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Main Committee
**AUSTRALIAN ENERGY MARKET AMENDMENT (AEMO AND
OTHER MEASURES) BILL 2009**
11/03/2009 Second Reading

Kelvin Thomson (Wills) (10:26 AM) —There is an electricity company that runs an advertisement along the lines of 'we're excited by electricity even if you're not'. As a parliament and a nation we need to get more excited about electricity markets even though that may cause people's eyes to glaze over as a natural reaction. Before I go to the body of the Australian Energy Market Amendment (AEMO and Other Measures) Bill 2009 I feel the need to comment on the member for Groom's observation that it was the previous government that did it in relation to renewable energy. When they started out renewable energy as a share of this nation's energy was at around 10 per cent. When they finished renewable energy as a share was also at around 10 per cent. In other words, it flatlined. The renewable energy target they established, firstly, was too modest at two per cent in the first place and, secondly, was converted into gigawatts hours and was consequently swallowed by rising electricity demand. The Clean Energy Council and other bodies in the renewable energy field are quite scathing about the stop-go nature of the previous government's policies and the way in which they did not genuinely seek to achieve renewable energy growth in this country.

This bill makes minor amendments to a number of Commonwealth acts to facilitate a nationally consistent approach to energy market regulation. The amendments are required for the establishment of the Australian Energy Market Operator, which the Council of Australian Governments at a meeting in April 2007 requested be established by 1 July this year. The Energy Market Operator will take over the functions that are currently performed by the National Electricity Market Management Company, NEMMCO, along with the retail and wholesale gas market operation functions performed in various jurisdictions except the Northern Territory and Western Australia. The Energy Market Operator will also undertake a number of significant new functions to enhance investment decision making on the need and location of new infrastructure in the energy sector—the most significant of these being the National Transmission Planner function and the production of an annual gas statement of opportunities.

There are only minor amendments required to the Commonwealth legislation but they are critical in ensuring the ongoing operation of the national electricity market, which uses a cooperative legislative model with South Australia as the lead legislator. Amendments are also required to correct references to Western Australian legislation, which will enable key elements of the national gas access regime to apply to parts of the Commonwealth's offshore area. The amended

name and year of enactment of the Western Australian legislation were made necessary by delays associated with the proroguing of the Western Australian state parliament in 2008.

In order to strengthen the national character of energy market governance the Council of Australian Governments has agreed to establish this national energy market operator. The operator will be a company limited by guarantee. It is proposed that statutory functions will be conferred on it by way of amendments to the National Electricity Law through a schedule to the National Electricity (South Australia) Act 1988 and the National Gas Law through a schedule to the National Gas (South Australia) Act 2008. Throughout legislation the references to the former NEMMCO—for example, in the Renewable Energy (Electricity) Act 2000 and the Trade Practices Act 1974—are going to be replaced by references to the Australian Energy Market Operator.

I think it is excellent that we see a spirit of cooperation in the COAG process concerning energy markets and the move towards this national energy market governance. That spirit of cooperation was present at the public meeting in Canberra on 29 November last year. I want to point out to the House that it reached agreement on national principles for feed-in tariff schemes. In that agreement, governments indicated that microrenewable generation should receive fair and reasonable value for exported energy. It was also agreed that feed-in tariff policy should be consistent with previous Council of Australian Governments agreements, particularly the Australian Energy Market Agreement. This included arrangements and jurisdictions for PV consumers by the Ministerial Council on Energy, and there was a further undertaking from the Ministerial Council on Energy to advance fair treatment of small renewables by continuing to implement the regulatory arrangements for small renewable customers. That meeting followed an earlier COAG meeting in March 2008, where it was agreed that Australia should have a harmonised approach to feed-in tariffs.

I want to say a few things about feed-in tariffs. They encourage individual homes, factories, schools and building sites to become minipower plants, meeting their own power needs through the production of renewable energy, which does not emit global warming emissions. Feed-in tariffs can reflect the real cost of carbon: they can be based on either so-called avoided costs of non-renewable power producers or the electricity price charged to the end user, supplemented by a bonus or premium in order to account for the social and environmental benefits of renewable energy. It is quite possible to make a feed-in tariff apply across all technologies, but the best-known one is solar photovoltaic—that is, solar PV. Feed-in tariffs build community awareness as individual households feel empowered in making a contribution to the mitigation of climate change. The potential of increased renewable energy power production has the obvious benefit of reducing carbon emissions and atmospheric pollution. Furthermore, by decentralising alternative power generation, you minimise the problems of the geographic concentration of such facilities. That will provide a security dividend. Small on-site generation makes the electricity system less vulnerable, for example, to terrorist attacks because it reduces the number and degree of high-value targets where a single strike could cut power to many users, it reduces the grid instability that can result from the loss of a large power generator or transmission line and, finally, it reduces the use of dangerous fuels that create additional potential hazards.

