CLEAN ENERGY FINANCE CORP

SUBMISSION TO THE SENATE ENVIRONMENT AND COMMUNICATIONS LEGISLATION COMMITTEE INQUIRY INTO THE CLEAN ENERGY FINANCE CORPORATION AMENDMENT (CARBON CAPTURE AND STORAGE) BILL 2017

MARCH 2018

EXECUTIVE SUMMARY

The Clean Energy Finance Corporation (CEFC) thanks the Committee for its invitation to make a submission to the Senate Environment and Communications Legislation Committee Inquiry into the Clean Energy Finance Corporation Amendment (Carbon Capture and Storage) Bill 2017.

The CEFC is an independent Commonwealth statutory authority set up to facilitate the flows of finance to the clean energy sector. It is not a policy making agency.

The Bill is a Government bill reflecting Australian Government policy. This submission aims to provide guidance to the Committee on the background to the CEFC's Act prohibition on CCS and the implications of the proposed change.

In terms of impact on the CEFC the Bill would, if passed, remove the current *Clean Energy Finance Corporation Act 2012* prohibition on carbon capture and storage within geological formations.

This would expand the scope of legal eligibility of investments that could be considered for CEFC investment.

The CEFC notes that legal eligibility as a complying investment is only one element of whether the CEFC Board will decide to invest in a project or not. Any such investment decision remains subject to the requirements of the CEFC Act, the CEFC's investment mandate and the application of CEFC's Investment Policies and risk management practices. As CEFC presently understands CCS, it is still a challenging technology with elevated levels of construction, implementation and economic risks. As the OECD/International Energy Agency stated:

> *For every large-scale CCS project that has been operating or has commenced construction since 2010, there are at least two projects that have been cancelled. This is not unexpected: these first-of-a-kind projects are often technically complex and require significant capital investment and policy support.*[1]

CEFC invests with commercial rigour, does not make grants and requires a return commensurate with its investment risk, in accordance with the *Clean Energy Finance Corporation Investment Mandate Direction 2016 (No.2)*.

If an investment proposal was presented with an appropriate risk and return profile, or if complementary policy settings are put in place to support CCS, then with the proposed legislative amendment, CCS may not only be an eligible technology but also an investable technology.

[1] OECD/IEA (2016) *20 years of Carbon Capture and Storage*, p25 available at < https://www.iea.org/publications/freepublications/publication/20YearsofCarbonCaptureandStorage_WEB.pdf> accessed 15/03/2018.

ORIGINS OF THE PROHIBITION ON CCS

The design of the CEFC was preceded by an Expert Review, chaired by Jillian Broadbent AO (subsequently the CEFC's inaugural Chair).

The Report of that process acknowledged that:

> *The Government has announced the CEFC will not invest in carbon capture and storage technology. […] Exclusions will be examined as part of proposed periodic reviews of the CEFC Investment Mandate…*[2]

The then Australian Government (Gillard Ministry) determined to accept the Report's recommendations in full.

Drafting of the Clean Energy Finance Corporation Bill 2012 elevated the prohibition into the Bill itself, later enacted[3] at sections 4 (definition of 'prohibited technologies') and section 62 (prohibited technology).

The Explanatory Memorandum to the Bill[4] and the Minister's second reading speech[5] contains no particular guidance as to the reason for this approach, and it is only by reading the *original* ministerial media announcement and Terms of Reference to the Expert Review Panel (*not* the shortened version that appears in the Report) that one can discern that carbon capture and storage was ruled out of the Expert Review Panel consideration from the outset.[6]

DEFINITIONAL CONSIDERATIONS: STRUCTURE OF THE PROHIBITION ON CCS

It is important to note what exactly is prohibited that is the subject of the Bill before the Committee. The current definition at s62 of what it is 'carbon capture and storage' is:

> *…(a) technology for carbon capture and storage (within the meaning of the National Greenhouse and Energy Reporting Act 2007); …*

Perusal of the relevant definition in the *National Greenhouse and Energy Reporting Act 2007* finds the term defined at section 7:

