**Submission No 158**

# INQUIRY INTO 'ENERGY FROM WASTE' TECHNOLOGY

**Organisation**: Hunters Hill Council

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Submission to Parliamentary Portfolio Committee No. 6 – Planning and Environment with particular reference to "Energy from Waste" technology.

The collection, processing and disposal of municipal waste is an essential service which needs to be supported by both Federal, State and Local Government. Effective delivery of that service relies on having appropriate regional and urban facilities and an efficient collection mechanism. Without adequate consideration of waste management at all levels, including all levels of Government and the Greater Sydney Commission, there will be significant risks to the community's health, safety and amenity. The Greater Sydney Commission recently exhibited their Plans for the Sydney area and NSROC of which Hunters Hill Council is a member responded to that pointing out the Group's concerns with specific aspects of the draft Plan. (copy attached)

**Key Issues:**

Australians are on average producing 2 tonnes of waste per annum per person. With a population of over 24 million (as at April 2016) that's ~ 50 million tonnes of waste per year. Between 1996-2015 the Australian population rose by 28% but waste generation increased by 170%. Admittedly, we now recycle approximately 58% of all the waste generated but that still leaves 42% or 21 million tonnes of waste to be landfilled.

Governments set targets for diversion from landfill but are not making it easy to permit the private sector and local governments to implement alternative technologies to achieve better results. Dealing with waste needs to be commercially viable and for most materials the cheapest price is nearly always landfill

There are industrial areas across Sydney that could be suitable for waste facilities in the future such as an Energy from Waste facility or transfer stations. However, zoning would need to permit usage as a waste facility and commercial decisions usually determine whether such facilities would be viable.

**Cooperative management of waste:**

The EPA has through it's Better Waste Recycle More Grant Funding been encouraging the establishment of Community Recycling Centres (CRC's) to dispose of problem wastes including paint, oil, batteries, gas bottles and smoke detetors. The methodology used requires one CRC per 50,000 households whereas currently in the North District of Sydney there is one just opened in Artarmon and another one due to open in Hornsby. The EPA funds and councils host Chemical CleanOut collection days around the Sydney basin to enable residents to responsibly dispose of potentially hazardous household chemicals. These events are well patronised demonstrating an ongoing need for safe disposal of hazardous liquids.

**Future needs:**

The Greater Sydney Commissions Plan for the North District specifically mentions waste management in Section 5.8.1 and was to be supported by Sustainability Piority 11 to support district waste management and protect precincts with existing waste facilities; and Sustainability Action S6 to identify additional land for waste facilities. The Plan does not protect "urban services land" and identifies Kimbriki as being capable of managing the district's waste for the foreseeable future. In fact Kimbriki only caters for the waste from two local government areas of its' owners, Northern Beaches & Mosman Councils.

The majority of the district, comprising all of the seven councils in the NSROC region will still need to transport waste to other locations, predominantly outside its borders. Since December 2015, six of the Northern Region Councils send their residual waste to Veolia's Clyde Transfer Terminal where it is loaded onto trains to be transported to Woodlawn, near Goulburn. This is a 10 year contract expiring in 2025.

Apart from Kimbriki servicing the Northern Beaches and Mosman, waste facilities include Artarmon Transfer Station and Ryde Transfer Station which are owned and operated by a private company and there is limited potential for expansion at Artarmon and vastly reduced operating hours at Ryde.

Waste management should be considered as an essential service and federal, state and local goverments should work together to encourage and promote investment and support for development of facilities to manage and process waste in the most efficient manner.

**What is energy-from-waste?**

An energy-from-waste facility processes waste left after recycling and composting, under carefully-controlled conditions, to recover energy.

