



26 May 2023

Ms Anna Collyer
Chair
Energy Security Board
Lodged by email to: info@esb.org.au

Re: **Response to Transmission access reform Consultation Paper May 2023**

Dear Ms Collyer:

Tilt Renewables welcomes the opportunity to make a submission to the above Consultation Paper ("Paper") as part of our continuing engagement with Energy Departments and the Energy Security Board ("ESB").

Tilt Renewables is committed to continue playing a lead role in accelerating Australia's transition to clean energy. Tilt is one of the largest owners and operators of wind and solar generation in Australia, with 1.3 GW of renewable generation capacity across nine operating wind and solar farms and another 396MW wind farm (Rye Park in NSW) under construction. In addition, Tilt Renewables has a development pipeline of over 5 GW including the 1.5 GW Liverpool Wind Farm development project in NSW's CWO REZ.

Executive Summary

- **Tilt Renewables continues to consider that Edify's version of the Congestion Relief Market (CRM) warrants further analysis and consideration.**
 - We do not support further work on the ESB's proposed CRM model that settles at a local nodal price as described in the Paper whether it's called a Congestion Relief Market Price (CRMP) or Locational Marginal Price.
- **Tilt Renewables does not support Priority Access as currently defined in the Paper.** There needs to be a better balance between protecting current investments and enabling new developments to avoid slowing down much needed investment in new generation and storage.
- **Tilt Renewables continues to support modelling of the rounding constraint coefficients option as mentioned in the Paper.** Modelling may show this option to be impractical, but if the modelling demonstrated this option was effective, then it represents a simple way to successfully mitigate the 'winner takes all' problem.
- While not a subject of this paper, **Tilt Renewables considers that Enhanced Information should proceed as soon as practical**, and the rule change prioritised and expedited. If implemented correctly, we consider that this initiative is likely to be more effective than the ESB might consider.



- **Tilt Renewables considers that it is very premature to decide which Access Reform Model(s) should be implemented** (if any) and advocates further analysis and evaluation of the Edify CRM and more balanced Priority Access models.

Tilt Renewables provides more detailed commentary on the CRM and Priority Access models below.

Overview

As an overarching principle, our view is that any access reform needs to be a low risk reform with minimal disruption to the market while demonstrating benefits that clearly outweigh the costs **and** potential risks. Unfortunately, this principle is not reflected in the four Access reform objectives in Figure 2 of the Paper.

Congestion is an issue in the NEM --- amongst many other important issues. According to the submission to the previous paper by the Battery Storage and Grid Integration Program of the ANU¹, only 15 generators are encountering curtailment of 7-8% or more and all of them are solar farms. Tilt Renewables considers that effective implementation of Enhanced Information, along with acceleration of transmission and REZ builds, will make significant contributions to managing curtailment at an economically efficient level.

The ESB's hybrid solution of Priority Access and CRM entail two massive changes to the NEM which would dramatically change the way the NEM operates. In addition, there is a huge amount of uncertainty; just a few of the important questions that have yet to be answered are:

- Will the NEM Dispatch Engine (NEMDE) be able to cope with implementing both reforms?
- How will each reform actually work in practice?
- Will each reform operate as intended, or will there be significant unintended consequences or perverse incentives?
- Does the hybrid model increase the opportunity for larger market participants to 'game' the CRM (and NEM) to the detriment of consumers?

We would suggest there are many more 'unknowns' than 'knowns' with regards to the implementation of the hybrid model.

While we understand that Energy Ministers are eager for a resolution to the 4+ year access reform process, it needs to be recognised that three years of this time was focused on COGATI/CMM/LMP even though market participants strongly opposed them. Tilt Renewables contends that it is simply too early to decide whether Priority Access or CRM should be implemented. It is also not clear why both schemes need to be implemented together. Each scheme needs to be assessed individually and must stack up on its standalone merits given each result in very material changes to how the NEM would operate.

Drafting rule changes in the second half of this year as described in Figure 1 of the Paper is not realistic and progressing that quickly and without due consideration may cause unintended disruption and additional investment uncertainty for an industry already struggling to meet the Government's 83% renewable energy target by 2030.

