



12<sup>th</sup> December 2011

CEFC Secretariat  
Commonwealth Treasury  
Canberra  
Australia

[cefc@treasury.gov.au](mailto:cefc@treasury.gov.au)

Dear Sir / Madam,

Re: Submission - Clean Energy Finance Corporation

Recurrent Energy welcomes the opportunity to make a submission to CEFC Secretariat in relation to the Clean Energy Finance Corporation (CEFC). Recurrent Energy is a major solar developer based in North America with significant capability and track record in developing and building solar photovoltaic plants and contributing to solar policy development. We look forward to working with the CEFC and building our business in Australia. We commend the Federal Government on its Clean Energy Future package.

We view the CEFC as a key driver to stimulate the deployment of significant capacity of utility scale solar photovoltaic (solar PV) in Australia. Australia has a world class solar resource and has the potential to support a large and vibrant solar industry. A strong local market will provide meaningful employment opportunities and a base from which to export skills and expertise to regional markets. Utility scale solar PV is not currently cost competitive with conventional [fossil fuel] generating technologies. However, it is on a rapidly declining cost curve and the industry widely expects that solar PV will be competitive on a peak \$/MWh basis within the next 5-10 years, particularly as the full cost of carbon emissions are applied to fossil fuel generators. In the meantime, the CEFC has the potential to bridge the economic gap to make solar PV projects viable and contribute significantly to a cleaner mix of generating technologies.

We offer a number of comments in response to the questions below. We would be happy to provide more detail based on our considerable experience in North American, European and Asian markets if it is of value to the Secretariat. We would be pleased to host a delegation at our San Francisco headquarters and have attached photographs of the 5MW plant that the Company built in the city which epitomizes our vision for distributed solar. A broad summary of Recurrent Energy's business and experience is provided at the end of this document.

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

- Independent. The CEFC should operate as an independent financing agency for emerging low carbon technologies that have progressed beyond the research and development stage

but are not quite market competitive. To provide maximum confidence to the emerging clean energy market, political risk should be avoided. The processes of budgeting, allocation of capital, selecting projects and managing the portfolio should be independent of the political cycle.

- **Competitive.** Capital should be allocated through competitive processes. To the extent possible, standard documentation should be employed. In particular, funding and long term offtake agreements should be standardised in order to be able to compare projects, reduce costs of execution, reduce risk for proponents and support bankability.
- **Declining cost curve.** The CEFC's objective should be to transition clean energy technologies to the major existing markets for renewable energy – namely the RET and wholesale energy markets. The review criteria within a standardized application should include a stated expectation of declining cost curves in the technologies.
- **Transparent processes.** Processes should be transparent and carried out in a timely fashion. In order for project proponents to manage their businesses, it is important that timetables for preparing projects and the evaluation and awarding of support, are well understood and able to be relied upon.
- **Scope of technologies.** The scope of technologies should be clean energy generation technologies and enabling technologies which are beyond the R&D stage but which are not yet financeable. It would be hard to justify supporting wind energy projects unless they include a significant component of innovation since wind energy is already the price maker in the RET market.

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

- **Likely future impact on emissions.** CEFC should prioritise technologies which are likely to have a major impact on future emissions reduction in Australia and in export markets. These technologies may not be currently financeable but provide the best “bang for buck” over the longer term in respect of local jobs and emissions reductions.
- **Appropriate technologies for Australian deployment.** Technologies should be targeted which are able to lever local competitive advantages. These technologies are likely to be significant contributors to the local clean energy mix. Strong local markets for these technologies provide opportunities to drive costs down, manage risk and provide a sound base for export. Australia has a world class solar resource and it makes sense to exploit it as a priority while maintaining a long term view on emerging technologies.
- **Add maximum value to local market.** Technologies should be appropriate for the local network and energy market. In particular, technologies which are able to connect to the network closer to load centres will minimise network losses. Technologies whose output is able to match the daily and seasonal demand cycles or which is dispatchable will maximise value to the market.
- **Diverse portfolio.** In order for the CEFC to have an acceptable risk and return profile, it will be important to support a diverse portfolio of technologies and projects. Diversity amongst technologies can be achieved through stage of development (early or late stage commercialisation, etc) and scale. It makes sense to support a larger capacity of lower risk,

late stage technologies such as solar PV and a lower capacity of higher risk, early stage technologies. Diversity amongst projects can be achieved through location, size and network connection arrangements.

