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Senate Select Committee on Climate Policy
C/- The Committee Secretary
PO Box 6100
Parliament House
Canberra ACT 2600
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By email: climate.sen@aph.gov.au

Dear Senators

Introduction

Thank you for the opportunity to comment on the Government's proposed Emissions Trading Scheme ("**ETS**") and its proposed role as the central policy tool for reducing Australia's carbon emissions.

This submission is made on behalf of Lloyd Energy Systems Pty Limited by its Chief Executive Officer. Background in relation to Lloyd Energy Systems Pty Limited is enclosed at the end of this submission.

Overview

In a world that is increasingly dependent on energy, reducing Australia's carbon emissions is by no means an easy matter. Consequently to think that it can be adequately address by the use of a single policy tool, namely the ETS, is far too simplistic - the ETS on its own is not the panacea.

The ETS as proposed requires the use of less energy and presumes that people should refrain from activities that produce carbon emissions if the commercial gain from that emission is less than the cost of the associated permit. The consequence of this approach is twofold - consumers will have to pay more for their goods and services and that economic growth will be constrained.

The leap in logic from those outcomes that says people will then create new businesses that are less energy intensive and that people will invest in renewable energy as an alternative is too great in the short term. There is insufficient nexus between the proposed reduction in carbon emissions via the ETS and replacing the existing energy sources and industries with cleaner alternatives.

The reality is that renewable energy technologies and new less energy intensive industries will require long term certainty to be viable. The variability in the cost of ETS permits (particularly as such a large number will be issued free of charge

initially) will not be sufficient to provide the required certainty to attract the necessary investment in alternatives for the short or medium term.

The need for immediate action to reduce the level of carbon emissions requires a series of policies that will fast track the take up of energy alternatives and new industries. We believe other policies such as:

(a) feed in tariffs for renewable energy (particularly those that can be delivered into the peak periods of demand); and

(b) an investment allowance for less energy intensive industries and renewable energy technologies;

should be used to complement the ETS and other measures[1], as part of the overall Carbon Pollution Reduction Scheme.

Feed in Tariffs

Feed in tariffs are the world's most prominent and by all measurable accounts[2], the most successful means of stimulating the penetration of renewable energy sources, because they provide the required certainty that investors need to enable the rapid roll out of the renewable energy infrastructure.

The very nature of renewable energy is that there is large upfront capital required and very little long term operating costs because the energy sources, like solar radiation, are naturally occurring and free. Consequently long term revenue certainty is required to justify the upfront investment.

Feed in tariffs will also stimulate a more rapid evolution of renewable energy technologies, which is necessary for the longer term reduction in our carbon footprint. As noted by Sir Nicholas Stern[3], "*Innovation in the power generation sector is the key to decarbonising the global economy*".

We cannot realistically reduce our consumption of energy to a level that will make any meaningful impact on our level of emissions, therefore we must acquire it from alternative sources.

The additional benefit of a Feed In Tariff policy is that it will significantly improve the quality and performance of the existing electrical distribution infrastructure.

By implementing a policy which will encourage the development of renewable energy generators that will be distributed throughout the existing electrical distribution

1 *Energy efficiency policies are another tool which should be used to complement the ETS as part of the overall Carbon Pollution Reduction Scheme. This submission does not seek to address the issues associated with energy efficiency initiatives, as they are both well documented and obvious.*

2 *As demonstrated by the 2008 research of Dr James Prest of the ANU's Australian Centre for Environmental Law & Centre for Climate Law and Policy, presented to the Senate Inquiry into Feed In Bill 2008.*

3 *Sir Nicholas Stern, report to the UK Prime Minister and the Chancellor of the Exchequer on the Economics of Climate Change 30 October 2006.*

infrastructure, particular solar thermal energy (which correlates well with peak demand) and those renewable energy sources which can be coupled to energy storage technologies and delivered into the peak demand periods:

(a) the transmission losses will be reduced;

(b) the need to duplicate the transmission infrastructure to cope with peak periods of demand that occur relatively infrequently (such as the four or five hottest days of the year) can be avoided; and

(c) the system will be more robust and less susceptible to failure. The power quality of its end users will be also improved.

The benefits of such a policy far outweigh any negative aspects (such as increased cost of electricity), particularly as the energy supplied from a Feed In Tariff would only represent a relatively small proportion of overall energy use - even if it were set at a target of 20% of all electrical energy consumed.

Investment Allowance

The Government has already acknowledged the use of an investment allowance as an effective policy tool as it forms part of its economic stimulus package.

An investment allowance for renewable energy technologies and less energy intensive infrastructure would have the twofold benefit of expediting investment in less energy intensive industries and renewable energy technologies, as well as providing a general economic stimulus.

The capital intensive nature of these projects would create meaningful economic activity. By way of example, our company Lloyd Energy Systems Pty Limited has directly and indirectly created more than 30 new full time jobs in regional Australia as a result of commencing our first solar energy storage project at Lake Cargelligo in Western NSW (this project has been made possible with the assistance of a grant from the Department of Resources Energy & Tourism). If we are successful with several other projects we are pursuing in both Australia and overseas that number will grow to more than 300.

Conclusion

While these type of policies are often maligned as the conception of self interested people who stand to benefit from them, international experience demonstrates that they are the most effective means of stimulating the required capital flows in the short term, which is exactly what is required if we are to have any impact on our carbon emissions by 2020.

International experience has also showed that these policies promote the creation of ‘green industries’ and substantial employment opportunities.

The urgent action required can only be achieved with a variety of policy tools all of which can be adjusted as we move through this period of transition into a lower carbon economy. The use of a single tool that relies solely on market forces finding some form of equilibrium will mean that there will be no meaningful change in our carbon footprint by 2020.

Thank you again for the opportunity to make this submission and I would be pleased to discuss any aspect of this submission with any of the members of the Committee or the Committee itself.

Yours sincerely

Stephen Hollis
Chief Executive Officer

About Lloyd Energy

*LLOYD ENERGY SYSTEMS PTY LIMITED ("**Lloyd Energy**") was established in 2001 to develop and commercialise a revolutionary new thermal (heat) energy storage technology.*

This technology represents a quantum step forward in overcoming the intermittency problems associated with renewable energy sources. The ability to economically store renewable energy at a utility scale, making it available on demand adds significantly to its value and closes the gap between the cost of producing renewable energy and its real market value.

If required the technology when coupled with solar thermal energy could operate 24 hours a day or alternatively it can be designed to deliver into periods of peak demand.

Lloyd Energy employs 14 people directly at its engineering and R&D facility in Cooma NSW, as well as an office in Sydney.

Lloyd Energy with the assistance of a grant from the Department of Resources, Energy & Tourism's Advanced Electricity Storage Technology program, is currently developing its first commercial scale project at Lake Cargelligo in Western NSW.

In the roll out of this project, Lloyd Energy has let substantial contracts to industries in Macksville Northern NSW (tower construction), Moruya NSW South Coast (fiberglass reflector panels), Cooma NSW (tracking heliostats) and Queanbeyan NSW (steel fabrication) which in total has created a further 28 full time jobs in these regional centres.

With other projects now under negotiation, Lloyd could increase this number to over 300 permanent jobs.

For more information about Lloyd Energy, please visit www.lloydenergy.com