¹ *Response to Transmission Access Reform Directions Paper* Battery Storage and Grid Integration Program of the ANU 21 December 2022



Congestion Relief Market

As stated in our previous submissions to the ESB Access Reform papers released in June and December 2022, Tilt Renewables supports continued analysis and evaluation of Edify’s original version of the Congestion Relief Market. In its most simple form, batteries bid in congestion relief (i.e. charging) into an ancillary CRM behind a constraint at say, \$80/MWh, and a solar farm transacts at this price to be dispatched. Then, both the battery and solar farm settle at the Regional Reference Price (RRP) in the energy market at say, \$100/MWh. The solar farm earns a net \$20/MWh (and LGCs) while the battery charges at a relatively low net price of \$20/MWh. This is an attractive framework where consumers benefit from increased utilisation of the network as well as more low priced renewables being dispatched to meet energy demand. It’s important to note that both the CRM buyer and seller still settle at the RRP.

However, Tilt Renewables does not support the ESB CRM model as described in the December 2022 Directions Paper where settlements occurred at a Locational Marginal Price (LMP). It could be inferred that Energy Ministers were of the same view as the Communique from their February 2023 meeting states [bold added for emphasis],

*“Ministers decided not to further develop or consider the congestion management model and congestion fee options, **ruling out any models using locational marginal pricing.**”*

In the April 2023 Consultation Paper, there are refinements, but very few changes, to the CRM proposed in December. However, in the April 2023 paper, the CRM is stated to settle at a Congestion Relief Market Price (CRMP) which, as stated at a recent Access Reform Technical Working Group meeting, is the same as LMP.

The December paper stated there were challenges implementing the Edify CRM model. This does not necessarily justify progressing a CRM model settling at CRMP/LMP which will have its own challenges. The figures below contrasting the Status Quo dispatch process and the hybrid CRM dispatch process do not inspire confidence or encourage investment certainty that there will not be significant implementation issues to be overcome with the hybrid dispatch process.

Status quo design

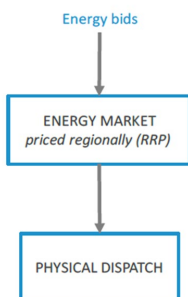
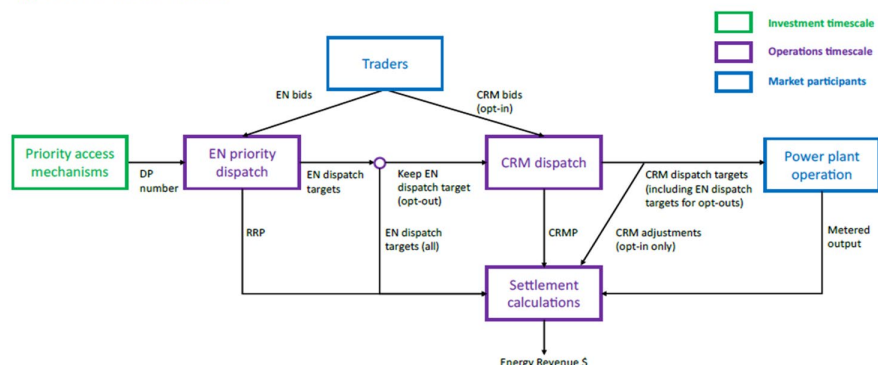


Figure 17 CRM architecture





If the challenges to successfully implement the Edify model are actually insurmountable, then work on the CRM model should focus on exploring other, preferably less complex, options or alternatives besides settlement at LMP/CRMP.

Priority Access

General Comments

In Figure 2 of the Paper, Access Reform Objectives, Objective number 2 is:

2. Manage access risk: Establish a level playing field that balances investor risk with the continued promotion of new entry that contributes to effective competition in the long-term interests of consumers.

Yet, the Priority Access model proposed in the Paper assigns 100% of the risk of the incremental containment of every existing generator to the first new generator in the queue model (or in the Tier model, the first new generator in the next higher tier). It is difficult to understand how this “balances investor risk with that of continued promotion of new entry.”

The risks to the new entrant are very significant for many reasons, including:

- By 2027 or 2028, when this reform is to be implemented, there will be many, many more incumbent generators with the highest priority access.
- A new generator will likely be involved in dozens of constraint equations, and the incremental curtailment for any of the other generators in any of these dozens of constraint equations will be borne 100% by the new entrant.
- Even if extensive studies of the incremental curtailment caused by the new entrant in these dozens of constraint equations is forecast to be minimal, the financial risk of this forecast being inaccurate will be very significant. Financing institutions take a very conservative view of these sorts of issues when completing due diligence for new generation investment which could easily lead to higher capital costs, and ultimately, higher costs passed through to energy consumers.

