



Your Ref: EPR0073

2 August 2019

Attention: Jess Boddington
Australian Energy Market Commission
PO Box A2449
SYDNEY NSW 1235
Submitted online to: www.aemc.gov.au

Submission: AEMC Directions Paper Co-ordination of Generation and Transmission Investment – Access Reform

CS Energy welcomes the opportunity to provide a submission on the Australian Energy Market Commission's (AEMC) Directions Paper on the Co-ordination of Generation and Transmission Investment – Access Reform (**Directions Paper**).

About CS Energy

CS Energy is a Queensland energy company that generates and sells electricity in the National Electricity Market (NEM). CS Energy owns and operates the Kogan Creek and Callide coal-fired power stations and Wivenhoe, a pumped-storage, hydro-electric peaking plant. CS Energy sells electricity into the NEM from these power stations, as well as electricity generated by other power stations that CS Energy holds the trading rights to.

CS Energy also operates a retail business, offering retail contracts to large commercial and industrial users in Queensland, and, is part of the South-East Queensland retail market through our joint venture with Alinta Energy.

CS Energy is 100 percent owned by the Queensland government.

General comments

CS Energy agrees that, in principle, the introduction of Locational Marginal Pricing (LMP) should facilitate efficient levels of supply and demand, encourage efficient asset utilisation and in time more efficient investment decisions. CS Energy is however not supportive of the AEMC's proposed access reforms to co-ordinate generation and transmission investment through locational signals in the transmission framework and transmission hedges unless the AEMC improves the incentive and risk allocations from that explained in the Directions Paper. CS Energy believes that the proposed reforms will only achieve their intended purpose if the LMP – hedging regime is efficiently designed. CS Energy is concerned that the regime as outlined in the Directions Paper needs further detailed consideration and analysis to implement an LMP - hedging regime. Without this, the reform as currently proposed will not achieve its intended purpose of optimising both generation

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and transmission and is more likely to deliver unintended and materially adverse market consequences which will manifest in increased costs that ultimately are borne by consumers.

CS Energy also considers there has been insufficient analysis of the impact on the forward contract market. Based on the information currently available in respect of the design of the LMP – hedging regime, there are real risks there will be lower liquidity and increased complexity in the forward contract market. These risks can however be mitigated if the hedging products are improved by changing the incentive and risk allocations from that explained in the Directions Paper.

CS Energy also seeks clarity from the AEMC on the proposed grandfathering. As an existing generator, CS Energy expects that it will receive an allocation of transmission hedges for the remaining life of its plant. The principles upon which existing generators will be allocated transmission hedges requires further consideration to ensure the grant is efficiently allocated and minimises wealth transfers between existing generators.

Given there is still significant detail yet to be developed, CS Energy recommends the AEMC reconsider its ambitious timetable of July 2022 as it believes this may be unnecessarily limiting the design options and reducing the effectiveness of the proposed access reforms.

We understand from recent public statements made by the Energy Security Board (**ESB**) that the CoGATI work is the bedrock for the ESB's Post-2025 Market Design for the NEM. Otherwise there has been little transparency that the work of the AEMC and the ESB is being co-ordinated and the reforms proposed will be consistent. If the reforms will not be consistent, CS Energy's preference is for the AEMC's review to be expanded to include a review of alternate market designs.

Our detailed submission on the Directions Paper is set out in the Attachment.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Teresa Scott', written over a light blue horizontal line.

Teresa Scott
Market Policy Manager

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ATTACHMENT

1. Access Reform

The AEMC has proposed a holistic long-term solution to reform the access regime incorporating the following three aspects:

- generators receive a locational marginal price (**LMP**) that more accurately reflects the cost of supplying electricity at their location in the network;
- generators will be able to purchase transmission hedges to manage the risks of congestion and hedge against the price separation arising because of the introduction of LMP; and
- transmission planning will 'only' be informed by a generator's purchase of transmission hedges.

CS Energy is not supportive of the AEMC's proposed access reforms to co-ordinate generation and transmission investment through locational signals in the transmission framework and transmission hedges unless the AEMC improves the incentive and risk allocations from that explained in the Directions Paper.

CS Energy agrees that, in principle, the introduction of an LMP regime should facilitate efficient levels of supply and demand, encourage efficient asset utilisation and in time more efficient investment decisions. The proposed reforms will however only achieve their intended purpose if the LMP – hedging regime is efficiently designed. CS Energy believes that significantly further detailed consideration and analysis, including greater consideration of other design options, is necessary.

As CS Energy could be a beneficiary of a LMP – hedging mechanism, we have a vested interest to ensure the proposed reform works effectively. Given this, CS Energy has separately considered what it believes are necessary elements in developing an efficient design for an LMP – hedging regime and makes the following observations.

- LMP must be introduced with a hedging scheme.
- All elements should be exposed to the local price (ie both generator and load). If load is exposed to the local price CS Energy believes this will incentivise load to locate closer to generation and pay only the local price when there is price separation. We do not see that this would be limited to storage but would also incentivise other load to locate in areas where they would face local pricing instead of the regional reference price.
- Our view that all elements should be exposed to the local price extends to transmission elements. By this we mean that if a generator purchases a transmission hedge, the TNSP must augment the transmission network to provide the transmission capacity purchased, or be financially exposed under the transmission hedge. Exposure of the TNSP to the financial risk (if it fails to provide the transmission capacity) is in our view necessary if the proposed reform is to have its intended effect of co-optimising generation and transmission. CS Energy acknowledges that this is a fundamental shift, however it highlights thinking bounded by the status quo which may reduce the potential of the scheme in co-

optimising generation and transmission (and usefulness of the scheme for market participants).

