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Clean Energy Finance Corporation Statutory Review

Consultation Paper

January 2018

Contents

Glossary

Acronym or Item	Full name
The Act	Clean Energy Finance Corporation Act 2012
The Board	The Clean Energy Finance Corporation Board, as established by the Clean Energy Finance Corporation Act 2012
ARENA	Australian Renewable Energy Agency
CEFC or the Corporation	Clean Energy Finance Corporation
Concessionality	Concessionality reflects the mark-to-market valuation of loans made in that financial year and should be measured as the difference between the present value of each loan at market rates and the present value of each loan at the given concessional rate
Energy efficiency technologies	Includes technologies (including enabling technologies) that are related to energy conservation technologies or demand management technologies
Renewable energy technologies	Includes hybrid technologies that integrate renewable energy technologies and technologies (including enabling technologies) that are related to renewable energy technologies
Low emissions technologies	If the Clean Energy Finance Corporation Board is satisfied that the technology is a low emission technology, in accordance with a guideline that it will set for itself setting out the matters to which it will have regard in determining that a technology is a low emissions technology.

1 Introduction

On 22 July 2012, the *Clean Energy Finance Corporation Act 2012* (the Act) was passed by the Australian Parliament. The Act established the Clean Energy Finance Corporation (CEFC or the Corporation), with the objective to facilitate increased flows of finance into the clean energy sector. The CEFC was formally established on 3 August 2012, was 'stood up' and commenced operations in April 2013, and commenced investment commitment activity on 28 June 2013.

The Act sets out the purpose and functions of the CEFC. Specifically, the Act sets an investment function for the CEFC to invest, directly and indirectly, in clean energy technologies.[1] Clean energy technologies under the Act are any one or more of the following: energy efficiency technologies, renewable energy technologies and low emission technologies.[2] These terms are themselves broadly defined in the legislation.

To help develop financing capacity and investment appetite in the clean energy sector, the CEFC invests in clean energy technologies and projects, leverages CEFC investment to attract additional private sector investment, and shares experiences, insights and expertise with project sponsors, public sector agencies, the energy sector and other industry bodies.[3] The CEFC performs its investment function by making investments directly, or through subsidiaries or other investment vehicles, or by any combination of these means. The CEFC invests in businesses or projects that are solely or mainly Australian-based and that develop, commercialise or are used in clean energy technologies.[4] Since its establishment, the CEFC has made investment commitments of over $4.3 billion up to 30 June 2017, contributing to a range of projects with a total value of $11 billion.

Section 81 of the Act requires 'the nominated Minister'[5] to arrange for a review of the operation of the Act as soon as practicable after 1 July 2016.[6] Under the Act, this review must:

- Include a review of the effectiveness of the Corporation in facilitating increased flows of finance into the clean energy sector
- Make provision for public consultation
- Include a written report.

In November 2017, Deloitte was engaged by the Department of the Environment and Energy to conduct a review of the Act in accordance with the requirements of Section 81. The terms of reference for this review include consideration of:

- The effectiveness of the CEFC in facilitating increased flows of finance into the clean energy sector; and
- Any other matters considered relevant to the operation of the CEFC Act more generally.

Deloitte has identified four key lines of inquiry to guide our assessment of the effectiveness of the CEFC and the operation of the CEFC Act, consistent with this terms of reference. These include:

1. **How has the Australian clean energy sector evolved?**
2. **How effective has the CEFC been in the evolution of the Australian clean energy sector?**
3. **How has the Act enabled the CEFC to efficiently allocate its resources?**
4. **Are there any gaps in the scope of the Act?**

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[1] Section 58(1) of the *Clean Energy Finance Corporation Act 2012*
[2] Section 60(1) of the *Clean Energy Finance Corporation Act 2012*
[3] Clean Energy Finance Corporation, Annual Report p.64
[4] Clean Energy Finance Corporation, Annual Report p.64
[5] The CEFC has two responsible Ministers for the purposes of the Act; the Minister for the Environment and Energy and the Minister for Finance. Both Ministers have agreed that the Minister for the Environment and Energy is the nominated Minister under the Act.
[6] Section 81(1) of the *Clean Energy Finance Corporation Act 2012*.

1.1 This Consultation Paper

The purpose of this Consultation Paper is to seek stakeholder feedback and views, via written submissions, on the effectiveness of the CEFC in facilitating flows of finance as consistent with the requirements of the Act, and on the future challenges in the market where the CEFC could play a strategic role.

This Consultation Paper seeks feedback under each of the four key lines of inquiry outlined in the previous section. Stakeholders are also welcome to identify where they consider there are other questions or matters that we should have regard to in addressing the terms of reference and undertaking this review. Interested parties are invited to lodge written submissions on the matters raised in this Consultation Paper by Friday, 16 February 2018.

The remainder of this consultation paper is structured as follows:

- **Chapter 2** describes components of the Act including the purpose and functions of the CEFC, the investment function and the Investment Mandate.
- **Chapter 3** considers the evolution of the clean energy sector since 2012, specifically developments in the energy efficiency, renewable energy and low emissions technology markets.
- **Chapter 4** discusses the effectiveness of the CEFC in the development of the clean energy sector.
- **Chapter 5** investigates how the Act has enabled the CEFC to efficiently allocate finance to enable increased flows of finance in the clean energy sector.
- **Chapter 6** seeks respondent's views on current and future barriers to accessing finance for clean energy projects and the role that the CEFC could play in addressing these barriers.

