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Expert Review Panel
The Clean Energy Finance Corporation

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Dear Expert Review Panel,

The Climate Group is pleased to provide this submission to the Expert Review of the Clean Energy Finance Corporation (CEFC).

The Climate Group is an independent global non-profit organization. We operate in seven countries including the US, China, India, the EU and Australia. Our mission is to accelerate the growth of a global low carbon economy: a clean industrial revolution that will unleash a new wave of economic growth and job creation.

Since 2004, we've been working with governments, business leaders and the world's most influential individuals to drive the policies, technologies and investment we need to massively scale-up clean energy, clean technologies and energy efficiency – and make them commercially viable.

The Climate Group endorses the objectives and principles of the CEFC. We believe the CEFC has an important role to play in leveraging private finance to accelerate deployment of the renewable energy, energy efficiency and low emissions technologies that will position Australian industry to transition to a low carbon economy in the near future. The CEFC has the potential to not only facilitate innovative clean technology projects getting off the ground, but to practically demonstrate the benefits of these technologies to various stakeholders and the wider public.

The Climate Group proposes a set of guiding principles for the funding of clean energy and energy efficiency projects by the CEFC, as outlined below.

Basic principles

1. The CEFC should only fund projects consistent with the Australian Government's goal of limiting global warming to 2 degrees Celsius. This will require appropriately limiting the emissions intensities of projects receiving support.
2. Unlike the Renewable Energy Target (RET), the CEFC is capable of supporting *innovative* clean energy technologies. The CEFC should use this advantage to support projects that (a) are representative of technologies that will be central to a low carbon transition in the near future (2020 and beyond) and (b) would not otherwise be deployed. Such technologies will include solar thermal, geothermal and large scale solar photovoltaic power stations.

3. The CEFC should leverage private sector funding to unlock as much clean energy investment as possible. Ratios above 1:10 public to private financing have been seen in the US, but lower ratios are expected and acceptable for less mature technologies.
4. While specifying the *types* of projects it seeks to fund, the CEFC should nonetheless allow the private sector to identify the *specific* projects worthy of funding as much as possible. This will reduce the CEFC's financial and political exposure to failures, such as the high profile collapse of Solyndra in the USA in 2011.
5. The CEFC should clearly distinguish its role from that of Low Carbon Australia (LCA) to prevent any overlap in functions and to ensure that each organisation achieves maximum effective impact. The CEFC should target the significant remaining 'low-hanging fruit' within *industry* (as opposed to LCA's focus on buildings), where projects face a market gap in capital availability.

The Climate Group would like to comment more specifically on three design features of the CEFC:

1. Hybrid power stations
2. Additionality to the RET
3. Bundling energy efficiency projects

1. Hybrid power stations

The Climate Group acknowledges that hybrid renewable/fossil fuel power stations will have a role in electricity generation in the near-term. Consistent with Principle 1 above, the CEFC should (a) only support that portion of the cost of a hybrid power station that is not yet viable under current market conditions (i.e. the portion of cost that is attributable to the renewable components), and (b) only support those hybrid power stations whose final emissions intensities are consistent with limiting global warming to 2 degrees Celsius. This will limit hybrid power stations' emissions intensity to 0.30 tonnes of CO₂ per MWh and below, with options including gas-boosted solar thermal and geothermal.¹

This emissions intensity limit is necessary to prevent CEFC funding being used to support a hybrid project that combines a small boosting station with a large and emissions-intensive power station. Such a project would reduce emissions on the short-term, but will have the perverse effect of increasing the future cost (both economically and politically) of decommissioning the emissions-intensive power

¹ Treasury (2008) 'Australia's Low Pollution Future: the Economics of Climate Change', Chapter 6, Australia Government. See http://www.treasury.gov.au/lowpollutionfuture/report/html/06_Chapter6.asp.

The Garnaut-25 pathway is consistent with Australia's goal to limit global temperature rises to 2 degrees Celsius. This pathway requires that the Australia-wide electricity generation fleet reduces its intensity to 0.30 tonnes of CO₂ per MWh by 2030. This will require significant investment in power stations with emissions intensities at and below this level over the next two decades. Power stations with higher intensities are at severe risk of stranding if urgency for reducing climate impacts increases over this period.

station. Hybrid power stations with an emissions intensity of 0.30 tonnes of CO₂ per MWh and below have very low risk of stranding up to 2050.²

2. Additionality to the RET

The Climate Group has two comments regarding the relationship between renewable energy deployments supported by the CEFC and the RET, consistent with Principle 2 above:

- Since support for conventional wind is already achieved through the RET, ideally the CEFC will avoid funding conventional renewable energy technologies such as land-based wind: However, where conventional wind projects are funded, they should be additional to the RET.

