



**Denmark
Community
Windfarm Inc**

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Clean Energy Finance Corporation Review Panel
Canberra, ACT

Submission on a review into proposed operations etc of the CEFC

Summary

DCW Inc wishes the CEFC to

- specifically include community-based renewable energy projects
- do not set minimum investment amounts in the scheme design that exclude such projects
- facilitate or provide early-stage equity investment funds for such projects.

The community energy sector deserves specific consideration, as it underpins local understanding, support and participation in clean-energy practices, directly and indirectly. It also increases the rollout of up-to-date related infrastructure.

The economic and social benefits of these projects plays a pivotal role in building the inevitable and appropriate need for increased renewables. A vibrant community energy sector is economically efficient and socially desirable to drive a clean-energy future for Australia.

The Denmark experience

The Denmark community windfarm (DCW) project began in 2003, as a local community solution to reducing its carbon footprint and contributing to climate-change amelioration by building, owning and operating a locally-scaled renewable-energy facility. At the time it was Australia's first grid-connected community windfarm proposal.

Due to a series of unforeseen interruptions, setbacks, delays, infrastructure issues and red tape, the project is now scheduled for completion by November 2012. It will comprise two 800kW Enercon E48 wind turbines on a high wind-energy coastal site 11km south of the Denmark township, and provide approximately 40% of present local consumption. It will prevent ~6000t of CO2 emissions per annum.

The project has been fortunate to attract federal, state and local government support and funding totalling some \$3m, including \$2.48m under the Commonwealth's former Regional and Remote Power Generation Program (RRPGP) scheme; and enjoys the support of 70% of local residents¹.

The site is suitable for enough wind turbines to supply all of Denmark's energy requirements into the future, plus net export capability, if the community wishes to expand the facility and if the capacity of the local State-owned distribution and transmission network is improved.

Since DCW began two community windfarms have been built (Hepburn, Vic and Mt Barker, WA), many more are on the drawingboard, and distributed generation based on community-scale clean-energy projects has become a mainstream topic in regional areas throughout the country.

Q1. How do you expect the CEFC to facilitate investment?

We envisage that the CEFC will have a broad mandate, with the ability to provide financing ranging from equity to senior debt. Additionally, we would expect CEFC to operate where there is an absence of reasonable or efficient commercial alternatives. (See response to Q4.)

¹ Shire of Denmark community survey, December 2008.

Q2. Are there principles beyond financial viability that could be used to prioritise investments, such as emissions impact or demonstration effect?

One of the key principles is social licence: communities need to understand the technologies and local benefits, and be included (participate), in order to adopt meaningful change. DCW improved local support for its project through community education, consultation and involvement, and has spawned several derivative local enterprises.

Q3. What are the opportunities for the CEFC to partner with other organisations to deliver its objectives?

The Clean Energy Council of Australia, Embark, the Australian Conservation Foundation, the electricity industry ... opportunities for partnerships are numerous, but all depend for success on transparent and inclusive processes. The diversity of the community energy sector is due in no small part to the absence of an adequately funded central, well-publicised body, operating through state-based subsidiaries which reflect the different legislative environments.

A working example of such an arrangement is the WA Office of Energy (OOE, formerly SEDO) which coordinates renewable energy projects between Canberra and WA proponents funded by the Commonwealth – such as DCW.

Q4. How could the CEFC catalyse the flow of funds from financial institutions?

Prospective equity investors are conservative by nature – and especially so in times of economic downturn. While funds are sometimes available through local governments and regional development authorities, they are generally insufficient to carry projects beyond early feasibility stage. We believe that there is a role for the CEFC to provide or facilitate finance for full feasibility and early-stage development.

It is impossible to raise bank loan funds unless a power purchase agreement (PPA) is in place. If the CEFC provided interim loans to projects awaiting PPAs (and having proven due diligence) it would catalyse investment. Such loans would improve projects' risk profiles, unlock capital from more traditional sources, and enable some projects to take advantage of economies of scale. Alternatively, loan guarantees underwritten by the CEFC would help to unlock debt financing before a PPA is in place.

Q5. 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?