1.1.1 Submissions

All information (including names and addresses) contained in submissions will be made available to the public on the www.environment.gov.au/cefc-review website unless the party making the submission indicates that all or part of the submission is to remain confidential.

Automatically generated confidentiality statements in emails are not sufficient for this purpose. Respondents who would like part of their submission to remain confidential should provide this information marked as such in a separate attachment. *A request made under the Freedom of Information Act 1982 for access to a submission marked confidential will be determined in accordance with that Act.*

Submissions should include the name of the organisation (or person if the submission is made by an individual) and contact details including an email address and telephone number, where available. While submissions may be lodged electronically or by post, electronic lodgement is strongly preferred. For accessibility reasons, please email responses in a Word or Rich Text Format. An additional PDF version may also be submitted.

The submissions will be reviewed by Deloitte and will be considered in the findings of our draft and final report for the Department of the Environment and Energy. The Minister for the Environment and Energy will table the final report in each House of Parliament.

Closing date for submissions: Friday, 16 February 2018

All submissions can be emailed to the Clean Energy Finance Corporation Review Secretariat at: CEFCreview@environment.gov.au

Alternatively, submissions can be mailed to:

Attn: Emma Fishburn
Financial Advisory
Deloitte Touche Tohmatsu Limited
225 George St, Sydney, NSW, 2000, Australia

2 The *Clean Energy Finance Corporation Act 2012*

The *Clean Energy Finance Corporation Act 2012* was passed by the Australian Parliament in 2012. The CEFC was formally established on 3 August 2012 and, was 'stood up' and commenced operations in April 2013 and commenced investing on 28 June 2013.

Under the Act, the CEFC has the following functions:

- To invest, directly and indirectly, in clean energy technologies (the investment function)
- To liaise with relevant persons and bodies, including the Australian Renewable Energy Agency (ARENA), the Clean Energy Regulator, other Commonwealth agencies and State and Territory governments, for the purposes of facilitating its investment function
- Any other functions conferred on the Corporation by the Act or any other Commonwealth law
- To do anything incidental or conducive to the performance of the above functions.[7]

In performing its functions, the Corporation must act in a proper, efficient and effective manner.[8] Under the CEFC Act, the CEFC has two responsible Ministers who jointly appoint the CEFC Board. The Board decides strategies and policies to be followed by the CEFC and ensures the proper, efficient and effective performance of the CEFC's functions.

2.1 Investment function

The CEFC's **investment function** under the Act is to invest, directly and indirectly, in clean energy technologies.[9] These investments could include any or all of the following:

- Investing in businesses or projects for the development or commercialisation of, or in relation to the use of, clean energy technologies
- Investing in businesses that supply goods or services needed to develop or commercialise, or needed for use in, clean energy technologies
- Giving guarantees in accordance with the Act.

In performing its investment function, the Corporation may make investments itself (including as a participant in partnerships, trust, joint ventures or similar arrangements), or through subsidiaries or other investment vehicles or by any combination of these means.[10]

In investing in these clean energy technologies, the Act requires that the CEFC ensure at any time on or after 1 July 2018, **at least half of the funds** for the purpose of its investment function **are invested in renewable energy technologies**.[11]

2.1.1 Technology classifications

Clean energy technologies are technologies that can be classified as one or more of the following: energy efficiency technologies, low emission technologies and renewable energy technologies.[12] Each of these technologies is further defined under the Act as follows.

- **Energy efficiency technologies** includes technologies (including enabling technologies) that are related to energy conservation technologies or demand management technologies

[7] Section 9(1) of the *Clean Energy Finance Corporation Act 2012*
[8] Section 9(2) of the *Clean Energy Finance Corporation Act 2012*
[9] Section 58(1) of the *Clean Energy Finance Corporation Act 2012*
[10] Section 58(4) of the *Clean Energy Finance Corporation Act 2012*
[11] Section 58(3) of the *Clean Energy Finance Corporation Act 2012*
[12] Section 60(1) of the *Clean Energy Finance Corporation Act 2012*

- **Renewable energy technologies** includes, hybrid technologies that integrate renewable energy technologies and technologies (including enabling technologies) that are related to renewable energy technologies
- A technology is a **low emission technology** if the CEFC Board is satisfied that the technology is a low emission technology, in accordance with a guideline that it will set for itself setting out the matters to which it will have regard in determining that a technology is a low emissions technology.[13]

The Act states that carbon capture and storage, nuclear technology and nuclear power are prohibited technologies for the purposes of the CEFC investment function.[14]

2.2 Investment mandate

Under the Act, the responsible Ministers may, by legislative instrument, give the Board directions about the performance of the CEFC's **investment function**, and must give at least one such direction[15] The directions constitute the **Investment Mandate** and may set out the policies to be pursued by the CEFC in relation to any or all of the following:

- Matters of risk and return
- Technologies, projects and businesses that are eligible for investment
- The allocation of investments between the various classes of clean energy technologies
- Making investments on concessional terms
- The types of financial instruments in which the Corporation may invest
- The types of derivatives which the Corporation may acquire
- The nature of the guarantees the Corporation may give and the circumstances in which they may be given
- Broad operational matters
- Other matters the responsible Ministers consider appropriate to deal with in a direction.

