SEE-CHANGE
COMMUNITIES CREATING A SUSTAINABLE CANBERRA

8th December 2011

Chair,
CEFC Expert Review,
cefc@treasury.gov.au

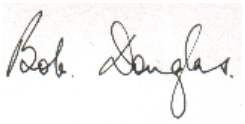
Dear Sir/Madam

Re: SEE-Change Submission to CEFC Expert Review.

SEE-Change is a non profit community-based organization that is committed to a reduction in the ecological footprint of the ACT. We seek to inform and provide opportunities to ACT residents to consider the implications of continuing our high ecological and carbon footprint activity. www.see-change.org.au .

I am pleased to attach to this letter submission to the review which points to the very considerable interest which our organization has in issue of community ownership and involvement in the generation of renewable energy. We see the operation of the CEFC playing a vital role in the urgent shift to non-polluting renewable energy in Australia.

Yours sincerely



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SEE-CHANGE
COMMUNITIES CREATING A SUSTAINABLE CANBERRA

# SEE-Change Submission - CEFC Review Panel

**This submission focuses on our commitment to facilitating the community's participation in renewable energy**.

SEE-Change is a grassroots community body in Canberra (www.see-change.org.au) that is committed to assisting Canberra residents in reducing their ecological footprint. Since its formation, five years ago, it has played a significant role in implementation of rooftop photovoltaic installations with 190kW of installed capacity attributable to our bulk buy programs. It has recently formed, with ACT government support, a Canberra Clean Energy special interest group focused on involving the community in initiatives that will rapidly increase Canberra's renewable energy capacity. The shift to renewables is urgent. It offers the opportunity for transformative change in the way Australians think about and use energy. Community ownership of a significant proportion of the energy produced in Australia is likely to improve general energy literacy and change the way people use it. This is not just a matter of economic efficiency in the short term but a commitment to sustainability in the long term.

SEE-Change warmly welcomes the development of the CEFC. We urge that this should not simply be an investment bank aimed at maximal returns, but a resource that will facilitate change in the national mindset about energy production, it's conservation and it's distribution. We believe that in clarifying it's mission and its specific initiatives for support, it should include community projects that operate at a scale and at a level, which enables participation of ordinary Australians.

Canberrans have enthusiastically taken up the installation of photovoltaic rooftop systems. While this began with strong feed in tariff incentives, we believe its popularity relates not only to those incentives but to the growing understanding by Canberra communities that we must urgently wean the city away from its dependence on fossil fuels generated interstate in the interests of local energy production and a sustainable future. We therefore urge the CEFC to make provision for and allocate funds to support early stage equity investment in community projects. This will underpin community understanding and support of clean energy policy and the roll out of clean energy infrastructure. The economic and social benefits of these projects will play a vital role in building the broad national commitment to renewables.

### *1. How do you expect the CEFC to facilitate investment?*

We think the CEFC should have a broad mandate with the ability to provide financing ranging from equity to senior debt. We would expect CEFC to operate not only where there is an absence of reasonable or efficient commercial alternatives but also as a prelude to the construction of large-scale renewable energy generators. As the design and efficiency of photovoltaic installations improves, the evidence of this improvement should be available for

all to see. In Canberra, we are setting up several community owned business models. Some of these will require start-up capital, which could be repaid by the group over a relatively short period. We are exploring a number of ways in which community members who lack the appropriate roof space or capital, can participate in local, renewable electricity generation.

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

The transition from fossil fuels to renewables is exceedingly urgent. The community understands that there is technology currently commercially available that can enable a shift towards sustainable energy generation and they are justifiably eager to get involved. The creation of large-scale, community owned facilities helps to meet abatement targets in the short term and engage the community while a larger scale generators are crafted to meet longer-term needs.

Distributed, community-scale renewable energy systems such as photovoltaics, while more expensive than large-scale generation, play a vital role in community engagement and education. Through the use of this technology individuals can feel a sense of ownership and participation in their clean energy future. These largely intangible benefits are key to the success of any national, clean energy goals.

Through empowering communities, by giving them the keys to their own energy generation, the CEFC can help democratise, decentralise and decarbonise Australian stationary energy generation. By encouraging community ownership, profits from energy generation can be retained, and re-spent back into the local economy, This can help to retain local jobs and community pride.

