16 January 2020

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

Lodged online: www.aemc.gov.au

Dear Mr Pierce,

TRANSMISSION LOSS FACTORS (ERC0251) – DRAFT DETERMINATION

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage along with more than 6,500 solar and battery installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter, cleaner and more affordable.

The CEC welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC's) draft determination in relation to the transmission loss factors (TLF) rule change proposal. We also thank the AEMC for the opportunity to present at the pre-determination hearing on 4 December 2019. Noting the complexity of this issue, the CEC acknowledges the divergent views across our membership and have sought to best reflect and comment on key areas with broad consensus.

In our submission to the earlier consultation paper, the CEC outlined our view that the current Marginal Loss Factor (MLF) framework was no longer delivering stable and predictable results. This MLF volatility has been detrimental to the clean energy industry and in particular, a number of edge-of-grid renewable investments as a result of growing network congestion and other factors. In our November 2019 survey of our member company CEOs, MLF issues were recognised in the top five business challenges facing the industry.

The CEC is cognisant of the recent work undertaken by the AEMC to increase information transparency of new projects and the increased publication of MLF trend analysis by the Australian Energy Market Operator (AEMO). While both efforts and the recommendations outlined in the draft determination are valued by the clean energy industry, they do not adequately address the increased volatility faced by existing renewable generation. The CEC therefore encourages the AEMC to review its TLF draft determination to assess if any further changes can be made to minimise MLF volatility risk and better protect generator investments once they become operational.

Quantitative analysis is limited

The CEC does not consider the draft determination has provided adequate quantitative analysis to support its decision to retain MLFs in preference to the range of alternatives, while simultaneously unfairly discounting the complex analytical work undertaken by Baringa Partners as part of the CEC's

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earlier submission. The CEC urges the AEMC to include further analytical work in its final determination to ensure a robust quantitative and qualitative assessment of the issue. For example, an average loss (ALF) factor framework could reduce the intra-regional settlement residue (IRSR) as the use of MLFs generally tends to result in an over-recovery of funds from settlement. However, no analysis has been undertaken into the magnitude of the IRSR under different TLF methodologies nor the potential that a changed methodology and subsequent IRSR changes could lead to a redistribution of wealth between different parties. The final determination should explore these matters more fully.

It is also important that the AEMC provide a deeper analysis into the consumer implications of different TLF methodologies. Assessing IRSR impacts is one avenue that could be explored. Likewise, the draft determination focuses on the MLF versus ALF implications for generators only. It does not recognise that large users also have an MLF. As such, no analysis has been provided of the implications of MLF, ALF or any other methodology for large users. In assessing consumer implications, that there is limited analysis of the direct implications to loads seems to be an oversight. Analysis of consumer implications should obviously not just focus on grid-connected loads but the range of different consumers.

The impact on cost of capital should not be understated

While the draft determination does acknowledge generator and developer concerns around MLFs, the CEC asks that the AEMC not understate this issue and the impact it is having on some renewable energy projects. For example, the draft determination's discussion of the impacts on the costs of debt and equity is fairly limited. We recommend that the final determination include a deeper investigation into the impact MLFs are having on the financing and re-financing of new developments and existing generators respectively. The results of the AEMC's recent investor survey should be helpful in this regard.

In the market, MLF risk is manifesting itself in increased risk premiums for new projects, as well as more onerous revised terms during the re-financing of existing generators. Some of our members anecdotally report that a one to two percentage points premium is currently being added to the cost of capital for new renewable projects in Australia as a result of MLF risk. This equates to an additional $10-15/MWh added to renewable energy projects.

No other market in the world has MLF volatility similar to the volatility observed in the National Electricity Market (NEM). Compared with comparable markets such as the US and UK, Australia has the highest cost of capital in the world for new renewable generation build. Some CEC members have anecdotally indicated weighted average costs of capital (WACC) of eight to ten per cent in Australia depending on the level of contracting. The lower WACC is generally for fully contracted projects while higher WACCs are for fully merchant projects. This compares with WACCs of five to six per cent in the US and UK.