In 2016, the *Clean Energy Finance Corporation Investment Mandate Direction 2016 (No.2)* (the 2016 Mandate No.2) replaced the *Clean Energy Finance Corporation Investment Mandate 2016*. Changes issued under the 2016 Mandate No. 2 provide direction to the CEFC in relation to the Sustainable Cities Investment Program, the Reef Funding Program and the Clean Energy Innovation Fund. Listed in Table 1, the mandate also specifies the allocation the CEFC is required to make available for projects under these programs. The CEFC's progress as of 30 June 2017 against each special focus area is also detailed in Table 1.

Table 1: Special focus areas[16]

Program name	Required allocation per direction	Progress as at 30 June 2017
Clean Energy Innovation Fund	$200 million for debt and equity investment	$30 million 2016-17 CEFC commitments
Reef Funding Program	Up to $1 billion of investment finance over 10 years	$150 million 2016-17 CEFC commitments which has translated to $600 million total project value
Sustainable Cities Investment Program	Up to $1 billion of investment finance over 10 years	$800 million 2016-17 CEFC commitments which has translated to $1.8 billion total project value

[13] Section 60(2)-(4) of the *Clean Energy Finance Corporation Act 2012*
[14] Section 62 of the *Clean Energy Finance Corporation Act 2012*
[15] Section 64 of the *Clean Energy Finance Corporation Act 2012*
[16] Clean Energy Finance Corporation, Annual Report 2016-17, p. 33-43.

The **Clean Energy Innovation Fund** is dedicated to emerging clean energy technology projects and businesses that involve technologies that have passed beyond the research and development stages but are not yet established or of sufficient maturity, size or otherwise commercially ready to attract sufficient private sector investment. In contrast to the CEFC's portfolio, the Board is to target an average return of at least the five–year Australian Government bond rate +1 per cent per annum over the medium to long term as the benchmark return of the Clean Energy Innovation Fund. Furthermore, the level of risk deemed acceptable by the CEFC may be higher for the Clean Energy Innovation Fund than for the CEFC portfolio.

The **Reef Funding Program** mandates that the CEFC make available up to $1 billion of investment finance over 10 years for clean energy projects and businesses that support delivery of the Government's Reef 2050 plan. Investments in the Program include projects that have a positive co-benefit for the health of the reef (either directly by improving water quality, or indirectly by reducing emissions). Five priority industry areas for investment include: agribusiness, tourism, renewables, property and infrastructure.[17] The investments within the Program are part of the CEFC's portfolio, therefore are considered when determining the Portfolio Benchmark Return (PBR) and portfolio risk.

Similarly, investments within the **Sustainable Cities Investment Program** are also part of the CEFC's portfolio. The CEFC is mandated to make available up to $1 billion of investment finance over 10 years for the Sustainable Cities Investment Program. This Program will invest in clean energy projects and businesses that provide productivity, accessibility and liveability benefits for cities. These can include precinct-scale renewable energy plants and installations, next generation transport management systems, 'green' buildings and energy efficiency retrofits for social and affordable housing.

Other directions provided by the Minister under the 2016 Mandate No.2 are summarised in Table 2.

Table 2: Directions provided in the CEFC 2016 Mandate No. 2

Component	Direction
Introduction	The Corporation will invest at the demonstration, commercialisation and deployment stages of innovation. The Corporation should apply commercial rigour when making its investment decisions. The Corporation will have regard to its potential effect on other market participants when considering investment proposals. In line with its policy intent, the Corporation should have regard to positive externalities and public policy when making investment decisions and when determining the extent of any concessionality for an investment.
Portfolio Benchmark Return	All investments other than those made under the Clean Energy Innovation Fund (see Table 1), must target an average return of the five–year Australian Government bond rate +3 to +4 per cent per annum, before operating expenses, over the medium to long term.
Portfolio risk	The CEFC must, for all investments other than those made under the Clean Energy Innovation Fund, seek to develop a portfolio across the spectrum of clean energy technologies that in aggregate has an acceptable but not excessive level of risk, having regard to the terms of the Act and the special focus areas (see Table 1).

[17] Clean Energy Finance Corporation, Annual Report 2016-17, p. 43.

