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CLEAN ENERGY COUNCIL

John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
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Lodged Electronically

Dear Mr Pierce,

RE: ERP0039 Optional Firm Access Design and Testing Review Draft Report

The CEC understands that the Commission's draft assessment of Optional Firm Access (OFA) is that implementing these reforms would not meet the National Electricity Objective (NEO) under current market conditions. Despite this, the Commission has clearly articulated the belief that OFA would provide economic benefit for the long term interests of consumers in an environment of increasing investment uncertainty. Going on to suggest that the greater the uncertainty, the greater the benefits of OFA.

The Commission's expectation appears to be that "uncertainty" would primarily be driven by the implementation of *effective* emissions abatement policies. That is, policies which would be, in the Commission's view, be expected to influence generation investment (entry and exit) decisions in the NEM.

Effectively the Commission has recommended that OFA is integrated into the design of the NEM, but only implemented through a 'trigger mechanism' that identified an uncertain future for the NEM. The expectations are that this mechanism would sit within the Commission's current Last Resort Planning Power (LRPP) arrangements.

The CEC contends that these recommendations are deeply flawed for the following reasons:

- OFA does not consider the kinds of non-thermal constraints that are expected to increase in the future, so will have limited ability to provide any benefit.

- The proposal to trigger implementation of OFA at a time when investment in the NEM becomes 'more uncertain' would have profound effects by increasing an already inflated cost of capital. In the least, consumers would face higher costs while at the extreme investment may freeze.
- OFA would sanction a competitive advantage to incumbent generation over new entrants for a period of 5 to 15 years.
- The Commission's remit is too narrow to encompass the full costs of far reaching and radical reform such as OFA. Namely, the limitations of the primary decision driver (the National Electricity Objective) have led the cost-benefit assessment of OFA to
    - Overlook the significant increase in cost for the Australian Energy Regulator (AER) to regulate OFA, which would be borne by the Australian economy.
    - Fail to properly consider the impact of incentives created by OFA to extend the operating life of incumbent, high emission generators. Which, this assessment demonstrates poses a significant risk to consumers, should meaningful electricity emissions abatement strategies be implemented in the future.
- Should a recommendation to implement OFA be carried at any time in the future it must be made subject to a rigorous assessment of the interaction of OFA and any other affected current or likely future policy options. The Commission's work so far has demonstrated that the NEO alone is insufficient to make such a decision.
- The Commission's proposed use of its Last Resort Planning Powers (LRPP) to consider OFA would afford the Commission an increased role in transmission planning, far beyond the 'last resort' intent of LRPP.

It is increasingly likely that significant emissions reductions will be required from Australia's electricity sector in the future. This assessment shows that the interaction between OFA and emissions abatement strategies would likely increase the costs of these strategies well above the long term benefits estimated from OFA in a matter of months. It would severely restrict Australia's options to take meaningful steps to reduce emissions from the electricity sector.

These matters are discussed in more detail below.

OFA does not consider non-thermal constraints

AEMO's recent analysis of renewable energy integration into the South Australian region[1] has highlighted that increasing penetrations of renewable energy can be expected to increase 'non-thermal' constraints, which will be unaffected by OFA. That is OFA would be ineffective for the majority of constraints that are expected to increase in prevalence in the future.

Compounding uncertainties

The threat of an impending implementation of OFA – which in itself presents massive uncertainty – at a time of significant uncertainty would, by nature, have a profound impact on investments in the NEM. Compounding uncertainties in this would clearly increase risk adjustment factors, leading to inefficient investment at the least. In the worst case this may even lead to a freeze on investment until OFA's implementation. If climate change policies are the driver for uncertainty, OFA would likely hinder the objectives of these polices being realised efficiently (discussed below).

Direct costs of OFA

The CEC is alarmed that the Commission has brushed aside major influences of the costs of OFA, apparently on the basis that they do not fit within the Commission's remit, namely the National Electricity Objective (NEO):

> *"The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to-*
>
> *(a) price, quality, safety, reliability and security of supply of electricity; and*

[1] AEMO, 2014, Renewable Energy Integration in South Australia – Joint AEMO and Electranet Report, available: www.aemo.com.au.

(b) the reliability, safety and security of the national electricity system"[2]

This is clearly demonstrated by the treatment of costs imposed on the Australian Energy Regulator (AER) to regulate OFA. Specifically the Commission notes that

> "*Any increase to* [the AER's] *functions following the introduction of optional firm access would likely affect the level of AER funding required, but would not have a direct cost impact on market participants*"[3].

The commission also notes that the AER would have multiple new roles due to the operation of OFA, all of which have low levels of details in the rules[4], requiring increased efforts from the AER. These costs would be borne by the broader Australian economy but have been brushed aside, revealing that the Commission's remit is far too narrow to identify the costs and benefits of a reform as far reaching and radical as OFA.

