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### COGATI Implementation – Access and Charging

The Australian Energy Council (“**AEC**”) welcomes the opportunity to make a submission to the consultation paper on COGATI Implementation – Access and Charging. The AEC thanks the AEMC for providing a supplementary information paper and providing additional time to comment.

The AEC is the industry body representing 23 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The AEC supports the development of reforms to inter-regional TUOS as discussed in the papers. Whilst recognising the long-standing issues surrounding generator access, the AEC is unsure whether the timelines for progressing phases one and three are appropriate. With respect to phase one (dynamic regional pricing), the proposed delivery timing appears challenging. With respect to phase three (generators fund transmission infrastructure), this appears to be highly linked to the Energy Security Board’s post-2025 Market Design work.

#### *Background - the COGATI review*

The AEC understands that the COGATI review which completed in December 2018 was intended to meet the terms of reference of the AEMC’s biennial reporting tasks given to it by COAG<sup>1</sup>. Those terms of reference state that a “Stage 2: Detailed analysis” should assess “whether optional firm access would meet the NEO” and “should include quantitative analysis”.

The only quantitative analysis performed for COGATI was by Ernst & Young, which reported on the impacts of historical congestion mis-pricing. COGATI concluded:

“The results show that the cost of congestion in 2016/17 was just under \$17 million (or 0.36 per cent of total actual AEMO dispatch). This is relatively small in the context of the NEM.”

Influenced by this low level of observed congestion, the COGATI review identified most opportunities for immediate reform to be in the following areas, with recommendations for improvement:

- The planning regime for transmission, particularly the role of the Integrated System Plan (“**ISP**”) with respect to TNSP planning;
- Options to streamline the Regulatory Investment Test for Transmission (“**RIT-T**”);

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<sup>1</sup> <https://www.aemc.gov.au/sites/default/files/content/97164a7b-09bf-49fb-9f2e-f6b996f5a96b/Reporting-on-drivers-of-change-Terms-of-Reference.PDF>

- How storage should be treated in transmission charging; and
- Inter-regional Transmission Use of System (IR-TUOS) charging.

The AEC anticipated the above items would be progressed in either rule changes or more specific reviews, which are all presently underway. The AEC supports these processes.

COGATI correctly reflected that the Ernst and Young report was a historical analysis only and congestion was liable to change with the changing market, yet no forward looking quantitative analysis was performed. Nevertheless the final report concluded in favour of introducing an access regime. Such a recommendation was intended by COAG's Terms of Reference to only emerge at the end of a fulsome Stage 2.

The AEC contends that COGATI review did not appear to achieve the quantitative analysis expectations of Stage 2 and, as such, that the case is yet to be made that Optional Firm Access (OFA), or any other access regime, meets the NEO. This then affects how the current review should be developed, that it should not assume that this case regarding access has yet been made and should not, at this time, lay out an implementation plan.

#### *Question 1: Phasing of Access Reforms*

The Energy Security Board (ESB) has prepared a Scope and Forward Plan to advise on a long-term, fit-for-purpose market framework that could apply from the mid-2020's<sup>2</sup>. This will see the ESB develop several possible designs in 2019, to be subject to detailed analysis in 2020, with a recommendation for a preferred approach by the end of 2020.

Whilst one of the likely designs is to be modelled on the current energy-only design, it is expected the others will employ radically different approaches, with:

- at least one likely to involve separate markets for energy and capacity; and
- at least one likely to contemplate a different customer locational pricing than the present regional approach.

Such alternative designs will necessitate a direct consideration by the ESB into fundamental questions of generator access: for example, any form of capacity allocation requires a network capacity simultaneous feasibility mechanism<sup>3</sup>.

OFA was explicitly designed to operate in the existing energy-only regional model. It is not designed for markets that either:

- separate the valuation of capacity from energy; or
- use a different customer pricing granularity than the existing regional design.

Thus, OFA can provide the access regime for only one of the models that ESB will investigate. And, should the ESB recommend a new design in December 2020, effort carried out before then in re-exploring OFA or similar will prove futile.

The clear resolution to this dilemma is to merge work on access in the *status quo* design with the post-2025 market design review. As that review will unavoidably engage with fundamental questions of network access

<sup>2</sup> <http://www.coagenergycouncil.gov.au/publications/post-2025-market-design-national-electricity-market-nem>

<sup>3</sup> In the energy-only open-access NEM, network capacity is rationed at the time of dispatch and thus AEMO's real-time constraint equations effectively represent its network access regime. This is not available when allocating a value to generation capacity ahead of time, thus a new approach to recognising how generation capacity is to be constrained by network capacity will be an essential part of any such market design.

for its other designs, it is well placed to simultaneously consider the benefits of applying an access regime to the *status quo*.

This more logical approach should not be constrained by questions of institutional roles and independence. The AEMC is part of the ESB, and the resources the AEMC has allocated to the COGATI access review could be deployed to contemplate access in all the hypothetical post 2025 designs, including that of *status quo*.

Nor should such a merging of reviews be interpreted as adding delay to access reform. As argued below, the proposed implementation dates of July 2022 and July 2023 are technically unrealistic. Phase 3 represents a very complex and controversial reform, with a challenging case to be made under the NEO, and many technical and transitional issues to be resolved. Even if it remains progressed solely as a stand-alone reform under the oversight of the AEMC, a start date of 2025 does not seem unreasonably cautious.