Limits on concessionality	The CEFC must limit the amount of concessionality it provides in any one financial year to $300 million.
Limits on guarantees	The CEFC should avoid the use of guarantees where possible. The CEFC must ensure that all guarantees are limited and quantifiable. At no time may the total potential liability under outstanding guarantees exceed the amount of the uncommitted balance of the CEFC Special Account.18 The CEFC must also ensure the total value of guarantees at any time does not exceed 5 per cent of the total amount that has been credited to the Clean Energy Finance Corporation Special Account.
Application of Australia Industry Participation Plans	Australian Industry Participation (AIP) Plans must apply to projects that the CEFC invests in, in accordance with the Government's AIP Plan policy.
Corporation must consider impacts from its investment strategy	In undertaking its investment activities, the CEFC must consider the potential effect on other market participants and the efficient operation of the Australian financial and energy markets. The CEFC must not act in a way that is likely to cause damage to the Australian Government's reputation.
Focus areas for the Corporation's activities	The CEFC must include amongst its investment activities a focus on supporting emerging and innovative renewable energy technologies and energy efficiency technologies, such as large scale solar, storage associated with large and small-scale solar, offshore wind technologies, and energy efficiency technologies for the built environment.
Other directions	(1) Clean Energy Innovation Fund – Up to $200 million for debt and equity investment in emerging clean energy technology projects and businesses that involve technologies that have passed beyond the research and development stages but are not yet established or of sufficient maturity, size or otherwise commercially ready to attract sufficient private sector investment. (2) Sustainable Cities Investment Program – Up to $1 billion over 10 years. This investment program focusses on clean energy projects and businesses that provide productivity, accessibility and liveability benefits for cities. (3) Reef Funding Program – Up to $1 billion over 10 years for clean energy businesses and projects which support the Australian Government's Reef 2050 plan, to extend the benefits of clean energy to the long-term health of the Great Barrier Reef.
Reporting outcomes	The CEFC shall, as part of its annual report, report on the non-financial outcomes of all its investments.
Corporate Governance	In performing its investment function, the CEFC must have regard to Australian best practice in determining its approach to corporate governance principles. The CEFC must develop policies with regard to environmental, social and governance issues.

[18] The CEFC Act create the Special Account, a Special Account under the PGPA Act which is credited with $2 billion each 1 July, for five years from 1 July 2013.

3 How has the Australian clean energy sector evolved?

Questions for stakeholders

1. What are the key factors that have contributed to clean energy sector growth in the past four years?
2. What are appropriate measures and metrics to assess or characterise growth of clean energy sector investment?
3. What barriers are currently facing clean energy sector project proponents in developing projects and attracting private sector investment? How have these barriers changed over the past four years?
4. What patterns have emerged in the financing of clean energy sector projects? How has the interest of traditional financing institutions (i.e. banks), funds or international financiers changed over the past four years?

The Australia clean energy sector has changed over the four year period that the CEFC has been in operation. Investment in renewable generation technology and energy efficiency has grown substantially, while investment in low emission technologies, such as electric vehicles, is starting to attract more interest.

In addition to the impact of the CEFC itself, there are a number of different factors that have driven growth in the clean energy sector. These include, but are not limited to:

- **Changes in the National Electricity Market,** including the retirement of coal fired power generation, increases in the price of gas and has increased retail electricity prices for consumers
- **Commonwealth and state government incentive schemes and other initiatives**, including various decarbonisation schemes, the large scale renewable energy targets, the small scale renewable energy scheme, the operations of ARENA, solar feed-in-tariffs, energy efficiency programs and emission reduction targets
- **Government regulations,** including changes to state based building codes specifying higher energy efficiency standards
- **Technological progress and reductions in the cost of technologies,** in wind turbines, solar panels, batteries, energy efficiency appliances, consumables (i.e. light bulbs) and other technologies
- **Capital availability,** including investor appetite, the state of the credit markets, merchant energy risk appetite and the availability of private sector capital
- **Australia's international obligations to reduce emissions,** including the Kyoto Protocol and the Paris Agreement
- **Public sentiment,** increased public consciousness and willingness to act on human contributions to climate change and investors requiring higher standards of governance and social responsibility and preferring more ethical investments.

While each of these factors has individually contributed to growth in the clean energy sector, they also interact. For example, increases in wholesale energy prices coupled with incentives for large scale renewable energy generation and reductions in the cost of wind turbines may have contributed to a substantial increase in the number of wind farms commissioned over the past four years. We are interested in understanding stakeholder views on the factors that have driven growth in the clean energy sector and, where possible, the relative contribution of each of these factors to this growth.

There have also been improvements in the ability of project proponents to obtain finance for clean energy sector projects. Interest in the clean energy sector in Australia has come from both international and domestic investors. For example, Australia's fast-growing green bond market, has seen both international and domestic interest. Over 70% of Australian green bonds will be used for renewable energy projects, ranging from solar and wind to bioenergy.[19]

The intention of this line of inquiry is to understand the environment in which the CEFC operates so that we can identify and draw some conclusions about how efficient and effective the CEFC has been in facilitating flows of finance.

[19] https://www.cefc.com.au/media/feature-articles/files/australias-budding-green-bond-market.aspx

4 How effective has the CEFC been in the evolution of the Australian clean energy sector?

Questions for stakeholders

5. What impact did the CEFC's decision to proceed or not proceed in supporting projects have on the financing of the clean energy sector?
6. How effective is the CEFC in addressing barriers to clean energy sector finance?
   a) What are the current barriers to firms accessing the CEFC's finance, and how could these be addressed?
7. How has the CEFC facilitated the growth of private financing in the clean energy sector, be it private equity or private debt?
8. How did the existence of CEFC diversify the type of clean energy sector projects commissioned over the past four years?
   a) How did the CEFC support the emergence of different financial products (e.g. climate bonds, co-financing programs) in the market?
9. What are the appropriate measures to evaluate the CEFC's contribution to the development of the clean energy sector? For example direct vs indirect investment, carbon savings and the availability and cost of finance.
10. Does the CEFC provide other benefits to the clean energy sector that are not provided by the private sector? For example, information and education benefit.
11. How effective has the energy efficiency program been in influencing energy savings across the industry sectors in which it operates?
12. What is the impact on the market of dedicated funds and programs (i.e. the Clean Energy Innovation Fund) with specific directions?

