



Climate Council of Australia

Submission to: Senate Standing Committee on
Environment and Communications
Inquiry into the Clean Energy Finance
Corporation Amendment (Grid
Reliability Fund) Bill 2020

Addressed to: Committee Secretary
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Communications
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25 September 2020

About the Climate Council

The Climate Council is an independent non-profit organisation funded by donations by the public. Our mission is to provide authoritative, expert advice to the Australian public on climate change and solutions based on the most up-to-date science available.

To find out more about the Climate Council's work, visit www.climatecouncil.org.au.

1. Overview

The Climate Council thanks the Senate Standing Committee on Environment and Communications for the opportunity to have our position heard on the Clean Energy Finance Corporation Amendment (Grid Reliability Fund) Bill 2020.

The Climate Council is generally supportive of the establishment of the Grid Reliability Fund, and the allocation of additional funding to a world-beating institution like the Clean Energy Finance Corporation (CEFC). That said, we are extremely concerned about several proposed amendments contained in this bill, which are unnecessary and would weaken the Corporation and lead to worse outcomes for Australia's largest electricity grids. We are particularly focussed on drawing the Committee's attention to the following key points:

- **The CEFC can already invest in projects that improve the security and reliability of electricity grids.** In the 2018 revision to its investment mandate, the CEFC was directed to include "a focus on technologies and financial products as part of the development of a market for firming intermittent sources of renewable energy generation". It was assisting these technologies before the revision. It has continued to do so since.
- **There is no reasonable justification for allowing the CEFC to 'invest' in projects where no return on investment is anticipated.** Through its references to potential 'revenue floor arrangements' the explanatory memorandum is clear that the Government intends to direct the CEFC issue funds without any expectation of return on projects that would otherwise be uncommercial. The CEFC is not an appropriate vehicle for providing financial support to loss-making endeavours.
- **There is no reasonable justification for handing additional power to direct the operation of the CEFC to the Minister for Energy and Emissions Reduction.** The CEFC delivers a very high rate of return and should be entrusted to continue delivering. There is no need to invest in loss-making projects to shore up the grid.
- **Seismic shifts in the economics of renewable technologies mean that gas-powered generation will most likely serve an ever-declining role in Australia's largest grids.** The Minister's first reading speech along with the explanatory memorandum make clear that the intent of this funding is to support new gas-powered generation without any expectation of a return. Doing so will delay the transition to a zero-emissions electricity grid by competing with zero-emissions firming alternatives. There is no reason for taxpayer money to be invested in mature technology that could borrow elsewhere at commercial rates.

2. Background to the CEFC

The Clean Energy Finance Corporation was established in 2012, with the legislated purpose of facilitating increased flows of finance into the clean energy sector. It does this through making strategic investments in renewable

energy, energy efficiency and low emissions technologies using an existing endowment of \$10 billion dollars from the Federal Government. The CEFC's primary role is to invest in newer technologies facing the so-called 'Valley of Death' by assisting with the commercialisation of these technologies.

These investments are underpinned by a clear profit motive, with the fund expected to significantly outperform the Government bond rate.¹ The CEFC has historically met these goals. The CEFC Board is also specifically tasked with considering the impact of CEFC investments on the efficient operation of the markets that it acts within.² An independent statutory review in 2018 found clear evidence of the CEFC declining to support projects where finance was available elsewhere.³

Around the country, the CEFC has committed \$8 billion in total against nearly 200 large-scale clean energy projects and more than 18,000 smaller scale projects.⁴ With this money, it has leveraged private investment at the rate of \$2.3 per every dollar of public investment provided. A total of \$27.3 billion dollars has been invested as a result of the Corporation's activities and current investment commitments total \$6.4 billion.

3. Concerns with the legislation

This amendment is meant to establish a \$1 billion fund (**Grid Reliability Fund**) that will sit alongside the current \$10 billion allocation (**CEFC fund**). This proposal appears to be the key plank of the Government's plans to roll-out of its Underwriting New Generation Initiative.

According to the explanatory memorandum to the Bill, these amendments would:⁵

... enable the CEFC to invest in additional energy generation, storage, transmission and distribution infrastructure and grid stabilising technologies.

The CEFC can already make investments of this kind. It routinely does so and is, in fact, required to. The requirement to consider reliability and security of electricity supply when making investment decisions has existed in the CEFC's mandate since 2018. The current iteration of the CEFC Investment Mandate relevantly provides:⁶

The Corporation must include in its investment activities a focus on technologies and financial products as part of the development of a market for firming intermittent sources of renewable energy generation, as well as supporting emerging and innovative clean energy technologies.

