Submission to the Inquiry into the Renewable Energy (Electricity) Amendment (Feed-in-Tariff) Bill 2008

August 15th 2008

Introduction

The Moreland Energy Foundation Ltd (MEFL) is a not-for-profit community organisation that develops practical programs to reduce greenhouse gas emissions and advocates for effective policy responses based on our experience in program delivery. Through working closely with the community MEFL has developed a strong understanding of the barriers to energy efficiency and emissions reduction action that households, businesses and community organisations face.

MEFL welcomes the Parliamentary Inquiry into the *Renewable Energy (Electricity) Amendment (Feed-in-Tariff) Bill 2008* and the opportunity to submit to this process.

MEFL strongly supports the nature and objectives of the proposed amendment and believes that the development of a national feed-in tariff is an important measure in the Australian response to climate change. The introduction of a robust, well-designed feed-in tariff will provide certainty for consumers and industry and deliver economic, environmental and social benefits. MEFL contends that a national feed-in tariff should be based on successful international models such as the German feed-in tariff law.

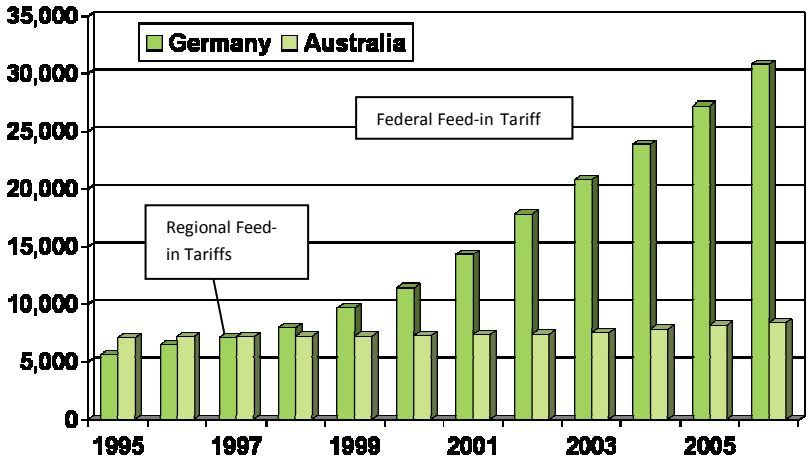
This submission sets out MEFL's support for a national feed-in tariff for renewable energy, details the characteristics of our preferred model and responds to the content of the proposed amendment.

Support for a National Feed-in Tariff

MEFL envisions a future in which all households, community groups and businesses can access renewable technologies to power their needs, and where decentralised energy solutions enable regions to meet their own energy requirements via local distribution networks and community-scale generation. The Australian community has repeatedly shown that we want real action on climate change, and now is the time to advance a decentralised energy vision in Australia.

Based on the experience of over 40 countries worldwide, MEFL believes that a robust national feed-in tariff (FiT) will be essential to the establishment of a decentralised energy system. FiTs have been operating in a number of European countries including Germany and Spain, where they have been the key drivers of the renewable energy industry and have led to a dramatic increase in installed renewable energy capacity. In Germany, for example, about 400,000 homes have solar panels on their roofs, compared with fewer than 1500 in Victoria. Even per head, Germany leads Australia in electricity produced from solar power by more than a factor of 10. Figure 1 shows the comparison between renewable installed capacity in Germany and Australia.

Figure 1: Renewable Energy, Total Installed Capacity (MW)



Sourced from Clean Energy Council (Aus) and Federal Department for the Environment (Ger)

Complementarity with other measures

MEFL supports a well-designed emissions trading scheme (ETS) for Australia as an important measure to reduce the emissions intensity of our major industries. However, we recognise that an ETS alone will not be able to achieve the level of emissions reductions required to meet Australia's international and domestic obligations, and must be supported by a range of complementary measures. Further, we recognise that the expansion of the Mandatory Renewable Energy Target (MRET) will play a significant role in increasing the share of renewable energy in Australia's energy mix, but that this measure is designed to facilitate large-scale renewable energy generation and as such will have little effect on the uptake of small-scale, distributed generation unless complementary measures are employed.

A national FiT for renewable energy will be an important complementary measure to the Carbon Pollution Reduction Scheme (CPRS) and the MRET. A strong FiT would work to assist, rather than hinder,

these schemes to meet their targets by creating an incentive for households, small-medium businesses and community enterprises to participate in the shift to a decentralised, low carbon energy network.

