negative inter-regional settlements

Alinta Energy appreciates the opportunity to respond to the Australian Energy Market Commission's (AEMC) issues paper for the Management of negative inter-regional settlements residues review (the Review).

Alinta Energy is an active investor in the energy retail, wholesale and generation markets across Australia. Alinta Energy has around 2500 megawatts of generation capacity in Australia (and New Zealand), and a growing customer base which includes more than 700,000 retail energy customers in Western Australia and across the National Electricity Market regions.

Alinta Energy is committed to contributing to energy market development across Australia and in all regions of the National Electricity Market as it pursues its forward growth strategy.

Alinta Energy appreciates that the Review is a consequence of commitments arising from the Congestion Management Review in 2008. Nonetheless, Alinta Energy suggests it is an opportune time to give detailed consideration to the treatment of negative inter-regional settlement residues (IRSRs or residues) and related matters some of which were not canvassed in the issues paper.

Principles for review

This review is likely to present clear commercial incentives for participants and therefore it is critical that assessment is based on appropriate principles. The AEMC's key principles are outlined below.

- Economic efficiency - whether the role of AEMO to manage negative IRSRs contributes to the efficient operation of the NEM;
- Administrative effectiveness- whether the current processes and procedures of AEMO to manage negative IRSRs achieve intended outcomes; and
- Transparency and accountability - whether the decisions made to manage negative IRSRs are done under a clear framework and communicated effectively to affected stakeholders.

As it relates to assessment of the current arrangements, there are many different perspectives from which the principle of economic efficiency could be assessed.

For instance, depending on a participant's perspective the main driver could be the management of disorderly bidding that is likely to arise in the face of counter-priced flows and/or clamping, the desire for more efficient dispatch, improving the ability to use IRSRs as a risk management or hedging instrument, and the impacts on existing holders of IRSRs.

Beyond this, it is desirable for the AEMC's analysis to go beyond the manner in which IRSRs are currently managed and the potential for minor improvements to the existing approach and consider whether an alternative arrangement is more efficient.

Resistance to an alternative approach should not be imbedded in the Review

Alinta Energy notes that it should not be assumed that significant counter-priced flows, disorderly bidding and the consequential use of clamping are an essential outworking of a zonal market. The ongoing resistance to revealing the impacts of disorderly bidding and removing the advantages it provides some participants are driven by practical realities and not philosophical support for the current arrangements.

Maintenance of the zonal market is widely, and rightly, supported, but the rationale for disorderly bidding is more difficult to defend. The idea that efficiency overall allows us to overlook patently inefficient outcomes may be comforting but not necessarily appropriate where efficiency would be improved through further reforms.

<u>Determining economic efficiency</u>

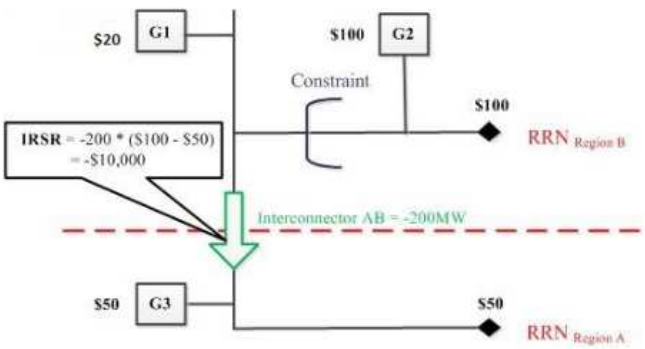
Alinta Energy considers the drivers of counter-priced flows to be disorderly bidding at times of intra-regional constraints. By this reckoning when a constraint arises had generators been incentivised to reveal their actual prices and not engage in disorderly bidding, counter-priced flows may not occur or result in minimal price differentials.

In effect, in the absence of disorderly bidding, the outcome depicted in Figure 2.1 of the issues paper would eventuate. In many respects the outcome depicted would not warrant intervention as it implies an outcome, in a general sense in the absence of more detailed data, which is acceptable.

While we do not know actual fuel prices we can infer that the prices bid represents a productively efficient outcome given the absence of disorderly bidding. It is possible the marginal benefit of consumption is equivalent to the marginal cost, certainly for consumers in Region B (where no lesser priced energy is available) and possibly for consumers in Region A (depending on what fuel G1 has or may be displacing).

Figure 2.1 from the issue paper has been copied below.

Figure 2.1 Network congestion and negative IRSRs



As such, in the scenario depicted the benefit to consumers in Region A of paying the price, $10,000, caused by the constraint in Region B is likely justifiable as the cost of energy is consistent with the price which would have been paid to G2 and at which G1 would have otherwise been dispatched and will get paid nonetheless.

The issue with this conclusion is settlement between nodes and the inter-connector which themselves cause outcomes specific to this market.

The zonal boundary separates the consumers who pay for specific transmission assets. Perversely, in the National Electricity Market this means the benefit of not building out a constraint, the saving of capital expenditure, can result in costs arising for consumers in an adjacent region. This is arguable the case in Queensland presently.

