SUBMISSION TO THE CLEAN ENERGY FINANCE CORPORATION

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The Climate Institute

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SUBMITTED VIA EMAIL TO:

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INTRODUCTION

Established in late 2005, The Climate Institute is a non-partisan, independent research organisation that works with community, business and government to catalyse and drive the change and innovation needed for a low pollution economy and culture.

Our vision is for a resilient Australia prospering in a low carbon global economy, participating fully and fairly in international climate change solutions.

The Climate Institute has engaged for several years with the business and investment communities to improve the understanding of the risks associated with climate change and the opportunities in tackling it.

Perhaps the most important aspect is the response of the investment chain in delivering low carbon solutions. It is this investment chain that defines the behaviour of investee businesses and that controls the movement of capital between asset classes such as equities, fixed income, infrastructure, private equity, property and hedge funds. It is the investment processes, cultures and decisions that determine whether money is invested in low carbon or high emitting assets. It is also the investment system that either feeds or strangles companies of their oxygen-like capital depending on their long term prospects.

This submission outlines The Climate Institute's views on how the Clean Energy Finance Corporation can help facilitate the financing of Australia's transition to a low-carbon economy.

SCOPE OF THE CEFC

1. HOW DO YOU EXPECT THE CEFC TO FACILITATE INVESTMENT?

In 2010, research conducted by The Climate Institute in conjunction with the Global Climate Network revealed a number of barriers to investment in low-carbon technologies that were identified by selected experts from government departments (including treasuries and business or economic planning departments), private investor groups, national public and private banks, regional development and international banks, multilateral agencies and non-governmental organisations.[1]

A wide range of barriers were identified and included: the absence of clear and stable national policies, lack of commercial viability, perception of these technologies as high risk investments with uncertain returns as well as financial institutions' limited experience of low-carbon investments and lack of technical expertise, amongst others.

In 2008, research by McLennan Magasanik Associates[2] for The Climate Institute found that there is a clear role for government policies that support research, development and demonstration (RD&D) in the electricity sector. Indeed, many economists have noted the extent of market failures in the electricity generation sector and provided evidence for the extensive development and initial

[1] *Investing in Clean Energy: How can developed countries best help developing countries finance climate-friendly energy investments?* (Global Climate Network discussion paper no. 4, November 2010)

[2] *A comparison of emission pathways and policy mixes to achieve major reductions in Australia's electricity sector greenhouse emissions* (MMA, September 2008)

deployment of new technologies by governments.[3] The 2008 research showed that unless there is specific policy support to drive the commercial deployment of certain technologies (such as solar thermal and fossil fuels with carbon capture and storage), these technologies will not become cost effective until after 2025.

Technologies such as carbon capture and storage (CCS) in power generation and hot dry rocks geothermal have yet to be demonstrated on a commercial scale. Barriers to large investments in high risk first of kind projects need to be removed, and incentives provided for projects that will build national clean energy infrastructure.

All long-term low emission scenarios that see internationally agreed climate goals of avoiding 1.5^{o}C to 2^{o}C of global warming require industrial scale draw down of carbon from the atmosphere. The deployment of zero emission clean energy sources is not sufficient. It is crucial that the CEFC has the mandate to invest in technologies that have negative net emissions such as CCS with bio energy. The CEFC should complement existing Government initiatives such as the emissions trading scheme, Renewable Energy Target, Australian Renewable Energy Agency (ARENA) and proposed policies such as a national Energy Savings Initiative (ESI).

Whilst the distribution of the CEFC's capital is crucial, we see the role of the CEFC as also being to provide investment acceleration in other areas of the financial community, particularly within superannuation and pension funds. This may include using its influence to break down structural and cultural barriers that exist to both prop up high carbon investment and limit low carbon investment. This could also include a more positive view of risk premiums for low carbon technology based on an acceleration of carbon prices in the next 15 years, reviews of traditional incentive schemes for any partner fund managers and creating accounting policies that reflect the repricing of climate change externalities over time.

In line with this, it will be crucial for the CEFC's Board and employees to possess a high level of expertise and experience in infrastructure and venture capital investment. It is unlikely that the breadth and depth of expertise that will be required in areas such as venture capital and private equity will be available in-house for the CEFC. We therefore propose the formation of advisory boards for each of these, or other, specific areas of investment to best leverage the CEFC's resources.

