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Attention: Tom Walker
Australian Energy Market Commission
SYDNEY NSW 1235
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AEMC Discussion paper - COGATI Proposed Access Model

CS Energy welcomes the opportunity to provide a submission to the Australian Energy Market Commission (**AEMC**) on its Discussion paper Co-ordination of Generation and Transmission Infrastructure Proposed Access Model, 14 October 2019 (**Discussion 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. 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 a Queensland government owned corporation.

General comments

CS Energy supports in principle the concept of dynamic regional pricing (**DRP**) with financial transmission rights (**FTR**). As set out in our response to the AEMC's Directions Paper, CS Energy agrees the introduction of a DRP–FTR model should facilitate efficient levels of supply and demand, encourage efficient asset utilisation and in time more efficient investment decisions. Our support is however dependent upon optimal design choices being made in the design proposal.

In respect of the AEMC's design proposal set out in the Discussion Paper, CS Energy is concerned:

(a) the AEMC proposing fundamental changes to the market design to address transmission access and congestion may not be a prudent step in the context of the broader reform agenda; and

Brisbane Office
PO Box 2227
Fortitude Valley BC Qld 4006
Phone 07 3854 7777
Fax 07 3854 7300

Callide Power Station
PO Box 392
Biloela Qld 4715
Phone 07 4992 9329
Fax 07 4992 9328

Kogan Creek Power Station
PO Box 41
Brigalow Qld 4412
Phone 07 4665 2500
Fax 07 4665 2599

CS Energy Ltd ABN 54 078 848 745 **www.csenergy.com.au**

(b) to ensure that, if a DRP–FTR model is implemented, the AEMC is making the optimal design choices in respect of some of the fundamental features of the proposed DRP – FTR model.

If the above concerns are not addressed, CS Energy cannot support the implementation of DRP-FTR.

CS Energy believes the current design proposal will lower liquidity in the contract market. It is critical that FTRs are firm. If market participants do not obtain the protection purported to be afforded by holding a FTR, CS Energy believes the market will fail.

CS Energy also recommends the AEMC reconsider its ambitious timetable of July 2022, given the detailed design development still to be undertaken and the lead time required to implement DRP-FTR once a Rule is made.

Our detailed submission on the Discussion Paper is set out in the Attachment, in which we make several recommendations for improving the effectiveness of the design proposal.

Yours sincerely

Teresa Scott
Market Policy Manager

Enquiries: Teresa Scott, Market Policy Manager
Telephone 07 3854 7447

ATTACHMENT

1. Broader reform agenda

The Discussion Paper states that the proposed access model is to better facilitate the transition that is occurring in the NEM.[1] The NEM is transitioning, synchronous generation is being replaced by asynchronous variable generation. There is also a significant increase in the penetration of distributed energy resources. CS Energy agrees that reform is necessary to ensure an orderly transition.

The COGATI reforms do not address all aspects of the market re-design necessary to transition - the reforms are limited to transmission access reform and resolving the congestion that is likely to occur as the projected 50GW of new generation connects to the NEM over the next 10 years. The other aspects of the market redesign will be addressed by the Energy Security Board's (**ESB**) post-2025 market design work. While CS Energy acknowledges the AEMC's work is limited by the COAG Energy Council's terms of reference, we question whether it is prudent that the AEMC embark on such a fundamental change when the reform is limited in its design proposal to the current energy only market.

Notwithstanding repeated assurances from the AEMC that this work is being conducted within the context of the broader reform agenda, there is a risk which cannot be discounted that a DRP–FTR model will be implemented and either the design will be revisited as part of the ESB's post-2025 work or the DRP-FTR model will limit the ESB's options, which could result in a sub-optimal outcome.

If the two reform agendas are not going to be co-ordinated, CS Energy believes the issues should be largely addressed by other mechanisms without such a fundamental change to the market design ahead of the broader reform agenda. For example:

(a) ahead of any access reform, CS Energy would like to see improved visibility of forecasted transmission congestion, such as constraint information and transfer limits. While this data is currently available, CS Energy believes the presentation and reporting of the data could be enhanced by both AEMO and Transmission Network Service Providers (**TNSPs**). AEMO's Network Outage Schedule is not currently providing this service; and

(b) the Discussion Paper claims one of the benefits will be to ensure cost-effective generators are not constrained off. This assessment of "cost effective" is made in an energy only market and fails to consider all of the services required to provide a secure power system. CS Energy believes that the creation of separate ancillary markets for all system security services is of higher priority. If such markets were created, this will change the assessment of the most cost-effective generator.

