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Ms Jillian Broadbent
CEFC Expert Review
Sent via email to cefc@treasury.gov.au

Dear Jillian,

Embark welcomes the opportunity to make a submission to the expert review panel on the design of the Clean Energy Finance Corporation.

Embark is a not-for-profit peak body established to facilitate the development of a community renewable energy sector in Australia. Inspired by the success of Hepburn Wind, Australia's first community owned wind farm, many other communities are keen to participate in, and benefit from, the transition to zero carbon energy sources.

Embark's submission to the panel focuses on community participation in renewable energy projects. We have set out our response to questions posed in the request for submission and also included some background information on the parameters of community renewable energy.

In summary, Embark 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 projects.

We assert that the community energy sector warrants specific attention in the construction of the CEFC. It will underpin community understanding of and support for both clean energy policy and the roll out of clean energy infrastructure.

Community ownership of renewable energy facilities has been integral to the widespread acceptance of clean energy technologies in other countries, and is already showing great initial success in Australia.

The economic and social benefits of these projects will play a vital role in building the broad social licence for renewables. Hepburn Wind has created several thousand engaged stakeholders in renewable energy and demonstrated that, under the right conditions, these projects can receive overwhelming local support.

A vibrant community energy sector is an economically efficient and socially desirable solution for building the social licence required to create a clean energy future in Australia.

Yours sincerely,

Simon Holmes à Court
Embark Australia Ltd
Chairman

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 the 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.

By its nature, renewable energy is distributed. As such, any significant shift toward renewable energy will necessarily interface with many communities around the country. The renewable energy industry is rapidly developing acute awareness that renewable technologies must earn a broad-based social licence to operate in each new community. In fact, similar observations could be made about the fossil fuel sector entering new communities, as demonstrated with the proposed developments in coal seam gas.

Where there is an absence of local social licence, projects can incur substantial delays in the planning process or be subject to other disruptions at any stage, potentially resulting in significant cost impacts or abandonment. In addition, material social problems can be created where social licence is absent. While the lack of social licence at the local level is problematic for a subject project, in aggregate it can lead to the erosion of community support for policy, which can lead to the withdrawal of regulatory licence.

To create broad-based community support, the community needs to both understand the technology and understand the local benefits offered.

Social licence is created through community participation in renewable energy projects. Using the Hepburn Wind example, the project has almost 2,000 investors in the 4.1 MW, two turbine wind farm in Victoria — most of the investors are local to the region. Over 760 people attended the official opening of the project in November 2011. The project has educated the local community about wind energy and provided first-hand experience of the technology to thousands of Victorians over a relatively short time.

Overseas examples show that community participation in local renewable energy projects builds enduring support for renewable energy projects and policy frameworks.

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

Embark has been established to capitalise on the learnings from Hepburn Wind and help other communities efficiently achieve their goals of creating local renewable energy projects. We have been contacted by over 60 community groups and are working closely with some of the most promising to develop successful local examples.

Embark has built a network of service providers who understand the unique challenges of the community energy sector and medium-scale renewable energy. Embark is well positioned to work with the CEFC to develop community participation models for renewable energy.

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

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

Early stage equity investment

The Hepburn Wind project has demonstrated the potential of the community renewable energy investor. The project raised almost $10m from community members to build a $13.5m enterprise. Despite significant efforts, institutional funding could not be sourced.

While the amount of capital available to be unlocked is significant, the community renewable energy investor is extremely conservative — funds are generally available only after a project's success is virtually assured. 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 in community energy projects. In general, these projects require three distinct phases of equity financing: feasibility, development and capital works.

By providing equity finance for feasibility and development, the CEFC would catalyse viable projects that would otherwise be likely to struggle for early funding. Once examples are established, we would expect financial institutions and private investors to move into the space and continue to innovate and develop the market.

We believe that this equity raising can be structured with an appropriate risk / reward framework to make a viable model. An example of this is where Sustainability Victoria provided funding to Hepburn Wind. The release of funds was structured around project outcomes being achieved, guaranteeing that only a very modest portion of public money was at risk in the early stages of the project's development.

This approach can be broadly templated. Unlike the Sustainability Victoria funding, which was structured as a grant, we believe this could be provided as an equity investment that rewards an early investment, higher risk profile. Release of funds would be tied to project outcomes being achieved. Once these are accomplished, viable projects will access capital through local investors and ideally financial institutions for debt financing. This would fit in with the CEFC's objectives of providing funding for returns rather than grants.

Senior and subordinated debt financing

Community energy projects are generally stand alone enterprises without access to the balance sheet of a parent entity. As such, it will be common that the only asset available for security is the renewable energy facility itself. In many cases this will not be enough to secure debt finance.

Most community energy projects cannot secure a power purchase agreement (PPA). PPAs are notoriously difficult for small projects to secure as market participants are not used to, nor set up with processes for dealing with new or small entities. Most banks will not consider a loan without a PPA in place.