The CEFC can further monitor and facilitate clean energy investment by measuring the size of Australia's clean energy economy and by encouraging the adoption of carbon accounting by firms. Both measures would increase the transparency of carbon exposure for investors, thereby helping to remove an obstacle to invest, particularly by institutional investors.

As far as we are aware there is no organisation in Australia that measures, on an ongoing basis, the value of Australia's low carbon economy. The amount of capital flowing into large-scale renewable energy installations such as wind farms and biomass plants is currently available, by paid subscription, through Bloomberg New Energy Finance (www.bnef.com) however this data fails to capture the value of those businesses operating in other areas of the low-carbon economy such as energy efficiency, low carbon finance, carbon markets, etc.

The ability to monitor the growth, or decline, in the size of Australia's low carbon economy is critical to ensuring Australia is participating fully and fairly in international climate change solutions as well as providing some form of benchmark for the level of private and public investment in this sector.

We believe this information gap provides the CEFC with an opportunity to lead the development of a way of measuring, on an ongoing basis, the size of Australia's low-carbon economy including the public and private capital flowing into it. We see the opportunity as being important in communicating

[3] For example: IEA/OECD (2003), *Creating Market for Energy Technologies*, Paris; V. Norbergy-Bohm. (2000), Creating Incentives for Environmentally Enhancing Technological Change: Lessons from30 Years of US Energy Technology Policy, *Technology Forecasting and Social Change*, Volume 65, pp 125-148.

to the business and broader community the significant, and increasing, role this sector of the economy will play in future years in securing a prosperous economic future for Australia.

The nature of investments should mean the CEFC has a vested interest in maintaining policy that supports investment in these projects which should help ensure any changes in government do not result in new or revised policy that undermines the viability of these projects. This provides greater stability for long-term investors.

2. ARE THERE PRINCIPLES BEYOND FINANCIAL VIABILITY THAT COULD BE USED TO PRIORITISE INVESTMENTS, SUCH AS EMISSIONS IMPACT OR DEMONSTRATION AFFECT?

The CEFC must give priority to those investments that will also catalyse further private investment. There are a few key investments which are likely to act as a tipping point for enabling other technologies. For example, providing assistance to those companies who can deliver smart grid capabilities will be necessary for making the best use of disparate and varied renewable energy sources.

3. WHAT ARE THE OPPORTUNITIES FOR THE CEFC TO PARTNER WITH OTHER ORGANISATIONS TO DELIVER ITS OBJECTIVES?

A large proportion of Australian and global emissions are produced by the business sector and a large proportion of that by listed companies. The investment policies and decisions of companies and their shareholders, particularly superannuation funds, will be a key determinant of the success or failure of initiatives to tackle climate change. We believe one of the key non-financial barriers to unlocking clean energy investment is having appropriate disclosure of climate change-related risks and opportunities by institutional investors.

Over the past few years we have sought to engage with the Australian Stock Exchange (ASX), the Australian Prudential Regulatory Authority (APRA) and the Australian Securities and Investments Commission (ASIC) in a discussion on the various issues related to climate change-related investment risk, with varying degrees of success.

Above all we seek a greater and more consistent level of disclosure by institutional investors and investee companies as to the climate change-related risks (and opportunities) they face. We believe improved disclosure and reporting will lead to increased private investment in the Government's vision of a Clean Energy Future – indeed the success of the Government's policies depend upon removing barriers to enable such private investment. More specifically, some of the changes we would like to see are:

- Clarification of fiduciary duty in terms of environmental, social and governance investment considerations;
- Greater and mandatory disclosure of climate change-related risks faced by institutional investors, in particular super funds, to their members and stakeholders;
- Greater and mandatory disclosure of climate change-related risks faced by companies to their investors and stakeholders;

We would encourage the CEFC to continue to engage with APRA, ASIC and the ASX on these matters and push towards greater disclosure by both institutional investors and listed companies of their climate change-related risks and opportunities. Additionally, we believe that the CEFC could play

an active role in helping to inform and support the Asset Owners Disclosure Project, an initiative that has set the standard for measuring how superfunds manage climate risk.