The implications of a higher WACC are two-fold. Firstly, a higher cost of capital increases the levelised cost of energy, resulting in higher prices for consumers. Secondly, it is already deterring investment in new generation and it is entirely possible that renewable investors will withdraw from the Australian market to invest in markets with less loss factor volatility.[1]

The current state of generation investment should not be understated

The NEM is at a point of significant transition. Unprecedented levels of new investment will continue to be required to maintain reliability and stabilise wholesale prices as a number of large thermal

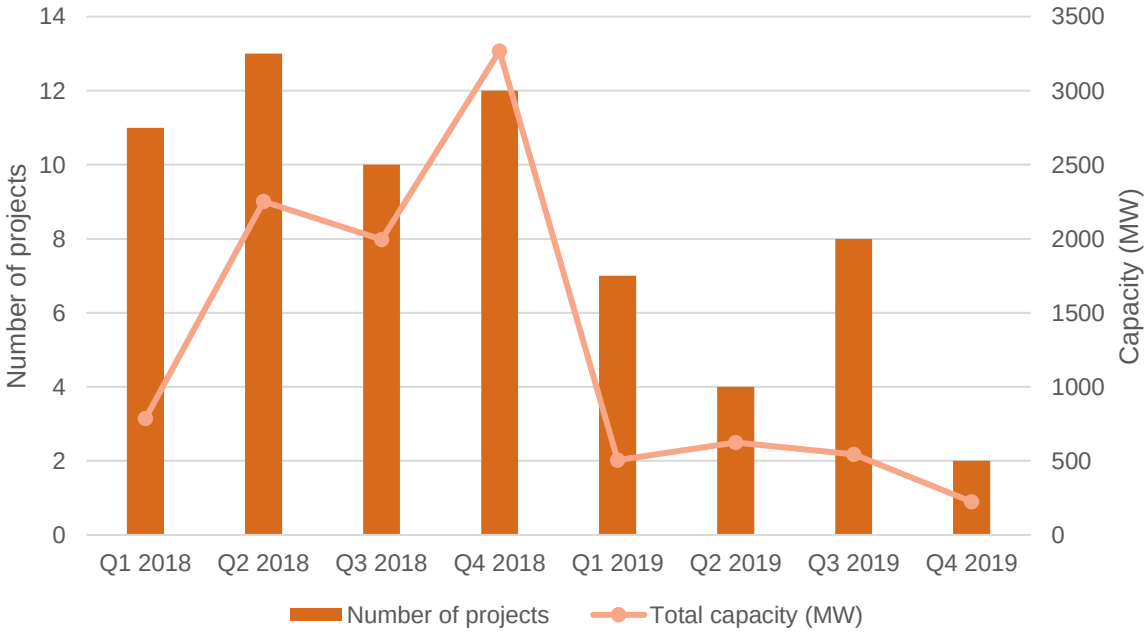
[1] For example, John Laing has announced it has suspended new investment in renewable generation in Australia given it has had to write down $121 million on three of its projects due to MLFs. See: https://www.pv-magazine-australia.com/2019/08/26/john-laing-puts-new-investment-in-australian-renewables-projects-on-hold/.

generators retire and need to be replaced. Ideally, we should be building enough new generation before they retire to ensure that energy consumers are not exposed to unnecessary spikes in their power bills or gaps in supply.

In terms of the retirement of thermal plants, 15 GW of coal-fired generation is expected to close between now and 2040. To replace this, over 30 GW of new large-scale renewables is needed in all but the slow change scenario of AEMO's Draft 2020 Integrated System Plan.[2] Under the central scenario, 34 GW of large-scale renewables and approximately 10 GW of utility-scale energy storage are required by 2040.[3] In total, this represents 44 GW over the period or approximately 2.2 GW annually for the next 20 years.

As evidenced in figure 1, renewable energy development had boomed in recent years, largely driven by the 2020 large-scale renewable energy target (RET). In the NEM, between 10 and 13 large-scale projects equating to between 2 and 3.3 GW were financially committed in each of the quarters from Q2 2018 through to Q4 2018. Since then, however, the numbers of financially committed projects have significantly dropped off to between two and seven projects in each quarter of 2019, equating to between 220 and 630 MW each quarter. On an annual basis, in 2018 there were 46 projects at a total of 8.3 GW. In 2019, the number of projects has more than halved to 21 projects at a total of 1.9 GW.[4] It was unfortunate but understandable that investment would drop off with the conclusion of the RET. However, the particularly low levels of financially committed projects in recent months are very concerning.