Hence, in Figure 2.1, if all generators were bidding at their opportunity cost the issue would be that the savings of not building out the identified constraint go to Region B consumers but that the costs, in higher energy prices, are allocated to consumers in Region A.

Under this scenario the desirable outcome would be to develop an arrangement whereby consumers in Region B share costs of the higher energy prices in Region A that are caused by the constraint in Region B. Alinta Energy suggests that a recommendation encouraging greater responsiveness by Transmission Network Service Providers by increasing revenue at risk, whether via the service target performance incentive scheme or otherwise, would be an appropriate outcome as part of this Review.

This does not suggest that constraints should necessarily be built out in all circumstances. In fact, a certain amount of congestion is no doubt efficient. But it does imply that further improvements in operation and maintenance of lines, more appropriate line ratings, and sharing the costs between consumers who benefit is possible.

Perversely, and Alinta Energy seeks the AEMC's guidance on this point, it would appear that under the current arrangements the consumers in Region A would not only not gain the benefit of avoided capital costs, but would also under the AEMC's inter-regional transmission use of service charges arrangement, recently adopted, would pay towards the costs of Region A's yearly transmission costs based on those imported flows above.

To conclude, in the absence of inefficiencies arising from the transmission ownership and charging methodology and where generators did not engage in disorderly bidding, there would be minimal incentive to institute clamping of negative settlement residues as residues would be at acceptable levels.

However, it is apparent that this is not the case. Disorderly bidding is observed in the market, and is in fact encouraged by the market's design. This means in the absence of an Optional Firm Access arrangement, as proposed by the AEMC as part of the Transmission Frameworks Review, or something similar, disorderly bidding will continue to arise under certain conditions.

On this basis, the effect of clamping is to manage disorderly bidding by generators who are incentivised at times where there is an imbalance between supply and demand. This appears an inferior method of managing disorderly bidding and it is not apparent in all circumstances that the distortions created by clamping are any better than allowing negative IRSRs to run.

Alinta Energy notes the AEMC has previously indicated that clamping was an undesirable feature from the perspective of managing both physical and financial risk. This sentiment does not appear to be reflected in the current Review; however, the question remains whether this is the case.

Nevertheless, clamping creates a distortion and does not provide certainty of outcomes for generators especially given the dispatch engine responds by constraining generators off and on in a

way which attempts to minimise distortions but is still inefficient; for example, in terms of productive efficiency, impacts on financial derivative trading, ability to offer hedges and capacity to use existing generation to defend physical positions or retail.

To conclude, to overcome the uncertainty of the current arrangements Alinta Energy supports the introduction of a congestion management regime in the face of constraints and disorderly bidding. Such a mechanism will remove disorderly bidding and increase certainty, remove the need to introduce clamping, ensure participants do not feel they are exposed to being constrained on or off, and provide greater certainty around contracting decisions.

Is a congestion management scheme a proportionate response?

There has been significant attention given to the costs of congestion as the measure of benefits that could be derived from implementing a firm access model, whether Optional Firm Access or otherwise.

In essence, some stakeholders argue the costs of disorderly bidding are insignificant when compared with total National Electricity Market production costs. The inefficiency is often cited as in the order of $10 million per annum; a relatively modest amount in the context of the market overall.

However, this mischaracterises the extent of the problem and the actual cost paid by consumers. This is because it is difficult to account for many of the costs arising from disorderly bidding and a lack of firm access to the relevant regional reference node. Alinta Energy believes the most relevant of these is the additional costs of managing price risk.

Absence of firm access requires additional risk premium

Where a power station is at risk of being caught on the wrong side of a constraint, or unable to guarantee it can get its energy to the regional reference node, that energy will have less value. This means an investor devalues the capacity of the generator as an investment and in the market the value of energy is de-rated.

Therefore, when contracting that capacity, a risk premium needs to be included. This risk premium is the cost of managing the difference between the value of the energy as a commodity and the value of the energy once de-rated in the face of congestion, disorderly bidding, and lack of firm access to the regional reference node. The risk premium can take a number of forms but they all result in the consumer paying additional costs for the consumption of energy.

One method of managing the risk is through the purchase of further financial products, for instance cap products or insurance products, or physical products, deals with counter-parties, additional generation and so forth.

One of the problems with this approach is that given congestion is difficult to predict the product needs to be purchased to cover the entire load or contract positions that would have otherwise been covered by the physical generation at risk. For example, a purchase of a cap product is likely to add a minimum of $3-4 a megawatt to the cost of hedging where the risk of congestion exists.

For example, a Queensland Q3 2013 cap is current quoted at $3 a megawatt which is $6624 (1MW x $3 x 2208hrs) for that quarter to cover 1 megawatt hour of energy throughout Q3 2013 when prices exceed $300. However, a Queensland Q1 2014 cap is currently trading at $15 a megawatt which is $32,400 (1MW x $15 x 2160hrs) for that quarter to cover 1 megawatt hour of energy.