At the time the Act was drafted, a number of barriers were considered to be inhibiting private financing of clean energy sector investments, which included:

- Global financial conditions

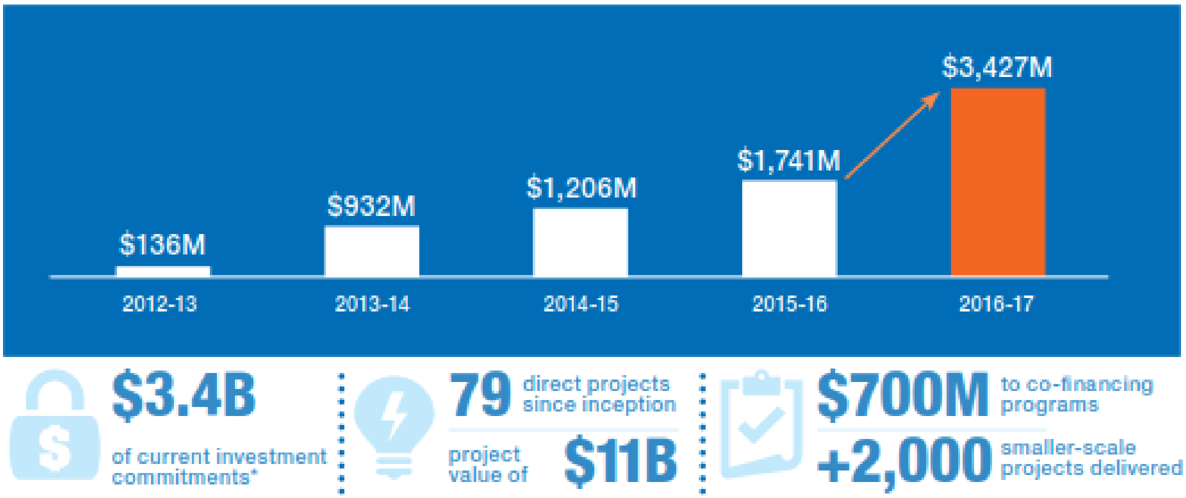
- The complex nature of Australia's electricity markets
- The cost of renewable energy
- The preference of investing institutions for listed assets
- The immaturity of Australia's transformation to clean energy technology.[20]

To overcome these barriers, the Act sets an objective for the CEFC of facilitating increased flows of finance into the clean energy sector. This is reflected in the mission set by the Board of the CEFC, which 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 reductions.[21]

The total value of CEFC investments has grown over the period of its operation as outlined in Figure 1. As of 30 June 2017, the CEFC current commitments were $3.4 billion.

Figure 1: CEFC investment commitments[22]



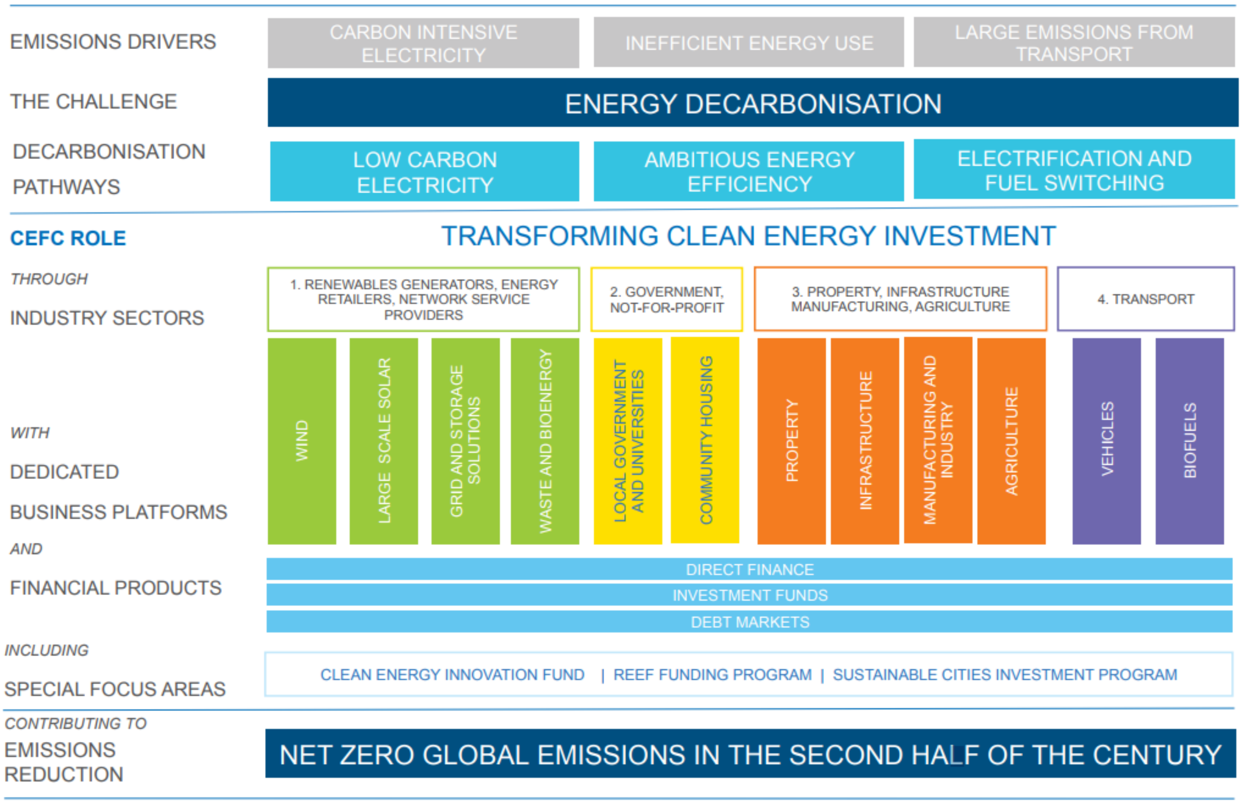
* After allowing for new investments in each year, minus loans fully amortised, repaid or exited, and expired or cancelled undrawn commitments, at June 30 2017.