If CEFC support for conventional renewable energy sources (e.g. land-based wind energy) is non-additional to the RET, then part of the CEFC's AU\$10 billion will effectively be spent reducing the costs faced by electricity providers in meeting the RET. This amounts to a subsidisation of electricity, with the perverse side-effect of stimulating electricity consumption.

Additionality in this context means that where the CEFC does support wind, the CEFC genuinely supports growth of the renewable energy industry in Australia.

The Climate Group submits that specific provision is made to ensure that any land-based wind farms supported by the CEFC are excluded from contributing to electricity providers' mandated RET obligations.

- In our view, the CEFC should preferentially support novel renewable energy technologies that would not otherwise be deployed with the support of the RET alone. Novel projects may be non-additional, so that they receive the dual benefit of the RET *and* CEFC finance. CEFC finance will therefore be required only to reduce the cost of novel technologies to the point that they become competitive with conventional wind under the RET, increasing the CEFC's power to leverage such projects.

This will provide Australia with the opportunity to meet the RET while simultaneously developing world-leading practical experience with less mature, but highly promising, technologies such as large scale solar PV, solar thermal and geothermal.

The Climate Group submits that CEFC-supported projects that utilise technologies with a lower rate of return than conventional land-based wind farms should be included within RET obligations, i.e. that CEFC-

² See previous footnote.

supported solar and geothermal power stations *can* contribute to the RET.

Together these approaches will ensure that the CEFC contributes to expanding the overall size and diversity of Australia's renewable energy industries.

3. Bundling energy efficiency projects

In The Climate Group's view, the CEFC should play a role in addressing the gap in market availability for small and medium-sized energy efficiency projects. The CEFC should focus in the industrial/manufacturing space, as the building efficiency space is already being substantially addressed by Low Carbon Australia. Industrial/manufacturing projects at the level of small to medium businesses tend to be unattractive to major financiers due to a lack of scale.

Nevertheless, investing in industrial energy efficiency projects is crucial. Such investments provide numerous benefits: high return on investment at low-risk; enhanced productivity and competitiveness of Australian business; greater overall economic resilience to increases in the cost of energy resources; and due to the large number of such projects, they help to develop local markets for common low carbon products such as efficient LED lighting and manufacturing equipment.

To overcome the challenges of scale, The Climate Group recommends that the Expert Review Panel investigate opportunities for the CEFC to partner with third party organisations to standardise and bundle similar categories of energy efficiency projects. Bundled energy efficiency projects can (a) reach large investment scales that better match both CEFC funding and the interests of major financiers and (b) reduce the transaction costs of energy efficiency projects for small businesses.

However, bundling energy efficiency projects is itself unlikely to be sufficient to secure investor interest. In The Climate Group's experience, many major sources of capital, such as superannuation funds, will remain cautious in engaging with energy efficiency projects due to lack of familiarity with their behaviour and risk profile. Therefore The Climate Group submits that the CEFC must play a key role in de-risking such investments and leveraging private capital through the usual financial mechanisms (loan guarantees, subordinated debt, direct equity investments, etc.). Many studies demonstrate that the CEFC can expect a high rate of return from the billions of dollars in remaining 'low-hanging fruit' energy efficiency projects.³

³ For example, see The Climate Institute's version of a McKinsey cost-curve for Australian energy efficiency in: The Climate Institute (2011) 'Low Carbon Growth Plan for Australia: 2011 Update'.

<http://www.climateworksaustralia.com/ClimateWorks%20Australia%20Low%20Carbon%20Growth%20Plan%202011%20update.pdf>

Conclusion

The CEFC represents a unique opportunity to position Australia as a leader in the emerging clean technology revolution. The Climate Group encourages the Expert Review panel to ensure that Australia's wealth today is invested in building the industries that will define the world economy tomorrow.

Yours sincerely,



Caroline Bayliss
Director, Australia