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**Powering
Australian
Renewables
Fund**

8 November 2019

Mr John Pierce AO
Chairman
Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Lodged Via AEMC Website

Dear Mr Pierce

COORDINATION OF GENERATION AND TRANSMISSION INVESTMENT – ACCESS REFORM (EPR0073): PROPOSED ACCESS MODEL AND RENEWABLE ENERGY ZONES DISCUSSION PAPERS

The Powering Australian Renewables Fund (**PARF Group**) welcomes the opportunity to make this submission on the Coordination of Generation and Transmission Investment (**CoGATI Review**) Proposed Access Model Discussion Paper and Renewable Energy Zones (**REZ**) Discussion Paper (together, **Discussion Papers**) released by the Australian Energy Market Commission (**AEMC**).

Powering Australian Renewables Fund

PARF Group was established in 2016 as a co-investment between AGL, QIC and its client the Future Fund. PARF Group aims to construct and own at least 1,000 MW of large-scale renewable generation in Australia and, in doing so, support Australia's transition to a low-carbon economy. PARF Group wholly-owns the following assets:

- the 102 MW Solar Plant at Nyngan in New South Wales, which commenced operation in June 2015;
- the 53 MW Solar Plant at Broken Hill in New South Wales, which commenced operation in October 2015;
- the 200 MW Wind Farm Project at Silverton in New South Wales, which is under construction;
- the 453 MW Wind Farm Project at Coopers Gap in Queensland which is under construction.

In the short time since the formation of PARF Group in 2016, Marginal Loss Factors (**MLFs**) have become highly variable, largely due to rapid transition of the network away from traditional base-load generators to more remotely located renewable energy generators. The significant increase in MLF variability and the recent generation constraints in certain parts of the network have increased the revenue volatility and risk for renewable generation projects, thereby undermining investor confidence.

Addressing investment risk is a priority

PARF Group strongly believes that creating a robust investment environment that will enable efficient investment in new generation, storage and transmission capacity is imperative to achieving the long-term customer outcomes set out in the National Electricity Objective (**NEO**). To create this investment environment, it is important that the regulatory reform process is undertaken in a coordinated manner that avoids unnecessary complexity and volatility and the associated increase in risk premiums.

From an investor perspective, escalating uncertainty has already, and will likely continue to, lead to a material reduction in existing asset values and therefore require an additional risk premium to be applied to any new investments. This additional risk premium would be applied by both equity and debt investors. This is expected to increase the cost of capital associated with the future investment required to fund the 54GW of new capacity needed in the NEM by 2040, which will ultimately be passed on to customers through higher wholesale prices.

Need for Reform

PARF Group agrees with the AEMC that there is need for access reform and appreciates the opportunity to work constructively with the AEMC, the Australian Energy Market Operator (**AEMO**), the Energy Security Board (**ESB**) and other stakeholders to deliver the important market reforms required to enable the energy transition.

Critical issues for generation investment

In reviewing the Discussion Papers, PARF Group note that the scope of the CoGATI Review has been amended to exclude transmission planning and operation. The issues the CoGATI Review is intended to address are a function of the physical network and the removal of transmission planning and operation from the revised scope significantly limits the ability of the Review to achieve its objectives.

PARF Group understands the intent of the AEMC's Locational Marginal Pricing (**LMP**) and Financial Transmission Right (**FTR**) proposals but believes that on their own they do not address the objectives of the CoGATI Review and are better considered as part of the broader NEM 2025 Market Review.

Notwithstanding the revised scope of the CoGATI Review and the limitations of this approach PARF Group provides the following observations for the AEMC's consideration:

- **Proposed approach increases complexity and investment risk**

The introduction of LMP and FTRs increases the complexity of the market and consequently the investment risk associated with investment in existing and new generation and storage projects. The AEMC present FTRs as a risk management tool; however, PARF Group believes the introduction of complex, short-term, non-firm instrument significantly increases the cost and complexity of participating in the NEM without providing any additional long-term investor certainty.

Extending the tenor of the FTRs is not expected to address the issue as it would be impossible to effectively price a long-term FTR given the uncertainty surrounding the timing and location of the forecast 54GW of new capacity and associated transmission upgrades.

The complexity of pricing FTRs and participating in the FTR auction process places an additional cost and burden on developers and owners of generation projects which is expected to disproportionately impact smaller market participants and create an additional barrier to entry for new competitors seeking to enter the market.

The AEMC reference a number of international markets that have full nodal pricing and FTR arrangements; however, PARF Group believes any review of international market experience should give due regard to the energy transition the NEM will be undergoing over the next 20 years. For example the Access Reform Discussion Paper refers to the New Zealand market which has both full nodal pricing and FTRs;¹ however, it does not acknowledge that in 2018, 84% of New Zealand's electricity generation was from renewable energy resources (i.e. New Zealand is not in the process of an energy transition) that form part of a mature transmission system that was built to connect the significant but somewhat remote and distributed hydro generation resources in the South Island with load centres. New Zealand introduced short-term FTR instruments at a small number of selected nodes to enhance retail competition,² not as a risk management tool for long-term generation investments.

The introduction of LMP and FTRs does not address long-term investment uncertainty and will increase the cost of capital for future generation and storage investment and reduce competition through increased barriers to entry.

- **Coordinating and prioritising reform**

PARF Group is committed to working with the AEMC and other key stakeholders on the important reform agenda. Given the interaction of a number of the market reviews and rule change processes and the scale of reform being contemplated it is important to coordinate and prioritise these activities.

