



22 December 2022

Ms Anna Collyer
Chair
Energy Security Board

Lodged via email to info@esb.org.au

Dear Ms Collyer and Senior Government Officials,

Submission in response to ESB Transmission access reform Directions paper

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent over 1,000 of the leading businesses operating in renewable energy, energy storage and renewable hydrogen, and are committed to accelerating Australia's clean energy transformation. We are focussed on developing regulatory frameworks to support efficient investment in the large number of new renewable generation and storage projects that are needed to deliver secure, reliable and zero emissions energy for consumers.

We appreciate the extensive work completed by the ESB to date on Transmission Access Reform (TAR), including the broad engagement with industry. This collaborative approach has fostered genuine development of new ideas and helped progress this fraught reform area further than has been managed in many years.

The CEC recognises that congestion is an inevitable factor in the grid, with potential to increase if there is insufficient investment in transmission and generators are not provided with adequate information and incentives to locate in the optimal areas of the grid.

However, it is not clear as to the magnitude of expected congestion and when this is likely to appear. There is no clear evidence presented to date of this. As such, there is no real such justification as to why an urgent introduction of the various ESB reform is needed.

Any change to the regulatory frameworks must be adequately assessed in terms of how it will help or hinder the investment needed to deliver this transition. The effectiveness and efficiency of this investment process will be central to delivering a reliable supply of low cost, low carbon energy to customers. Proposed mechanisms for access protection should also be as open and transparent as possible. This means that where they are implemented, new and existing participants have a clear understanding of how the mechanism will work. Without this, investment in new generation will face increased risk and delay.

This brief submission will provide a summary of our position and key concerns in relation to the proposed hybrid models presented by the ESB.

Following the comprehensive [submission to the ESB](#) made by the CEC in June this year, we do not see that there has been substantial further progress made. As such, we consider more extensive analysis and modelling is required by the ESB, as well as better explanation as to the design elements of the various hybrid models.

The CEC therefore makes the following recommendations for the continued progress of the TAR work program of the ESB:

- There is a majority view across our membership that the Congestion management model (CMM), or any form of LMP, is highly problematic for efficient investment. The continued presence of CMM is inhibiting industry engagement and preventing constructive progress. **We consider that LMP, in its various forms, should be formally withdrawn from consideration as an option.**
- Since the ESBs Post-2025 review commenced, there has been significant progress of Renewable Energy Zones (REZ) by State jurisdictions in [New South Wales](#), [Queensland](#), [Victoria](#), and [Tasmania](#), in addition to Commonwealth development of [Rewiring the Nation](#) (RTN) and jointly coordinated [Marinus Link](#) and [Gippsland Offshore wind zone](#). All these proposed plans are expected to significantly alter how and to what extent congestion becomes a pressing issue. **We consider that national access reform, such as that considered by the ESB, should not be progressed ahead of these various Commonwealth and State based reforms.** To do otherwise creates a significant risk of introducing national frameworks that are rushed, poorly thought out and which may simply be derogated away from across the various jurisdictions.
- There has been insufficient modelling and cost benefit analysis (CBA) completed and/or shared by the ESB to enable clear decision making or feedback by industry stakeholders, as well as unsupported [indicative costs estimates](#) still being considered as valid. The high-level nature of all proposed models makes it extremely difficult to provide conclusive positions. **This modelling must be completed and published, with sufficient time for industry and all other engaged stakeholders to understand and interrogate it before any further progress is made introducing these reforms.**

We appreciate that Energy Ministers are eager to determine a pathway forward. However, it is critical that reforms are fully developed before they are introduced. Rushing reforms of this magnitude risks introducing material unintended consequences and may worsen an already highly unstable and uncertain investment environment.

As the CEC presented in our June submission, we see great potential in the congestion relief market (CRM) and we therefore undertook significant development of this model prior to lodging our submission. We appreciate that the ESB has worked collaboratively with industry to try and develop the model to the next level and welcome this engagement.

However, significant additional work remains to be completed before we can be confident that the CRM will prove beneficial. As such, the CEC does not formally endorse the CRM as a mechanism to be implemented on an urgent basis. The ESB must undertake additional cost benefit analysis with full transparency to determine whether the CRM is likely to deliver efficient outcomes.

As stated above, we would also like to make clear that we do not accept that the CMM should form a 'fallback' option if the CRM does not pass a full cost benefit assessment. The CMM remains a retrograde reform that would destroy investment confidence. We remain of the view that it should be formally removed from consideration.

Beyond this, we consider that significant additional work is required to explore all of the implications of the various investment timescale mechanisms. At this stage, insufficient information has been presented to industry to be able to form a view as to whether these models should be endorsed or rejected.

If you would like to discuss any of the issues raised in this submission, please contact me at czuur@cleanenergycouncil.org.au.

Yours sincerely,

Christiaan Zuur
Director Energy Transformation

Appendix – Expanded commentary

CEC June Submission summary

The focus of the CECs June 2022 proposal was the Modified Congestion Relief Market (CRM), which built on the CRM model as originally proposed by Edify Energy.