The CEFC's portfolio of investments is expected to achieve an annual abatement of 7.3 million tonnes of CO_2 -e or more than 121 million tonnes CO_2 -e over the lifetime of the projects, once CEFC funds are fully deployed and the projects are fully constructed and operational.

The CEFC has developed a strategic framework to guide its investments in the clean energy sector and to signal to the markets the sectors of interest, and the types of financial products it is willing to offer. This framework includes 12 different business platforms and three different financial products. In addition, the CEFC has three special focus areas, which it has been tasked with by the Commonwealth Government. The CEFC's strategic framework is outlined in Figure 2.

[20] Clean Energy Finance Corporation Bill 2012, Explanatory Memorandum: https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r4814
[21] Clean Energy Finance Corporation, Annual Report 2016-17, p. 64.
[22] Clean Energy Finance Corporation, Annual Report 2016-17, p. 13.

Figure 2: CEFC strategic framework[23]



[23] Clean Energy Finance Corporation, Annual Report 2016-17, p. 16.

5 How has the Act enabled the CEFC to efficiently allocate its resources?

Questions for stakeholders

13. How has the Act enabled the CEFC to efficiently allocate finance to increase the flows of finance in the clean energy sector? In particular, please consider:

    a) Projects that qualify for finance and the allocation and prioritisation of finance between the projects

    b) Types of financial products the CEFC has deployed

    c) Level of risk that CEFC is able to assume

    d) Concessional terms offered

    e) Direction provided through the Investment Mandate, including special focus areas detailed in Chapter 2.

    f) Collaboration with co-financing partners

    g) Timeframes to assess application and make an offer of finance and draw down

As outlined in Chapter 2, the **investment function**:

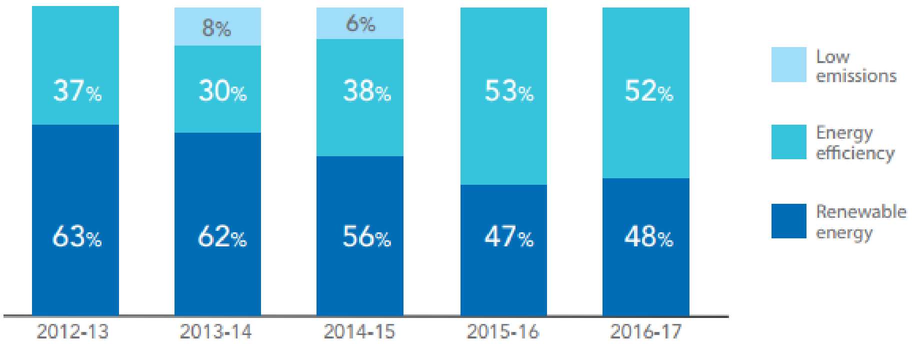
- Requires the CEFC to invest, directly and indirectly, in clean energy technologies
- Classifies clean energy technologies as energy efficiency technologies, low emission technologies and renewable energy technologies
- Necessitates that at least half of the CEFC funds invested are invested in renewable energy technologies.

Compliance with the investment function requires management of the CEFC investment portfolio. Specifically, the requirement that half the funds are invested in renewable energy technologies requires the CEFC to consider the balance of its portfolio when making new investments in the sector. This includes consideration of the performance of existing investments, including whether debt may be refinanced or the projects sold. Compliance with this requirement also needs to be balanced with protection of the portfolio value for the Commonwealth, including avoiding the wholesale liquidation of assets, the deferral of commitments, and interruptions to the continuity of the CEFC's operations and client service.[24]

[24] Clean Energy Finance Corporation, Annual Report 2016-17, p. 50.

Figure 3 shows the CEFC's annual commitments by technology type and the change in these commitments since inception.