> ***carbon capture and storage*** means:
>
> (a) the storage of a greenhouse gas substance in a part of a geological formation; or
>
> (b) the injection of a greenhouse gas substance into a part of a geological formation for the purposes of such storage; or
>
> (c) the capture, compression, processing, offloading, transportation or piped conveyance of a greenhouse gas substance, where the compression,

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[2] The Treasury (2012) *Clean Energy Finance Corporation Expert Review: Report to Government March 2012* at p 17.
[3] *Clean Energy Finance Corporation Act 2012* available at < https://www.legislation.gov.au/Details/C2017C00265>
[4] *Explanatory Memorandum to the Clean Energy Finance Corporation Bill 2012* available at < http://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r4814_ems_0e940ced-3374-49a3-adcd-8ed931ccc131/upload_pdf/368764.pdf;fileType=application%2Fpdf>
[5] Second Reading Speech by Minister the Hon Greg Combet AM MP, Clean Energy Finance Corporation Bill 2012, House of Representatives Hansard, Wednesday, 23 May 2012.
[6] See joint media release by Treasurer the Hon Wayne Swan MP & Minister the Hon Greg Combet AM MP "Experts to Advise on Clean Energy Finance Corporation" of 12 October 2011 available at: <http://ministers.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2011/121.htm&pageID=003&min=wms&Year=&DocType=> accessed 7 March 2018.

> processing, offloading, transportation or piped conveyance is for the purposes of such storage.
>
> An expression used in this definition has the same meaning as in the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*. For this purpose, assume that each reference in the definition of ***greenhouse gas substance*** in section 7 of that Act to a prescribed greenhouse gas were a reference to a greenhouse gas (within the meaning of this Act).

The *Offshore Petroleum and Greenhouse Gas Storage Act 2006* sets up a regime for, inter alia, exploration for potential greenhouse gas storage formations; and injection and storage of greenhouse gas substances[7] Relevantly, that Act further adds to the definition of geological formation as follows (section 7):

> ***geological formation*** includes:
>
> (a) any seal or reservoir of a geological formation; and
>
> (b) any associated geological attributes or features of a geological formation.

And (also at section 7):

> ***greenhouse gas substance*** means:
>
> (a) carbon dioxide, whether in a gaseous or liquid state; or
>
> (b) a prescribed greenhouse gas, whether in a gaseous or liquid state; or
>
> (c) a mixture of any or all of the following substances:
>
> (i) carbon dioxide, whether in a gaseous or liquid state;
>
> (ii) one or more prescribed greenhouse gases, whether in a gaseous or liquid state;
>
> (iii) one or more incidental greenhouse gas-related substances, whether in a gaseous or liquid state, that relate to either or both of the substances mentioned in subparagraphs (i) and (ii);
>
> (iv) a prescribed detection agent, whether in a gaseous or liquid state;
>
> so long as:
>
> (v) the mixture consists overwhelmingly of either or both of the substances mentioned in subparagraphs (i) and (ii); and
>
> (vi) if the mixture includes a prescribed detection agent—the concentration of the prescribed detection agent in the mixture is not more than the concentration prescribed in relation to that detection agent.

The CEFC notes that the construction of the current definition is to "carbon capture ***and*** storage" (author's emphasis). So in essence, taking the externally referenced definitions above, the phrase "carbon capture and storage" in the *Clean Energy Finance Corporation Act 2012* ('the CEFC Act'), means 'greenhouse gas substance capture and storage (or injection into, or conveyance for the purposes of storing or injecting into) a geological formation (including any seal or reservoir, and any associated geological attributes or features).

It follows (from the extended definition above) that as an ordinary rule of statutory interpretation the current formulation does **not** preclude CEFC investment in:

[7] Section 4.

- Carbon capture ***without*** geological storage (for example, an industrial process that captures and uses carbon); and

- Carbon capture and ***non-geological*** storage (for example, a biological process that captures and stores carbon such as photosynthesis resulting in wood or soil carbon sequestration).

All references to CCS within this CEFC submission are to be understood in this context.

CURRENT HANDLING OF CCS ENQUIRIES AT CEFC

CEFC maintains a watching brief on CCS matters but cannot lawfully advance or process applications for CEFC investment if it is an investment in technology for CCS. Over the years the CEFC has received some preliminary enquiries for CEFC investment in technology for CCS, but these have not been able to be considered beyond initial discussions owing to the legislative prohibitions under the CEFC Act.

