Submission No 326

INQUIRY INTO 'ENERGY FROM WASTE' TECHNOLOGY

Organisation: Local Government NSW

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LOCAL GOVERNMENT NSW

Draft Submission to the Energy from Waste Technology Inquiry

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Opening

LGNSW welcomes the opportunity to respond to the NSW Legislative Council's 'Energy from waste' technology inquiry. Local Government NSW (LGNSW) is the peak body for local government in NSW, representing NSW general-purpose councils, associate members including special-purpose county councils and the NSW Aboriginal Land Council. LGNSW facilitates the development of an effective community based system of local government in the State.

Local Government is the primary provider of waste services for the NSW residential community. Some councils provide commercial collection services, however this is not the norm. This submission therefore focuses on 'municipal' or 'household' waste management.

In developing this response, LGNSW sought feedback from NSW councils and regional waste groups. Approximately 54 councils are represented in this submission. Please note that in order to meet the consultation timeframe this submission is provided in draft form in anticipation of LGNSW Board approval. LGNSW will advise the Committee of any amendments to the submission at that time.

The structure of this submission reflects the inquiry terms of reference.

Terms of reference (TOR)

To report on matters relating to 'energy from waste', in particular:

TOR 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

Current provision of waste disposal and recycling
The most recent *Local Government Waste and Resource Recovery Data Repor*t (NSW EPA) showed that 3.69 million tonnes of municipal waste was generated for the 2014-2015 period. Of this, councils recovered 1.77 million tonnes through a mix of recycling, composting, advanced waste treatment and refuse derived fuel facilities. The remaining 1.95 million tonnes was landfilled.

The NSW *Waste Avoidance and Resource Recovery Strategy* sets a 70% recycling target for municipal waste by 2021. To achieve this target, councils are working to increase resource recovery and maximise landfill diversion. All councils consulted in developing this submission said they were either currently considering 'energy from waste' options, would consider 'energy from waste' if it was made available or were more broadly looking for alternatives to landfill.

The NSW Environment Protection Authority (EPA) is in the process of identifying the waste and resource recovery infrastructure needs for NSW for 2021. The EPA will do this by projecting waste generation rates against capacity and identifying the gap in waste and recycling infrastructure for NSW. Though this work is not publicly available yet, it is clear that the nature of the infrastructure gap will differ from region to region. For example, it is well-known that the Sydney metropolitan area has a landfill shortage, while many regional areas have limited access to adequate recycling facilities. The EPA uses infrastructure grants as the key driver to encourage infrastructure development where gaps are identified.

Councils across NSW agree that a long-term infrastructure strategy is desperately needed for NSW. While waste services are listed as an essential service under the NSW *Essential Services Act 1988*, there is no plan to strategically address NSW's future waste infrastructure needs. Following the sale of the NSW Government-owned business known as WSN Environmental Solutions in 2010, waste infrastructure has been developed in an open market responding to financial opportunity rather than need. As a result, the state's infrastructure is being delivered in an ad-hoc manner.

Sydney's waste infrastructure is under particular pressure with waste facilities being pushed further away from the source. For example, a significant portion of residential waste is currently being disposed of/processed in Woodlawn, approximately 300km from its source. This is becoming an increasing problem as Sydney's population density increases and property prices rise. In most cases, it is no longer viable for the waste industry to provide infrastructure where it is most needed.

Impact of waste levies

The waste levy is an economic driver for waste avoidance and resource recovery in NSW. The levy is applied to materials landfilled within the regulated levy area. It acts as a financial incentive to divert materials from landfill, and consequently to increase materials recovery. The levy also applies to residual materials which are sent to landfill following the recovery processes, for example the levy applies to contamination in the recycling stream when it is landfilled. It is LGNSW's understanding that the levy would not apply to materials processed through 'energy from waste' facilities.

TOR b) the role of 'energy from waste' technology in addressing waste disposal needs and the resulting impact on the future of the recycling industry

Role of 'energy from waste'

The waste hierarchy establishes guiding priorities for the waste industry to ensure efficient use of resources. Local government uses the waste hierarchy when deciding how to manage municipal waste. According to the hierarchy, 'energy from waste' is preferential to landfilling, but subordinate to recycling.

Waste Hierarchy, NSW Environment Protection Authority

Alternatives to 'energy from waste' technology for residual waste are landfilling and Refuse-Derived Fuel (RDF).

- Landfills account for approximately 3% of Australia's greenhouse gas emissions. Landfill gas capture does not effectively mitigate this impact. Landfilling also has a number of other environment and public health risks associated with the off-gassing and trace elements which result from the mix of materials disposed of.
- RDF is an 'energy from waste' technology whereby the combustible material is extracted and used as fuel. A number of councils use this technology which is available as a recovery option through the private sector. This material is shipped to south-east Asia and converted to energy under local environmental standards.

With the dual benefit of managing waste and generating energy, NSW councils consider 'energy from waste' a viable option when dealing with residual waste. It is preferential for councils to process the waste and generate energy locally, under our environmental controls, rather than shipping it overseas.