In supporting clean energy technologies, the Corporation is strongly encouraged to prioritise investments that support reliability and security

of electricity supply. The Corporation will also take into consideration the potential effect on reliability and security of supply when evaluating renewable energy generation investment proposals, and if commercially feasible, consider investment in proposals that support reliability or security of supply.

The CEFC was already making investments of this kind under the provisions of the Act before the Investment Mandate was revised, and has continued to do so since. Among many others, in the 2018-19 financial year, the CEFC invested \$100m in the South Australian Government's Home Energy Storage Subsidy Scheme.⁷ Earlier, in the 2016-17 financial year, the CEFC made a \$5m equity investment in GreenSync, a Victorian firm using smart software control to coordinate battery energy storage systems and renewable energy into the electricity grid.⁸

Given the CEFC consistently outperforms its benchmarks, any additional funding for the Corporation should be welcomed. The high rate of return on CEFC investments, along with the Corporation's proven track record on leveraging private finance, mean that this additional funding will represent solid value for money to the Australian community. But only if the worst elements of over-reach in the bill can be overcome.

While there may be merit to maintaining the new \$1 billion fund separately to the CEFC's principal allocation, there does not appear to be any justification for other aspects of this bill.

In particular:

- There is no rationale for expanding the definition of 'investment' to include the disbursement of money with no expectation of return. Even if there were, there is no good reason for determining why the Minister should have the power to direct which kinds of loss-making investment can be made. That is the role of Parliament.
- There is no need to expand the definition of low emissions technology. A cursory glance through the Corporation's Annual Reports show that it is already making significant investments in cost-effective solutions to grid firming such as those examples given in the previous section.
- Even if there were, the expanded definition is irredeemably unclear and the legislation must determine what it means to 'support a low emission energy system'.

The expanded definition of 'investment' and the handing of new powers to the Minister present critical problems.

As noted above, the CEFC has high expectations for financial return set for it through the Act and its investment mandate. The CEFC largely exceeds these expectations, delivering real value to Australian taxpayers. It is, in many regards, a world-beating institution.

At present, apart from operating costs and other legitimate purposes, the Corporation is prevented from disbursing funds into loss-making enterprises. The current definition of 'investment' in the Act requires that the CEFC only disburse funds in a way that will provide a return to taxpayers.

As currently constituted, the Bill would allow for 'investments' where no return to the taxpayer is envisaged, and gives the sole power to determine what forms of loss-making investment are acceptable to the Minister. There is no limit to this power.

The explanatory memorandum's specific claim that the funding might be used to provide a 'revenue floor' for projects is especially concerning. A revenue floor arrangement could only involve the Commonwealth carrying risks that should be borne by private investors. This would represent a massive and inappropriate intervention into the electricity market. Alongside this, obtuse claims that the fund should be technology neutral cannot be used to pave over the fact that there is no reason that the Minister should have the unfettered power to determine how and where loss-making 'investments' should be made.

4. New gas-powered generation is no longer required to shore up Australia's electricity supply

Just a few years ago, the economics of energy in Australia were fundamentally different to today. While wind and solar generation showed promise for the future in a country as sunny and windy as Australia, they were still very much seen as a future technology. The common wisdom was that reducing emissions in the electricity sector relied on a temporary growth in gas-fired generation.

That common wisdom is no longer correct. The world has changed remarkably in the last ten years. For just one example, the major components of lithium ion batteries fell – on a per-kilowatt-hour basis – by around 20% per year, every year between 2010 and 2019.⁹ These prices are expected to continue their precipitous decline of the coming decade even on the most conservative estimates. Equivalent trends can be seen in the price of wind and solar generation,¹⁰ which is now the cheapest form of new generation in Australia, even after factoring in the cost of necessary storage.¹¹

The most recent Integrated System Plan from the Australian Energy Market Operator (AEMO)¹² – released early in August 2020 and covering the National Electricity Market¹³ – sees a deep reduction in emissions from the electricity sector over the next two decades in every single one of its scenarios, including those that are purposely conservative.

The scenarios with the deepest penetration of wind and solar generation see more than two thirds combined cycle gas turbines connected to the National Electricity Market retire in the next 20 years and not one new gas-powered

generator of any kind installed. No scenario – not even the so-called ‘Slow Change’ scenario with the lowest deployment of renewables – sees an overall increase in the installed capacity of gas-powered generators over the next two decades. The scenarios with the deepest penetration of renewables not only use less gas, but see significant amounts of gas-powered generation retired completely over the next two decades.