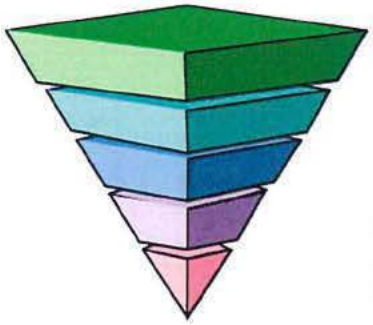
The waste is burned at high temperatures and the heat used to make steam, which drives a turbine to generate electricity. Energy-from-waste facilities operating in Europe use modern, proven technology to produce electricity which is fed directly into the grid. The technology is operated under the guidelines set by EU directives which control emissions and operations.

**Why energy-from-waste?**

It is proven technology that has been operating under strict environmental guidelines across Europe & the USA for many years. As an example, in Suffolk in the United Kingdom despite their recycling efforts they still have left at least 170,000 tonnes of rubbish which previously was disposed of in landfill. It is now processed in an EfW plant and the remaining ash incorporated into a brick making facility. Landfill is an expensive solution which is fast filling up and more importantly, environmentally we need to do better.

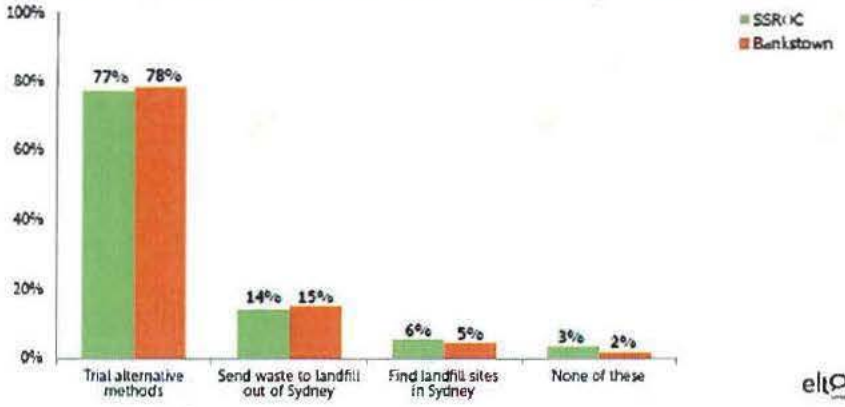
EfW is a proven alternative using tried and tested technology to provide a cheaper, green solution to disposing of the waste left after recycling.

If we look at a 5 step waste hierarchy adding two steps above recycle



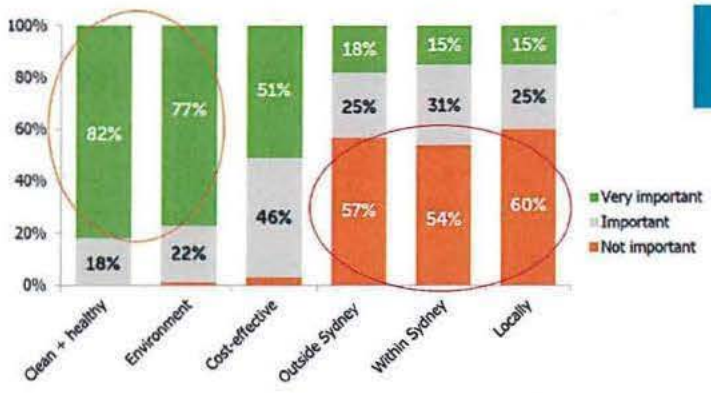

and we use alternative approaches to community consultation then it may be possible to better educate the public on the benefits of EfW. A recent study by Elton Consulting for SSROC established that the public would welcome trials of alternative methods of disposal of household waste.

## Once Sydney's landfill sites reach capacity or close, household waste should go to...




In addition how waste is managed not where was important.

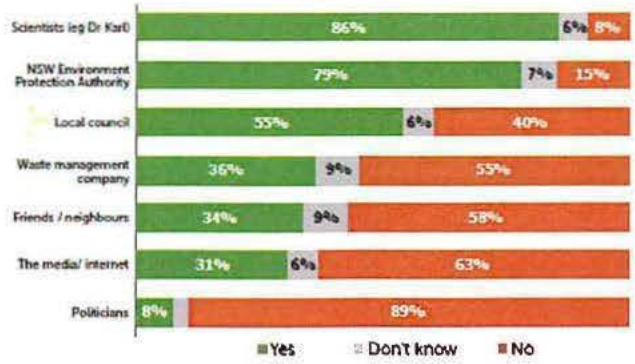
## What matters most to people about how their waste is managed?




