INQUIRY INTO 'ENERGY FROM WASTE' TECHNOLOGY

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The Hon Paul Green, MLC Parliament House Macquarie Street SYDNEY NSW 2000

Dear Mr Green

Cleanaway Waste Management Limited ("Cleanaway") welcomes the NSW Portfolio Committee No.6 inquiry on matters relating to the waste disposal industry in New South Wales, with particular reference to 'energy from waste' technology.

"Industry and Government can work together to ensure environmentally safe and commercially viable waste management practices and policies"

Introduction to Cleanaway Waste Management Limited

Cleanaway is Australia's leading total waste management, industrial and environmental services company and listed on the ASX.

We are the largest collector of waste in the country:

- Serving over 100,000 Commercial and Industrial customers
- Servicing 90+ municipalities, representing over 2 million residences per week
- Collecting and processing approximately 600 million litres of hazardous and non-hazardous liquid waste per year
- Collecting approximately 130 million litres of waste oil per year

And the largest waste resource recovery company in the country:

- Generating over 145 million kWh of renewable energy each year
- Recycling approximately 230,000 tonnes of cardboard, 11,000 tonnes of plastic packaging, 22,000 tonnes of steel and 110 million litres of fuel and waste oil each year

Cleanaway offers one of the most comprehensive range of waste services in Australia.

We believe that all waste is a resource and are committed to deliver on our mission of making a sustainable future possible.

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At Cleanaway, we know that government and industry need to work together in order to develop effective systems, policies and regulations that optimises the recovery of waste and ensure our actions do not undermine resource recovery efforts and ongoing sustainability.

A copy of our 2016 Annual Report is attached to this submission for further details about the Company.

Based upon the terms of reference Cleanaway submits the following:

A) The current provision of waste disposal and recycling, the impact of waste levies and the capacity (considering issues of location, scale, technology and environmental health) to address the ongoing disposal needs for commercial, industrial, household and hazardous waste.

To assist the Inquiry in understanding where waste is generated in Australia, the following graph provides information on the waste generated by each state ¹, the percentage recovered, and the percentage disposed of in landfill and the targets set by the NSW EPA 2014-2021 Waste Avoidance and Resource Recovery (WARR) Strategy.



With waste levies increasing, and this is most prevalent in NSW, with the highest levies in Australia, the use of the levy by state governments is driving behaviour towards resource recovery and energy from waste alternatives.

¹ Source: InsideWaste industry Report (2014-2015)



The following graph compares the waste levies in each state of Australia².

With increasing government, private sector and community preferences for alternatives to landfill disposal, opportunities to develop energy from waste infrastructure in the NSW market are becoming increasingly viable.

The recovery of waste through the use of energy from waste plants is gaining increasing prominence. On a global basis, ~300 million tonnes of waste per annum is being processed through ~2,150 energy from waste plants³.

Despite this growth in the use of this technology, there are no significant energy from waste plants of scale currently operational in Australia.

Investment in "energy from waste" technologies is expected to increase with clear policies favouring environmentally sustainable waste solutions over landfill disposal.

B) The role of "energy from waste" technology in addressing waste disposal needs and the resulting impact on the future of the recycling industry.

Energy from waste technologies continue to gain prominence as an attractive disposal solution in Australia with supportive government and private sector participation. In particular, NSW is a logical market for the establishment of energy from waste plants as the high landfill levy makes alternative waste treatments economically feasible.

One of the key drivers of recycling waste is the commodity price of the materials recycled such as cardboard, glass, metals and garden wastes. Without economically viable end markets for this material it becomes increasingly difficult for waste management companies to justifying the cost of resource recovery.

Long term infrastructure planning which incorporates difficult to separate materials or a waste stream that is uneconomical to recover and provides for "energy from waste" as an alternative is needed.

² Source: State governments)

³ Source Ecoprog Waste to Energy 2016/17 report)

C) Current regulatory standards, guidelines and policy statements oversighting "energy from waste" technology.

As highlighted earlier, the adoption of "energy from waste" plants is globally widespread and growing as communities recognise the importance of the technology in a total waste management framework. These "energy from waste" technologies have been in use and operating safely in the USA, Europe and Asia for a number of decades and operate under strict emission controls that are tested regularly by the environmental authorities.

Any future "energy from waste" facilities approved in NSW will obviously have to meet or be below the strict requirements of the NSW EPA *Protection of the Environment Operations (Clean Air) Regulation 2010.*

D) Additional factors which need to be taken into account within regulatory and other processes for approval and operation of "energy from waste" plants.

An area of concern is the potential introduction of large buffer zones into the planning, licencing and consents for "energy from waste" plants. International experience, where plants are situated in close proximity to the community have shown that the introduction of buffer zones is unnecessary. For example, 50% of Paris is heated by an "energy from waste" plant located at Issy-les-Moulineaux, which is approximately 7 kilometres from the CBD and four kilometres from the Eiffel Tower.

The technologies now developed and used in the USA, Europe and Asia are increasingly located close to the waste source and have shown minimal impact on the community.

In closing, Cleanaway is supportive of the role that "energy from waste" plants can play in the management of waste in the NSW economy. It should be an integral part of the waste management framework.

As Cleanaway is the largest waste management company in Australia, we want to participate as a key stakeholder in the management of waste from collections all the way through to investment and supply of engineering expertise.

We welcome the opportunity of working with the State Government, local planning authorities, communities and the NSW Environmental Protection Authority on the implementation of safe and sustainable solutions to waste management in the State.

Please contact Frank Sufferini on submission.

should you require any further information on the

Yours sincerely

Vik Bansal CEO & Managing Director **Frank Sufferini** Head of Investor Relations & Corporate Affairs

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