



19 May 2015

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Submitted online: [www.aemc.gov.au](http://www.aemc.gov.au)

Dear Mr Pierce

### **EPR0039 – Optional Firm Access, Design and Testing – Draft Report**

Origin Energy Limited (Origin) supports the Australian Energy market Commission's (AEMC) draft recommendation to not seek implementation of the OFA model. This in our view is the appropriate course of action given that:

- Congestion is not a significant problem that would warrant a holistic change in the transmission framework, particularly under the current market conditions of low demand and oversupply; and
- The benefits of OFA have not proven to be compelling. Even under the Ernst and Young modelled scenarios where the most benefits accrue, these are towards the end of the study period (where outcomes are highly uncertain), and are miniscule relative to the overall cost base of the transmission network.

Origin notes the AEMC has flagged that OFA could be implemented at some point in the future if there is major transformation of the generation and transmission capital stock. We continue to maintain, however, that even if such a scenario were to eventuate, OFA would not be an appropriate response. The model is overly complex and some key aspects of its design such as the pricing methodology have not been proven to be fully functional. To extent that there are any current or expected future deficiencies in the transmission framework Origin supports a targeted and incremental approach to dealing with these.

The AEMC has also recommended that as part of its Last Resort Planning Power (LRPP) function, market conditions should be monitored for emerging drivers that could indicate the need to implement OFA. Generally, we question the need for any additional monitoring given that many of the pertinent indicators (such as the supply/demand outlook, and incidence of congestion) are already tracked through existing processes. These include the Statement of Opportunities (SOO), National Transmission Network Development Plan (NTNDP), jurisdictional annual planning reports, and AEMO constraint reports.

Origin does not support the establishment of a monitoring regime designed to explicitly assess the merits of implementing OFA at some point in the future. At best any monitoring could only reasonably be expected to inform a decision as to whether there is a need for a review of the transmission framework in response to any emerging issues. If the AEMC chooses to adhere to its draft recommendation, where there could be value-add is through the consolidation of the pertinent information contained in the aforementioned reports.

If you wish to discuss the information contained in this submission please contact me on (02) 9503 5111 or at [steve.reid@originenergy.com.au](mailto:steve.reid@originenergy.com.au)

Yours sincerely,

A handwritten signature in blue ink, consisting of a series of fluid, connected strokes that form a stylized representation of the name 'Steve Reid'.

Steve Reid  
Manager – Wholesale Regulatory Policy  
Energy Risk Management

## *1. Support decision to not pursue implementation of OFA,*

Origin supports the AEMC's draft decision to not seek implementation of the OFA model. As we have stated in our previous submissions, OFA is a disproportionate response to any shortcomings in the current transmission arrangements. This view has been reinforced throughout the design and testing phase. We note for example the results of the Ernst and Young modelling did not present a compelling case as to the benefits of OFA. Most of the modelled scenarios showed only insignificant benefits ranging from \$50 to \$150 million over a 25 year horizon. This is compared to implementation costs over the first 5 years estimated at \$90 million. Similarly, the scenarios that showed the greatest benefits – transmission degradation, and emissions reduction were also unconvincing. Much of these benefits generally accrue toward the end of the study period (significantly increasing any margin of error), and were minimal when apportioned across the 25 year time horizon and when considered against the total cost base of the transmission network.

We also note that the benefits under the above scenarios were largely driven by some of the underlying assumptions of the modelling. A key assumption of the status quo or RIT-T planning approach is that transmission follows generation and that generator investment decisions do not take into consideration the cost of achieving sufficient access to load. This in our view is at best an oversimplification of the current process or at worse a complete misrepresentation as it implies that generators simply choose location decisions and the network is automatically augmented to accommodate these. The prospects of being constrained off and hence not having access to load would significantly impact a location decision. Similarly, locating in a remote part of the network would see generators incurring a greater cost of connection. By seemingly not taking these factors into consideration, the modelling assumptions have the effect of inflating the benefits of the OFA planning approach relative to the status quo.

Additionally, the benefits observed under the emissions reduction and transmission degradation scenarios are likely to be smaller if a number of factors are taken into consideration. For example, Ernst and Young notes that the benefits under the transmission reduction scenario would be significantly reduced if the RIT-T was applied to asset replacement. Similarly, the benefits under the emissions reduction scenario seem to be primarily driven by the assumption that a future emissions reduction target would result in a significant increase in the uptake of wind generation. This, however, is dependent on a number of factors including the penetration of solar PV and the economics of battery storage; and the extent to which any emissions target could be met through the purchase of international abatement. It was not clear if these issues were considered.

The modelling aside, Origin still maintains that the qualitative arguments do not support a case for implementation. We have discussed these previously and so will not revisit here in detail except to say that AEMO's analysis highlights that the model would have a limited impact on improving dispatch efficiency. Additionally, OFA is likely to have limited effectiveness as a risk management tool and will result in perverse outcomes by introducing new risks in the market.

## *2. Consideration of alternative options*

To the extent any deficiencies in the current transmission arrangements are proven to be material, Origin is in favour of incremental and targeted measures to address these.

