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Senate Standing Committee on Environment, Communications and the Arts  
Department of the Senate  
PO Box 6100  
Parliament House  
CANBERRA ACT 2600

Attention: Committee Secretary

By email to: [ecita.sen@aph.gov.au](mailto:ecita.sen@aph.gov.au)

Dear Sirs,

### **Inquiry into the Management of Australia's Waste Streams**

LMS are pleased to have the opportunity to provide a response to the Inquiry into Waste Management of Australia's Waste Streams. LMS is an independent specialist landfill gas company responsible for the extraction and combustion of gas from landfills at numerous sites around Australia, and have been doing so for more than 25 years.

The considerable experience we have gained over these years has given us a good understanding of the waste management industry in Australia, and whilst we strongly agree with strategies to reduce, recover, or reuse waste, LMS believe that a balanced approach should be taken when assessing the future direction of the waste industry in Australia, and the real costs and benefits of the alternatives evaluated.

There has been a lot of information released by various groups within the waste industry in recent times by way of so called independent reports, commissioned and paid for by those groups. We therefore draw the attention of the Senate to the Productivity Commission Inquiry Report into Waste Management (No 38, 20 October 2006) which could be considered the only real substantive and truly independent report into waste in recent years.

The Productivity Commission Report appears to be at odds with various reports released recently. The main thrust of the recent so called independent reports appears to be the promotion of Alternative Waste Technology (AWT) facilities and in turn the banning of organics from landfills and increasing landfill levies. Whilst LMS can see some the merit in these ideas on face value, there appears to be very few rational arguments to back them up and we feel that Australia should look at its own situation and not blindly follow other regions of the world.

To date there have been very few AWT success stories in Australia and in the main, Australian ratepayers have been left to shoulder the burden of otherwise economically unviable facilities. The push to use these AWT facilities appears to be based on supposed superior environmental outcomes. There is no doubt that diverting valuable waste streams away from landfill and recycling where possible has a positive environmental outcome. However, the idea that banning organic material from landfills will somehow provide a substantial environmental benefit and reduce greenhouse gas emissions is at best misguided.

The fact is that organic material placed in a well engineered and well run landfill will have a similar environmental impact to an AWT facility at a much lower cost. The Productivity Commission Report (2006) found that AWT facilities in Australia require a gate fee of \$90 - \$140 per tonne of waste, which is obviously the reason for the push to increase landfill levies. But the benefits of AWT relating to environmental issues such as avoided landfill gas and leachate over sending waste to a properly located, engineered and managed landfill that incorporated a gas management system with electricity generation were less than \$2 per tonne of waste.

The claim that AWT facilities have significant greenhouse gas benefits over landfills is similarly flawed. Tightened regulations for landfills in Australia over past years, along with greater financial incentives provided by government schemes such as the NSW GGAS, have ensured that greenhouse gas emissions have been addressed. The DEH (2005) estimated that up to 75% of all landfills servicing major urban areas and capital cities already used gas capture technologies and that the emissions from the waste sector in Australia have reduced significantly over the last ten years.

Emissions from well run landfills are now minimal. The United States Environment Protection Agency (1998) calculated that with a 75% gas collection efficiency (which is low compared to Australia) and where electricity generation from landfill gas replaces fossil fuels, it is possible to reduce the net greenhouse gas emissions from landfilled municipal waste by as much as 92%.

The European Union published a report that indicates both AWT and landfills have similar emissions. It notes, AWT with landfilling of the rejects and stabilised compost has a net negative Greenhouse gas flux of -340 kg of CO<sub>2eq</sub>/tonne of Municipal Solid Waste (MSW) and that a best practice landfill with a restoration layer, taking untreated waste has only a slightly higher net negative Greenhouse gas flux of -299 kg of CO<sub>2eq</sub>/tonne of MSW (Smith et al, 2001). Similarly a paper published by the United States Environment Protection Agency (2006) states that the net greenhouse gas emissions from a mixed MSW Landfill with landfill gas recovery and electricity generation is -0.8 tonnes CO<sub>2e</sub>, or when converted approximately -320 kg of CO<sub>2eq</sub>/tonne.

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With both reports producing similar figures, and being published by truly independent highly reputable international authorities, the claim that AWT has significant greenhouse gas emission benefits over landfilling could hardly be taken seriously.

AWT facilities also claim benefits over landfilling with regard to the outputs from the facility. But the only real outputs appear to be low grade compost or soil conditioner, of which the Productivity Commission (2006) notes that there is an oversupply in Australia, and electrical energy. The RMIT notes that the electricity produced by AWT for every tonne of waste is somewhere between 0-20 kWh/t input net electricity output (Grant, 2007). This compares to over 100 kWh/t input net electricity output from landfill gas generation projects, which can be backed up by MRET REC creation rates. Meaning typically, landfill gas generation projects are between 5 and 100 times more efficient at generating electricity than AWT facilities from the same amount of waste.

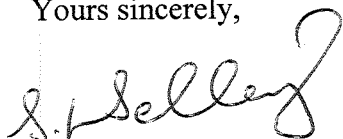
Therefore, banning organics from landfills and lifting landfill levies in an effort to support AWT appears to provide little benefit to the community at a great cost. The Productivity Commission Report Finding 4.3 (2006) states:


*“Taking into account all private and external costs and benefits, properly-located, engineered and managed landfills incorporating gas capture and electricity generation, are likely to be much less costly than ‘alternative waste technology’ plants or dedicated energy-from-waste facilities, in most, if not all, circumstances.”*

It would seem unfair to ask local ratepayers to support alternative waste technologies, through increased waste disposal prices, that do not result in any significant environmental advantage and ultimately benefit large corporations. We would again ask that the enquiry look to truly independent reports such as that by the Productivity Commission for guidance and not rely on information provided by large multinational companies with a vested interest.

LMS would like to thank the Department of the Senate for the opportunity to provide comments on this enquiry. Should you wish to discuss any issues in further detail, I can be contacted on 0416 221 933 or email [brett.maple@lms.com.au](mailto:brett.maple@lms.com.au).

Yours sincerely,



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**List of References**

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