Recognising that some of the States and Territories have begun to introduce their own FiT schemes with different characteristics and potential to stimulate uptake, a national scheme is required to provide certainty for both the community and the renewable energy industry, and to consolidate the efforts of the States and Territories into a consistent, effective approach.

Economic benefits

MEFL believes that a well-designed national FiT would provide economic benefits to scheme participants and to the wider economy. The costs of implementing the scheme would be offset through:

- Reduced wholesale electricity prices, as output of solar systems in particular corresponds closely with peak demand; and
- Avoided costs of new power stations and transmission infrastructure.

Given that Australian electricity networks are committed to spending approximately $24 billion dollars over the next 5 years on network upgrades, and that network charges account for around 45% of consumers' retail electricity bills[1], avoided network augmentation represents a significant economic benefit to consumers.

The international experience supports this position – in Germany, for example, recent Government reports estimate that the savings of the German FiT outweigh the costs at a ratio of three to one, resulting in a net benefit to consumers.

Greenhouse benefits

A strong, effective FiT would generate significant reductions in greenhouse gas emissions from the residential and commercial sectors by encouraging a shift from emissions-intensive coal-based electricity to zero emissions renewable energy. Further benefits would flow from improved efficiency, as centralised energy networks such as our current system involve massive inefficiencies due to transmission losses and, more significantly, waste heat from power stations. By generating power close to the point of demand these losses and inefficiencies can be dramatically reduced. In the UK, for example, it is estimated that shifting to a decentralised energy network could halve the electricity sector's emissions within a few decades[2].

Upon expanding its FiT legislation in 2000, Germany set targets for renewable energy to make up 12.5% of all electricity generation by 2010. This target has already been met, three years ahead of schedule – according to figures from the German Government[3], in 2007 Germany generated 14.2% of its electricity from renewable sources. This equates to savings of 57 million tonnes of CO2 directly attributable to the FiT legislation that year. According to German politician Hans-Josef Fell, who helped to design the FiT legislation, the country now aims to reach 30% by 2015 and possibly 50% by 2020[4].

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[1] AER 2007, *State of the Energy Market 2007,* Australian Energy Regulator, Melbourne

[2] *Decentralising Power: An energy revolution for the 21st Century*, Greenpeace 2005.

[3] 'Renewable Energies Grow Strongly Again in 2007', German Federal Environment Ministry, Press release 044/08, 14 March 2008

[4] Malkovich, T. (2008) 'Flick the Switch to Renewable Energy', Science News, Science Network WA. Accessed online http://www.sciencewa.net.au/index.php?option=com_content&task=view&id=2138&Itemid=587

In Australia, where we have one of the highest per capita greenhouse emission levels in the world due mostly to our reliance on coal-based electricity generation, the potential for households, businesses and community groups to reduce their emissions by installing small-scale renewable generation should be even greater than in Germany.

Other benefits

Other benefits of supporting renewable, decentralised energy include enhancing energy security by reducing overall demand, increasing the number and diversity of energy sources and constraining financial risks through lower capital requirements[5]; and driving technological innovation and creating jobs. In Germany the renewable energy sector now employs about a quarter of a million people[6]; in Australia that figure stood at around 15,000 people in 2006[7]. Further, the Renewable Energy Generators Association (REGA) claims that jobs in the renewable energy industry tend to be focused in rural and regional areas[8].

[5] *Decentralising Power: An energy revolution for the 21st Century*, Greenpeace 2005

[6] Mendonca, M. 'Energy, Ethics and Feed-in Tariffs', 2007. Accessed online http://www.renewableenergyworld.com/rea/news/reinsider/story?id=48310

[7] *Renewable Energy – A contribution to Australia's environmental and economic sustainability*, McLennan Magasanik Associates, 2006. Accessed online http://www.rega.com.au/Documents/Publications/J1281%20Final%20Report%20V3.pdf

[8] 'Employment Opportunities in the Renewable Energy Industry', REGA, 2004. Accessed online http://www.rega.com.au/Documents/Fact%20Sheets/7.Employment%20Opportunities.pdf

Feed-in Tariff Design

If a national scheme is to make real headway in reducing emissions and stimulating the renewable energy industry it is essential that its design follows the standards set by international schemes, rather than 'harmonising downward' to meet the comparatively less robust characteristics of some Australian state-based schemes. MEFL recommends that an Australian FiT scheme should be largely based on the German model, which has been the key driver behind Germany's rapid uptake of renewable energy over the last 8 years.