OVERCOMING THE MARKET GAP

4. HOW COULD THE CEFC CATALYSE THE FLOW OF FUNDS FROM FINANCIAL INSTITUTIONS?

As per our response to question one, we think the CEFC could catalyse the flow of funds from financial (and other private institutions) by providing support in terms of both financial and low/non-financial means. Key methods of providing financial support might include:

- Public finance investing in concert with private finance, possibly involving a subordinated equity structure so that public finance assumes the first level of risk;
- Issuance of green bonds;
- Loan guarantees;
- Create/support pooled clean energy infrastructure funds;
- Low-interest rate loans;
- Contracts for difference.

In addition, there are a range of government policies and support that are needed to support Australia's development of a clean energy economy, particularly to support innovation and new technologies, beyond which the CEFC will be able to provide, but should regardless advocate for the adoption of by Government. In an OECD working paper released in 2011[4], the key measures identified were:

- Research and development tax credits/exemptions/rebates;
- Accelerated depreciation;
- Investment incentives;
- Government support for venture capital funds;
- Output-stage support such as the Renewable Energy Target.

Above all clear, long-term climate policy is required to catalyse the flow of funds from the private sector. Additionally, the CEFC should understand the role of overseas investors, particular asset owners, in driving low carbon investment. Many overseas pension funds will not have domestic policies that encourage investment in low carbon assets and so may be seeking exposure and opportunities in this area. CEFC should ensure it is well placed to take advantage of any thematic or traditional asset allocation decisions by overseas funds to invest in the low carbon economy. Critically, the CEFC must have a working base assumption about the nature of likely carbon prices that will test the various investment models submitted to it.

[4] *The Role of Pension Funds in Financing Green Growth Initiatives* (Croce, R.D., C. Kaminker and F. Stewart; 2011; OECD Working Papers on Finance, Insurance and Private Pensions, No. 10, OECD Publishing)

5. WHAT EXPERIENCES HAVE FIRMS IN THE CLEAN ENERGY SECTOR HAD WITH TRYING TO OBTAIN FINANCE; HAVE TERM, COST OR AVAILABILITY OF FUNDS BEEN THE INHIBITOR?

As noted in our response to question one, in our research with the Global Climate Network the key non-policy barriers to investment in low-carbon technologies were: lack of commercial viability, perception of these technologies as high risk investments with uncertain returns as well as financial institutions' limited experience of low-carbon investments and lack of technical expertise.

The lessons from the Mercer research released in February 2011[5] into the long term implications of climate change is that traditional valuation and asset allocation methods are inadequate for managing systemic portfolio risks such as climate change and thus may also be insufficient for managing the opportunities. It is managing the uncertainty which is just as important and taking an expected value view of long term carbon prices is an acknowledged failure of fund managers. This is reflected in the risk premiums allocated to low carbon investments which seem to have a positive future, whereas high carbon investments, particularly in fossil fuel extraction, continue to attract low risk premiums even though research (e.g. Carbon Tracker report 2011) has shown that less than half of the stated reserves can be burnt.

6. WHAT NON-FINANCIAL FACTORS INHIBIT CLEAN ENERGY PROJECTS?

Each year The Climate Institute and the Australian Institute of Superannuation Trustees conduct a survey – the Asset Owners Disclosure Project – of Australia's largest superannuation funds looking at their management of climate change risks and opportunities. As part of this we have enquired into the degree of willingness/ability of Australian super funds to invest in large-scale renewable energy infrastructure projects.

Our research shows the most common barriers to investment in clean energy include policy instability, lack of history/track record of clean energy investments and lack of experience of and/or comfort with infrastructure and private equity type investing.

We have provided below some of the findings from our most recent survey that we think you will find of interest relating to barriers to clean energy-related investment.

Q8.14 Would you be willing to consider large-scale investment opportunities in infrastructure to help limit Australia's climate risk and maximise opportunity?

	%
Yes, with other funds and government	*44%*
Yes, with other funds	*39%*
Yes, with government	*6%*
No	*11%*

There has been an increase in the willingness of funds to consider large-scale investment opportunities in low-carbon infrastructure with almost 90% of funds willing to do so. However, since the survey's inception three years ago the willingness of the surveyed funds to talk to government

[5] *Climate Change Scenarios: Implications for Strategic Asset Allocation* (Mercer LLC, www.mercer.com/climatechange, February 2011)

regarding large scale investment opportunities has continued to decrease whilst the willingness to consider these same opportunities with other funds has continued to increase.