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IMPACT ON THE CEFC OF REMOVAL OF THE PROHIBITION ON CCS

Consequently, at present the CEFC has no particular expertise in CCS technologies or their application, but would have to acquire necessary expertise in the event the legislation passed and the prohibition on investing in technology for CCS was removed from the CEFC Act.

This would likely occur only after the CEFC had been approached by one or more credible parties seeking bankable investment assistance with viable projects which, in turn could be considered by CEFC in the ordinary course of CEFC's investment decision making process

Assuming there are projects out there that are technically feasible, there would still remain a number of unknown factors:

- The first aspect is **unknown demand** for financing assistance. CEFC is aware there are some applicants for CEFC finance who have already approached the CEFC but we do not know and have no sense of how many interested others there may be.

- The second aspect is **uncertain emissions reduction performance**. This is important because, while a prohibition on CCS has been removed, there is still a positive obligation on any sponsor to prove an investment fits within one of the CEFC's complying investment technologies of renewable energy technologies (CCS is generally not a renewable energy technology); an energy efficiency technology (CSS is generally not associated with energy savings); or a low emissions technology (this is the path most likely for CCS).

  In relation to low emissions technologies, the Explanatory Memorandum to the originating CEFC Bill relevantly advises:[8]

  > *6.17 The Board is empowered to determine guidelines setting out the criteria for what constitutes a low-emission technology for the purposes of its investments. The Government anticipates that the Board will set the threshold for low-emission technology to be a maximum of 50 per cent of the emissions on the current national electricity grid, consistent with the Report of the Expert Review Panel on the Clean Energy Finance Corporation. However, some flexibility is required to cover non-*

[8] *Explanatory Memorandum to the Clean Energy Finance Corporation Bill 2012* available at < http://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r4814_ems_0e940ced-3374-49a3-adcd-8ed931ccc131/upload_pdf/368764.pdf;fileType=application%2Fpdf>.

electrical energy and the need to consider low-emission technology on a case-by-case basis.

Based on this guidance, low emissions technologies is defined by the Board per sections 4 and 60 of the CEFC Act, –and therefore has force of law. The current definition is available at < https://www.cefc.com.au/media/303027/cefc-complying-investments-guidelines-may-2017.pdf >.

- The third aspect is **uncertain financeability** of the current CCS technologies. Just because a project becomes legally eligible for CEFC financing does not imply that it is commercially possible for the CEFC to finance it, or even to advance the opportunity. Under its investment mandate, the CEFC is directed to conduct the investment function with a commercial approach, using commercial rigour and a level of risk appropriate to the sector. The CEFC does not issue grants and, in acting commercially, requires that projects have a reasonable level of certainty of repaying outlaid capital with an appropriate rate of investment return. The technology risk of CCS as an earlier stage technology is well documented, but that is not to say that projects could not be financed if the sponsor or project was sufficiently capitalised. Accordingly, the CEFC does not have a firm sense at this stage of the commerciality of these investment opportunities either on an individual basis or as a subsector.

It follows from all of the above that without anything else, the amount of exposure of the CEFC to CCS should the Bill proceed is somewhat uncertain.

ABOUT THE CEFC

The CEFC invests, applying commercial rigour, to increase the flow of finance into the clean energy sector.

Our mission is to accelerate Australia's transformation towards a more competitive economy in a carbon constrained world, by acting as a catalyst to increase investment in emissions reduction.

We do this through an investment strategy focused on cleaner power solutions, including large and small-scale solar, wind and bioenergy; and a better built environment, with investments to drive more energy efficient property, vehicles, infrastructure and industry.

The CEFC also invests with co-financiers to develop new sources of capital for the clean energy sector, including climate bonds, equity funds, aggregation facilities and other financial solutions.

The CEFC operates under the *Clean Energy Finance Corporation Act 2012.*

The CEFC's strategic framework supports sectors in the Australian economy that are the largest sources of carbon emissions to reduce their emissions and ultimately to help to transform the economy to achieve net zero emissions in the second half of the century.

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