26 April 2019

Mr John Pierce
Chairman
AEMC
PO Box A2449
Sydney South 1235
NSW

Lodged via the AEMC portal

Friday 26 April 2019

Dear Mr Pierce,

RE COGATI Implementation – Access and Charging Consultation paper

ENGIE appreciates the opportunity to comment on the COGATI Implementation consultation.

ENGIE, and previously International Power has maintained a keen interest in network congestion management and optional firm access as these are necessary for efficient risk management and investment outcomes.

The optimisation of transmission and generation remains challenging as transmission and distribution augmentation are subject to regulation whilst generation investment decisions are decentralised and market signal based. Under the existing arrangement neither party has all the information to ensure a least cost outcome (ie the TNSP doesn't possess the project (supply or storage) investment costs and the value a project may place on congestion, and the project investor (supply or storage) doesn't have

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the relevant transmission costs). It is therefore impossible to determine the economically efficient level of congestion under the current frameworks.

The proposed arrangement of generators funding transmission augmentation in return for firm access is considered as an effective way of managing potential congestion in a least cost manner and without burdening the consumers with risks of over investment.

The AEMC proposed three stage phased implementation of the dynamic regional pricing and optional firm access arrangement is both elegant and pragmatic, with incremental benefits being achieved along the way.

However, the implementation timeframe requires careful consideration and balancing of short term and longer-term objectives, and likely participant responses to potential market design changes introduced by the ESB market design review.

1. Proposed phased implementation approach

The phased implementation, dynamic regional pricing, improved information and generators funding transmission infrastructure outlined in the consultation paper delivers early incremental benefits.

The information provision in the first two stages will serve to better inform project proponents regarding potential network constraints when deciding project location.

ENGIE supports the phased implementation and urges the AEMC to consider holistically the reform timing in the context of planned market system changes and potential market design changes.

The risks of changes to the current EOM are considerable, and it is considered highly unlikely that participants would make long term transmission funding commitments ahead of a potential marked design change.

It is far from clear that the current approach is relevant to other trading arrangements, so there is a material risk of stranded transmission rights.

2. ESB post 2025 market design review

2.1. Background

The energy only market (EOM) designers didn't contemplate the ever increasing levels of intermittent renewables entering the supply. Recent exit of coal fired plant in South Australia and Victoria has precipitated examination of unpriced externalities and has raised questions regarding the future suitability of the EOM market design.

A sample of unpriced externalities being considered are as follows:

- Reactive power
- System strength / Inertia
- Primary frequency control
- Provision of firm capacity

Whilst the reform to the access and charging arrangements aims to firm up capacity at the least cost, it doesn't address the remainder of the externalities listed above.

The ESB indicated that these externalities, amongst others, will be included in the review of market design. Specifically, the ESB is committed to consult on:

> *"..the full range of services required to deliver a secure, reliable and lower emissions electricity system at least cost to consumers."*

Ref: POST 2025 MARKET DESIGN FOR THE NATIONAL ELECTRICITY MARKET (NEM) 22/3/2019

2.2. Timing of the ESB review

The current timeline for the ESB post 2025 market design review is as follows:

- *Q4 2020 – Recommend changes to existing market design or alternative market design to enable the provision of the full range of services required to deliver a secure, reliable and lower emissions electricity system at least-cost to customers.*
- *2021 – Develop, consult and agree any changes to the National Electricity Law and/or Rules required to implement the changes to the existing market design or alternative market design.*
- *1 July 2022 – Finalise any changes to post-2025 Market Design.*
- *2023 – Systems development for post-2025 Market Design (as required).*
- *2024 – Live testing (parallel) of post-2025 Market Design (as required).*

Ref: POST 2025 MARKET DESIGN FOR THE NATIONAL ELECTRICITY MARKET (NEM) 22/3/2019

2.3. Potential for a design change

Whilst it is not certain that the ESB will recommend a market design change, the outlined process is holistic and is committed to resolving a range of known and prospective issues identified by the review. It remains to be seen if the EOM can be adjusted to solve the identified issues. The existing risk allocation of policy changes to generators is inappropriate and unmanageable and will also need to be addressed by the review.

The access and charging consultation are best suited to the EMO market design and may not suit other market trading arrangements. For example, such an access arrangement would be irrelevant in other contexts such as a central buyer (ie central planner).

3. Timing considerations

The implementation timeframe needs to consider a number of issues, some of which may be mutually exclusive:

1. The potential influx of projects to meet the 45% Labour policy would benefit from an early start of the scheme to maximise its impact on locational decisions.
2. There is reasonable prospect that the ESB post 2025 marked design review will recommend changes to the existing NEM EOM design. Delaying the implementation to ensure that it remains compatible with the design changes is warranted.
3. Planned market IT systems changes
    a. The pending implementation of the 5-minute settlement is scheduled to go live 1/7/2021 and requires significant changes to both participant and AEMO market systems.
    b. Global settlement scheduled to go live 6/2/2022 will impact AEMO systems

4. Timing, costs and benefits considerations

Both participants and AEMO will incur significant system development costs to implement the proposed changes.

These development costs may be stranded in the event the post 2025 marked design recommends changes away from a current EOM.

Whilst there is a risk of a market design change, participants are unlikely to fund firm transmission access as their investments are at risk of being potentially stranded.

It is therefore recommended to adjust the implementation timeframes as follows;

1. Proceed with stages 1 and 2 (Dynamic regional pricing and Improved information) as proposed
2. Delay the decision to implement the third stage, generators fund transmission infrastructure, to coincide with the ESB post 2025 market design review recommendation (1 July 2022), to ensure it remains relevant to the market design.
    a. It is currently unclear how the ESB will pursue market rule changes necessary to change the NEM design. The firm access rule changes (or its variants as appropriate) need to be pursued in the same timeframe as the market design changes and holistically.
3. Once a decision is made to implement stage 3, delay its implementation to 2025 so that it aligns with the market design changes and to allows for suitable transition.
    a. Specifically, there should only be one change to market systems rather than several changes over time to reduce implementation cost and to minimise resource requirements and timeframes.

5. Inter-regional TUOS

The current arrangement of charging inter-regional TUOS should be reviewed in the context of services provided to the importing region. Such services would typically mean the transmission of energy and the provision of capacity to cater for system contingencies.

AEMO could be tasked with quantification of the amount of capacity being utilised for system support in a given region. The shared capacity could be valued by calculating a minimum of the following:

- Standing charge of a gas turbine
- Cost of battery storage (MWh/MW)
- Cost of pumped hydro (storage specified as MWh/MW))

In addition, it is considered important that both locational and non-location cost elements be included in the inter-regional TUOS calculation.

In summary, ENGIE strongly supports the staged implementation of the optional firm access arrangement in the context of the energy only market but advocates a holistic approach which is aligned to the post 2025 market design review.

ENGIE trusts that the comments provided in this response are of assistance to the AEMC in its deliberations. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 0417 343 537.

Yours sincerely,

David Hoch
Regulatory Strategy and Planning Manager