Figure 3: CEFC Commitments by technology type[25]

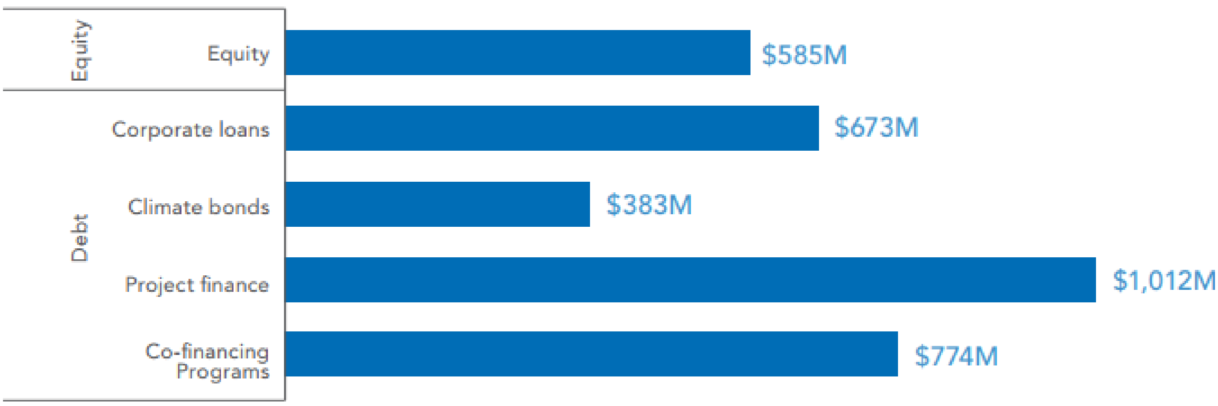


As outlined in Chapter 2, the Commonwealth Government must issue at least one direction to the CEFC Board about the performance of the CEFC's investment function, such directions comprising the **Investment Mandate**.

The CEFC invests in a range of finance types, new investment products and across multiple parts of the capital structure, including equity, corporate loans and project financing options. The CEFC has the capacity to offer concessional finance and directly influence financial barriers that inhibit financing in the sector. The CEFC can tailor concessionality in each case and apply it through availability, tenor or cost of finance. In setting the terms, the CEFC aims to provide only the minimum terms required for a project to proceed.

In 2016-17, the CEFC's investment in corporate loans and project finance increased significantly, driven in part by commitments in the renewable energy and property development sectors. Equity investments comprise 17% of the total portfolio. The portfolio commitments by finance type since inception are shown in the Figure 4.

Figure 4: Portfolio commitments by finance type since inception[26]

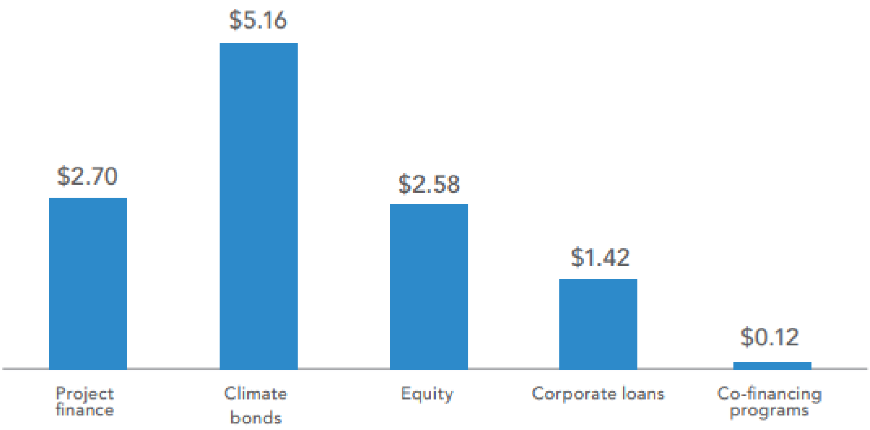


The CEFC is encouraged to leverage its funds to attract additional private sector investment. As of 30 June 2017, cumulative leverage across the CEFC portfolio was approximately 2.1. That is, each $1.00 of

[25] Clean Energy Finance Corporation, Annual Report 2016-17, p. 50
[26] Clean Energy Finance Corporation, Annual Report 2016-17, p. 52.

CEFC investment since 2013 has catalysed an additional $2.10 from the private sector. Portfolio leverage across each of the CEFC's finance types is presented in Figure 5.

Figure 5: Portfolio leverage investment by finance type[27]



The CEFC is required to apply a commercial filter when making investment decisions. The CEFC differs from private sector financial institutions in that it has a public policy purpose, requiring the CEFC to consider external benefits associated with its financing activities. This includes consideration of positive externalities like emissions reductions, moving new technologies down the cost curve, productivity gains achieved through energy efficiency, technology diversity in the energy mix, innovation, capability development and leveraging private sector funds into the clean energy sector.[28]

The CEFC currently has four key performance indicators (KPIs). Performance against these KPIs in 2016-17 is detailed in Table 3.

Table 3: Key performance indicators[29]

No.	KPI	Measure	Outcome compared to target in 2016-17
1	Investment in renewable energy, low emissions and energy efficiency technology	Dollar value of new investment commitments	$2.1 billion against a target of between $800 million and $1 billion
2	Placement of funds into Australia's clean energy sector	Dollar value of capital deployed	More than $900 million against a target of $450 million
		Expected carbon abatement from committed projects at negative cost	A positive return to the CEFC for each tonne of CO_2 -e emissions abatement
		Financial leverage in projects financed	Actual leverage was more than $2.00 for every $1.00 committed by the CEFC, which is above the target of $1.00 per $1.00 committed

[27] Clean Energy Finance Corporation, Annual Report 2016-17, p.53
[28] Clean Energy Finance Corporation, Annual Report 2016-17, p.65
[29] Clean Energy Finance Corporation, Annual Report 2016-17, p.56.

