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Committee Secretary
Senate Select Committee on Fuel and Energy
Department of the Senate
PO Box 6100
Parliament House
CANBERRA ACT 2600

Submission via email to fuelenergy.sen@aph.gov

Dear Sir/Madam,

SUPPLEMENTARY SUBMISSION TO SENATE SELECT COMMITTEE ON FUEL AND ENERGY - Energy Security Issues

We refer to your letter dated 22 June 2009, in which you invited comments related to energy security issues. In our original submission dated 18 Dec 2008, we outlined the benefits that would be associated with wide adoption within Australia of the co-firing of energy wood pellets with coal in power generation.

We now provide additional commentary on energy security issues associated with the use of energy wood pellets.

Energy wood pellets are a secure, reliable and cost effective source of clean and environmentally sustainable energy.

There is an immediate opportunity for Australia to increase the use of energy wood pellets as a key fuel source. In addition to the benefits from a CO2 emissions perspective, energy wood pellets provide significant benefits in energy security:

- they are a locally manufactured energy source
- supply is not at risk from global transportation disruption events
- they draw on an existing large resource base
- the amount of resource can be significantly increased easily
- they are available on stable economic terms

Plantation Energy Australia (PEA) considers that Government should implement measures to promote the use of energy wood pellets as a key fuel source.

We welcome the opportunity to discuss these with the Select Committee at its convenience

The Opportunity for Australia

Australia has some 1.9 million hectares of certified sustainably managed plantation forestry. Manufacture of energy wood pellets using low grade material from these plantations, or from new dedicated energy crop plantations, complements Australia's existing plantation timber industry.

Since our letter of 18th Dec 2008, PEA has commenced production from our plant at Albany, WA – the first industrial scale production of energy wood pellets in Australia. We have secured export sales contracts for \$130 million from major power generation utilities in Europe and are in advance discussion on further contracts with Japanese and European utilities. Plans are well underway to expand our production to 1.625 million tonnes per annum from several different locations across Australia.

At this capacity level, PEA will be the largest manufacturer of energy wood pellets in the world and Australia will be one of the top exporting nations. However, we will be using only about one quarter of the available residues from Australia's existing plantations.

The energy value of our 1.625 million tonnes will be some 27.625 million Gigajoules, or 7.8 million megawatt hours. This is broadly equivalent to the consumption of 12,500 barrels of oil every day. If all the residues from Australia's existing plantations were used for production of energy wood pellets, four times this amount of energy would be produced. This would be capable of replacing some 4.5% of the coal currently consumed in Australian power generation, and would reduce emissions of CO₂ by around 12.7 million tonnes each year – all using fuel sourced locally within Australia and not subject to supply and economic disruption factors that impact the security of imported energy supplies.

To take further advantage of the benefits of energy wood pellets, Australia can develop new timber plantations dedicated to energy purposes. These energy crop plantations can generate up to four times the yield per hectare than the current plantations from which most of the fibre is harvested for paper or sawlog purposes. So, for example if one million hectares of energy crop plantations were to be established, this would support an additional annual production of 11.375 million tonnes of energy wood pellets. This would be able to replace some 10 million tonnes of coal and reduce CO₂ emissions by a further 21 million tonnes per annum.

Australia has the land and the expertise to significantly expand the production and use of energy wood pellets. We propose that the government should take steps now to progress this. Policies measures may include:

- expansion of the MRET scheme to ensure availability of REC's to generators
- extension of the scheme to provide Rec-type fiscal incentives to industrial power and process heat generators currently using coal
- incentives to encourage the adoption of energy wood pellets, including ongoing R&D programs
- incentives to encourage the creation of energy crop plantations

In Europe, recent threats to gas supplies from Russia have been a key driver for the move toward a more diverse range of fuel sources. This has been one of the factors behind the ongoing increase in demand for energy wood pellets in Europe. Where



European utilities rely on imported energy wood pellets, they select supply sources that can demonstrate a combination of political stability with a strong, secure and sustainable resource base linked to a robust production infrastructure.

For Australia, the untapped potential for domestic supply of energy wood pellets offers a means to utilise locally manufactured clean fuel, either on a standalone basis in dedicated biomass plants, or in conjunction with coal for power generation.

Conclusion

Energy fuel pellets are a secure, reliable and cost effective source of clean and environmentally sustainable energy. There is an immediate opportunity for Australia to increase the use of energy wood pellets to both improve energy security of supply and to reduce CO2 emissions.

Energy fuel pellets will provide significant benefits in energy security.

PEA considers that Government should implement measures to promote the use of energy fuel pellets as a key fuel source. We welcome the opportunity to discuss these with the Select Committee at their convenience.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Gavin Harper", is written over a light blue circular stamp.

Gavin Harper
Director