Further, in alignment with the hierarchy, the *NSW Energy from Waste Policy Statement* is designed to ensure that higher order reuse or resource recovery options are maximised prior to application of 'energy from waste' technology. The policy states that "only the residual from bona-fide resource recovery operations are eligible for feedstock for an energy recovery facility".

Impact on the recycling industry

In line with the principles of the waste hierarchy, councils endeavour to reuse and recycle what they can from the municipal waste stream. It is only the residual or remaining material that councils are seeking to displace from landfill. Councils are not seeking to use 'energy from waste' technology in place of current recycling processes.

The NSW *Energy from Waste Policy Statement* establishes resource recovery criteria to ensure the recycling industry is maintained. The aim of the criteria is to promote source separation, drive best practice material recovery processes and ensure only residual material from resource recovery facilities are used as feed stock. For municipal waste, this is achieved via percentage limits of residual waste allowed for energy recovery. Local government considers the policy an adequate safeguard to protect the recycling industry.

The NSW Container Deposit Scheme will commence 1 December 2017. This scheme will ensure that a large proportion of plastics are recycled, further eliminating a potential fuel for 'energy from waste', particularly from plastics (which are easily combusted).

TOR c) current regulatory standards, guidelines and policy statements oversighting 'energy from waste' technology, including reference to regulations covering: i. the European Union ii. United States of America iii. international best practice

Regulatory standards, guidelines and policy statements

The EPA's *Energy from Waste Policy Statement* is the guiding document for 'energy from waste' facilities in NSW. The document is based upon the overarching principles of:

- achieving higher value resource recovery outcomes,
- protecting air quality and human health,
- avoiding 'mass burn' disposal outcomes,
- providing scope for industry innovation.

Councils view the EPA's policy statement as a clear directive to ease the state's prolonged landfill dependence, to increase resource recovery and manage waste in accordance with the waste hierarchy.

LGNSW claims no expertise in international 'energy from waste'. We note however that a number of 'energy from waste' facilities already exist in NSW. A few examples include:

- Sugar cane (bagasse) is widely combusted for electricity generation,
- Mt Piper Power Station uses RDF for co-combustion,
- Earthpower derives energy from commercial food waste,
- Berrima Cement Kiln uses waste tyres, RDF and wood waste.

In each of these examples, energy is generated through the process, lessening fossil fuel dependency. It is critical that the planning and environmental controls applied to energy from waste facilities in NSW are regularly updated in line with learnings both in Australia and internationally. Ideally these controls would provide minimum emissions standards for NSW operators.

TOR d) additional factors which need to be taken into account within regulatory and other processes for approval and operation of 'energy from waste' plants

Additional factors to consider

An important study was carried out by the Southern Sydney Regional of Councils (SSROC) in 2015 to ascertain the 'social licence to operate' 'energy from waste' facilities. This study highlighted the importance of careful communication with the community in relation to 'energy from waste' technology proposals. This study is not publicly available but is likely to provide further information.

The *NSW Energy from Waste Policy Statement* reaffirms the need for careful communication, by stating that "operators of an 'energy from waste facility' will need to be 'good neighbours' – particularly if near a residential setting". Local government encourages and supports effective consultation and communication with the community.

The process for approving energy from waste facilities also must ensure the bona-fides of proponents, and ensure that claims are delivered via with ongoing environmental monitoring and broader operational checks conducted.

TOR e) the responsibility given to state and local government authorities in the environmental monitoring of 'energy from waste' facilities

Environmental monitoring

As a Scheduled activity under the *Protection of the Environment Operations Act 1997*, 'energy from waste' facilities are regulated by the NSW EPA.

All air monitoring and reporting must be done in compliance with the *Approved methods for the modelling and assessment of air pollutants in NSW* 2016.

TOR f) opportunities to incorporate future advances in technology into any operating 'energy from waste' facility

Technological advances
LGNSW is not in a position to comment on technology advances for 'energy from waste' facilities, however NSW councils have indicated that they are keenly watching as this sector develops in Australia.

TOR g) the risks of future monopolisation in markets for waste disposal and the potential to enable a 'circular economy' model for the waste disposal industry

No market monopolisation concerns
There is no concern among NSW councils that 'energy from waste' technology will monopolise the waste disposal market. The *NSW Energy from Waste Policy Statement* ensures that even if 'energy from waste' is the most cost effective and convenient method to dispose of all waste, only the residual material or material without a higher order reuse opportunity is permitted for processing.

Circular economy potential
Local government supports the circular economy as a means of driving effective design and reuse of materials. Although local government is not a major stakeholder in the NSW circular economy, councils conceive that 'energy from waste' and the circular economy could be complementary recovery options.

Conclusion

As the primary provider of waste services for the NSW residential community, councils consider 'energy from waste' technology an important component of the state's future waste management toolkit. In line with the principles of the waste hierarchy, councils endeavour to reuse and recycle what they can from the municipal waste stream prior to disposal. It is only the residual or remaining material that councils are seeking to displace from landfill. 'Energy from waste' technology is considered preferential to landfilling for residual waste. The *NSW Energy from Waste Policy Statement* is viewed as an important and effective safeguard to ensure maximum recovery is achieved prior to utilisation of 'energy from waste' technology.

For further information, please contact , Environment Strategy Manager on or