¹ Discussion Paper - CoGATI access reform 14 October 2019, Page iii

² New Zealand Electricity Authority <https://ea.govt.nz/operations/wholesale/hedges/ftr-market/> accessed 31 October 2019.

PARF Group believes the priority should be implementing marginal loss factor (MLF) reform, followed by establishing a framework that will deliver the transmission network required to facilitate the energy transition. PARF Group believes the renewable energy zone reforms should be consolidated with the actioning of the ISP consultation process, given the inextricable link between renewable energy zones and transmission planning and operation. Wholesale market reform should be considered more holistically as part of the broader reform packages rather than being developed independently.

As stated in PARF Group's July 2019 submission to the Transmission Loss Factor Rule Change Consultation,³ we recommend an interim change to Average Loss Factors (ALF) whilst the completion of the CoGATI Review occurs (with due consideration first to transmission planning, after which consideration of the merits or otherwise of access pricing and financial hedging may be determined) and the ESB post 2025 review are completed. The change to ALF now improves certainty for investors, keeps energy prices lower for consumers and is a "no regrets" decision between now and an industry-agreed framework for making the ISP a reality.

- **Timetable and Transition Arrangements**

The proposed July 2022 timetable for the implementation of the LMP and FTRs does not reflect the current status of the proposal including the level of detail, analysis and consultation, the complexity of the proposed reform and the transitional arrangements that will be required. Proceeding with the proposed reform on this timetable is going to further increase investment uncertainty and put at risk future investment in new generation at precisely the time that it is required.

Among other things the AEMC do not appear to have considered how LMP and Volume Weighted Average Price (VWAP) will impact existing power purchase arrangements, the changes required to AEMO's systems and implementation of grandfathering arrangements.

Given the structural changes proposed, PARF Group does not agree with the AEMC's conclusion that the proposed access reforms represent a "no regrets" step that is suitable for any post-2025 design of the NEM.

Further work is required to define the detail of the proposed reform including transition arrangements and interaction with other reform processes and rule changes before setting the implementation timetable. Given the complexity and the various other structural and policy changes being considered, PARF Group suggests that the CoGATI reforms should not be implemented until at least 2025, which aligns with the ISP.

- **Achievement of the National Electricity Objective (NEO)**

The AEMC have proposed the introduction of LMP as the recommended access model without assessing the costs and benefits of the reform relative to the current framework or alternative access models. It is not clear from the information provided by the AEMC to date that the proposed reform delivers the long-term customer benefits required to satisfy the NEO.

PARF Group believes a more detailed analysis of the costs and benefits of LMP versus both the current framework and alternative models is required before selecting a preferred access model that represents a structural change to the wholesale electricity market.

Implications for Marginal Loss Factors

Under the LMP proposal MLFs will be replaced with loss factors determined through dispatch which the AEMC acknowledge could potentially increase the volatility of loss factors.⁴ As noted in the July 2019 PARF Group submission to the AEMC's transmission loss factor consultation the recent volatility of MLFs is already having a material impact on investment with any increase in volatility expected to be detrimental to generation investment. The AEMC cite the introduction of FTRs as a mechanism to hedge the risk associated with loss factor volatility. The non-firm four-year FTR product proposed by the AEMC fails to hedge the long-term uncertainty facing investors considering 30 year investment decisions while at the same time increases the cost and complexity of future investments.

³ <https://www.aemc.gov.au/sites/default/files/2019-07/Rule%20Change%20SubmissionERC0251%20-%20Powering%20Australian%20Renewables%20Fund%20-%2020190718.PDF>

⁴ Discussion Paper - CoGATI access reform 14 October 2019, Page 22

The proposed LMP and FTR frameworks do not address MLF risk and will potentially increase MLF volatility. This will result in an increase in the cost of capital for new generation investment and ultimately higher customer electricity prices.

Recommended Approach

To create an investment environment that will enable an efficient cost of capital and ultimately the desired long-term customer outcomes, PARF Group recommends the AEMC prioritise following activities:

1. Implement the Average Loss Factor rule change proposal

The proposed change from MLF to ALF provides a “no-regrets” solution that will maintain the current signalling benefit of MLFs whilst also reducing the level of loss factor volatility, improve investment certainty and restore investor confidence – all of which will assist in keeping consumer prices lower than in the current situation, while the broader reform program progresses.

2. Actioning the Integrated System Plan including the renewable energy zone framework

The design, development and delivery of the new transmission network associated with the ISP needs to draw on the best of the coordinated planning methods that delivered our current network, as well as the market-based mechanisms that delivered operational efficiency to that network after completion. Whether it is sending signals for investment in the REZ's or investment in augmentation of the existing transmission network, there is broad industry agreement and learned experience from around the world that dynamic pricing and transmission do not send coordinated or certain enough signals required for delivering build-out of these monopoly, regulated networks.

3. Broader Market Reform Program (including potential wholesale market reform)

The ESB has commenced the process of the NEM 2025 Review which has been on the reform agenda for some time. The NEM 2025 Review will be critical to defining the future of the market as we progress through the energy transition and will hopefully establish a clear objective that market participants and stakeholders can work together towards. PARF Group believes this is the logical forum for any review of the structure of the wholesale electricity market.

PARF Group is committed to collaborating with industry, the ESB and the AEMC to deliver best-in-class solutions for the CoGATI Review.

Please do not hesitate to contact me should you have any queries.

Yours sincerely,



Katie Barnett
Chief Executive Officer
Powering Australian Renewables Fund