CS Energy considers the AEMC has not demonstrated the additional benefits that will purportedly be gained in implementing DRP–FTR ahead of the broader reform agenda, in place of implementing other mechanisms which do not require such a fundamental change to the market design, will outweigh the costs to industry.

[1] AEMC, Discussion Paper, section 1.3

Additionally, CS Energy is not convinced the AEMC has demonstrated DRP–FTR must be implemented ahead of the ESB's post-2025 work. The AEMC's projections for timing of new generation connection extend beyond 2025. Further, new generation connection is continuing to slow. This reflects the delays projects are experiencing in securing connection agreements (due to the time taken to negotiate generator performance standards and agree system strength requirements) and off-take agreements (due to pricing impacts of the low and negative day time wholesale prices), and consequently financing.

2. General comments on implementing a DRP–FTR model

Despite CS Energy's concerns regarding the integration of the COGATI reforms with the broader reforms, CS Energy agrees in principle with the implementation at a future time of local pricing in conjunction with financial transmission rights. CS Energy believes an appropriately designed DRP–FTR model should facilitate efficient levels of supply and demand, encourage efficient asset utilisation and in time more efficient investment decisions. CS Energy expects to be a beneficiary of a DRP–FTR model.

CS Energy is at times significantly adversely impacted by constraints and this is projected to worsen as new generation connects to the NEM (in the absence of new transmission investment). Under the current market arrangements, there is no market mechanism for CS Energy to protect itself from the adverse financial implications arising from constraints that impact our units.

If DRP is implemented, FTRs are the clear design feature to compliment DRP. Reduced dispatch (for which generators are paid at the node) is preferred to local pricing only.

The rights attached to the FTR are crucial. If the DRP–FTR model is poorly designed or there is uncertainty with (or insufficiency in) the underlying rights conferred by FTRs, this will create illiquidity in the contract market. It is critical that FTRs are firm. If market participants do not obtain the protection purported to be afforded by holding a FTR, the market will fail.

In contrast, if the correct design choices are made, this will provide the market with the required certainty. In these circumstances, we believe a DRP–FTR model will improve liquidity in the contract market.

Based on the features set out in the Discussion Paper CS Energy is not however confident that the AEMC is making the optimal design choices in respect of some of the fundamental features of the proposed DRP–FTR model. Our concerns with the design features are discussed in section 3 and section 4 below.

Separately, CS Energy's synchronous generators are likely to play a pivotal role in underpinning the transition to renewables. A key issue for CS Energy is that any DRP–FTR model allows CS Energy to ensure our generating plant is not constrained lower than their minimum safe operating levels and to maintain commitment of the plant.

3. Design features

3.1. Scope of dynamic regional pricing

The AEMC has proposed that the market participants which will face the locational marginal price (**LMP**) will be restricted to scheduled and semi-scheduled market participants. CS Energy does not agree with this design choice. As set out in our response to the AEMC's Directions Paper, CS Energy makes the following observations with respect to the design choice.

(a) All market participants should be exposed to the local price (ie scheduled, semi-scheduled and non-scheduled market participants).

(b) Transmission elements should also be exposed to the LMP. If a TNSP fails to provide the transmission capacity underpinning the FTR, it should be financially exposed under the FTR. While the AEMC has decided not to proceed with the third limb of the proposed reforms (ie that transmission planning is informed by the purchase of FTRs), CS Energy does not believe this precludes transmission from being exposed to the LMP. In CS Energy's view, exposing TNSPs to the LMP provides a mechanism to firm FTRs.

(c) Whilst transmission services are a monopoly activity, the provision of FTRs is not, and the DRP–FTR model should be designed in a way to avoid conferring monopolistic attributes to the provision of FTRs (as currently designed, FTRs are underpinned by transmission capacity only). Elements that alleviate constraints (eg storage or load behind a constraint) should also be permitted to participate in the auction process for the provision of FTRs.

CS Energy agrees with the characterisation of constraints that would be reflected in the LMP.

CS Energy also agrees with the use of a volume weighted average price (**VWAP**) as we believe a VWAP will ensure more accurate pricing upon constraints that are not oriented with regards to the regional reference node. It is CS Energy's understanding that the VWAP and RRP calculations would not be materially different in most instances due to most constraints relating to power flows serving the regional load centres, where the regional reference node is located.

