

Australian Ecogen 2011 Conference

I attended the Australian Ecogen 2011 conference in Brisbane in early September and found that there is a lot going on in the renewable energy sector over the ditch.

Unfortunately bioenergy is well down the agenda but the overall health of the renewables sector bodes well for the whole industry including bioenergy.

There has been a recent acceleration in renewables uptake in Australia and this is being significantly assisted by two factors: the Labour/Green political deal covering a package of climate change action and the generous Feed in Tariffs (FiT) for Solar PV.

The key element of the Australian Labour Government's proposed climate change package is the carbon tax. If Julia Gillard hangs onto power for a few more months the legislation should go through and Australia should have a carbon tax of \$23/t CO₂ from 1 July 2012. Given that the most polluting coal fired power plants in Australia have an intensity factor of 1.2t CO₂/MWh, this should push up average whole sale power prices from their current low levels of around \$35/MWh to perhaps double that. In mid-2015 the carbon tax will be morphed into a cap and trade ETS scheme. Australian energy analysts are predicting the price of emissions will then match international prices and initially could drop.

There are two other important initiatives in the climate change plan. The creation of a new Australian Renewable Energy Agency (ARENA). ARENA will take over and amalgamate many of the existing renewable energy support schemes. Together these will aggregate up to \$3.4b of funding that is already allocated for supporting the development of renewables, low emission technologies and energy efficiency solutions. The other initiative is the Clean Energy Finance Corporation (CEFC). CEFC is proposed to have \$10b of funding over 5 years to support the sector through co-funding, loan guarantees and direct investments in higher risk demonstration technologies. Nobody seems to know how CEFC will work in practice and there is likely to be plenty of room for the private sector to engage in gaming around this process.

Clearly these big dollars have got the investment sector interested and there were a lot of people at the conference looking for clean energy investment opportunities. They want to be ready with investment ready proposals to grab some of this supporting money when the tap opens up in a year or two.

There is also a boom going on in the solar PV market. Australia seems to have decided that solar energy may be their silver bullet in a low carbon world and they clearly want to be at the forefront of developing and using the technology.

The Ecogen exhibition was dominated by companies selling domestic and commercial scale solar PV. This boom has come about due to very generous FiT for residential solar PV, with rates set at a State level. These have been wildly successful and the industry has expanded rapidly. Over the last two years nearly 1000MW of PV capacity has been installed on over 400,000 residential rooftops and the State governments are now winding their FiTs back to dampen the boom. However the uptake should continue, albeit at a more sustainable pace because solar PV with "one for one" FiTs set at retail prices is now said to be viable without subsidy, given the economies of scale that are now present in the market and the rapid drop in PV panels prices.

The Australian government's commitment to larger scale solar energy is also well demonstrated by its recent funding grants for two flagship utility scale solar projects. They have made a \$300m grant to a BP lead consortium that is to build a 150MW solar PV power plant at Moree in northern NSW, and another \$400m grant for a 250 MW solar thermal project at Chinchilla in Queensland.

The ARENA and CEFC funds are also expected to be open to low emission technologies such as cogeneration and trigeneration, and to energy efficiency and demand reduction projects. There was also talk of creating "white RECs" for this segment of the market.

At the same time, the long standing Renewable Energy Targets and associated Renewable Energy Credits (REC) scheme is continuing with new higher targets and the domestic PV market separated into a parallel scheme. The large scale credits (LREC) are currently priced at around \$30/MWh. Analysts are predicting the carbon tax will tend to decrease this price, all other things being equal – which of course they won't be.

There is also growing interest in distributed energy systems as a way of reducing emissions intensity and avoiding expensive electricity transmission upgrades. The price of whole sale electricity in Australia has been relatively static over recent years but the retail cost has risen 30% in the last two years because of the increasing investment needed in grid upgrades. This is being used as an argument for further growth in distributed generation such as district energy schemes and solar PV and/or solar hot water.

Alan Jones the Chief Development Officer for Energy and Climate Change at the City of Sydney presented the city's vision for a sustainable energy future based on natural gas fuelled trigeneration. City of Sydney have offered all 230 city owned buildings as the customer base for the initial stage of the deployment using a public private partnership and he indicated that they are currently negotiating with two potential partners to develop and operate the network. This will be augmented with solar PV, micro wind and in the longer term by converting the gas network to biogas. In Alan's rose coloured vision he sees bio-wastes being collected from a 250 kilometre radius of the city, digested, the gas treated, liquefied for transport, delivered to the city and used to fuel the entire city gas network. BGIG - watch this space!!

There was brief mention of three bioenergy projects currently ready to proceed or just committed, two being bagasse cogeneration projects in Queensland and the third being a sugar industry ethanol project. Otherwise there was little to excite bioenergy enthusiasts and there was reaffirmation of the negativity that Australian greenies seem to have to recovering forest residue for biofuel.

While all of this does not immediately point to an increase in the opportunities for bioenergy in Australia, a vibrant and well-funded renewables sector must be a good thing.

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