Figure 1: Financially committed projects in the NEM



Source: CEC

The draft determination suggests that proposed investment remains highs in July 2019, particularly pointing to a significant increase in proposed investment from January 2019 to July 2019 in figure 3.3.[5]

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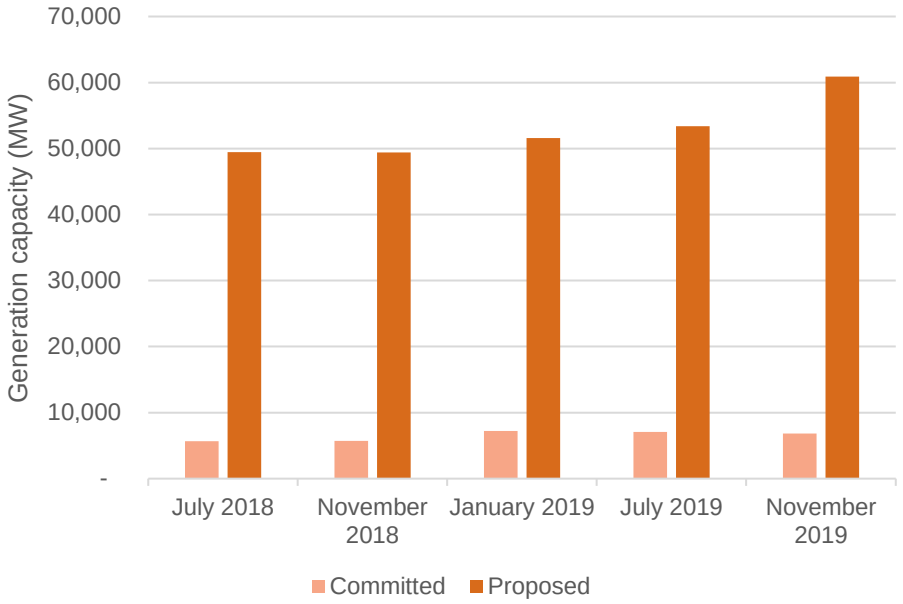
[2] AEMO, Draft 2020 Integrated System Plan, December 2019, p. 10.
[3] AEMO, Draft 2020 Integrated System Plan Appendices, December 2019, p. 21.
[4] Please note these figures differ from those given in the CEC presentation to the pre-determination hearing as we have removed projects in non-NEM states and better accounted for storage capacity.
[5] AEMC, Transmission Loss Factors Draft Determination, 14 November 2019, pp. 25-26.

We do not believe this is accurate. The CEC's analysis of information available on AEMO's publicly available generation information page gives a different perspective, as seen in figure 2.[6] It is clear that the level of proposed investment has remained fairly flat in the last 18 months. In addition, it is worth highlighting that proposed projects are more speculative with no certainty they will be progressed. Indeed, it is clear in the underlying data that there are projects that have not progressed to the committed stage in the last 18 months.

Figure 2: Committed and proposed generation investment in the NEM



Source: AEMO

In this rule change proposal, as well as across the range of its projects, the AEMC should not understate the current state of new generation investment in the NEM at a time when this investment is critical. The regulatory framework in NEM should seek to create an attractive environment for new investment.

The COGATI access model is not the solution

The draft determination points to the AEMC's coordination of generation and transmission investment (COGATI) review as the most appropriate forum for stakeholders to engage in the development of long-term TLF reforms. However, this position does not sufficiently acknowledge the substantial and broad concerns raised by stakeholders in relation to the current COGATI access proposal, including on the incomplete proposal to move to a dynamic loss factor methodology. Noting the ongoing status of both the TLF rule change process and the COGATI review, more coordinated deliberations are required to ensure existing MLF issues are adequately addressed over the short and long-term.

The Australian energy market is complex. While the CEC supports the policy intent of the COGATI review, we consider the current COGATI access proposal has moved substantially away from this objective and has added additional layers of complexity. Generally, complexity can lead to bad outcomes for investors and risks stalling much needed new generation investment in the NEM. The CEC does not see the access proposal as the solution to industry concerns. We point to the COAG Energy Council's recent communique which recognises industry's concerns around transmission

[6] Note this is for all forms of generation, not just renewable energy.

reform and directs the AEMC to engage closely with stakeholders as the COGATI work program progresses over coming months.[7]

In submissions to the TLF rule change proposal consultation paper, the CEC and others suggested that a revised loss factor framework could be appropriate while development of the COGATI access model progressed, noting the anticipated implementation date for the access model at that time was July 2022. In the COGATI update paper released in December 2019, the AEMC has now proposed a new implementation timeframe of at least four years from the time that the access model rule changes are made. Given the continued uncertainty about if and when the COGATI access reforms may be implemented, the CEC urges the AEMC to rethink whether further short-term reforms are necessary in the interim to address existing MLF market risks.

If you would like to discuss any of the issues raised in this submission, please contact me on the details below.

Yours sincerely,

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[7] COAG Energy Council, 22nd Energy Council Meeting Communique, 22 November 2019. Available at: http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/EC%20-%20Final%20Communique.pdf