

**SOUTH AUSTRALIAN GOVERNMENT**  
**RESPONSE TO CLEAN ENERGY FINANCE CORPORATION – EXPERT REVIEW PANEL**  
**REQUEST FOR SUBMISSIONS**

The Government of South Australia welcomes the opportunity to provide input to the Clean Energy Finance Corporation (CEFC) Expert Review.

The establishment of the CEFC will provide an opportunity for new technologies to be financed where there are clear capital market barriers to commercialisation which are not addressed by the carbon price alone.

- *How do you expect the CEFC to facilitate investment?*

The CEFC's stated objective is to overcome capital market barriers that hinder the financing, commercialisation and deployment of renewable energy, energy efficiency and low emissions technologies.

The CEFC could facilitate investment by:

- Being a passive stakeholder / equity investor, or a debt investor, who will focus on medium/long term returns rather than a short term view and may not demand a short term dividend.
- Providing initial years of certainty to help a project become bankable to appeal to a greater audience (high risk timeframe etc) particularly where banks may be unwilling to finance a project due to absence of customer contracts or due to the lack of experience in financing new technology projects.
- Addressing demonstrated barriers to energy efficiency investments which could suffer from resistance to the upfront cost of payment for a long term payback period.

The CEFC could also provide an advisory or mentoring role in assisting project proponents to establish the bankability or their business cases where technologies are perceived as high risk or unconventional to financiers.

- *Are there principles beyond financial viability that could be used to prioritise investments, such as emissions impact or demonstration effect?*

Financial viability must be the overarching principle for prioritising investments.

The CEFC needs to ensure that its activities do not distort energy markets by financing projects which are not financially viable in the long term, taking into account likely carbon price paths. In particular, the CEFC needs to ensure that the decisions they make will not lead to any cross-subsidisation from consumers to assist investments which are not financially viable. Avoiding unnecessary risks to energy security should be a consideration.

If non financial factors are going to be considered, a clear framework needs to be in place for assessing these factors. Ultimately those factors need to be aligned with the ultimate

objective of meeting the long term targets for emissions reductions at least cost. This requires an understanding of likely long term carbon price paths and the extent to which emerging technologies may ultimately be competitive in the marketplace (or can be assessed as 'not uncompetitive').

Noting the CEFC is commercially orientated, the timeframe to be applied by the CEFC for achieving returns needs to be considered. Establishing such a timeframe will be relevant to the clean energy investments the CEFC is able to assist.

Spillover benefits from innovation may be a consideration. The CEFC may be interested in risk sharing arrangements in relation to the costs faced by early movers who make the initial investment to demonstrate or apply new technologies that benefit the industry more widely. Early mover costs may include the costs associated with training in new skills; working through new regulatory frameworks; development of supporting industries and a reliable supply chain; demonstrating and communicating the safety and effectiveness of new technologies to the community; and educating providers of debt and equity about the technical and commercial dimensions of a new technology.

- *What non-financial factors inhibit clean energy projects?*

The financial viability of clean energy projects is heavily influenced by the regulatory and institutional environment including the imminent introduction of the carbon price, the Renewable Energy Target Scheme, the National Electricity Market, as well as planning laws and regulation at a State level.

The design of the RET centres around delivering Australia's 20 per cent target at least cost. It draws capital investment to renewable energy generation which is least cost at each point of time between now and 2020. The RET attracts private capital towards the most mature technologies, mainly wind power which still enjoys a significant cost advantage over the competing technologies. Wind is also well suited to meeting the incremental increases in the annual obligation of retailers to surrender Renewable Energy Certificates.

Other regulatory and program interventions have attempted therefore to support the other maturing technology, solar generation, namely feed in tariffs and the Solar Flagship program.

In prioritising its investments in renewable generation technologies the CEFC will therefore need to balance the need to support long run financially viable projects and technologies with a recognition that some more mature technologies have already overcome market barriers as a result of a range of government interventions currently in place.

Another relevant consideration is the need to secure purchase agreements to raise capital and the extent to which the CEFC can or should recognise this as a barrier to new technology development. Energy retailers have their own generation capability, both conventional and renewable and investment in energy technology therefore becomes, in part, a function of the risk appetite of those retailers as well as the capacity of new technologies to be accommodated within their existing mix of purchase contracts, including their contracts with their own generating assets.

Some technologies may only achieve cost efficiencies at scale. The obvious example is the geothermal industry centred on exploitation of energy from hot, dry rocks. The CEFC may need to assess the capital barriers associated with large-scale renewable projects, particularly in regard to solar thermal and geothermal energy projects.

Transmission costs may also be an impediment for some renewable generation technologies. In Australia, as in most other countries, the transmission grid reflects historical, often fossil fuel based generation patterns. Renewable energy sources are often dispersed and remote to the grid and infrastructure investment in transmission can be prohibitively expensive. The Garnaut Climate Change Review has identified the “two barriers to successful network augmentation that could significantly slow or even halt the progressive deployment of lower-emissions generation technologies”:

- Free-rider problems and first-mover disadvantage:

“For a simple remotely located generator the additional cost of connection is likely to be insurmountable. If the costs can be shared between multiple generators, the likelihood of a successful network extension increases. But the extension may not eventuate due to strong incentive to free ride on the efforts early movers.”

- Barriers to achieving optimal scale in network extensions:

“Current processes for extending the electricity network may result in extensions without adequate capacity to carry future generation load. At present regulatory arrangements stipulate that additional network capacity can only be funded by the broader customer base if it is judged to be the best alternative to meet reliability requirements or providers not market benefits.”<sup>1</sup>

It is not the role of the CEFC, nor is it appropriate public policy, to seek to ignore transmission costs in its assessments of long run financial viability of renewable generation technologies or achievement of emissions reductions targets as least cost. Nonetheless the CEFC may need to assess the long run viability of transmission as well as generation investments in its investment facilitation decisions.

- *How do you see the CEFC fitting with other government initiatives on clean energy?*

If private finance is unable to fund the 2,000 MW of replacement generation arising from the contract for closure initiative, the CEFC could have a role in financing the new generation bearing in mind its mandate for low emissions technology. The mechanism for this, given the CEFC begins capitalisation in 2013-14, would need urgent consideration.

Clearly the interaction of this financial corporation and ARENA will need to be defined and encouraged, as ARENA grants coupled to CEFC loans, under specific circumstances, may provide greater investment in renewable energy projects.

The CEFC should also seek to coordinate its investment decisions with similar institutions set up in other countries, such as the UK Green Investment Bank, to be able to capture global spillover effects.

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<sup>1</sup> The Garnaut Climate Change Review pgs 448-449. As a post script, the regulatory mechanism was updated by the Australian Energy Regulator in June 2010 which amalgamates reliability and market benefits considerations.