- CEFC funding critical for viability. Technologies which are commercially viable in existing markets in the absence of CEFC support should not be in scope. Late stage technologies should only be included if the projects incorporate a significant component of innovation or novelty.
- Screening for ability to deliver. Competitive processes for funding should include appropriate risk weighting for proponent's capacity to deliver and require demonstrable commitment to projects including upfront financial commitments.

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

The CEFC should explore opportunities to partner with existing finance and investment organisations, research and academic bodies and clean energy industry innovation centres to maximise the impact of the CEFC on the clean energy sector.

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

The CEFC should not crowd out or compete with private sector investment. It should operate in a way that facilitates and augments such investment.

CEFC should have available a range of financial instruments and levers. A single instrument may not be appropriate for all projects and technologies. These may include the following:

- *Loan guarantees* – as utilised by EFIC and the US Loan Guarantees program.
- *Co-investment* – debt and equity including direct, portfolio or seed investment
- *Grants*
- *Tax measures* – administering tax policy such as accelerated depreciation
- *Policy risk insurance* – and other insurance products as utilised by EFIC.
- *Direct project participation* – such as PPP's and off take agreements or feed in tariffs, as are commonly applied to infrastructure projects across Australia.
- *Climate Bonds* – like EFIC, raising additional funds through the bond issues with the government's AAA credit rating.

Consideration should be given to the liquidity nature of the support mechanism provided. For example, complex tax benefits which are difficult to utilise often create more of a challenge than support to 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 have considerable experience with financing solar PV projects with our North American, Japanese and European banking partners. We expect these and local banks to be active in the Australian financing market subject to economic viability.

Our experience is that long term offtake agreements with highly rated counterparties are key to unlocking finance from the private sector. The Australian market for Power Purchase Agreements (PPA) has been very difficult for renewable projects for the past four years as a result of the large surplus and low cost of REC's and concentration of bargaining power amongst a very small number of electricity retailers.

In addition, the economics of solar PV projects in the absence of investment credits, tax measures, grants or other CEFC type support do not deliver power at a price at which electricity retailers have been willing to contract. We expect that with support from CEFC, project proponents will be able to negotiate PPAs at viable prices and that with appropriate obligations placed on retailers to secure renewable energy they will provide terms and costs which allow projects to be financed.

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

- Regulatory uncertainty. Uncertainty surrounding the introduction and longevity of Clean Energy legislation; reviews to RET, and previous changes to RET including treatment of rooftop solar are significant constraints to investment.
- Risks associated with Development Approvals. Changes to state laws for Development Approvals for renewable energy projects are a significant inhibitor. For example, new regulations introduced by Victoria to limit wind farm development. In addition the costs and fees of applications are often very onerous and/or unknown upfront.
- Obstacles to network connection. Network connections are costly, time consuming and carry significant risk. Network operators are generally reluctant to pay due attention to connection enquiries for renewable generation and their default position appears to be that they would rather not connect renewables. The justification for their hesitancy should be the subject of a public regulatory process so that a solution can be found and the position reversed.
- Community acceptance. There is a significant risk the public perception of renewables will be turned negative by the highly orchestrated campaign to discredit windpower and other renewables. Although the claims of detractors cannot be verified and they continue to lose their cases at planning panels and in the Environment Court, their misinformation tends to infect the public's confidence in renewables. Misinformation needs to be countered with public awareness. This is a job which is too large for any one developer and Government agencies should undertake this task.

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

No comment since this is outside our scope of business.