In particular, MEFL calls for a feed-in tariff with the following characteristics:

- A guaranteed time period for payment of the tariff
- Applicable to the entire output of an eligible system via gross production metering
- Covers a range of renewable energy generation including solar, wind and cogeneration
- Available to households, businesses and community entities
- Exempts low-income households from cost recovery.

MEFL notes that Victoria, Queensland and South Australia have all introduced or proposed feed-in tariffs that reward net rather than gross energy production, while the ACT has introduced a model that will reward gross production. MEFL believes that it is essential for a national FiT to follow the example set by the ACT and adopt a gross FiT. This position is supported by the international experience – Germany, for example, has achieved its aforementioned success through a gross model, as has Spain and others – and is endorsed by Professor Ross Garnaut's Draft Report, which states:

> For small embedded generation systems installed by households or firms that are consuming electricity throughout the day, it is likely that no exports to the grid will be possible. However, the benefits of embedded generation (lower transmission losses, deferred costs for network augmentation, and displacement of high-cost generation during peak periods) are present for every unit of electricity produced, not just the amount exported. A feed-in tariff based on gross metering is thus a more accurate means of pricing these benefits[9].

The FiT rates should be set with the objective of enabling renewable technologies to achieve cost-competitiveness with other forms of electricity generation, noting that the successful German model pays generators four times the standard electricity rate for small-scale wind, photovoltaic and hydro generators.

[9] *Garnaut Climate Change Review – Draft Report*, 2008. Section 17.2.2 'What should the value of a feed-in tariff be?', Commonwealth of Australia. Accessed online http://www.garnautreview.org.au/CA25734E0016A131/WebObj/GarnautClimateChangeReview-DraftReport-Ch17/$File/Garnaut%20Climate%20Change%20Review%20-%20Draft%20Report%20-%20%20Ch%2017.pdf

Response to Amendment

MEFL strongly supports the nature and objectives of the proposed Amendment, and particularly endorses the following elements:

- 34C (b) – Payment based on "all the electricity produced by [the] qualifying generator"
- 20 years payment period for feed-in tariff rate
- 34A (1) (a) – Requirement on retailers to permit feed in from qualified generators
- 34D (9) & (10) – Restrictions on reductions to the set feed-in tariff rate.

Annual lodgement approach

The amendment requires owners of qualifying generators to lodge annual returns indicating the amount of energy produced by the qualifying generator, upon which the Regulator must pay the feed-in tariff rate to the owner of the generator. MEFL sees that this approach may be beneficial compared with other options as it will allow for the possibility of landlords installing generators on tenants' properties and being eligible for the returns, as well as the option for businesses and others to rent their roof space to owners of generators (as has happened internationally).

However, MEFL is concerned about the following aspects of this approach:

- It may create an overly bureaucratic and onerous process for owners of generators – a simpler transaction between the owner and their electricity retailer could be preferable
- If the owner of the qualifying generator is required to read their own meter to complete their annual return, how will this data be verified?

Retrospectivity

Under the proposed amendment a *qualifying generator* is defined as "a renewable energy electricity generator that... is installed after the commencement of the *Renewable Energy (Electricity) Amendment (Feed-in Tariff) Act 2008*". MEFL does not support excluding existing generators as this approach penalises those who have acted early to reduce emissions. Given that the present amount of installed capacity is relatively low, it should not be too onerous in economic or administrative terms to make the scheme retrospective and may actually prove easier to administer – for example, how would the proposed legislation deal with upgrades to existing systems that occur after the commencement of the amended Act?

MEFL strongly encourages the Committee to amend the proposed legislation to allow existing renewable generators to qualify for the feed-in tariff.

Ability to set targets for installed capacity

MEFL supports the restrictions on the Minister's ability to reduce feed-in tariff rates, however we are concerned that Clauses 34D (3) and (11), which enable the Minister to set a target level of installed capacity and to reduce the tariff without restrictions if that target is met, are unnecessary measures that may undermine the scheme's ability to create industry certainty.

Renewable Energy Certificate Scheme

MEFL understands that owners of qualifying generators would be able to choose between receiving Renewable Energy Certificates (RECs) or the feed-in tariff. If MEFL's recommendation to include existing generators in the scheme is adopted, it may be possible to allow owners of generators who have signed over their RECs upon installation of their generators to buy a corresponding amount of RECs back at

current market prices and surrender them, after which they would be eligible to participate in the feed-in tariff scheme. MEFL would support such an approach.