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By email: energy@dier.tas.gov.au

Dear Sue

Electricity Feed-in Tariffs

Thank you for the opportunity to comment on the discussion paper regarding Electricity Feed-in Tariffs, and for agreeing to the extension of time for making a submission.

The Environmental Defenders Office (**EDO**) is a non-profit, community based legal service specialising in environmental and planning law. We do not have specific expertise in economic issues, but have made general comments relating to the objectives and efficacy of the proposed tariff scheme.

The EDO extends its in-principle support for the introduction of a feed-in tariff scheme. However, we believe that more cost effective alternatives exist to achieve policy objectives such as reducing emissions and stimulating investment in renewable energy technology. These measures should be given priority over the introduction of a feed-in tariff scheme.

Policy objectives

As the discussion paper identifies, it is important to consider the policy objectives behind introduction of a feed-in tariff and the Tasmania-specific issues that will affect the success of such a scheme.

One positive aim of a feed-in tariff is to encourage local distribution to reduce the load on the network, by encouraging the uptake of solar or wind generated systems. However, this aim would be better furthered by targeting the manufacturing, agriculture, electricity generation and mining sectors, which together constitute 72% of Tasmania's energy consumption.

Another clear policy objective of a feed-in tariff scheme should be to stimulate uptake and investment in renewable energy technology and thereby improve energy efficiency. However, encouraging households in

Tasmania to invest in solar technology is unlikely to provide sufficient stimulus to encourage broader innovation. This is because Tasmania has a relatively small population, low level of home ownership and high percentage of low-income households.

If the ultimate objective is to minimise and mitigate the environmental impacts of climate change, practical energy efficiency measures are the most economically sound mechanisms for achieving this end. Practical measures to improve energy efficiency include:

- **Subsidising solar hot water systems** – water heating constitutes approximately 25% of household energy use and the cost of a solar hot water system is one fifth of the price of a solar or wind generated power system.
- **Improved insulation in residential housing**
- **Investing in technology and appliance labelling for standby power** – standby power can represent up to 12% of household energy consumption (The Australian Energy Star Program, Energy Rating Website). Encouraging consistent labelling and investing in more efficient technology could significantly reduce these emissions.
- **Investing in improved refrigeration technology**

Furthermore, feed-in tariffs are likely to be more effective in states with higher populations and those reliant on coal powered energy generation.

While a feed-in tariff scheme for households and small business is a politically positive step, it must be as part of a broader package of reforms. Tariffs should not be pursued in preference to more practical, immediate measures to address emissions.

Encouraging reduction in energy use

Tasmanian residential electricity consumption remains the highest in Australia, particularly in winter (Tasmanian Energy Supply Industry Performance Report 2006-07 p1X). There are clear benefits to encouraging a system in which the energy used is generated more sustainably. However, the first priority in any energy efficiency policy should be to *reduce* energy use. The source of the energy should be a secondary (though related) concern.

Introduction of a feed-in tariff, without supporting measures to encourage energy reduction, allows inefficient and high energy users to continue their existing energy use patterns. While we support any programme which encourages the uptake of renewable energy sources, emphasis should be placed initially on programmes to encourage households to lower their emissions.

Again, this is not a criticism of the feed-in tariff scheme, simply a recognition that it must be part of a broader package of reforms.

Renewable Energy Technology

The discussion paper highlights that the use of feed-in tariffs will only have ongoing benefits if, as a result of the increased interest, new industries and

technologies are developed that are likely to provide improved and more cost effective products.

Solar and wind generation technologies are expensive to install, and solar technology is also an inefficient means of power generation at a small scale. Considerable infrastructure expenditure has already taken place to create hydro-electric, wind and thermal energy generation at a commercial scale in Tasmania.

The low level of home ownership in Tasmania is likely to be a significant barrier to the widespread uptake of small-scale renewable energy technology. Therefore, the tariff alone is unlikely to be sufficient stimulus to dramatically improve innovation, unless government subsidies are also used to encourage installation of new technologies.

Industrial Energy Consumption

The residential market consumes 14% of the energy in Tasmania (Department of Infrastructure, Energy and Resources, *Tasmanian Energy Model* January 2007). Certainly, their contributions to energy consumption in Tasmania cannot be overlooked. However, economic incentives to encourage energy efficiency improvements at an industrial level are likely to have more significant impacts.

For example, the Bell Bay Aluminium smelter has a long-term take-or-pay contract for 286MW of electricity, roughly the same amount of energy used by all Hobart residences (Rio Tinto Aluminium Limited, 2008). The commercial advantage to such contracts in light of the National Energy Network and Tasmania's ability to trade hydro-electricity at a competitive price must be reconsidered.

The practical measures discussed above are more likely to achieve long term emission reductions at a household level than a small-scale feed-in tariff.

Scope of the Tariff

To be viable as a stimulus for investment in renewable energy, a feed-in tariff scheme must be available to as broad a range of the energy market as possible. Therefore, we believe that any feed-in tariff should apply to all renewable energy technologies, not just solar.

Clearly, the viability of some power sources, such as wind energy, is limited by environmental factors. However, at suitable locations, wind generation systems provide more efficient energy production for the same installation price as a solar energy generation system. In Tasmania, wind energy is already established as a viable commercial option.

A feed-in tariff which includes all methods of energy generation available on the market will enable small business and households to consider the most appropriate system of energy generation for their circumstances. This in turn will encourage innovation more broadly rather than favouring a particular installation or industry.

Tariff Rates

The EDO endorses the concern of social organisations such as St Vincent De Paul that commercial feed-in tariff rates will lead to increased energy prices.

The capacity of individual households to install renewable energy technologies which will allow them to participate in a feed-in tariff scheme is limited by household resources. There is plenty of evidence that Tasmania has a high percentage of low-income households. It is important that a feed-in tariff does not advantage those households who are able to afford technology, while burdening all other households with higher energy costs passed on by commercial distributors.

Therefore, in order to maintain the overall objective of improved energy efficiency, the rate of feed-in tariffs must remain variable. A tariff at or below commercial rates would allow surplus power to be bought from individual household without creating a deficit that is passed on to other consumers.

A tiered feed-in tariff rate could also be considered based on energy consumption. In order to encourage more efficient energy use and to maximise the input back into the grid, the rate could be adjusted according to the level of energy use based on an average household of a particular size. For example, where a four person household uses well above the average rate of energy for a household of that size, any energy that is returned to the grid could be charged at the wholesale rate. Conversely, if a four person household uses well below the average rate of energy consumption, any energy they return to the grid could attract a more commercial rate.

The Environmental Defenders Office appreciates the opportunity to make these comments. Please do not hesitate to contact us if you wish to discuss anything raised in this submission.

Kind regards,

Environmental Defenders Office (Tas) Inc

Per:



Jess Feehely
Principal Lawyer

***The EDO gratefully acknowledges the assistance
of Naomi Wakelin in preparing this submission.***