Whilst the AEC's first preference is to refer all phases to the 2025 review, it is the broad access and transmission funding issues under Phase 3 that are the reforms most obviously linked to the choice of fundamental market design. Section 3.1.5 of the supplementary paper suggests Phases 1 and 2 could potentially be implemented as a standalone incremental reform to dispatch and informational processes. To the extent that this project is pursued separately from the 2025 review, the objective should be limited to these phases only.

Even with this more limited objective, the proposed Phase 1 implementation date of July 2022 does not however seem realistic. This is because the reform will first require considerable further development and socialisation with industry. It will then require a controversial rule change with considerable supporting evidence and likely modelling work. Only then, after the case that the rule change meets the NEO has been made, can systems development begin.

Notwithstanding the systems changes needed by participants, the build within AEMO settlements itself is substantial. The Global Settlement project is scheduled to complete in February 2022<sup>4</sup>. It would seem the same expert resources would be drawn upon to develop DRP settlements.

When the same theme as Phase 1 was explored in the OFA Design and Testing Review, under the moniker of "Access Settlement", a key challenge was understanding the effects of 30 minute settlement upon the more efficient generator bidding incentives expected to arise. It may be the case that five minute settlement materially alters the benefit of the reform, however until July 2021 these benefits will be purely theoretical. Only after the implementation of five minute settlement in July 2021 will it be possible to observe if inefficient congestion bidding incentives persist. Additional time in the program would allow this hypothesis to be tested.

#### *Question 2: Phase 1 Dynamic Regional Pricing ("DRP")*

AEC members will engage with questions of impacts on market liquidity individually, however the AEC would observe that it is difficult to form a confident view on its impacts from the material currently available. For participants to reasonably engage on whether the DRP concept is beneficial, it needs clearer articulation with possibly some consultancy reports and forums to help stakeholders understand its operation in a commercial setting. In particular, the model needs further development and explanation on the following matters:

- In what proportion DRP residues will be allocated:
  - amongst scheduled generators (i.e. as per the "availability" bid, or some other metric);
  - amongst semi-scheduled generators (i.e. the "unconstrained forecast" or some other metric);
  - within loops (i.e. unequal participation factors [constraint coefficients]); and
  - between generators and inter-connectors.

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<sup>4</sup> <https://www.aemc.gov.au/rule-changes/global-settlement-and-market-reconciliation>

- How constrained-on generators are treated.
- To which constraints it would be applied (i.e. network only, or include some ancillary services).
- How energy storage would be handled.
- How scheduled loads would be handled.

The Consultation Paper leaves the above questions open for stakeholder comment. Whilst obviously the technical design should remain open to consultation, it is unreasonable to expect participants to form a considered view on the impacts upon their businesses without at least a strawman design that proposes a direction for the above key design features.

### *Question 3: Information from Dynamic Regional Pricing*

The AEC supports the use of congestion information as an input, where appropriate, to transmission planning. However DRP would not reveal different information to that which is already available through AEMO's Congestion Information Resource ("**CIR**") – the marginal value of congestion constraints. Indeed the DRP design draws upon this same information as the input to determine its settlement adjustments.

To the extent that the resource cost of congestion is not readily revealed in the CIR due to the current regional bidding incentives, it is possible to overcome this by problem by replacing historical bids with actual costs and re-running dispatch. Ernst and Young performed this for the COGATI analysis of the cost of historical congestion.

In any case, whilst historical congestion is a useful indicator for transmission planning, it is not the key data necessary to justify transmission expenditure and is not relevant to the RIT-T. This is because transmission must necessarily be built in a *forward-looking* regime where congestion is anticipated rather than observed. Thus, the key information needed for building the network will remain modelling of the future rather than measurement of the past.

### *Questions 4, 5, 7 & 8: Access Reform and TUOS Frameworks*

Questions about generator access, the TUOS framework and generators' funding of transmission are all deeply linked. They are also linked to the regional, energy-only market design. Thus our response to Question 1 regarding the linkage to the mid-2020's market design similarly applies to all these questions.

### *Question 6 IR-TUOS*

Questions about the inter-regional TUOS regime arose in the COGATI review and has been recently questioned by state governments and customer groups. The AEC notes improvements in this area are unlikely to have the broader effects, nor require major systems development such as the access phases. The AEC therefore supports their further investigation by the AEMC through this review

The AEC agrees that the aspects raised in 3.2.1 of the paper are worthy of considering further and looks forward to engaging with designs that improve those aspects are developed by the AEMC.

### *Conclusion*

The AEC supports the AEMC's post-COGATI workstreams engaging in questions of transmission planning, IR-TUOS and the treatment of storage.

With respect to the vexed and complex area of generator access, the AEC feels the case and design are presently insufficient to propose an implementation timetable. As any access regime is inextricably linked to the fundamental market design, the appropriate place for its consideration is within the ESB's post-2025 Market Design review.

Generator access investigation progressed outside the ESB's project should be limited to phases one and two of the paper. However the DRP proposal requires clarification of key design features before the industry can thoughtfully engage with it, and the suggested implementation date of 2022 appears unrealistically ambitious.

Any questions about our submission should be addressed to me by email to [ben.skinner@energycouncil.com.au](mailto:ben.skinner@energycouncil.com.au) by telephone on (03) 9205 3116.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ben Skinner', with a large, sweeping flourish at the end.

**Ben Skinner**  
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Australian Energy Council