Additional costs of OFA

Given the clear relationship with emissions abatement policies and the Commission's proposed trigger criteria their interaction requires further consideration. In the Draft Report the Commission makes the blanket statement that

> *"The benefits of optional firm access are larger in scenarios that encourage significant transmission augmentation or transformation of the generation sector. In particular, the pursuit of emissions abatement can be achieved at a substantially lower cost under optional firm access by effectively exposing generation developments to both resources and transmission considerations."*[5]

This requires deeper analysis. Taking a system-wide approach the modelling undertaken by EY assumed that OFA would have no impact on incentives on the possible withdrawal of individual generators. That is OFA would have no effect on incentives that would exist otherwise, with regional prices, plant costs and demand-supply balance driving retirements[6].

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[2] Section 7, *National Electricity Law; National Electricity (South Australia) Act 1996*.
[3] AEMC, 2015, *Optional Firm Access, Design and Testing, Draft Report – Volume 1*, 12 March 2015, p. 80.
[4] AEMC, 2015, *Optional Firm Access, Design and Testing, Draft Report – Volume 2*, 12 March 2015, p. 15.
[5] AEMC, 2015, *Optional Firm Access, Design and Testing, Draft Report – Volume 1*, 12 March 2015, p. 38.
[6] Ernst & Young, 2015, *Modelling the impact of Optional Firm Access in the NEM*, p. 16.

These may be the major drivers for withdrawing or sustaining operation. However, it is also the Commission's view that under OFA generators would value firm access[7], meaning that they would be likely to see some incentive for an extended life under OFA as compared to the status quo. This incentive may come from a range of OFA's characteristics such as:

- The sanctioned competitive advantage that OFA would grandfather to new (mostly high emission) incumbent generation[8,9,10,11].
- The right to a tradeable commodity in the form of 'firm access rights' that OFA would deliver to these same generators, and the fact that these 'property rights' would extend beyond the life of the generator.
- The protection offered by OFA against new entrants constraining the operation of incumbents.
- Following the Commission's recommendations, OFA would likely be triggered by the establishment of an effective carbon pricing scheme at some time in the future. That is, a scheme that was designed to successfully influence generator exit. The knowledge that OFA's transitional access allocation would create new value for the generator would likely delay a decision on withdrawal until after OFA was implemented.

Given these conditions, and the model's complexities, it is difficult to see how incentives to extend operation would not be created by the introduction of OFA – even if marginally. The assumptions underpinning EY's modelling mean that the costs associated with this extended operation have not been captured in the Commission's assessment.

The recent Emissions Reduction Fund (ERF) auction provided an up-to-date record for a domestic carbon price[12] of $13.95 / tCO_2-e. Table 1 shows the 2013-14 emissions from the market's ten highest emitting generators[13], along with costs of carbon emitted at the ERF price. However, in order for a carbon price to be effective at driving generation exit it would

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[7] AEMC, 2015, *Optional Firm Access, Design and Testing, Draft Report – Volume 1*, 12 March 2015, p. 54.
[8] CEC, 2014, *Optional Firm Access First Interim Report Submission*.
[9] CEC, 2012-2013, *Transmission Frameworks Review Submissions*.
[10] Reisz et al., 2014, *Working Paper on the Proposed Optional Firm Access model for the Australian National Electricity Market*, p-p. 3-4, www.ceem.unsw.edu.au.
[11] Reisz et al., 2014, *Second Working Paper on the Proposed Optional Firm Access model for the Australian National Electricity Market*, p-p. 12-15, www.ceem.unsw.edu.au.
[12] http://www.afr.com/news/politics/greg-hunt-hails-stunning-result-of-first-carbon-auction-20150423-1mrbyy
[13] Pitt & Sherry, 2015, *CEDEX: carbon emissions index report*, available: www.pittsh.com.au/cedex.

have to be closer to $40[14, 15] / tCO_2-e, or $4.14 billion per annum based on Pitt and Sherry's data.

The results of EY's work, on which the Commission has assessed the benefits of OFA, found NPV benefits of $670 million (2014-2040, emissions reduction scenario). Yet the costs in Table 1 show how extremely sensitive this outcome is to the assumption of OFA providing no incentive for extended operation. Assuming that 70% of the carbon bill is passed through to consumers[16] the purported emissions reduction scenario benefit of OFA[17] would be completely consumed by these generators extending operation for between 2.5 and 8 months.

Table 1: 2013-14 Emissions and associated costs based on the most recent indication of a carbon price as the lower expected price and an upper expected price of $40.