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

We see the CEFC providing a pathway for emerging technologies which have progressed beyond the scope of funding from ARENA to eventually compete in the established RET and energy markets. It is likely that CEFC-supported clean energy projects will need to participate in competitive markets while also receiving federal support. Therefore, while CEFC supported projects might be insulated from these markets in the short term (while they complete demonstration), there should be a stated plan in the application for [CEFC] funding when and at what price CEFC projects will compete with other technologies.

In particular, it will be important to maintain the integrity of the RET market. However, providing CEFC support for emerging technologies may distort the market by adding significant volumes of LGC's at prices which could not otherwise be achieved without CEFC support. This would change the merit order for investment in more established technologies and dampen investment.

This impact could be mitigated through potentially increasing the RET target by the amount of LGC's produced by CEFC supported projects. This would need to be adjusted annually based on forecasts of LGC production. This would help to take those LGC's out of the market and maintain price tension. However, it is difficult to consistently make these adjustments with precision and at the right time. The volume of additional LGC's may not be consistent with forecasts. The equilibrium price of LGC's may provide super profits for established technologies while not being high enough for emerging technologies.

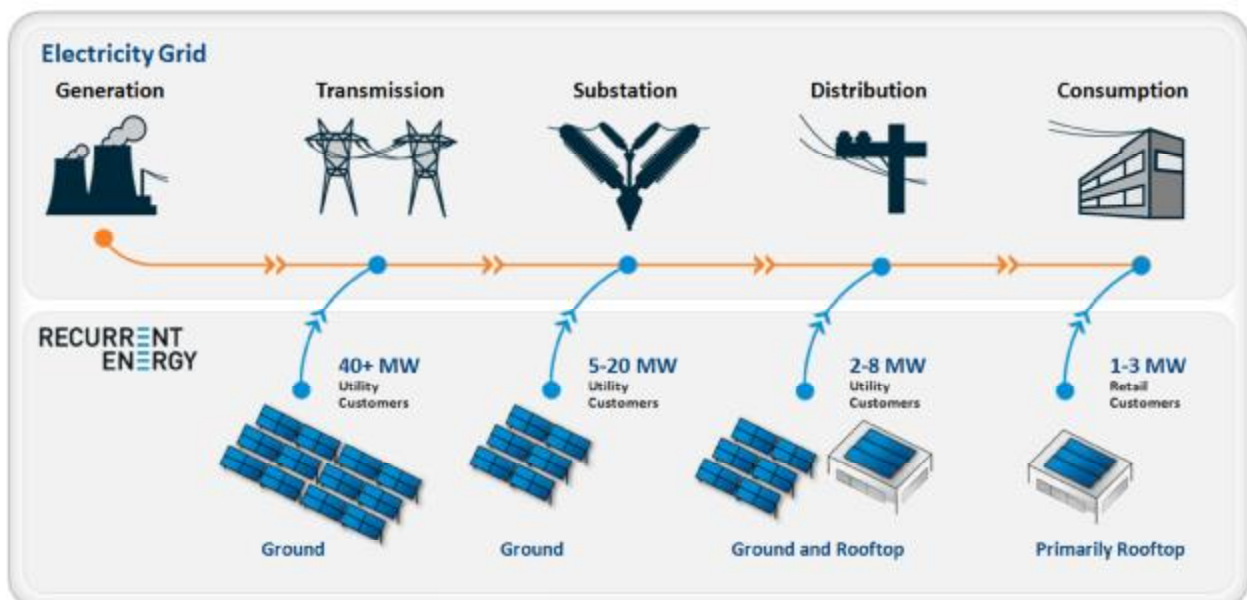
An attractive alternative would be to quarantine LGC's created by CEFC supported projects into a separate market. In this market, all projects which are supported by CEFC would compete to deliver LGC's at the lowest cost. Like RET, electricity retailers would have an obligation to purchase these REC's in proportion to their wholesale electricity purchases. Eligible project proponents could participate in competitive auctions for CEFC funding and long term PPA's. PPA's could be standard documents. Projects which have the optimum combination of CEFC funding requirements and PPA price would be higher in CEFC's merit order and be more likely to attract funding. Successful projects would win CEFC funding and a PPA at the price they have bid. Over time, as successive rounds of CEFC funding provide support for reducing costs to deliver, the PPA price for technologies will approach the price of PPAs in the RET market. At this point, with advanced notice and appropriate transparency, the technology would be mature enough to transition out of the quarantined market and to enter the mainstream markets.