In Alinta Energy's view the risk of congestion is present across the National Electricity Market and caps, insurance products, and physical hedges are used by all retailers to ensure that they can manage risk, with the risk premium presented by congestion and disorderly bidding being a significant incentive which drives up the costs of these products overall.

Likewise, as all retailers and participants are incentivised to manage the risk premium presented by congestion and disorderly bidding, all consumers are required to pay for the impacts of congestion, disorderly bidding and the added costs of managing the devalued energy that is generated.

Is there an alternative for inter-connectors?

Alinta Energy appreciates that the AEMC may not be minded to recommend a full-scale congestion management regime given the recent release of its Transmission Frameworks Review. In fact, this would hardly be surprising at a time when the Transmission Frameworks Review is still being considered. Nevertheless, this does not mean advances on the concepts espoused in the Transmission Frameworks Review cannot occur, even as a first stage in any work approved by the Standing Council on Energy and Resource.

Alinta Energy supports consideration of a financial access rights applied over the inter-connectors as a replacement for existing IRSRs. The existing IRSRs have been shown to have a number of inadequate characteristics that could be overcome by increasing their firmness.

The introduction of firm access rights over the inter-connectors, sold for varying time durations, initially quarterly, then with quarterly, yearly and multi-year options, would significantly benefit regional trade arrangements.

These financial rights established over inter-connectors would be supported by a congestion management regime which initiates when an inter-connector binds in either direction. The congestion management regime could settle in the manner outlined for the Optional Firm Access model, generators paid at their bid price, to disincentivise disorderly bidding and remove the need to instigate clamping as currently is the case.

Alinta Energy suggests investigation of this approach is warranted at this time.

<u>Does clamping benefit customers despite reservations and the need for an alternative?</u>

In the absence of a better method for managing disorderly bidding the assessment of the status quo is the balance between the benefits of retaining the existing methodology and the costs against in the interests of consumers.

On balance, Alinta Energy supports ongoing clamping given the inability for consumers in the affected region, and generators who may be constrained down, to respond to the inefficiencies that exist in the market.

Alinta Energy suggests the decision is not necessarily clear-cut in the absence of more detailed analysis and possible modelling of the status quo against a market arrangement whereby a congestion management regime was in place.

<u>Is the current arrangement suitable going forward?</u>

In Alinta Energy's experience the timing of clamping is not particularly transparent.

This is likely to be a consequence of the size of impending negative IRSRs leading AEMO to clamp early in many events. This suggests the difference between a $6000, $100,000 or $200,000 threshold may often be of no consequence as they are both likely to trigger clamping within the same dispatch interval during periods where clamping is of any consequence.

Again, in the absence of qualitative analysis, this suggests that an increased threshold is likely to reduce interventions overall and may provide greater certainty when interventions are likely to be made. Alinta Energy suggests the AEMC engage with AEMO for the purpose of providing market

participants with data on the manner in which different thresholds would impact clamping arrangements to further the Review. This may also help develop AEMO's management of clamping.

Can the AEMO's practices be improved?

In June 2012 AEMO released a document entitled 'Brief on automation of negative settlement residue management' regarding the automation of negative settlement residue management. The process of automation manages the activation and deactivation of the negative residue management constraint equation. The automatic process is driven by accumulation values based on previous interval outcomes and estimates of current intervals.

In Alinta Energy's view, it is not apparent in real-time how clamping decisions are made and in turn reversed. This is driven by the absence of revealed data in real-time of accumulated values derived by AEMO; the assumptions regarding inter-connector flows used by AEMO drawing on metered and not flows set on the right hand side of the constraint, and the asymmetrical set of constraint increments appearing biased towards positive residues. It could be suggested that these uncertainties and inconsistencies create secondary inefficiencies.

One specific issue is clamping is sometimes signalled in pre-dispatch but does not eventuate and alternatively is not expected and quickly arises. These signals result in responses by generators which would otherwise not have occurred.

Should clamping continue, publication of negative residue management equations in real-time, and reviewing the constraint increments and methods for applying negative residue constraints in a manner which impacts both regions in more balanced manner, should occur. This may include introducing incremental flows that initially balance prices between the two regions as a method of reducing volatile price reversal in the exporting region and volatility in the importing region caused by clamping then removal of clamping.

Conclusion

Alinta Energy suggests there are a number of detailed issues which were not fully enunciated or evaluated in the issues paper. It would be preferable that these issues be given more detailed consideration in order to come to a firm conclusion on the benefits or otherwise of continuing with the existing arrangements for managing negative settlement residues.

Alinta Energy appreciates the opportunity to comment on the Review and looks forward to further engagement with the AEMC on this issue.

Should you have any queries in relation to these matters please do not hesitate to contact me on, telephone, 02 9372 2633 or, email, jamie.lowe@alintaenergy.com.au.

Yours sincerely

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