3.2. Financial Transmission Rights

The AEMC has proposed that the revenue to back FTRs would arise from settlement residues (the difference between what generators are being paid and load is paying under DRP). If the settlement residue is exhausted, the amount payable under the FTR is paid out. In CS Energy's view this non-firmness is a critical flaw in the proposed design.

CS Energy believes the firmness of FTRs can be addressed by:

(a) exposing all participants including transmission to the LMP – relevantly the seller of the FTR is required to pay out the value of the FTR (the proposals currently allocate the risk to the FTR holder);

(b) allowing supply of FTRs from multiple sources eg load or storage behind a constraint or generation downstream of the constraint, and not just in respect of transmission capacity; and

(c) ensure sellers provide FTRs on a level playing field where the product is homogenous and traded with the same terms and conditions.

CS Energy does not agree with the proposed offsetting of settlement residues by time and location. Significantly, the "pooling" of constraint risk across regions fundamentally changes the risk assessment for market participants. Participants will be required to assess the firmness of FTRs held by reference to constraints in other regions. While CS Energy considers the optimal design is to have no offsetting (for time or location), the next best option is to restrict offsetting to the relevant FTR.

The AEMC has ruled out that FTR proceeds could be used to fund deficits. CS Energy sees some merit in this argument now that FTRs do not drive transmission investment (provided the proceeds relate to the same FTRs). On balance however, CS Energy considers this is sub-optimal as firstly, the deficits can only occur because transmission is not exposed to the LMP and secondly, it may unnecessarily complicate the auction process by creating a circular cashflow.

An 'efficient' DRP-FTR model with non-discriminatory treatment of all elements (ie transmission, generation and load) should result in negligible surpluses and deficits. This is because any party holding a long or short position would be incentivised to close these positions prior to dispatch, with the price increasing or decreasing as they did so. For example, a seller of a FTR, such as a transmission element or load or storage behind a constraint would be incentivised, should they have an operational problem resulting in a short position to the portfolio of sold FTRs, to buy the FTRs back. Under the AEMC's proposed approach there is no incentive for AEMO to buy back FTRs as they do not face the cost of non-provision, hence deficits are made far more likely.

3.3. **Auction**

CS Energy strongly supports the AEMC's proposal for the reserve price in the FTR auction to be set at zero. This design choice should be prioritised in the trade off over other design choices.

CS Energy considers a reserve price would only have been necessary if the AEMC was to implement a scheme whereby the purchase of FTRs dictated the transmission investment decision and then these assets were rolled into the RAB, leading to the TNSP being paid at cost rather than from FTR proceeds. The reserve price would aim to avoid the instance whereby FTR purchase dictated transmission investments that were costlier than the FTR auction proceeds.

3.4. **Market power**

The Discussion Paper discusses the potential offer cap that could be applied to generation downstream of a constraint, with a preference for pricing at a value related to the conditions in the wholesale market at that time.[2] An example is given using a reverse Vickrey style auction result, using the second highest offer (one would assume not the generator's offer).

[2] AEMC, Discussion Paper, section 4.6.3

CS Energy finds it interesting that the AEMC is proposing to regulate the transient market power of generation downstream of a constraint when we understand the design proposes to "monopolise" the supply of FTRs. As noted in section 3.1, whilst transmission may be a natural monopoly, the supply of FTRs is not. Demand, storage and generation are elements of the grid that could compete with transmission capacity to provide FTRs in the auction, however this has not been included in the design proposal.

4. Liquidity and other impacts on the contract market

The DRP–FTR model will introduce basis risk into the forward contract market. This risk will be mitigated if a generator can acquire sufficient FTRs and FTRs are firm. CS Energy does not believe the design features as proposed in the Discussion Paper will provide participants with the necessary comfort.

If the DRP–FTR model is implemented as proposed, CS Energy believes there will be two major impacts on the contract market, as discussed below.

(a) Base-load generators who sell contracts into the forward market will need to take a view on the firmness and availability of the FTRs.

- Generators may not be able to acquire sufficient FTRs. If the generator considers it will be unable to acquire sufficient FTRs, it will offer for sale a lower number of firm contracts, offer contracts at a higher strike price or not offer firm contracts.

- Generators may not be able to acquire FTRs at the time buyers in the forward contract market are seeking to contract. The timing of sales is likely to be impacted because generators are likely to limit the volume of trading done between each auction (before they can purchase more FTRs). This may have flow on effects for buyers of firm contracts (predominantly retailers) regarding the timing of retail contracting or may see hedge contracts include a risk premium (for which ultimately the cost would be passed onto the retail customer).