At the time, we developed this model on the basis that it provided a way to allow for trading around congestion to find the most efficient outcome. It was also a strictly voluntary model, which remains one of the key reasons why the model warrants further investigation.

Importantly, our working up of the CRM to this next level of detail represented one iterative step in the process of developing alternative solutions to the ESB's proposed models. It did not then, and does not now, represent a formal endorsement of the model by industry. Rather, we considered that the model showed the most promise of any that had been considered and therefore warranted further analysis. Our view has not changed since then – the ESB has not yet provided sufficient additional evidence to allow the CEC to provide any formal endorsement of the CRM as a model that should be implemented.

In the investment timescale, we considered an enhanced information approach should be taken to promote standardisation and consistency in flows of information between generators, transmission network service providers (TNSPs) and AEMO. This would allow high calibre information to be fed into the planning processes to deliver more efficient investment outcomes and market signals.

Of all four models put forward for further development by the ESB, and including the Modified CRM, no model has been sufficiently developed to a point that the CEC can confidently see how it will be implemented and what impact it will have on the market. Further work is required on all of the models.

Comments in underlying logic

We are still unclear as to the ESB's underlying logic regarding generator locational decision-making incentives, and why the ESB automatically considers that generators will necessarily locate in areas of the grid with problematic congestion.

From both the paper and discussions with the ESB, there has been a large significance placed on the expectation that 'altruism' of market participants cannot be relied upon. However, we instead see that generators and investors are making decisions based on commercial practicality, whereby they would not be deliberately building in a congested part of the grid. Market participants need allowance to make decisions in the market based on their own due diligence and research.

Existing signals, particularly existing congestion and MLFs, already create strong commercial disincentives to locate in poor areas of the grid. This powerful existing signal is more or less ignored in the ESB's analysis.

Similarly, we also question the ESB's reliance on concepts of 'predatory locational decisions', where generators purposefully seek to locate in a part of the grid where their coefficients would allow them to

'steal' the access of incumbents. The changeability of said coefficients would make such an investment strategy unrealistic, if not fundamentally irresponsible.

Operational Timeframe

Congestion Relief Market (CRM)

As identified in our earlier submission, we continue to consider that of all the models developed by the ESB, the CRM shows the most promise as a way to deliver better operational and investment outcomes. Coordinating generation and charging behaviours means the CRM can facilitate better overall use of these assets to supply energy to consumers over time and increase the efficiency of network assets.

For example, it would incentivise a battery to coordinate and consume excess energy produced by a solar generator when a constraint is binding, rather than competing against the generator to export power over the network to the regional reference node (RRN). This energy can then be exported to the network in the evening, when the solar generator is not operating, driving more efficient overall utilisation of the network.

We appreciate that the ESB has engaged with industry and put some effort into further developing the CRM. However, significant further work remains to be done. This reflects the various concerns raised by CEC members related to the significant uncertainties associated with the CRM as it is described in the ESB's paper.

Specifically, a number of concerns with the CRM have been identified as presented in Directions Paper:

- 'Option 2' presented on page 55ⁱ on the paper when showing calculations for RRP, which removed a single energy price at the RRN and instead established a RRN (CRM) – which appeared to move away from the core principle of having a single energy price against which all parties could elect to be settled.
- The paper highlights that participants wishing to 'opt-out'ⁱⁱ of the CRM can elect to do so, however this contradicts the key foundation of the CEC proposed CRM, which is strictly **opt-in** by design to allow participants to manage their exposure to congestion changes over time.
- Lack of clarity as to how CRM would solve with multiple binding constraints – example showing how CRM would settle two or more constraints

It's important that the ESB also be more specific about the nature of the price that parties would be settled at. A core principle is that the energy price should continue to be settled at a single price at the RRN, through an energy only dispatch. Subsequent determinations of a CRM price should be determined separately and should not affect the energy only price at the RRN. This is core to allowing those parties who elect not to participate in the CRM to maintain their current bidding practices.

More generally, there is concern amongst many CEC members that the strictly voluntary nature of the CRM may be eroded, with unwilling participants being forced to participate in the CRM. The ESB must clearly address this concern.

Congestion Management Model (CMM)

At its core, the CRM model is preferable to the CMM because it is a voluntary, market-based approach. Like all efficient markets, it allocates specific risks to those parties who can most appropriately bear it.

Unlike the CMM, it provides investors with a choice as to whether or not they participate in the parallel congestion relief market. It also offers transparent and predictable price discovery – a critical characteristic that is missing from the CMM – which is central to efficient investment.

The CMM, or any other form of centralised, non-market, regulatory locational marginal price (LMP), cannot be accepted by the CEC or industry more generally. This is because any form of LMP in the energy only market creates enormous complexity when it comes to forecasting prices, which underpin the ability to strike contracts and invest in new assets. Put another way, the CMM is effectively a ‘tax and rebate’ model – such a model, dependent as it is on the dictates of a central regulatory body, cannot be meaningfully forecast and therefore cannot underpin investment decisions.