- As all elements are exposed to the local price, all elements should be able to hedge, which we refer to in this submission as an inter-nodal hedge. For example, load behind a constraint may hedge with generation also behind the constraint under the LMP - hedging regime.
- Inter-nodal hedges must be firm, just as exchange traded and OTC derivatives are. If hedges are non-firm, we believe it will reduce the usefulness of the hedging as generators will attribute less value to the hedging product and therefore pay less (which, for generation, may result in their being insufficient value in the hedge to fund the necessary transmission capacity).
- In respect of the design of the hedging products, CS Energy sees a key risk in implementing the proposed-access reform is that the hedging products are poorly designed. CS Energy believe that hedges should be tradable and should include in the design time of use transmission rights (which could be achieved, for example, by a solar project and baseload generator jointly purchasing the hedge). Time of use transmission rights will allow generation (or load) to match the transmission rights held to their shape profile. The cost of acquiring rights to use the transmission network 24/7 is likely to be uneconomic for an individual participant (given the changing supply profile for all generation).
- Should the NEM persist with strategic central planning, (such as AEMO's ISP), demand for internodal hedges is unlikely to provide economic discipline on transmission investments. This is because strategic investments would be expected to change the supply of hedges and internodal hedge prices will deviate from their efficient level.

Reform of the current access regime through the introduction of an LMP – hedging mechanism requires consideration of many complex issues. CS Energy's own internal analysis has highlighted the difficulty in resolving these issues. Given this, CS Energy urges the AEMC to undertake significantly further detailed consideration and analysis, including greater consideration of other design options, before the AEMC moves to implement the proposed access reforms.

2. Impact on Forward Contract Market

CS Energy's view is that the introduction of an LMP- hedging regime will introduce additional risk to the forward contract market. Relevantly:

- there is likely to be lower contract liquidity as generators take a more conservative hedge position based upon a revised risk assessment of the firmness and volume of the "transmission hedges" it holds (for example, generators may only be able to offer forward contracts up to the MW quantity of its "transmission hedges"). This reduction in hedging appetite may have a greater impact on forward contracts traded on the ASX, as more bespoke financial contracts are required to accommodate an LMP – hedging regime;
- unless hedging products are firm, generators will face both volume risk and price risk in their contract book when local pricing separates from the regional reference price; and

- LMP - hedging adds another layer of complexity in an already increasingly complex market, given the introduction of 5-minute settlement and the proposed wholesale demand response mechanism. Participants will be required to undertake much more detailed analyses of supply and demand at different times of the day, as well as detailed analysis of local pricing.

CS Energy considers these risks in the forward contract market can be partly mitigated if the hedging product is properly designed. As discussed in section 1 above, CS Energy believes key elements in the design of the hedging product are firmness, tradability and time of use transmission rights.

CS Energy would like to see further analysis from the AEMC on the potential impact on the forward contract market, and how the AEMC proposes to address these impacts in the design of the LMP – hedging regime.

3. Grandfathering

CS Energy seeks further clarity from the AEMC on the proposed grandfathering.

CS Energy has made investments in its generation assets under the current access regime. CS Energy recognises that under the open access regime, a generator has a right to be connected to the NEM however no right to be dispatched and receive the regional reference price. There is however an implicit level of assumed network access generators historically received. Prior to the penetration of renewables, new generation connections were few and far between. TNSPs would, generally speaking, not offer new generation a power transfer capability that resulted in total power transfer capabilities significantly exceeding existing transmission capacity on its part of the NEM (assuming a satisfactory operating state), unless the connecting generator funded the necessary augmentation or augmentations were already being considered.

As an existing generator, CS Energy expects that it will receive an allocation of hedges recognising the current status quo, and that these access rights will be allocated for the remaining life of its plant (reflecting the implicit rights at the time of the original investment decision).

It is important that the principles upon which existing generators are granted transmission rights result in an efficient allocation of the rights, which minimise wealth transfers between existing generators. As with all aspects of the proposed access reforms, consideration of these principles gives rise to complex issues. CS Energy considers that the grandfathering of hedges could be based on a combined volume and economic assessment (with, for example, the volume assessment reflective of a capacity value and the economic assessment reflective of the marginal cost).

4. AEMC'S Review Timeline

CS Energy understands the AEMC's desire to implement the proposed access reforms as soon as possible, the energy market is rapidly transforming and CS Energy recognises change is inevitable. CS Energy cannot however support the AEMC's proposed timetable and urges the AEMC to reconsider its ambitious timetable of July 2022. CS Energy is concerned:

- there is significant detail yet to be developed and CS Energy believes this timetable may be unnecessarily limiting the design options and reducing the effectiveness of the proposed access reforms;
- the proposed timetable does not allow for the impacts of 5-minute settlement and, if implemented, the wholesale demand response mechanism, to be assessed and accommodated in the design of an LMP - hedging regime; and
- the proposed LMP- hedging regime may not be appropriate if the current energy only market design changes, for example, an LMP – hedging regime will not work in a capacity market.

5. Post 2025 Market Design

With respect to the intrinsic overlap with the Energy Security Board's (ESB) post 2025-market design, we understand from recent public statements made by the ESB that the CoGATI work is the bedrock for the post 2025 market design. Otherwise there has been little transparency that the work of the AEMC and the ESB is being co-ordinated and that the LMP – hedging regime will be consistent with any recommendation made by the ESB in respect of an alternate market design.

If this is not the case, CS Energy's preference is for the AEMC's market review to be expanded to include a review of an alternate market design (in place of the review being undertaken by the ESB). If the CoGATI work is the bedrock for the post 2025 market design, CS Energy believes this simply lends weight to our view that significantly further detailed consideration and analysis by the AEMC is necessary.