- Under the current design, FTRs are not firm. The level of sales may be impacted based on an assessment of unit "firmness". As noted in section 3.2, a key concern is that settlement residues will be pooled and the residues will be used to pay out FTRs across all regions. Once the settlement residue falls to zero, all FTR payments will be scaled back to zero. CS Energy appreciates this is a trade off in the design, however this leads to each generator being required to make its own internal risk assessment of constraints in other regions, and the impact this may have on FTR payments.

(b) CS Energy believes on implementation, there will be a period of general uncertainty in the contract market.

- Proprietary traders may be reluctant to price contracts until there is a sufficient period to assess the change and risk. For some traders, they may not be prepared to make prices until there is sufficient history to analyse. CS Energy would expect there to be lower levels of trading on the ASX for up to two years with the worst-case scenario being a crippling of liquidity in the contract

market for an initial period if it is unclear to the market how to manage the new risks.

- Base-load generators will be highly incentivised to find ways of removing the basis risk by trading at the local price if possible. If this occurs it will have a dampening effect on general liquidity on the ASX and limit the ability of consumers to adjust their contracts in the market.

The AEMC has also not considered how DRP–FTR will interact with the retailer reliability obligation (**RRO**). If the RRO is triggered, CS Energy as an MLO Generator will have market making obligations. This is a daily obligation for a two-year period (or until the MLO Generator has entered into transactions equivalent to the relevant contracting thresholds). Issues to be considered include the timing of the allocation of FTRs, the firmness of the FTRs and the quantity of FTRs held by MLO Generators. CS Energy acknowledges that as an incumbent generator it is likely to receive an allocation of transitional FTRs to cover its MLO obligations. If triggered, MLO Generators are likely to prioritise meeting their obligations under the RRO, which may result in lower levels of trading in other areas of the contract market. CS Energy welcomes the trial proposed to be run by the AEMC to demonstrate how the proposed model will interact with the RRO.

5. Grandfathering of access

CS Energy broadly agrees with the principles set out by the AEMC in the Discussion Paper. Further clarity is however required, particularly in respect of the trade-offs that may be made in the various design aspects eg as noted above, CS Energy places a high priority on the reserve auction price for FTRs being set at zero.

In relation to the high-level principles set out in the Discussion Paper, CS Energy makes the following comments:

(a) CS Energy agrees that the starting point for transitional FTRs should reflect the steady-state situation.

(b) While CS Energy agrees that transitional FTRs should be sculpted back over time, transitional FTRs should reflect the implicit rights at the time of the original investment decisions. Existing generators made investments based on the current regulatory framework and long-standing market practices under the access model ie network constraints were unlikely to be material over the agreed term of their connection and access agreement. On this basis, we would expect transitional FTRs to be allocated for the remaining term of the connection and access agreement.

(c) CS Energy agrees that incumbent market participants allocated transitional FTRs should be allowed to buy and sell transitional FTRs from each other, and this should not be restricted to the initial auction but allowed to occur over multiple auctions (thereby maximising the efficient allocation of existing transmission capacity).

While not raised in the Discussion Paper, CS Energy also suggests there should be a trade-off between any proposed sculpting back of transitional FTRs and ensuring incumbent base-load generation are incentivised to remain in the market to underpin reliability and system security requirements as the NEM transitions to renewables.

6. Commencement date

CS Energy does not support the AEMC's proposed timetable to implement DRP–FTR by July 2022. CS Energy believes that this is an overly ambitious timetable which fails to recognise:

(a) the significant detailed design development yet to be undertaken by the AEMC;

(b) the impact on participants – implementation of DRP–FTR will not only impact on trading desks but will necessitate additional analytic and accounting functions within organisations;

(c) the IT and other data management changes required to manage the additional data that will arise under a DRP–FTR model – these changes can only be initiated once the Rule is made. CS Energy anticipates that significant lead time will be required to achieve readiness for DRP–FTR (noting that industry has had $3^{1}/_{2}$ years to prepare for the commencement of 5MS);

(d) amendments to contractual arrangements – if the term of existing hedge contracts extend beyond the commencement date the implementation of DRP–FTR will trigger change of law provisions; and

(e) auctioning of FTRs prior to the implementation date – as noted in section 4, CS Energy expects there to be lower levels of trading in the contract market which will only be exacerbated the shorter the period between the initial auctions and the implementation date.

Given the lead times associated with implementation, CS Energy urges the AEMC to reconsider its timetable of July 2022.