### *2.1 Enhancements to the RIT- T*

The RIT-T promotes efficient investment in transmission through a framework that supports this iterative process through an extended formal consultation process. The RIT-T also

attempts to maximise the net economic benefit for all those that produce, consume and transport electricity including a cost-benefit analysis based on a range of scenarios of future supply and demand. It is, therefore, flexible to changing market conditions<sup>1</sup> through this process as more accurate information becomes available for the timing of the investment.

In contrast, Origin considers OFA would centralise investment decision making and not allow for customised investment solutions. The deterministic nature of the Firm Access Planning Standards (FAPS) and rigidity of the Long Run Incremental Cost (LRIC) pricing model are also cause for concern.

Origin considers there could be potential benefits to extending the RIT-T to asset replacement above a given threshold. The application of the RIT-T would enhance transparency where an asset reaches the end of its economic life and the most efficient option to address the change is identified. It would also afford an opportunity for TNSPs to reassess an asset replacement that had been rejected through an AER revenue determination.

## *2.2 Co-optimisation of transmission and generation investment*

The AEMC has previously cited a lack of co-optimisation of transmission and generation investment as a weakness in the current transmission framework that could be addressed by OFA. As we have stated previously, conceptually co-optimisation is desirable, but we question the extent to which there can ever be perfect co-optimisation and whether such an outcome is achievable under OFA. In addition to this, there seems to be some underestimation regarding the extent to which co-optimisation currently occurs. As highlighted earlier in this submission, the Ernst and Young modelling assumes that generator investment decisions are made without having regard to transmission – this, however, is simply not the case.

The location decisions of some generators are often seen as evidence of the lack of co-optimisation between generation and transmission. In particular some stakeholders have raised concerns around the possibility of generators locating in areas that could degrade the transfer capability of interconnectors. For example the location of wind farms in South East South Australia (SESA) is viewed by some as constraining the Heywood interconnector. This perception, however, is simplistic in that it ignores the dynamic drivers of intra and inter-regional power flows. Generators located on the 132kV network in SESA do have an impact on transfers across the Heywood interconnector from Victoria to South Australia. The level of congestion and the application of constraints are attributable, however, to a range of factors including local demand and the level of distributed generation including solar PV as recognised by Houston Kemp. It is therefore incorrect to infer congestion and constraints as being solely attributable to wind farms. This also means that even if OFA was in place the mechanism would be unable to provide an enhanced locational signal given that it would be incapable of accounting for the all dynamic factors that impact congestion over time.

It should also be noted that the existence of a generator near an interconnector can also support inter-regional transfers depending on the direction of the transfer.

Given the above, Origin questions the extent to which the issue of co-optimisation is a material problem and would suggest that the AEMC exercise caution in looking to devise any measures to deal with this issue.

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<sup>1</sup> For example, the RIT-T approved and subsequently cancelled the Dumaresq to Lismore 330kV line in response to declining electricity demand.

### 3. *Monitoring*

Origin considers that putting in place a framework to specifically monitor whether market conditions warrant the implementation of OFA would be impractical. The NEM is dynamic and even where policy makers hold the view that OFA could offer some benefit to the market, it is unlikely that the output of any monitoring exercise could reliably inform whether a mechanism developed sometime in the past is fit for implementation. At best monitoring would only be able to present a preliminary view as to the health of the transmission framework and whether a more comprehensive review is needed. Generally, Origin also questions the need for an explicit monitoring regime given that many of the indicators that shed light on the health of the transmission arrangements are already captured through existing processes such as the NTNDP, jurisdictional planning reports, AEMO constraint reports and the SOO.

If the AEMC chooses to adhere to its draft recommendation, Origin suggests that where there could be room for any value-add is through the consolidation of the relevant information contained in the aforementioned reports. This could be done as an addendum to the AEMC's Last Resort Planning Power (LRPP). The purpose of this exercise could be to track the effectiveness of the transmission arrangements and could therefore have regard to a number of factors including:

- Interconnector binding hours;
- The functioning of the RIT-T;
- Impact and incidence of network constraints; and
- TNSP management of network outages

In addition to the above, any report could also comment on changes in the market that are likely to impact on the transmission framework, these could include the uptake of distributed generation (and further decentralisation), and climate change policy initiatives. Origin suggests that this exercise could take place on a two or four yearly basis given that many of the above factors are unlikely to materially change within a given year. This approach is also useful given that an assessment of the transmission framework, and the significance of any inefficiencies observed could only be made after a reasonable period time. Again we reiterate that this work should not explicitly seek to judge if OFA should be implemented. OFA is a comprehensive policy package which represents the most significant change to the NEM since market start. Implementation of such a model could only be justified where there is a systemic failure of the transmission framework, and a decision to implement a proposal of such magnitude could only be taken after an extensive review.

Similar to the LRPP process, Origin considers that the first stage of the process outlined above should not trigger an extensive consultation process. Only where the above indicators point to significant deficiencies in the transmission framework should there be a need for a second stage, which could involve broader consultation.