As an example, the Hepburn Wind project sought a ten year loan without a PPA in place. Bendigo Bank was prepared to extend those terms, on the proviso that Hepburn Wind obtained a loan guarantee, which was provided by Embark, something that other projects are likely to find difficult to access.

By providing senior or subordinate financing to a project, especially where there is no PPA or third party guarantee, the CEFC could change the risk profile of a project, 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.

Loan guarantees

As stated above, Embark worked with Hepburn Wind to provide a loan guarantee facility. While the terms of the facility were commercial, we do not believe they would have been generally available at reasonable cost in the market due to the novelty of the situation. Embark does not have the balance sheet to extend guarantees to projects across the community renewable sector.

By providing loan guarantees at reasonable returns, the CEFC could facilitate financing from traditional sources. This would involve conducting and approving a project through a due diligence process, where commercial enterprises are failing to provide cover. This is a model that other government agencies, such as the Export Finance and Insurance Corporation, already operate under.

Power Purchase Agreements

As noted above, at this early stage, commercially acceptable PPAs are generally not available for projects at the community scale. This is a considerable market failure and obstacle to community scale projects. Without certitude on the price at which electricity will be sold, it is more difficult to raise equity and almost impossible to secure debt financing.

The CEFC could catalyse the flow of funds to the community energy sector by providing fixed price PPAs to community sized projects. This would facilitate clear marketing and identification of risks for both equity and debt providers. The CEFC could manage these contracts on a commercial basis. This would achieve the CEFC's twin objectives of catalysing investment where there is an absence of funding and achieving a return on investment.

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?

In our discussions with financial institutions, term, cost and availability of funds have been an inhibitor in some form. While some financial institutions can see value of backing community owned projects, this has not translated to commercially viable funding across the banking sector to date.

We expect community renewable projects to have lower levels of gearing relative to industry benchmarks. This is because projects should have a lower financial risk / reward profile. Investors are typically seeking financial, social and environment returns on their capital, instead of purely the highest (and increasing) return on equity.

Hepburn Wind obtained debt financing through the Bendigo Bank. The guarantee provided by Embark considerably changed the risk profile of the loan. The loan facility translated to a gearing level of 20%, well below industry benchmarks. The loan is amortised over ten years. This does not match the asset life of at least twenty years. The loan term makes it more difficult to pay dividends in the initial period of the project.

Ideally, investors would receive some return on their investment in Hepburn Wind's initial period of operations, reinforcing the success of the project. Based on the return expectations of investors and the interest rate on the loan, Hepburn Wind is indifferent between additional equity financing and maintaining the loan facility. Where debt is particularly useful for community projects is in ensuring a project can achieve scale to make it economically viable.

There may be aspects, such as size of the project and the nature of the feasibility work, that may also raise issues with financing from banks. The due diligence processes within banks for wind projects are set up for large developments. The depth and cost of this process may outweigh the benefits of providing financing in some cases.

Also, bank requirements in terms of feasibility data are very high. They often require very high quality data, which translates to very expensive monitoring equipment during the feasibility phase of a wind project. Unless a project has consciously chosen this level of precision from the outset (something that many communities are unable to due to the expense required), a group may find that they fail to meet due diligence requirements of banks.

We have discussed the importance of PPAs above. Often a bank will not entertain the idea of loan without a PPA. However, PPAs are generally not available for community energy projects.

In terms of importance of factors for community owned projects, we would rank the issues as:

1. **availability**: at this stage there may be one viable debt provider to a project, if at all. More options are needed for community projects to ensure competitive, reasonable and functioning debt market. The CEFC could help lead this market and reduce participation once it is established.
2. **term**: needs to match the asset profile.
3. **cost**: needs to be competitive and commercial.

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

We believe that a lack of social licence is the primary non-financial inhibitor of clean energy projects. Broad community backing and a sense of equitable benefit sharing are the key foundations of social licence to operate. We believe the best way to create this is through community participation in clean energy projects.

Specific non-financial barriers to community-scaled projects include:

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. There is little incentive for entities responsible for grid connection to provide timely and efficient service.
- 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.

Capacity and skills

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

Another important inhibitor is ‘special interest’ opposition groups. These often focus on a technology, such as wind, which at this stage is the lowest cost alternative to fossil fuels. Opposition groups often refer to non-peer reviewed research or make unfounded claims. Such claims can create doubt in the minds of community members. Questions over safety, efficacy and health impacts can lead to opposition of projects.

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

We are not in a position to comment.

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. While the RET is likely to deliver its initial goal, it overwhelmingly favours very large projects (that can access significant economies of scale) and the least cost renewable technology at any time. Absent of complementary policy, such as the CEFC, the RET is set to deliver a modest number of massive wind farms.

A well-designed CEFC that encourages community participation will deliver a broader range of projects at various scales with broad based community support and associated social benefits.

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Background on 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.

Benefits of community energy

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 to community energy

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.