While it is understood Priority Access provides protection for the 1st new entrant with regards to a 2nd or 3rd new entrant increasing its curtailment, this protection is dwarfed by the risk of increased curtailment of all earlier generators.

As we stated in our previous submission, Tilt Renewables does not underestimate the difficulty of developing a simple and robust model that balances the interests of existing investment and new development, but as the ESB infers in Objective 2, this is needed for Priority Access to be in the long term interests of consumers.

Specific issues and comments on Priority Access

Should Priority Access be implemented in some form, Tilt Renewables would make the following comments on specific issues raised in the Paper.



- Reading between the lines of the paper, it appears that individual queue positions are unlikely to be practical or feasible. In addition, a Tier system provides a bit more balance between earlier generators and new entrants---if they end up in the same Tier. Therefore, we would suggest the Tiered approach be progressed.
- Generators in a developing REZ must be given priority access over intending non-REZ generators in, or near, the REZ. Tier positions, or queue numbers, should be reserved for REZ generators years ahead of non-REZ generators to avoid 'free riders' obtaining priority access over REZ generators who are actually paying for the new transmission.
- There is very little, if any, rationale for 'auctions for access'. Priority Access is not a revenue raising mechanism and such auctions would reduce competition by entrenching the advantage of larger market participants to the detriment of consumers. The ESB should progress the 'first come, first served' model.
- Priority Access should only be used for 'system normal' conditions. If there are scheduled or unscheduled transmission outages resulting in significant curtailment, there is no reason why new entrants should bear all of the incremental curtailment. The additional curtailment caused by these outages should be shared as is done today. If this is not the case, this risk alone could stop new entrants as they would face the possibility of 100% curtailment for many months.
- Likewise, should AEMO determine that a new constraint is required for system security after the new entrant becomes a 'Committed Generator', the new entrant should not be subject to bearing all the costs of increased curtailment of older generators from a new constraint equation they could not have foreseen.

Last, there is the issue of priority access for coal and gas generators. It is stated on page 43 of the Paper that,

“Many fossil fuel generators are currently in uncongested parts of the grid. In general, the treatment of legacy generators in the priority access model is not a choice between old high emission generators and new low emission generators, but between older and newer low emission generators.”

If the ESB's statement is correct, then high emission generators should have little objection to having no Priority Access, or very limited Priority Access, as it won't be a material issue. For coal generators, the limited Priority Access could be just for their minimum operating level to maintain operation. It would be contrary to the Energy Ministers' decision to incorporate lowering emissions into the National Electricity Objective to provide the highest Priority Access to incumbent high emission generators resulting in the constraining off of (lower cost) zero emission generation.

As Tilt Renewables is an active developer of renewable projects, as well as a significant owner of renewable generation, we appreciate the necessity of trying to achieve a reasonable balance between these interests. Tilt Renewables does not support the Priority Access as currently proposed; however, we do support continued work on Priority Access focussed on ways to achieve this balance between protecting existing investment while not providing excessive impediments to much needed new generation and storage.



Conclusion

It is imperative that additional roadblocks are not placed in front of new generation and storage projects and the uncertainty and disruption caused by a decision to implement Priority Access or CRM at this point would do just that. The impact of delaying investment in generation and storage can only have one impact on electricity bills. Businesses and households will see higher electricity prices as there will be less generation and storage built. When a balanced Priority Access or CRM not settling at LMP/CRMP is much better understood, clearly demonstrates significant benefits and low risks, and achieves broad support from market participants, then a rational decision can be made to implement one of the schemes.

Thank you for the opportunity to comment on the Paper, and we look forward to continuing further discussions with Energy Departments and the ESB and its successor. Please feel free to contact jonathan.upson@tiltrenewables.com should you have any questions or to discuss any aspect of this submission.

Yours Sincerely,

A handwritten signature in black ink that reads "Jon Upson".

Jonathan Upson

Head of Policy & Regulatory Affairs

Tilt Renewables