Q8.16 What can government do to help remove some of the barriers that prevent large scale renewable energy investments or portfolios? (More than one option may be selected)

	%
Altering public purchasing policy to support investment in particular areas	*35%*
Favourable commercial terms (e.g. price floor)	*53%*
Capital protection	*24%*
Liquidity facilities	*35%*
Tax benefits	*47%*
Obsolescence support	*-*
Other (please specify)	*24%*
Not known	*24%*
Not applicable - we do not think barriers exist	*-*

This was a new question this year to see what, if any, barriers the government can assist in removing to better foster large-scale renewable investment. All "other" options listed were regarding clarity around climate policy. Lack of clarity around policy was identified in a number of areas as a barrier to climate change investment.

Q2.8 What barriers exist within funds that prevent them from developing climate change capability?

	%
Focus on short-term objectives	*11%*
Lack of knowledge of climate change science	*17%*
Other (please specify)	*50%*
We do not think barriers exist	*22%*

Approximately 80% of funds felt there were barriers to developing climate change capability with lack of knowledge of climate science receiving the highest response rate. Other barriers that funds listed include lack of (government) policy, difficulty in getting climate risk-related information from investee companies, lack of resourcing, lack of competitive pressure and implemented consulting. Education and regulation were identified by funds as the key drivers to overcoming these barriers.

Q2.10 What barriers exist within funds that prevent them from making climate change-related investments?

	%
Lack of investment research to demonstrate feasibility	*33%*
Lack of appropriate investments	*11%*
Other (please specify)	*39%*
We do not think barriers exist	*17%*

Fewer funds felt there were barriers preventing them from making climate change related investments than developing climate change capability, with lack of investment research to demonstrate feasibility the main barrier. Other barriers listed included: reluctance to pick winners, lack of acceptance by the community, lack of appropriate investments and implemented consulting. Climate policy was viewed as the best method of removing barriers to investment, by a considerable margin.

The full survey results report is available at: www.climateinstitute.org.au/business/aodp.

In addition, traditional and widespread valuation techniques such as the discounted cash flow model tend to put at a disadvantage those projects that have long-term financial benefits, such as those generated by large-scale renewable energy projects, as these are lost in the discounting process.

Finally, the CEFC should engage strongly with APRA around the investment structures of superannuation funds to ensure that liquidity requirements do not inhibit investment in clean energy infrastructure.

7. ARE THERE SPECIAL FACTORS THAT INHIBIT ENERGY EFFICIENCY PROJECTS?

Measures that cut energy waste and improve energy productivity can significantly reduce the cost of emission reductions. The CEFC will need to consider the balance between investments in energy efficiency versus clean energy projects. Energy efficiency is potentially appealing both politically and with households due to heightened concerns of the cost of living since the global financial crisis and it is also one of the areas where a financial return for the adopters is received quickly, if not immediately, as shown below[6].

However, energy efficiency will be more effectively driven by policies such as: regulations, the carbon price and, critically, the proposed national Energy Savings Initiative. Any CEFC investment should target market failures not addressed by these policies.

OTHER ISSUES

8. HOW DO YOU SEE THE CEFC FITTING WITH OTHER GOVERNMENT INITIATIVES ON CLEAN ENERGY?

It is important that the CEFC complements, and does not duplicate, policies already in place (or planned) via the emission trading system, Renewable Energy Target and ARENA. Similarly, the CEFC and the government's broader range of clean energy initiatives will be most effective if they are not undermined by contradictory policies elsewhere. It is also important that policies do not over-compensate emerging technologies so that clean energy investment bubbles may be avoided and the risk of retroactively applied legislation (such as the roll-back of solar feed-in tariffs seen around the globe in the past year) is minimised.

Finally, whilst we acknowledge the remit of the CEFC does not extend beyond clean energy initiatives, there is an opportunity for the CEFC to play an important role in the debate about the level and composition of subsidies currently afforded the fossil fuel industries.

[6] *Low Carbon Growth Plan for Australia: Impact of the Carbon Price Package* (ClimateWorks Australia, August 2011)