Put simply, AEMO expects that gas-powered generators will be unable to compete with more cost-effective means of firming Australia’s largest grid. The executive summary to the Integrated System Plan doesn’t even mention gas-fired generation in the list of first-order solutions to the need to firm renewables, with the operator instead stating:

To firm up the inherently variable nature of distributed and large-scale renewable generation, we will need new flexible, dispatchable resources: utility-scale pumped hydro, large-scale battery energy storage systems, distributed batteries, VPP and other demand side participation (DSP).

Many of these solutions are being already being enabled by the CEFC today using the current Act and investment mandate. The only reason that gas-powered generation might play a role, according to the AEMO analysis, is if gas prices stay within a range that the gas production industry says it cannot deliver.¹⁴

The reality is that any investment in new gas-powered generation today would see the generator substantially out-compete on price over the project’s operating life.

The current Government has decided that Australian taxpayers should carry the burden of these losses should they occur. This is an irresponsible use of limited Government revenue money, especially during a recession Other than seeing an appropriation of \$1 billion, propping up otherwise uneconomic fossil fuel projects appears to be the primary purpose of all proposed amendments to the Act. These should be rejected.

Endnotes

¹ *Clean Energy Finance Corporation Investment Mandate Direction 2020* (Cth).

² *Ibid.*

³ Deloitte, *Statutory Review of the Clean Energy Finance Corporation* (Report prepared for the Department of the Environment and Energy, 10 October 2018)

<<https://www.cefc.com.au/media/402001/cefc-statutory-review-deloitte-october-2018.pdf>>.

⁴ Clean Energy Finance Corporation, *CEFC 2019-20 Investment Update* (6 August 2020)

<<https://www.cefc.com.au/media/media-release/cefc-2019-20-investment-update/>>.

⁵ Explanatory Memorandum, Clean Energy Finance Corporation Amendment (Grid Reliability Fund) Bill 2020 (Cth) 1.

⁶ *Clean Energy Finance Corporation Investment Mandate Direction* (n 1).

⁷ Clean Energy Finance Corporation, *Investing in Australia's Clean Energy Transition: CEFC Annual Report 2018-19* (2019) <<https://annualreport2019.cefc.com.au/>>.

⁸ Clean Energy Finance Corporation, *Annual Report 2016-17* (2017)

<<https://annualreport2017.cefc.com.au/>>.

⁹ Bloomberg, 'Battery Pack Prices Fall As Market Ramps Up With Market Average At \$156/KWh In 2019' (3 December 2019) <<https://about.bnef.com/blog/battery-pack-prices-fall-as-market-ramps-up-with-market-average-at-156-kwh-in-2019/>>.

¹⁰ BloombergNEF, 'Solar and Wind Reach 67% of New Power Capacity Added Globally in 2019, While Fossil Fuels Slide to 25%', *BloombergNEF* (1 September 2020)

<<https://about.bnef.com/blog/solar-and-wind-reach-67-of-new-power-capacity-added-globally-in-2019-while-fossil-fuels-slide-to-25/>>.

¹¹ Paul W Graham et al, *GenCost 2018: Updated Projections of Electricity Generation Technology Costs* (CSIRO, December 2018)

<<https://publications.csiro.au/rpr/pub?pid=csiro:EP189502>>.

¹² Australian Energy Market Operator, *2020 Integrated System Plan* (2020)

<<https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2020-integrated-system-plan-isp>>.

¹³ Despite being Australia's largest grid – and despite its name – the National Electricity Market is not truly 'national'. This electricity grid provide power to all of Victoria, Tasmania and the ACT, and most heavily-populated regions of New South Wales, Queensland and South Australia. It does not extend to Western Australian or the Northern Territory.

¹⁴ The most recent Integrated System Plan states that gas-powered generation might play a greater role if the wholesale price of gas remains within a range of \$4/GJ to \$6/GJ long into the future. The average price of gas in NEM states before the global supply glut and global pandemic took hold, was well over \$10/GJ. At the same time as declaring \$4/GJ gas a 'myth', even the Australian Petroleum Production and Exploration Association (APPEA) argues that: '90% of proven and provable reserves in the east coast have a lifecycle cost of more than \$6 per gigajoule' and 'New projects have production costs of up to \$8.25 per gigajoule before transport, distribution, retailing, commercial or financial costs' (Australian Petroleum Production and Exploration Association, *Australian Gas Price: Myths and Facts* [Fact Sheet, 11 June 2020] <<https://www.appea.com.au/wp-content/uploads/2020/06/Myths-and-Facts-on-gas-fact-sheet-1.pdf>>).