***3. What are the opportunities for the CEFC to partner with other organisations to deliver its objectives?***

In Canberra, SEE-Change is committed to community efforts to better understand the consequences of various energy policies. We are engaged with the general public, schools, churches and other community bodies in the task of expanding community understanding and ownership of clean energy.

We see real benefits in a creative partnership with the CEFC.

Additionally, the CEFC could seek to partner with a lending institution, so that lending institutions become familiar with renewable energy investments and how they can be de-risked.

***4. How could the CEFC catalyse the flow of funds from financial institutions?***

There are four ways that the CEFC could catalyse the flow of funds;

1. Early stage equity investment

We expect prospective equity investors to be conservative in nature. Modest funds may be available from local angel investors, local governments and regional development authorities, however these groups generally have insufficient funds or domain expertise to be called upon to fund the entire development phase.

We believe there is a role for the CEFC to contribute early stage equity investment into community projects. By providing equity finance for feasibility and development, the CEFC could catalyse community-scale projects.

2. Senior and subordinated debt financing

We expect that it will be difficult to raise debt financing from a bank, especially if we do not have a power purchase agreement ("PPA") in place. Commercially acceptable PPAs are not currently available. Banks will often require a PPA to provide a loan. If the CEFC were to provide loans to projects without a PPA, it would be catalysing investment.

By providing senior or subordinate financing to community projects, the CEFC could change the risk profile, unlocking capital from more traditional funding sources as well as increasing project size to access economies of scale. We would expect that this would only be possible after passing a strict due diligence process.

3. Loan guarantees

As an alternative to debt financing, a loan guarantee would be an effective way of unlocking debt financing for community projects.

4. Power Purchase Agreements (PPAs)

As noted above, we do not expect it will be possible for all community energy projects to obtain PPAs. Without certainty in the price that electricity will be sold at, it is significantly more difficult to raise equity and almost impossible to secure debt financing. The CEFC could catalyse the flow of funds to community projects by providing fixed price PPAs. This would enable clearer marketing and identification of risks for equity and debt finance providers, unlocking funding for projects.

***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?***

We expect term, cost and availability to all be issues in relation to obtaining seeding finance for community projects. We expect there to be very few lenders willing to back them on a purely financial basis. We need more choice to reduce risk. The term of a loan needs to match the asset life of projects, rather than a much shorter duration.

Obtaining equipment financing packages for renewable energy generators is difficult in Australia, as standard solar energy equipment is not currently recognised as sufficient security. This makes secured financing a challenge. We understand this is partly to do with the cost of the technology falling, however as international prices level out, financing organisations can have more confidence in the underlying asset value of the generator. By developing finance packages secured by the generator asset itself, the CEFC can encourage responsible, de-risked investment in technologies such as photovoltaic panels which are now well and truly commercially proven.

Lastly, the cost of financing needs to be competitive. Many community organisations such as ours rely on a great deal of volunteer support, it would be a great pity to see this effort be allocated to excessive bank margins.

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

We are trying to obtain broad community backing and benefit sharing for our projects, something that is more often than not lacking in larger developments.

Issues that community groups often deal with include a lack of resources to drive the project forward, as we depend for a large part on volunteer effort. In particular we require low cost access to specific skill sets/resources such as legal, business, technical and financial experts.

At times it can be difficult to have access and dealings with industry participants, equipment, service, and finance providers. Even where there is a requirement to deal with us, negotiations with some counterparts (for instance obtaining grid access) are often one sided and weighted against community groups.

***7. Are there special factors that inhibit energy efficiency projects?***

At this stage, SEE-Change is primarily committed to issues relating to renewable energy generation as a mechanism for improved energy literacy and understanding. A secondary objective of our projects focuses on the reduction of energy consumption through energy efficiency measures and we therefore see value in partnership with the CEFC regarding community engagement in energy efficiency projects

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

We see the CEFC as a key lever and driver in achieving the goal of the 20% RET and laying the foundations for moving to more aggressive targets beyond 2020 or even before that time. A well-designed CEFC that encourages community participation will deliver a broader range

of projects at various scales with significant community support and associated social benefits.

As a community-based movement we see a role for the CEFC in distributing vital funding to aid the development of locally-owned and capitalised solar power stations. Where the CEFC may consider 1:10 funding for the private sector we suggest a different model for the community sector, along the lines of interest free loans or support of financial institutions to provide this type of funding. As already mentioned the community sector runs on volunteers and very low margins and there is much evidence to show it is also able to raise capital for small and medium sized facilities. This assists Government in the development of distributed energy, as well as the aforementioned promotional and educative benefits.

