2 August 2019

Mr John Pierce
Chairman
Australian Energy Market Commission

Lodged via the AEMC portal

Dear Mr Pierce,

RE COGATI access reform – Directions 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 in an energy only market (EOM).

The proposed arrangement of generators optionally funding transmission augmentation in return for firm access is considered as an effective way of managing potential congestion in a least cost manner without burdening customers with risks of over investment. Whilst cost benefit analysis is essential, it must be forward looking in the context of technological changes, decarbonisation of the supply sector and decentralised generation. It is expected that local prices and network congestion management will become increasingly important to load and generation.

Nevertheless, the implementation timeframe requires careful consideration and balancing of short term and longer-term objectives. Whilst the proposed approach is considered economically beneficial in the EOM, it would be irrelevant in the context of a central buyer/planner trading arrangement.

1. Transitional arrangements and grandfathering (Questions 7&8)

Under the existing transmission access arrangements, generators notionally have “firm access” to the regional reference price which is adjusted by the annual average marginal loss factor. However, they are exposed to a volume risk when operating behind a network constraint.

Under the proposed access arrangements generators stand to lose firm access to the regional price and thus become exposed to both price and volume risks.

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From an investment perspective, it is important to maintain a level of certainty to ensure that regulatory changes don't undermine the value of assets and investors aren't exposed to unmanageable risks. It is therefore necessary that existing investors are compensated for potential loss of access as part of the transitional arrangements and in recognition of the expected asset life.

It should be noted that the initial allocation of hedges to compensate generators will not impede economic efficiency, provided participants are free to trade these transmission hedges in the market to maximise utility over time.

2. TNSP/DNSP incentives and regulations

Transmission and distribution system performance can have a large impact on local constraints and market prices outcomes. It important that network performance is optimised to assist the electricity market in terms of overall availability and planned outages are programmed to have the least impact on market outcomes.

Given the regulated investments in networks, it is important to incentivise networks to have some revenue exposure depending on the magnitude of the impact on the market (local and regional). Annual benchmarks, reviewed regularly to ensure they remain relevant and appropriate, set by the AER would provide a pragmatic approach.

3. Future market design

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

A sample of unpriced services being considered are as follows:

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

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

Whilst it is not certain that current review will recommend a market design change, the outlined process is expected to be holistic and is committed to resolving a range of known and prospective issues identified by the review.

ENGIE maintains that the existing risk allocation of policy changes to generators is inappropriate and unmanageable and will also need to be addressed.

The proposed access and charging arrangements under COGATI are best suited to the EOM 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 (i.e. central planner).

It is therefore essential that the market review and access arrangements are addressed holistically to ensure economic efficiency and private investment under the trading and access arrangements are maintained.

4. Scope of dynamic regional pricing (question 2)

One notable deficiency of the existing market regional node arrangement is that local loads and generators aren't exposed to local prices. This arrangement prevents effective local response and impedes economic efficiency (in the network and the market). This issue will be exacerbated over time by increased penetration of small and decentralised/embedded generation and storage.

Local prices represent local conditions of supply, demand and network, and can be very different to regional conditions signalled by regional prices.

For example, situations can and do arise where excess generation occurs locally (either due to a network constraint downstream or local voltage control), at a time when regional reference prices are high. High regional price signal incentivises local demand to reduce and local generation to increase. This is the exact opposite of what the local conditions require to resolve using the market. Non-market solutions are used by the market operator to impose constraints on participants to maintain the system in a secure state.

If local price signals are available to local participants, more efficient responses such as charging local batteries, switching on additional loads or backing off generators at times of excess local generation are possible. Under such an arrangement it can be reasonably expected that there would be wider choice of competing projects to network augmentation.

There is little economic benefit in being able to settle on a five-minute basis when participants either aren't exposed to the price signal or worse, are exposed to the wrong price signal.

ENGIE agrees with the suggested approach to expose scheduled and semi-scheduled loads and generators to the local price signals. However, for the stated reasons, a fuller exposure is needed for all loads and decentralised generators to local prices/conditions. ENGIE suggests that a timetable be developed for exposing participants to these signals based on size, in a manner that occurred in the case of retail customer contestability.

5. Losses (Question 4)

Market design background

Loss factors provide an important locational and dispatch signal to loads and generators.

It should be noted that the NEM was designed with variable or potentially dynamic loss factors. Due to the initial mis-interpretation of design by the then market operator, limited computer power and compressed implementation timeframe, the MLFs were left as fixed on an annual basis in the interim. Once the market was running, the market operator consulted on a system change to move to dynamic loss factors. By that time participants became accustomed to the fixed MLF arrangements and would have had to modify their IT systems to accommodate a more granular or dynamic MLF. At that time, the incremental costs outweighed the benefits.

The situation is very different now with the adoption of the five-minute settlements process and the rapid introduction of short lead time intermittent renewable generators and consequently the MLF methodology needs to be reassessed.

Current issues

As a result of distributed intermittent renewable generation, the flow patterns in distribution networks are no longer unidirectional and the quantum of losses throughout the day depend on load and renewable generation contributions.

The current approach of applying annual average marginal loss factors is considered unrepresentative of the losses at any point in time and economically inefficient in the context of five-minute settlement.

The AEMC is urged to provide analysis of the multiple MLFs approach and five-minute dynamic loss factors in terms of cost, dispatch efficiency and risk management to inform stakeholders in their assessment of various approaches.

In summary, ENGIE 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