



Mr John Pierce AO
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Lodged online: www.aemc.gov.au

30 April 2019

Re: Submission on Co-ordination of Generation and Transmission Investment Consultation Paper

Dear Mr Pierce,

Tilt Renewables thanks the AEMC for inviting stakeholder input on this important proposal. Tilt Renewables is a leading Australasian renewables developer engaged across all stages of project development through to operation. Tilt Renewables currently has 636 MW of operational wind farms across the NEM and New Zealand, with 336 MW in construction and over 3 GW in the development pipeline.

Tilt Renewables agrees with the AEMC and the ESB that it is important to action AEMO's Integrated System Plan. Tilt Renewables is committed to a low-carbon future and sees efficient transmission development as essential in enabling the continued transition of the NEM through the strong flow of private investment in generation.

Tilt Renewables sees that this proposal attempts to solve two problems simultaneously – short-term disorderly bidding and long-term efficient transmission investment. While we agree both problems are real, we do not see that this proposal addresses either adequately, and in combination adds complexity that means the market is unlikely to find an efficient outcome, and at worst may end up with new inefficient outcomes and gaming opportunities. We suggest that disorderly bidding would be better addressed by nodal pricing, though such a change would bring other consequences which would need to be carefully considered. We suggest that long-term efficient transmission investment would be better addressed by further exploring the meaning of "firm access". In this paper, the AEMC proposes a financial hedge (financial transmission right, or FTR) against a local price, but does not consider a physically firm network access right, that we consider would better align with the decision-making processes of a generation developer.

Risk to existing investments and contracts

It is our strong view that change of this scale needs to consider the impact on existing investments, including operational generators and projects under construction, including appropriate compensation and transition arrangements. As an owner of 439 MW of operational wind farms in the NEM (with a further 336MW under construction), Tilt Renewables has significant concerns about the increased

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risks and costs we would face from these proposals, including:

- Substantial risk in re-negotiating existing power purchase agreements under change-of-law provisions. Some of our agreements (mostly contract-for-difference) have calculation of floating revenue tied to RRP (pushing the risk onto us of dynamic regional price (DRP) and financial transmission right (FTR) management), while some become internally inconsistent if the calculation changes. Significant legal and commercial negotiation would be required to resolve this and may result in disputes and/or unsatisfactory risk outcomes for the parties who entered into the agreements in good faith.
- Increased financial risk for operational merchant sites through potentially reduced revenue due to DRPs, and the trading risk and cost in needing to buy FTRs, which do not perfectly hedge the DRP risk due to generation profile mismatch. This trading risk puts small developers at a competitive disadvantage to more diversified big players.

Dynamic regional pricing

On the DRP part of the proposal, Tilt Renewables is concerned that this is incomplete in addressing disorderly bidding and may introduce new inefficiencies. We agree that disorderly bidding occurs but see that there is minimal broader system economic cost if the only participants are near-zero fuel-cost intermittent renewables. In contrast, dynamic local pricing gives valuable short-term economic signals to storage, load and demand side management, driving efficient short-term dispatch decisions. We contend that nodal pricing, applied equally to all forms of load, generation and storage, is the international-standard solution for efficient short-term dispatch and a more strategic approach to efficient dispatch in the NEM, albeit that a change to such a structure requires much deeper consultation and consideration of impacts on the market.

The AEMC's supplementary paper comments that nodal pricing was not implemented for the NEM by design to improve contract market liquidity. We reject this as an argument in favour of DRP over nodal pricing, as under DRP the basis risk remains during congestion, similarly to nodal pricing where significant price separation occurs only during congestion.

Tilt Renewables sees that any change to the market design of the magnitude of DRP or nodal pricing would have a significant impact on both existing operational sites and near-term development of generation capacity, so would need a detailed demonstration of the economic benefits of the change and would need to be accompanied by transition and compensation arrangements.