## Background Information

### What is Community Energy

Community energy projects empower communities to play a constructive role in response to climate change. They create environmental 'leadership by example', provide social cohesion and a sense of control over their energy requirements and energy generation, as well as lasting economic benefits for regional communities.

Key elements of community energy projects include:

- local participation in planning and ownership
- financial benefits remain in the area
- welcomed by the local community
- built and managed to create local jobs
- accountable to the local community
- scaled to the community's energy requirements.

### Importance / benefits

Although community ownership of renewable energy projects is a relatively new concept in Australia, it is common practice in several European countries and North America.

1. **Empowering communities to be proactive in reducing carbon pollution**
    - Direct ownership changes attitudes at the local level, and leverages committed individuals in a community, giving them a positive outlet for action.
    - Community ownership increases support for additional climate change mitigation measures and improves broader environmental awareness by establishing a connection between the community and its energy supply.

2. **Delivering regional economic benefits**

- Projects create jobs in regional areas, and generate new income streams for communities adding depth and resilience to local and regional economies.
- Significant project profits remain in the community and deliver a genuine 'felt' benefit.

3. **Tapping into a new funding source – the community investor**
   - Community ownership encourages greater investor base diversity and taps into a patient and lower-cost source of capital.
   - Experience in the UK demonstrates that community projects tend to attract 'serial investors', who invest in a series of community related initiatives.

4. **Enduring social benefits**
   - Locally-owned initiatives unite people around a common goal, creating social cohesion and a sense of purpose.
   - Projects generally operate for 20-25 years, establishing a long-term sustainability dialogue with stakeholders and supporters.

5. **Building social licence and accelerating renewable industry development**
   - Once successful local examples that directly benefit communities are established, opposition will be reduced.
   - Local participation and contribution to decision making process often leads to smoother and quicker planning approvals.
   - Small projects often lead to large ones. In Europe, community initiatives have led the way for large-scale corporate investment in renewable energy.

6. **Bridging the gap between individual and corporate action**
   - The average rooftop solar installation delivers up to 1.5 kW of electricity, while a large-scale renewable energy project may deliver in excess of 100 MW. Between these two extremes lies an enormous opportunity for medium-scale initiatives.
   - Community projects, typically in the range 1-10 MW, can deliver efficiencies that approach those of utility-scale infrastructure without sacrificing the social benefits of small-scale initiatives.

7. **Delivering broader grid benefits**
   - Community renewable energy infrastructure promotes medium -scale distributed generation.
   - Distributed generation reduces losses, can improve grid stability and reduces the load on the transmission network thus improving overall grid efficiency.

**Barriers**

Despite high levels of interest, the passion of committed individuals and promising business models, very few communities have yet progressed renewable energy projects past the conceptual phase. Specific barriers include:

1. **Economics**
    - Financial challenges are heightened for communities as these types of projects do not have robust balance sheets to support the formation stages of the project.
    - Capacity for a community to weather uncertainty and withstand shocks or delays during a project can be lower.

2. **Access to capital**
    - Traditional equity and debt providers are reticent to commit funds as the community renewable energy sector does not yet have a long established track record in Australia.
    - Institutional investors avoid smaller, one-off projects because due diligence requirements are proportionately high.

3. **Non-traditional market player**
    - Developing a renewable energy project is highly complex and requires a range of specialist skills not available in most communities.
    - The ease and cost of grid connection is site specific. The greater the electricity exported into the local grid by the renewable generator, particularly an intermittent one, the more complicated and costly it will be to achieve the connection.
    - Off-take agreements are bilateral and very challenging to negotiate in the current environment.

4. **Inadequate policy framework**
    - While Australia has well developed (but unstable) policies covering domestic-scale renewables and solid policy for large-scale utility generation, federal and state policies have neglected the middle ground where community initiatives naturally fall.

5. **Perceived inefficiencies in scale**
    - Larger projects are generally perceived to be more efficient as fixed costs are spread across greater generation capacity. This leads policies to often focus on the large projects. However medium scale rooftop projects can avoid significant costs with ground mounting and security, as well as in some cases avoiding the need for substantial grid infrastructure upgrade. Newer inverter technologies

have also been shown to offer grid voltage stabilisation when deployed in a distributed fashion.

- .**Capacity and skills**
- To move projects forward, community groups need to transition from volunteer-based organisations to local social enterprises with paid staff.