**How not where is important!**

Interestingly, the study looked at where people get their information from and who they trust. The NSW EPA and Local councils came out of this survey positively but it was scientists such as Dr Karl & Brian Cox etc who were deemed most trustworthy.

## Trusted sources of information on renewable energy from waste



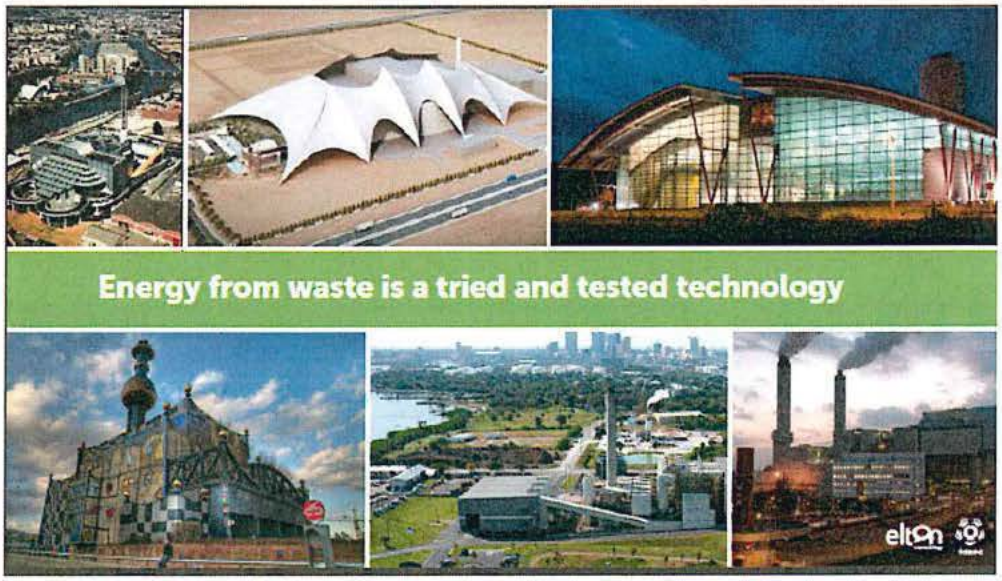
Much of the press and radio earlier this year used the word "toxic" continually when talking about an EfW plant proposed for Western Sydney. As further evidenced in the Elton discussion paper, burning waste & incineration have an historic context.

## Revising the Findings

1. Burning waste and incineration have a strong historic cultural context
2. How is more important than both where and cost
3. Use the waste hierarchy: maximum recycling first
4. There is community appetite to look at new resource recovery options as an alternative to landfill
5. Energy from waste is an unfamiliar technology
6. Show that its tried and tested
7. Use independent experts and scientists to inform the community about the technology
8. Being a 'good neighbour' is not about the individual or immediate benefit but about community long-term good
9. Energy from waste is considered a potential alternative to land fill

elton

EfW can be a solution to a growing problem in Australia – that of disposal of waste. Historically burning waste is thought of as dirty and toxic. In fact EfW plants are a proven solution to a growing problem and exist in harmony in Europe within urban landscapes. EU Waste Management Law (Directive 2008/98/EC on Waste) established a legal framework for treating waste in the EU. It is designed to protect the environment and human health by emphasising the importance of proper waste management, recovery and recycling techniques to reduce pressure on resources and improve their use. Regulation of EfW plants is tightly controlled under the WI Directive published by the EU Legislation in 2008




The more development we engage in the more waste will be generated and we must turn our attention to how this additional waste will be dealt with.

## Sources:


Elton Consulting presentation for SSROC

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http://www.fccenvironment.co.uk/energy-from-waste.html

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