We disagree with the ESBs positioning throughout the paper that the fallback position should be the CMM, if it can be demonstrated that the CRM does “not provide additional benefits commensurate with the additional complexity and cost”¹. As we have shown, time and again, the CMM will massively increase the cost of investing in new renewables. It cannot be allowed to become NEM policy.

On this basis, we therefore urge the ESB and officials to remove the CMM from consideration.

Investment access approach

Current regulatory uncertainty and lengthy project timelines can create difficulty in generating clear market signals for investors that are aligned with planning decisions being made by TNSPs. The CEC believes there are information gaps which must be addressed in order to resolve this, which would improve proponents’ ability to undertake early modelling and higher-calibre due diligence. This would promote timely and efficient investment.

This thinking underpinned our proposal for enhanced information sharing in June, and we see merit as a standalone model in the investment timescale. Improved information flows in the network planning and development process will enable efficient risk allocation between TNSPs and generators and storage proponents. Better coordination of existing regulatory processes can also be used to deliver more efficient transmission investment.

The flow of information processes and planning from TNSPs will lead to better information to support the Integrated System Plan (ISP), coordination of system strength and REZ frameworks, and provide clear network modelling for new generators to understand investment opportunities. This will generate the availability for more robust modelling and information for private investors. In turn, this will enable generators to complete increased due diligence to avoid potential congestion on both them and their neighbours, support standardised development of information for incremental augmentations, and de-risk large scale transmission investment through clearer investment signals.

We would caution the ESB from further overcomplicating an already complicated system by introduction of an investment timescale mechanism which overlooks the existing capabilities of the energy market

¹ Energy Security Board, 2022, Transmission access reform Directions paper, p. 11

and its stakeholders. There is good opportunity to harness existing regulatory processes to streamline and increase transparency and generate efficient transmission investment.

Congestion Fees and priority access

The CEC acknowledges that there are a range of views as to the desirability of the various investment timescale models as proposed by the ESB.

At this stage, the CEC has not seen adequate information and analysis from the ESB so as to be able to make a decision as to whether to endorse any model, or whether to reject any either.

We are therefore calling on the ESB to undertake more robust analysis of the various models, including exploring all the various options and sub options explored in the paper.

However, we have set out some issues regarding the various models below.

Congestion fees would do little to reduce future congestion risk. As the ESB itself admits, these fees would not automatically dissuade subsequent investors from connecting and curtailing the access of an incumbent

Fees are also extremely hard to determine and then readjust as more information / changed network conditions come to light. This will result in unpredictability of fees, increasing investor risk. The three potential metrics outlined in the paper for calculating feesⁱⁱⁱ create no comfort or confidence for an investor as to how fees may impact their investment. The creation of criteria set to represent a chosen metric will be fraught with contention, and even harder to manage as the grid expands in coming years (e.g., if an area is no longer congested, does the generator then get a refund) and with varying capacity factors across technologies.

It is also not clear whether the rapidly changing nature of system limits, particularly stability limits, can be effectively translated into a metric like a congestion fee. This has not been effectively explored by the ESB.

An issue that cuts across priority access and connection fees relates to how these models impact on the connection process. The connection process has been consistently identified by investors as the element of the national frameworks that creates the most significant uncertainty and problems for bringing new generation to market. This is why the CEC has focussed our efforts on improving the connection process through the connection reform initiative (CRI).

The problem created by both the priority access and connection fee models is that they introduce a marked new uncertainty into the connection process. The ESB has identified that either establishment of a queue position, or final determination of the connection fee, will need to occur at some point within the connection agreement process. At the latest, this could occur close to the execution of the connection agreement itself, at the time the 5.3.4a approval process is finalised and FID is reached.

The problem is that leaving such a material factor undecided until so late in the connection process will tend to massively increase the degree of risk in the process, or may very well make it impossible to reach FID. The only real alternative would be to lock queue position or connection charge into place very early on in the process, perhaps at connection enquiry. However, this creates the risk of perverse

incentives and strategic behaviours – such as lodging multiple speculative connection enquiries with a view to locking in a lower cost connection fee or preferable queue position.

All of these issues may be manageable through convoluted regulatory design – however it must be asked whether such additional complexity is warranted, given the questionable nature of the underlying issue.

We also have significant concerns with the reliance placed on the CRM to address the potential operational inefficiencies created by the priority access model. This is not the intended purpose of the CRM and creates substantial risk of unintended consequences.

Finally, none of the ESB's proposals do away with the key flaw of all of the models other than the CRM – how to manage grandfathering issues. Significant further work is required to assess what these grandfathering provisions would look like in practice, and what this will mean for the speed and efficiency of the transition.

ⁱ Energy Security Board, 2022, *Transmission access reform Directions paper*, p. 55

ⁱⁱ Energy Security Board, 2022, *Transmission access reform Directions paper*, p. 11

ⁱⁱⁱ Energy Security Board, 2022, *Transmission access reform Directions paper*, p.32