On the specific proposal by the AEMC for a phased introduction, Tilt Renewables sees that the interim DRP adds complexity and risk for little demonstrated return. Our key issues are:

- For existing operational sites or development projects with PPAs already agreed and on foot, this would cause significant disruption and re-negotiations, with associated costs and risks to operational sites and delays to new investments.
- With the settlement residues staying within the constrained region, this introduces substantial gaming risk and wealth transfer without giving a strong long-term price signal. There is risk of

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the distribution process introducing perverse incentives, such as over-sizing inverters to claim additional capacity. The problem of how to split the settlement residues is difficult, given that storage and generators with different capacity factors and generation profiles are in the same region.

- We contend that this may not add a lot of information value over the existing LOCAL_PRICE calculations performed by NEMDE. Some disorderly bidding may be avoided, thus giving better information, but we contend that AEMO simply estimating an alternative bid-stack would be less complex, costly and risky than imposing these significant changes on generators for the sole purpose of obtaining information which largely already exists.

Complexity of FTRs

Tilt Renewables considers that it is not clear how the proposed Financial Transmission Right (FTR) process enables co-ordination of generation and transmission investment. For effective co-ordination to occur, the price signals need to exist, and a mechanism to achieve the co-ordination needs to exist. Price signals alone, particularly when very complex, will not achieve this co-ordination.

Tilt Renewables considers that the proposed FTR process is too complex to be used for transmission investment, as generation developers do not in general have the trading capability to understand this complex market and its implications for their decision-making, meaning that as a market they are unlikely to make efficient decisions. One complexity is that the proposed FTRs apply to firm MW at the pricing node, paying against the differential in price, but renewable generation is intermittent. This adds to the investment decision the complexity of forecasting the financial return on the FTR, which is disconnected from the well-understood operation of the generator.

Information and co-ordination

Tilt Renewables agrees that the current market is not working effectively, with many projects being developed in locations with poor network access, and significant risk to projects of having limited network capacity at a location overrun by new entrants. We suggest that improved information, a physically firm network access right and formal co-ordination mechanisms, would be more effective.

Tilt Renewables contends that a more efficient solution than the AEMC's DRP and FTR proposal would be to provide information that a developer can readily make use of – where the transmission constraints are and where they could be relieved, to make best use of decisions that developers can make or have already made, particularly in trading off high-return but poor transmission sites against well-connected but lower-return sites. There are a small number of consulting firms that would have the capability to inform generation developers on the FTR process and make forward forecasts of DRP prices, but it is our contention that the forecasts would not be well understood by most developers, and that this substantial consultant effort would be better employed by AEMO to provide detailed and consistent public information.

As a generation developer, Tilt Renewables suggests that the AEMC explore further the meaning of "firm access". We suggest that a right to firm physical access to a network augmentation, with a quantifiable cost, would align better with a generation developer's go/no-go investment decision than

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an FTR financial hedge. The developer would assess the cost of such firm physical access against what the project could accommodate over its lifetime on a Net-Present-Value basis while remaining competitive compared to other projects in their portfolio and other projects competing for off-take. With firm physical access, developers would be more able to make a case to invest in transmission augmentation without risk of free-riding.

In addition, we suggest the AEMC further investigate and consult with industry regarding formal mechanisms to achieve co-ordination of transmission investment, despite the shortcomings identified by the AEMC on many of the options presented in the CoGaTi market review. To reduce the risk to the TNSP and the consumer of stranded assets, we suggest that formal proposals could be required (such as done in competing for PPAs) to allow high-quality viable projects to be identified, and some form of auction or transmission bond process be employed for participation.

In general we highlight the need for deep consultation regarding changes as fundamental as those proposed in the Consultation Paper, which would have broader impacts on the wholesale electricity market than the title of the paper may immediately indicate. We also suggest full analysis and consideration of a range of possible alternatives, given the potentially major impacts of the changes proposed in the Consultation Paper on the operations of and future investment in the NEM.

Tilt Renewables will be pleased to meet with you to further discuss this submission and will be happy to participate in further consultation processes. Please contact Marcelle Gannon at marcelle.gannon@tiltrenewables.com or 0409 799 095.

Regards,

A handwritten signature in blue ink that reads "Nigel Baker".

Nigel Baker
General Manager, Generation and Trading
Tilt Renewables

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