To: The Clean Energy Finance Corporation Review Panel

From: Matthew Parmeter

Submission to the Clean Energy Finance Corporation regarding the design of the $10B CEFC Program

To the Chair,

I am making a submission in two parts to the CEFC Review Panel.

Attached is the first part - a report that I have written about the potential for medium scale solar power plants in central and western NSW.

The report calls for the Federal Government to provide funding of $200M. This would be managed by a Board - they would build up to half a dozen medium scale solar power plants (between 1 and 10 MW) in central and western NSW, that would be capable of running a typical country town. When constructed and operating, the Board would hand them over to the local Council, who would then operate them for the next 30 years.

Constructing a number of different solar technologies, at a number of different locations would be a valuable step in developing Australia's clean energy future.
Preliminary constraint mapping of the electrical zone substations in central and western NSW reveals that almost all of the substations have suitable land close to them that a solar power station could be built on. The mapping looks for a paddock of 10 to 30 hectares, within 2 km of the substation. This preliminary mapping is not included with the report for space reasons, but is available if requested.

For your information
Matt Parmeter
8 December 2011

Matthew Parmeter's submission to the CEFC Review Panel

The second part of my submission focuses on community participation in renewable energy.

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The first part of my submission dealt with a proposal for the Federal Government to supply $200M in funding to a Board. The Board would build up to 6 medium scale solar power plants in central and western NSW. The power plants would then be handed over to local Councils to operate. By building a number of different technologies, in a number of different locations, the actual construction costs and actual operating issues, and the advantages and disadvantages of the various options would be apparent.

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As well as the specific program outlined in the first part, in a more general sense I support the work of organizations like Hepburn Wind in developing community participation in renewable energy projects.

An outline of their ideas is shown on the next pages.

I would like the CEFC to:

1. specifically include community projects as a part of the package
2. not rule out community sized projects in the design of the scheme, for example, by having minimum investment amounts for the fund beyond community scale
3. make provision for and allocate funds to early stage equity investment in community project

We assert that the community energy sector warrants specific attention in the construction of the CEFC as it will underpin community understanding of and support for both 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 social licence for renewables. A vibrant community energy sector is an economically efficient and socially desirable solution for building the social licence required to dramatically drive towards a clean energy future in Australia.

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

We envisage the CEFC will have a broad mandate with the ability to provide financing ranging through equity to senior debt. Additionally, we would expect CEFC to operate where there is an absence of reasonable or efficient commercial alternatives. Specific ideas are outlined under Question 4 relating to catalysing community and institutional funding.

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

A key principle beyond financial viability is social licence to operate.

To create broad-based support, the community needs to both understand the technology and the local benefits offered. We are looking to create this understanding through participation in our project.

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

The first part of my submission detailed funding a Board, to deliver medium scale solar power projects in central and western NSW. A significant part of the Board would be representatives from local Councils.

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 to our project. By providing equity finance for feasibility and development, the CEFC would catalyse our project.

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 our project, 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 happen only 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 our project.

4. Power Purchase Agreements

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

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 finance for our project. We expect there to be very few lenders willing to back our project. We need more choice to reduce risk. The term of a loan needs to match

the asset life of our project, rather than a much shorter duration. Lastly, the cost of financing needs to be competitive. We rely on a great deal of volunteer support, it would be a 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 project, something that is often lacking in larger developments.

Issues that we deal with include a lack of resources to drive the project forward, as we for a large part on volunteer effort. We also need to access technical skills. 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 counterparties, such as obtaining grid access, are one sided and weighted against our group.

7. Are there special factors that inhibit 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 in achieving the goal of the 20% RET and laying the foundations for moving to more aggressive targets beyond 2020.

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.

Background

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 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.

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.

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.

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.

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.

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.

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.

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:

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.

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.

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.

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.

Inefficiencies in scale

- Larger projects are generally more efficient as fixed costs are spread across greater generation capacity.

Capacity and skills

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