Station	Station Emissions (Mt CO2-e, 2013-14)	Cost of Emissions ($mil. @ $13.95/t)	Cost of Emissions ($mil. @ $40/t)
Loy Yang A	18.5	$ 258,075,000	$ 740,000,000
Hazelwood	15.5	$ 216,225,000	$ 620,000,000
Bayswater	13.4	$ 186,930,000	$ 536,000,000
Yallourn	11.3	$ 157,635,000	$ 452,000,000
Loy Yang B	8.3	$ 115,785,000	$ 332,000,000
Eraring	8.1	$ 112,995,000	$ 324,000,000
Mount Piper	7.8	$ 108,810,000	$ 312,000,000
Stanwell	7.3	$ 101,835,000	$ 292,000,000
Liddell	6.8	$ 94,860,000	$ 272,000,000
Gladstone	6.6	$ 92,070,000	$ 264,000,000
Total for 2013-14	**103.6**	**$ 1,445,220,000**	**$ 4,144,000,000**

This assessment has identified that the sensitivity of the modelling outcomes to the incentives OFA creates to extend the operation of high emission generation creates a massive risk to consumers. This risk is magnified significantly by the Commission's proposed 'trigger mechanism' approach as this would create the greatest incentive to remain

[14] Ernst & Young, 2015, *Modelling the impact of Optional Firm Access in the NEM*, p. 17.
[15] Estimated to place the costs of coal and carbon closer to that of the marginal, OCGT, generator.
[16] http://www.macgen.com.au/News/News-Items/2011/Carbon-Tax-Impact.aspx
[17] $670 million 2014-40 in NPV terms.

operational while the final stages of implementation were completed, and potentially while the transitional access was available (5-15 years[18]). That is, they would be likely to sustain short term pressure from abatement policies in the knowledge that OFA's transitional arrangements would offer them a competitive advantage during the proposed transitional period.

Taking the Latrobe Valley's brown coal generators for example. A short term delay in an exit decision of 5 months at the longest would overcome 26 years (NPV, emissions reduction scenario[19]) of savings from OFA.

Contrary to the Commission's statement above, OFA would likely severely limit the effectiveness of emissions abatement strategies, restricting Australia's options to take aggressive steps to abate emissions. Again, this situation highlights how the narrow view of the NEO is inadequate to make a rounded assessment of electricity sector costs. Consumers would likely face extremely high risks and costs under a likely future which have not been considered in the Commission's cost benefit assessment.

Monitoring of market conditions and triggering implementation

Clearly, consumers are likely to be exposed to significant risks that have not yet been considered due to the limitations of the NEO. The externalisation of these risks so far clearly demonstrates that the Commission would be the inappropriate body to make a decision on whether OFA should be implemented in the future.

The Commission has already demonstrated an inability to fully account for these risks because of the limiting nature of its remit. Further, the kinds of market conditions being considered for monitoring (i.e. expected future increases in investment) have an extremely high level of subjectivity. Therefore any future advice on whether OFA should be implemented would need to follow governance arrangements that consider the interaction between OFA and other affected policies at that time (i.e. are unconstrained by the NEO).

[18] AEMC, 2015, *Optional Firm Access, Design and Testing, Draft Report – Volume 2*, 12 March 2015, p. 99.
[19] Ernst & Young, 2015, *Modelling the impact of Optional Firm Access in the NEM*, p. 30.

The COAG Energy Council would be expected to be the appropriate body to make any final decision, based on the advice of the Commission and a full and proper analysis of the interaction of OFA and other policy objectives.

Overreach of Last Resort Planning Powers

The Commission's Last Resort Planning Power (LRPP) was created for the purpose *"to ensure timely and efficient inter-regional transmission investment for the long term interests of consumers of electricity*"[20, 21]. That is, the LRPP afforded to the Commission is done so to mitigate the risk of TNSPs not addressing constraints that affect flows *between* regional reference nodes.

OFA would have wide-reaching ramifications across all parts of the NEM. It's consideration within the LRPP arrangements is overreaching the Commission's current role as last resort transmission planner. As a result the Commission could not simply incorporate an OFA trigger within the current LRPP as proposed. It would need to be granted heightened powers to consider the system-wide implications of OFA. Such a change would require further consultation and an amendment to the rules.

Conclusion

Having OFA either implemented, or implemented under the proposed trigger arrangement would curtail the efficiency of future emissions abatement strategies, limiting Australia's options for meaningful emissions reductions. Deep flaws are clear in both the Commission's proposed transitional access and trigger mechanism arrangements. The associated risks are significant and have gone unconsidered due to the limiting nature of the NEO – namely, the failure to effectively coordinate energy market objectives and environmental objectives.

In addition this submission has identified that the Commission alone is not the appropriate body to make a decision on implementing OFA in the future. Any decision would have to account for economic *and* environmental objectives, proving that the NEO alone is

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[20] AEMC, 2008, *Last Resort Planning Power Guidelines*, p. 1, www.aemc.gov.au.
[21] National Electricity Rules, 2015, Volume 71, cl. 5.22(b).

inadequate and a detailed review of the far reaching consequences of OFA would be required.

Please contact the undersigned for any queries regarding this submission.

Sincerely,

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