To,
Anna Collyer
Chair
Australian Energy Market Commission
Level 15
60 Castlereagh Street
Sydney NSW 2000

Dear Australian Energy Market Commission,

Terrain Solar submission to the AEMC's 2024 Transmission Access Reform Project (EPR0098).

Terrain Solar is pleased to provide a submission to the Australian Energy Market Commission (AEMCs) Draft Transmission access reform (TAR) market review initiated on 7th March 2024.
Terrain Solar is an intending participant in the National Electricity Market (NEM) as a generator and has developed a number of renewable energy projects in NSW and Queensland, many of which are either under construction or are operational, including:

- Corowa Solar Farm;
- Junee Solar Farm;
- Wagga North Solar Farm;
- Warwick Solar Farm; and
- Molong Solar Farm.
- Kingaroy Solar farm
- Marulan Solar farm

Terrain Solar broadly supports the objectives and principles of the AEMC and Energy Advisory Panel's (EAP) approach to a voluntary congestion relief market (CRM) and potential to extend this to a hybrid model that incorporates locational signals for investment efficiency and incorporates an energy mix which fundamentally prevents cannibalisation.

Open Market Access
We believe the construct of a hybrid model is best served by considering an Open Access Model that efficiently accommodates the following principles:
• Maintenance of a level playing field by facilitating the ongoing introduction of dispatchable energy into the National Electricity Market (NEM) via new renewable energy generation and energy storage projects; and
• Ensuring barriers to entry for the above new projects are not created by:

- Increasing the level of difficulty or predictability of securing transmission access if priority is given
- to incumbent generators. This will stifle competition and innovation in the market.
- Increased project risk due to binary constraint – winner takes all risks. The potential for constraints not known at the time of connection to potentially bind under the priority access effectively shutting off or incurring significant volume reductions are borne by a single

generator rather than spread amongst the market. This may increase future project risk and delay new projects.

- Increasing the cost or timing risk to viable projects trying to enter the market in the event they are unable to secure the transmission access due to delays or cancellation. This will stifle the introduction of new capacity to the NEM, leading to underutilization and lower diversity of renewable resources and slower progress to decarbonization goals.

Artificially increasing the market power, gross margins and market share of incumbent generators able to leverage their guaranteed access to secure higher prices due to a supply/demand imbalance. Consumers will ultimately pay higher prices as a result of this market power, and the congestion will fundamentally 'migrate' to a new economic signal or location in the grid.

Further, the Priority Access model could:

• Limit the flexibility of the grid to respond to real-time changes in supply and demand and incumbents with guaranteed access may not be the most efficient or flexible sources of capacity at all times. This rigidity could result in the potential for new transmission capacity investment prompted by less efficient localized use of the grid, and higher operational costs translating into higher prices for consumers.

• Distort market signals that are crucial for investment decisions as new generator are unable to fully assess the true value of their investments due to the uncertainties and constraints imposed by the priority system. This will lead to either overinvestment or underinvestment in congested areas, thereby misaligning the capacity supply and demand balance.

In the alternative if the AEMC does decide to go ahead with a priory access model then Terrain Solar has a preference for a model that provides the most certainty to participants on the most equitable basis. Accordingly, Terrain Solar believes that Option 1 Grouping by time-window provides more of that balance. Option 1 is more straightforward than the other options and the methodology is not lost in unnecessary complexity. The softer priority approach in Option 1 by having a BFP adjustment rather than a sequential hard priority solve in Option 4 will likely provide a more equitable solution for the market where the delivery times for project may differ by only weeks or months but fall on wrong side of a cut off year.

Option 2 provides too significant a benefit to Renewable Energy Zone (REZ) generation and is likely to delay and hamper the delivery of projects. We are already behind on the development of new generation and Option 2 would essentially require all new projects to be in REZs (by way of such a large disincentive to locate outside of REZ zones). This would not only be likely to further delay generation coming to market but creates a very large single point of failure in the delivery of new projects, this is especially pertinent in circumstances where large transmission infrastructure is difficult to delivery on time and is inevitably delayed.

While Option 4 dynamic grouping could be beneficial the very hard priority will provide too binary based outcomes on prospective generators/storage projects where the projects are electrically close but the meeting of the queue requirements is only marginally later, those projects will still fall into a later qualifying period and be subjected. This binary treatment is unlikely to foster faster project development and delivery and is more likely to delay projects coming to market as they will likely require much more constraint due diligence.

National Electricity Objective - alignment with emissions reduction objective

Terrain Solar also has concerns that priority may be given to incumbent generators that have high emissions. In respect of the recent changes to the National Energy Objective. Terrain Solar suggests that providing priority access to fossil fuel generators would be inconsistent with the new requirements to ensure that rule is made with a view to the achievement of reducing Australia's greenhouse gas emissions. Accordingly, we would suggest that the AEMC look at ensuring that any priority access ensure that lowest emissions technology is provided priority ahead of emission intensive generation.

Congestion Relief Market

It is difficult to provide detailed comments on the two CRM mechanisms "two-stage" vs "co-optimised" without sufficient evidence and examples of how the price outcomes and dispatch may differ under the two options. Of particular interest is how the physical bids could affect the access bids and volumes to the extent that access volumes are reduced by bidding in the physical dispatch. Without a clear answer on this, it is difficult to ascertain whether the co-optimisation option provides the outcomes that are being sought by this rule change.

Co-located storage access

Terrain Solar would like to see clarification as to how co-located assets would be treated under the CRM both for AC and DC connections. There is the potential for this market to create a disincentive for co-located storage where storage assets cannot individually bid into the CRM and be paid for the congestion relief. Additionally, is our understanding that VRE projects are more robust and satisfy newer system security requirement when paired with storage. In order to ensure that the CRM provides an incentive for storage to both relieve congestion as well as contribute to system strength this ability to bid individually from behind a single connection point should be clarified.

Conclusion

Terrain Solar is supportive of the AEMC's role in advancing the National Electricity Rules and updating the framework and aligning incentives to support transmission reform. The Priority Access model, by favouring incumbent generators and creating barriers for new entrants, undermines the competitive dynamics of the National Electricity Market and fundamentals of the National Electricity Rules. It introduces inefficiencies in resource allocation, pricing, and operational flexibility, ultimately leading to higher costs for consumers and slower progress toward renewable energy integration and market innovation. An open access model, driven by market forces and based on demand and supply, would likely results in more efficient outcomes, fostering a competitive and dynamic electricity market. In light of the above and as an intending participant, we thank you for the opportunity to provide a submission to the AEMC's Transmission Access Reform Project

Regards,

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