In any case, transparency of the CEFC investment portfolio and forecasting LGC output will be required in order to provide certainty to market participants and maintain investor confidence.

### About Recurrent Energy

Recurrent Energy is a leading solar project developer and generating company providing clean electricity to utilities, government, and commercial customers. Headquartered in San Francisco, Recurrent Energy is helping to meet rising energy demand by developing a global portfolio of clean power plants located where they are needed most.

### Recurrent Energy & the Electricity Grid



The Company's vision is to use proven solar technology to meet rising energy demand with a fleet of clean power plants with project sizes ranging from 2-40+MW. With a project pipeline of 2.4 GW, and over 500 MW under contract, the company is well on its way to achieving that vision. Recurrent Energy is a U.S. subsidiary of Sharp Corporation of Japan and the primary development company for Sharp worldwide.

#### Value Proposition

Recurrent Energy's value proposition is in four main areas:

##### The Distributed Power Advantage:

Recurrent Energy has successfully differentiated itself through its market entry strategy focused on distributed-scale projects, 2 MW - 40 MW solar generating plants that are connected to existing utility distribution networks in areas of high demand. Distributed-scale projects are faster to interconnect and faster to permit. The net result is that the Company can deliver the benefits of solar sooner, an important selling point to utilities and regulators.

##### Focus on Viability:

Recurrent Energy's disciplined approach to project development and vigilant scrutiny of project viability has proved a successful point of differentiation against competitors. Our team spends time and development dollars early in the project lifecycle to evaluate site conditions and to advance the interconnection and permitting process. This heightened level of diligence ensures we are providing the most achievable sites, timelines, and pricing to our counterparties to meet their procurement needs.

##### Competitive Pricing:

Recurrent Energy differentiates itself from competitors in offering distributed-scale projects for large-scale economics. Recurrent Energy can achieve significant economies of scale in the larger procurement process given supplier interest in participating across the entirety of Recurrent Energy's contracted projects and 2.4 GW development pipeline. In addition, our focus on highly viable sites close to electricity loads and grid infrastructure allows us to deliver projects of premium benefit and minimal cost to customers. Finally, strong EPC, module supplier, government, and permitting relationships further streamline our development process and drive customer pricing downward.

##### Financial Strength:

Recurrent Energy is a U.S. subsidiary of Sharp Corporation of Japan. Together, Recurrent Energy and Sharp finance solar projects through a global network of project lenders and equity investors. Our Company's technical capabilities combined with its access to capital enables Recurrent Energy to deliver solar generating plants at just about any scale. The end result has been a series of successful project-specific financings that are structured with the most efficient use of debt, equity and tax benefits available in the market.

##### Australian Operation

Recurrent Energy has been assessing opportunities and developing projects in Australia since early 2010. Our parent company, Sharp, has conducted business in Australia for a number of decades. We employ industry professionals to assist with expediting projects as required.

We are pleased to be one of the first international solar PV developers to establish a base in Australia. With our parent support and experienced renewable energy staff, we are looking to become a leader in the Australian market.

Please don't hesitate to contact me on 0414 942733 or [colin.liebmann@recurrentenergy.com](mailto:colin.liebmann@recurrentenergy.com) for further information. [We attach for your information photos of our 5MW Sunset Reservoir solar PV facility in San Francisco which is operational].

Yours sincerely,

A handwritten signature in black ink that reads "Colin Liebmann". The signature is written in a cursive style with a horizontal line underneath the name.

Colin Liebmann  
Acting Vice President, Australasia

5MW Sunset Reservoir solar PV facility, San Francisco

