



**ENGEN**  
INSTITUTE  
ABN 52 437 297 377

PO BOX 189  
BLACK ROCK VIC 3193

tel: +61 3 9589 2259  
fax: +61 3 9589 0926

[www.engen.org.au](http://www.engen.org.au)  
[office@engen.org.au](mailto:office@engen.org.au)

8<sup>th</sup> December 2011

Dear Sir/Madam,

RE: CEFC REQUEST FOR SUBMISSIONS

Governments have previously implemented programs addressing the non-availability of commercialisation finance to emerging clean energy companies via government supported investments. Typically these programs have not been effective as the government funded finance companies continue to use the same assessment methods as the broader finance industry and so only invest in companies that are close to a conventional investment.

We propose that CEFC should become more actively involved in addressing the 'valley of death' - see diagram below by Ernst & Young from a report to the Clean Energy Council. We propose a methodology for risk assessment and risk reduction and potential collaboration to implement that methodology.

Firstly, investments are based on consideration of risk and return. Risk for a large company can be quantified in financial terms. That is on the occurrence of a particular event (ie the loss of production capability due to a breakdown) with operational managements systems in place the cost to reinstate production is known in terms of capital equipment, labour and time frames. The cost of lost production and sales is also known or can be reliably estimated. The exposure to legislative requirement risks (certification, licensing, approvals etc), labour disputes and contacts, OH&S and risk management costs in terms of insurance etc can also all be estimated. So quantifiable risk and return assessments are possible for companies in production with sales and cashflow – that is companies that have already crossed the 'valley of death'.

The situation however with a start-up company with new technology approaching the 'valley of death' is quite different. As there is currently good support through government innovation schemes for pure and applied R&D, start-up company is likely to have sound technical expertise but be weak on finance, production and marketing. Such a company cannot quantify their risk for investors and neither is the information or expertise available within the companies to quantify such risk. We propose a solution to this situation.

It should be within the sphere of the CEFC to assist such companies to generate the information required so that they have a known risk profile. This could be done by making industry specific spreadsheets available for companies to calculate the risk factors and with benchmarking it gives them the opportunity to know where their focus should be so that they progress towards being investible. The CEFC legislation should include provisions and funding for the development and deployment of such risk reduction measures.

The CEFC would not be alone in taking measures to bridge the 'valley of death'. EnGen Institute is promoting to government a resource mapping, assessment and zoning process and capability for ocean energy. (This is directed towards avoiding resource development problems, such as those currently plaguing the coal seam gas industry, due to a lack of zoning). Ocean Energy Industry Australia (OEIA) is proposing a study and harmonization of legislative requirements across Australia for ocean energy resource access. Other clean energy sectors have similar initiatives.

These measures can be mapped to the 'valley of death' diagram and bridge the valley from left to right. Measures to help small companies establish professional risk assessment would help bridge the 'valley of death' from right to left.

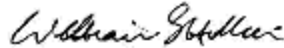
We propose the CEFC charter include research, development and provision of clean energy sector specific risk assessment tools (e.g. sector specific spreadsheets). These tools should then be made available at no cost to clean energy start-up companies together with instructions for assessing the required data and use of the tools.

As start-up companies complete such spreadsheets their risk assessment becomes known and by this factor alone is likely to reduce, as unknown risk is usually estimated on the high side. Start-up companies would also have a better understanding of the information and management processes that are required for them to become more investible and so take action to reduce investor risk.

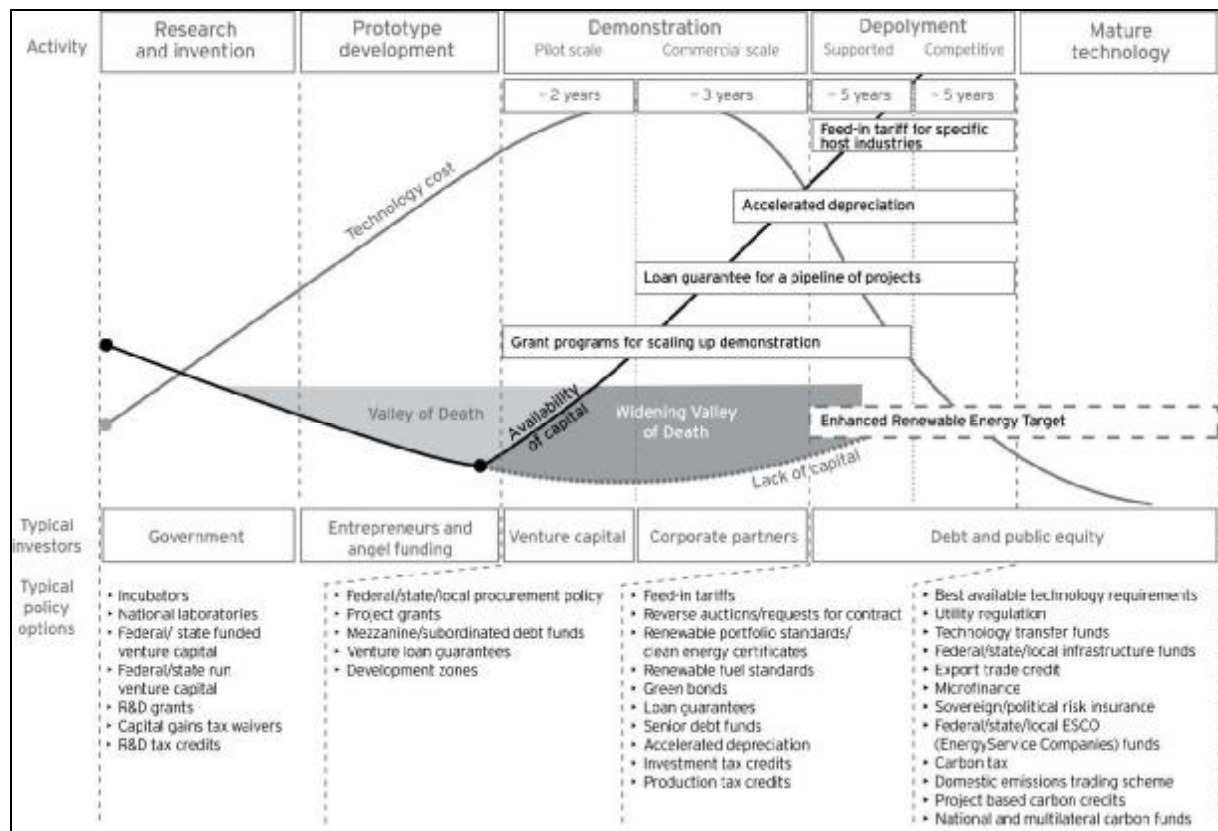
The start-up company risk assessments would also directly aid CEFC in negotiating special loan conditions and term sheets with the general finance industry. Typically CEFC would negotiate loan or investment terms that would bridge the gap between the risk/return ratio that will attract investment industry funding and the risk/return ratio of start-up companies.

Furthermore we propose that CEFC should collaborate with academic institutions and/or non-profit centres of expertise and/or industry associations to develop such tools and to provide free seminars on their use.

Yours sincerely



William Hollier  
Director



'Valley of Death'  
From

Navigation the Valley of Death

<http://www.cleanenergycouncil.org.au/cec/policyadvocacy/position-papers/emerging-technologies.html>