

Submission

No 25

INQUIRY INTO THE ECONOMICS OF ENERGY GENERATION

Organisation: Clean Energy Council

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Position: Policy Director

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20 February 2012

The Committee Manager
Public Accounts Committee (PAC)
Parliament House
Macquarie St
Sydney NSW 2000

Dear Sir/ Madam,

CEC Response to the NSW Inquiry into the Economics of Energy Generation

The Clean Energy Council is the peak body representing Australia's renewable energy and energy efficiency industries with over 600 members.

Its priorities are to:

- create the optimal conditions in Australia to stimulate investment in the development and deployment of world's best clean energy technologies;
- develop effective legislation and regulation to reduce energy demand and improve its efficient use; and
- work to reduce costs and remove all other barriers to accessing clean energy.

The Clean Energy Council works with members and the government to identify and address the barriers to efficient industry development in the stationary energy and energy efficiency sector.

The CEC welcomes the opportunity to provide a submission in response to the NSW Parliament's Public Accounts Committee inquiry into the economics of energy generation.

Clean Energy Opportunities in NSW

The Clean Energy Council commends the NSW Government for recognizing the importance of addressing the long term energy security for NSW and acknowledging the important role that renewable energy will play in reducing greenhouse gas emissions to mitigate the effects of climate change. Currently only seven per cent of NSW's electricity comes from renewable energy sources, with the remaining 93 per cent from fossil fuels. The majority of this renewable energy comes from hydro with biomass and relatively small amounts of wind and solar also contributing to the renewable generation mix.

To transform the NSW economy to a low carbon economy will require the accelerated deployment of proven clean energy technologies such as wind, hydro, biomass, solar

photovoltaic and cogeneration and the accelerated development of emerging technologies such as solar thermal, geothermal and marine power.

The deployment of clean energy will bring economic benefits to NSW. NSW stands to gain up to \$10 billion of new investment and the creation of 4000 jobs from the wind industry alone, with much of this investment in regional and rural areas.

Proven renewable energy technologies

With most of Australia's suitable hydro electricity resources having already been developed, investment in wind energy as the lowest cost form of large scale renewable energy is expected to contribute extensively to the achievement of both the national Renewable Energy Target (RET) and the NSW target for 20 per cent of renewable energy by 2020.

The wind industry is of huge economic importance to the state, not only through the creation of jobs during the development, construction and ongoing operation of the wind farm but also throughout the supply chain including the manufacturers and suppliers of products and services to the industry.

An environment that provides sufficient certainty is required to underpin investment in the clean energy sector. Consistent and effective regulatory and planning policies are required if investment in the sector is to continue. The CEC is therefore concerned at the current proposals for new planning guidelines for wind farms. The CEC welcomes the increased emphasis on community engagement in the current draft of the guidelines, but is concerned about the impact of some of the specific measures in the guidelines. In particular the guidelines appear to place restrictions on wind farms that are not applied to other forms of energy generation development or other forms of development in the State. If the guidelines put more restrictions on the deployment of wind energy in NSW, the potential investment will be lost as developers look to build projects in other States with less onerous planning policies.

Realising the full potential of NSW's renewable energy sources will require a shift in the locations where electricity is generated and the transmission capacity of such areas. The transmission system can present a challenge to connecting renewables to the grid, especially in areas of high penetration. The NSW Government can play a role in facilitating this through measures such as supporting extensions to the grid. Prioritising a review of current connection and approvals processes which act as a disincentive to the deployment of renewable energy projects such as bioenergy, cogeneration and trigeneration projects is imperative to realise the considerable opportunities provided by these technologies.

Owners of small scale renewable generators should receive a fair price for exported energy and the way that electricity is priced needs to allow for the benefits of distributed generation to be properly recognised and captured. For example, the location of the solar (or other embedded generation) system can make a major difference. Transmission losses for energy sent to homes long distances from sources of generation can account for as much as 20 per cent of the retail price of electricity. The benefits of locating generation close to demand should be recognised in any payment scheme that is developed.

Alternative forms of energy generation

Improving the investment climate to develop emerging renewables such as solar thermal, geothermal and marine energy by implementing complementary measures to attract a greater share of federally administered funds such as the Solar Flagships Initiative, Clean Energy Finance Corporation, Australian Renewable Energy Agency and the Clean Energy Innovation Program should also be a priority for the NSW Government. Government support is critical in the research, development and demonstration phases of emerging clean energy technologies, where capital investment may be too high for a venture capitalist and execution or technology risk may be too high for project finance investors. Support mechanisms identified following the CEC commissioning reports by Ernst & Young¹ and the University of Sydney² to support these technologies through different stages of the commercialisation process include:

- Government grants and tax incentives to support research and development of emerging clean energy technologies and the exploration activities associated with ocean and geothermal energy. The payroll tax rebate for renewable energy projects administered in South Australia is an example of a successful rebate that has promoted investment and the creation of employment opportunities in that state.
- Loan guarantees for projects at commercial demonstration phase
- Government grants for demonstration projects
- Revenue subsidies and accelerated depreciation at early deployment stage

The costs of clean energy deployment

Electricity prices in NSW increased 43% between 2007 and 2010 and are expected to rise by the same proportion between 2010 and 2013³. This is attributed primarily to the maintenance and expansion of the existing power grid, in which billions of dollars of investment is required.

Meanwhile, measures to support renewable energy development currently make up one of the smallest parts of a power bill and this is expected to remain the case over at least the coming decade. By 2020, only 4-7% of household electricity bill increases will be due to the deployment renewable energy⁴.

Renewable energy technology is falling rapidly in price and will help to provide an insurance policy against the rising fuel costs of coal and gas as we are increasingly exposed to international markets

¹ Ernst & Young 2010, Navigating the Valley of Death—Exploring mechanisms to finance emerging technologies in Australia

² Andrew Wait, 2010 - Investment in clean technologies as a public good: a discussion paper prepared for the Clean Energy Council.

³ NSW Industry and Development, NSW Electricity Network and Prices Inquiry Final Report, December 2010. http://www.dpc.nsw.gov.au/__data/assets/pdf_file/0005/118904/NSW_Electricity_Network_and_Prices_Inquiry_Report.pdf

⁴ Clean Energy Council, Clean Energy Australia, December 2011. <http://www.cleanenergycouncil.org.au/dms/cec/reports/2011/Clean-Energy-Australia-Report-2011/Clean%20Energy%20Australia%20Report%202011.pdf>

Closing

The CEC and its members would be happy to appear before the Committee as the inquiry progresses. If you have any further questions please contact [REDACTED]

Yours sincerely

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Russell Marsh

Policy Director