The feed-in tariff is intended to drive the cost of solar PV down. Solar PV generates power when it is most needed. It evens out the power load and reduces the extreme peaks of the hot summers. The supply of energy will ordinarily be highest in the warmer periods, and of course that closely matches the increased demand to electricity that you get in the form of significant air-

conditioning use. PV output over summer peak load weeks has been shown to correspond well to system loaded regional nodes in Victoria, South Australia and New South Wales. It avoids transmission losses; it avoids the need for poles and wires infrastructure; it offers job creation in production, distribution and installation. Personally, I think the job creation potential of renewable energy is not adequately realised. For example, a little over a decade ago Germany had a solar PV industry on a similar scale to Australia's. Germany now has an industry of 110,000 jobs generating 15,000 megawatts of solar PV. Australia has fallen behind. It was estimated in 2005 that our solar PV industry was responsible for just 1,300 jobs.

There is, quite naturally, concern about the cost to consumers resulting from feed-in tariff schemes. As the Alternative Technology Association has noted in a document, *Cost to Victorian consumers of a gross metered feed-in tariff*:

With increasing electricity prices resulting from the drought (with hydro power declining), increasing demand, mandatory renewable energy targets and the impending cost of an emissions trading scheme, it is understandable that governments are wary of what may be seen as an increased cost burden on consumers.

So, when we are thinking about setting a fair price for the feed-in of electricity, we need to be mindful of the impact on consumers. I think we also need to be mindful of the benefits of grid-connected solar PV in reducing global heating emissions, reducing the growth in peak demand, avoiding the need for expensive network infrastructure augmentation, industry development and employment creation. We need to be mindful that a fair price sees the homeowner rewarded for the value of the electricity at the retail rate at the time of production and for the benefits I have just referred to. According to the Alternative Technology Association:

An effective feed-in tariff scheme needs a fair price paid for a guaranteed period of time on total generation, in order to create the certainty required to drive increased investment.

The document goes on to say:

Funding a feed-in tariff would be recovered from all electricity consumers on a consumption basis via a small increase in electricity tariffs. However, due to the broad base of consumers in the state, the final cost to average consumers is quite low.

The ATA did some calculations about costs in relation to Victoria and concluded that, 'Victoria would achieve a 100-fold increase in solar capacity, or 250MW,' on an average of a little over \$9 per year over the life of the scheme. That equates to a price increase of less than \$1.50 per month.

These calculations include an exemption for cost recovery for low-income households (those eligible for energy concessions), as well as large electricity users connected directly to the electricity transmission network. Even with these exemptions which effectively concentrate costs to typical domestic and commercial consumers, typical increases in electricity bills resulting from the feed-in tariff will be in the order of less than 0.6%.

The Alternative Technology Association adds:

Whilst the greenhouse benefits are often touted, the benefits of grid-connected solar PV are far greater than just greenhouse gas reductions.

In addition to being a clean source of electricity generation, widespread adoption of solar will result in significant economic savings to all consumers through:

- Reduced wholesale electricity prices, as output of solar PV systems corresponds closely to peak demand when the wholesale electricity price reaches its maximum; and
- Avoided network augmentation (new power stations and transmission infrastructure) by generating electricity close to the point of consumption, and at times of greatest stress on the network.

Australian electricity networks are committed to spending in the order of \$24 billion dollars over the next 5 years on network upgrades, and with network charges accounting for around 45% of consumers' retail electricity bills ... this represents a significant cost impost to retail customers in the National Electricity Market.

Ultimately, much of this network augmentation is being driven by peak demand. As such, there is a strong case for the adoption of electricity generation which is both close to the point of consumption and matches the demand of the network. Solar PV fits this bill.

The other advantages, which I have talked about, include:

- Increased supply diversity and security, as renewable energy is inherently lower risk in the long term than traditional fossil fuel fired generation;
- More jobs per MWh as solar PV generates at least 30 jobs per installed MW
- ...
- Development of a high-tech solar industry in Australia, with significant export potential; and
- Greater economies of scale from the expansion of the solar industry locally and reduced real costs, eventually enabling solar PV to reach parity in the Australian market.

I come back to the German example:

... reports from Germany's environment ministry, the BMU, have estimated that the savings achieved from the adoption of feed-in tariffs—reductions in the wholesale electricity prices, reduced energy imports, and savings resulting from reduced greenhouse gas emission—outweigh the costs of the feed-in tariff by a factor of three to one ...

The savings achieved from reduced wholesale electricity prices alone exceed the costs of the feed-in tariff to consumers, resulting in a net benefit to consumers from the laws ...

Whilst it is acknowledged that Germany's feed-in tariff applies to all renewable energy, and different rates apply for different technologies, the economic benefits to arise from reduced peak demand is greatest for solar where generation closely matches these peaks.

The German feed-in tariff scheme is by far the best established and most successful. Germany has installed 300 times Australia's total solar capacity at a cost to consumers before factoring in these economic savings of less than half a euro per month. In Germany, renewable sources of energy are nearly 11.5 per cent of German electricity generation, and the German renewable energy target has increased from 20 per cent by 2020 to 27 per cent by 2020. This shows what is possible. It shows that we can change the way we do things. I hope that more people become interested in the national energy market and the Australian

Energy Market Operator and do not just allow their eyes to glaze over every time this topic is mentioned. It is great that the Australian government and the state governments, through the Council of Australian Governments, have turned their minds and their energies to this issue. This bill is a further component in the broader energy market reform agenda. It highlights the benefits of cooperative reforms between the states and the Commonwealth, and I commend it to the House.