3	Performance against portfolio benchmark return (PBR) set by the Australian Government	Portfolio return achieved	4.5% versus a PBR target range of 5.74% to 6.74%
		Level of operating expenditure before accounting concessionality and impairments	$28.8 million versus a target of less than $31.3 million
4	Dissemination of information to industry stakeholders and building industry capacity	Value and diversity of tangible pipeline of opportunities	Pipeline of investment opportunities increased from around $7 billion to more than $9 billion at 30 June 2017
		Level of marketing and communications activity	Marketing and communications activity, including increased media outreach and participation in relevant conferences and industry events, increased from 135 in 2015-16 to 159 in 2016-17
		Stakeholder awareness and knowledge	There was increased stakeholder awareness and knowledge of CEFC, as evidenced by a 45 per cent increase in CEFC's social media audience

6 Are there any gaps in the scope of the Act?

Questions for stakeholders

14. What are the current barriers or market failures in the financing of clean energy sector projects?

    a) Are the barriers and market failures widespread, or do they just apply to a sub-set of technologies or project types?

    b) What role could the CEFC play to help alleviate these barriers and/or address market failures?

15. What trends are important when considering whether there may be gaps in clean energy sector investments in the future?

16. Are there any limitations on the CEFC imposed by the Act that prevent it from addressing market gaps?

The clean energy sector will continue to evolve into the future. The rate of change in both technological advancements and the cost of these technologies, as well as changes in the broader markets that the sector impacts, will affect the attractiveness of different projects to investors. The CEFC could play an important role, consistent with its existing role, to facilitate flows of finance to ensure that a broad range of projects are able to receive an offer of finance.

To understand what role the CEFC could play in the future, the likely future barriers to financing clean energy sector projects need to be identified. This is challenging as it involves understanding how all the factors that affect the ability of a project to be funded interact now and how they are likely to interact into the future. We welcome stakeholder views as to whether there are any existing barriers to financing clean energy sector projects today and what these barriers may look like in the future.

One way in which future barriers could be conceptualised is by considering the trends that will influence growth in the sector. This could include changes in the electricity markets, government regulations, building codes and public attitudes, for example. Stakeholders are encouraged to include in their submissions any views on trends that may influence growth in the clean energy sector.

In terms of the future role of the CEFC it should be noted that in May 2017 the Government introduced the *Clean Energy Finance Corporation Amendment (Carbon Capture and Storage) Bill* 2017 which amends the *Clean Energy Finance Corporation Act 2012* to remove the prohibition on the Clean Energy Finance Corporation investing in carbon capture and storage technologies. The Bill has been moved to a Second reading.

Appendix A: Question Summary

Chapter question	Sub-questions
How has the Australian clean energy sector evolved?	1. What are the key factors that have contributed to clean energy sector growth in the past four years? 2. What are the appropriate measures and metrics to assess or characterise growth in clean energy sector investment? 3. What barriers are currently facing clean energy sector project proponents in developing projects and attracting private sector investment? How have these barriers changed over the past four years? 4. What patterns have emerged in the financing of clean energy sector projects? How has the interest of traditional financing institutions (i.e. banks), funds or international financiers changed over the past four years?
How effective has the CEFC been in the evolution of the Australian clean energy sector?	5. What impact did the CEFC's decision to proceed or not proceed in supporting projects have on the financing of the clean energy sector? 6. How effective is the CEFC in addressing barriers to clean energy sector finance? a. What are the current barriers to firms accessing the CEFC's finance, and how could these be addressed? 7. How has the CEFC facilitated the growth of private financing in the clean energy sector, be it private equity or private debt? 8. How did the existence of CEFC diversify the type of clean energy sector projects commissioned over the past four years? a. How did the CEFC support the emergence of different financial products (e.g.. climate bonds, co-financing programs) in the market? 9. What are the appropriate measures to evaluate the CEFC's contribution to the development of the clean energy sector? For example direct vs indirect investment, carbon savings and the availability and cost of finance. 10. Does the CEFC provide other benefits to the clean energy sector that are not provided by the private sector? For example, information and education benefit. 11. How effective has the energy efficiency program been in influencing energy savings across the industry sectors in which it operates? 12. What is the impact on the market of dedicated funds and programs (i.e. the Clean Energy Innovation Fund) with specific directions?

How has the Act enabled the CEFC to efficiently allocate its resources?	13. How has the Act enabled the CEFC to efficiently allocate finance to increase the flows of finance in the clean energy sector? In particular, please consider: a. Projects that qualify for finance and the allocation and prioritisation of finance between the projects b. Types of financial products the CEFC has deployed c. Level of risk that CEFC is able to assume d. Concessional terms offered e. Direction provided through the Investment Mandate, including special focus areas detailed in Chapter 2 f. Collaboration with co-financing partners g. Timeframes to assess application and make an offer of finance and draw down
Are there any gaps in the scope of the Act?	14. What are the current barriers or market failures in the financing of clean energy sector projects? a. Are the barriers and market failures widespread, or do they just apply to a sub-set of technologies or project types? b. What role could the CEFC play to help alleviate these barriers and/or address market failures? 15. What trends are important when considering whether there may be gaps in clean energy sector investments in the future? 16. Are there any limitations on the CEFC imposed by its Act that prevent it from addressing market gaps?

Limitation of our work

General use restriction

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