As a registered not-for-profit (NFP) organisation operating in a small rural community DCW was unable to progress its project to full commercial development. Various models were investigated, with a public company limited by shares chosen as the most viable. Thus a degree of community ownership had to be “sacrificed”, in order to ensure an economically-viable outcome.

As such the project is now exposed to all the “normal” commercial risks, conditions and corporate responsibilities associated with running a profit-making business ... in fact the onus of turning a profit has, in some people's minds, overshadowed the importance of the intangible benefits which inspired the project in the first place.

Be that as it may, the operating entity (public company) has managed to raise equity investment and arrange debt financing sufficient to proceed to completion once a PPA has been signed, and a local government building permit gained.

There has been no apparent disadvantage, in financing terms, to the project being developed on Crown land – mainly because it's local, and “neighbourly” relationships exist with local institutions.

Q6. What non-financial factors inhibit clean energy projects?

In DCW's case:

- *Red tape*: because our project is on Crown land, layers of bureaucracy were introduced for which we were not prepared and which would not impact a similar project on private land. This has had a profound effect on the project's gestation, and introduced unforeseen complexities which have markedly inhibited progress
- *Availability and persistence of voluntary input*: total "sweat equity" expended to date is estimated at well in excess of 12,000 hours. At a nominal value of \$15/hr that represents input "worth" some \$200,000. While fundamental to projects of this type, extended voluntary input can exact a high price in terms of volunteer burnout, conflict, and attritional loss of vision, expertise, energy and incentive
- *Credibility*: It is not always easy to convince outside providers – professional, technical, commercial or bureaucratic – that you are (a) serious, (b) capable, or (c) worth their time, if you are not a corporate entity with a track record. Overcoming these barriers takes effort and diligence which could be avoided if community-based projects were underwritten by a recognised body
- A perception by a few vocal members of the community that the project will be owned by an "elite" – ie, wrested from community control. This resulted in a level of resistance which required considerable resources to overcome, which would have been better spent getting the project off the ground
- The public debate about the general efficacy of windfarms and wind energy *per se* has grown over recent years to become a significant hurdle. The lack of direction, leadership and proactive effort by governments, and the often uninformed and increasingly negative tone of opposition have only added to the problem. Clear policy based on good science is needed, to provide a sound basis for decision-making
- Renewable energy is still anathema to much of the energy industry, from generators to distributors to retailers – but particularly to state-owned utilities, which are saddled with outmoded legislation and regulation. Pathways through the bureaucratic morass need to be developed for innovative projects based on proven technologies and which are *prima facie* financially viable.

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

See above.

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

The CEFC must be a key driver for achieving the federal government's 20% Renewable Energy Target (RET) and lay the foundations for achieving higher targets beyond 2020.

A CEFC that encourages and supports community participation will deliver a broader range of projects, at scales that offer wider involvement and bring associated environmental, social and economic benefits to more people.

As discussed above, clear communication links with state-based energy agencies will be an essential part of achieving these goals, through understanding and working through differences in applicable legislation. The *National Wind Farm Development Guidelines*² provide a basis for this process.

² *National Wind Farm Development Guidelines*; public consultation draft, Environment Protection and Heritage Council, 2009.

Conclusion

Local energy projects empower communities by creating real benefits, providing social cohesion, and engendering responsibility-through-ownership.

Though relatively new and few in Australia, such projects have been around for decades elsewhere and are increasing, with some notable examples in Europe now achieving up to 100% energy autonomy.

By definition such projects are ideally suited to regional and remote communities, and will accelerate the growth of distributed generation (DG) and the adoption of smart-grid technologies – which together constitute the “great leap forward” that will underpin a carbon-constrained world.

However, despite high levels of interest, many committed individuals, promising business models, and a clear need to “reinvent” the way we make, provide and use electricity this sector is severely undernourished, and few communities have progressed renewable-energy projects beyond the concept stage – due primarily to barriers including economics, novelty (resistance to change), inadequate policy frameworks, and inefficiencies of scale under current standard models.

The CEFC’s *raison d’etre* should be to level the playing field so that Australia’s energy future can be shared by all sections of society, to which everyone contributes and from which everyone benefits.



C Chappelle
chairman