Submission
No 233

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Organisation: Sydney Knitting Nannas and Friends

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SYDNEY
KNITTING NANNAS and FRIENDS

Submission to the NSW Parliament Select Committee on Proposed Energy from Waste Facilities October 2025

Who we are

The Sydney Knitting Nannas are a group of older women and friends who work towards saving the land, air and water for future generations. We are connected to other Knitting Nanna groups, both rural and urban across the state, including in areas where energy from waste precincts are in place or are being proposed.

We welcome the opportunity to make a submission at this time of critical decision making about waste in NSW. Our motivation is to contribute to decision making which gives top priority to public health, our environment and the climate. Let us point out that no place is suitable for Waste to Energy (WTE) incineration because waste avoidance is the solution to our unsustainable waste generation.

Our key concerns in relation to the Inquiry's Terms of Reference

Re performance of the technologies proposed for the Tarago and Parkes areas:
The nominated areas are not suitable for hosting energy from waste incinerators should they be allowed to progress. We are appalled that communities living in an area with a long history of high pollution from mining may now be burdened by a new toxic industry. There are natural environments, agricultural enterprises and residents in all the precincts.

It is essential that the wellbeing of regional communities is given priority over energy from waste incineration projects which are not solutions to the shortage of landfill space for Sydney's waste. The proposed Energy from Waste incinerators are out of step with international trends. For example, the current EU policy position on incineration is to decommission. The EPA claims in their options paper that the standards to be adopted meet the world's best practice. This is untrue in that the standards do not include considerations of heavy metals, brominated dioxins and mercury, PFAS and microplastics among other pollutants, all of which are associated with hazards to human health.

Gasification and pyrolysis: We are concerned that gasification and pyrolysis are being termed as chemical or advanced recycling projects. This is not acceptable because they are both classified as incineration technologies by the EU and the US. In reality they are thermal technologies, and we are concerned they could be extremely hazardous to human health, creating chemicals that do not break down. Use of gasification and pyrolysis perpetuates the linear economy at the expense of creating a circular economy, which is recommended best practice.

Re emissions predicted and the quality of emissions to be generated:
Research from the UK has found that **the average incinerator produces more than twice as much CO2 per unit of electricity as gas-fired power plants, and some incinerators have a higher carbon intensity than coal plants.** In the UK, the industry has been accused of greenwashing, naming themselves 'renewable projects' instead of acknowledging that the industry produces high levels of climate emissions. Sydney Knitting Nannas recently sent a submission commenting on the NSW Net Zero Commission 2024 report, which unfortunately found in almost all sectors NSW needs to make greater efforts to meet its commitments to reduce greenhouse gas emissions. The current proposal for energy from waste would be create greater emissions than gas and coal fired power and would therefore add to the challenges the government faces in meeting its emission reduction targets.

Re health impacts of incinerators including newer incinerators:
There is insufficient evidence to conclude that any incinerator is safe. We are concerned that human health and the environment will be put at great risk if energy from waste technology is adopted in NSW. Dioxins accumulate in soil, water and living tissue, leading to increased risks of cancer, neurological damage, respiratory illness and developmental disorders. Also of concern is that toxic ash from incinerators needs to be treated and the toxic ash and waste dams are prone to break down and release toxins into soils and water systems, potentially affecting human health and surrounding ecosystems.

Systematic reviews of the scientific literature on risks to health for residents living around incinerators are damning. (1, 2) These reviews found evidence of **increased cancer risk particularly stomach and bowel cancer, and increased risk of reproductive harms including pre-term birth and congenital abnormalities.** These risks are considered 'dread risks' which are greatly feared and are likely to provoke strong community concern.

Proponents claim new incinerator technology is safe. But there is no evidence to support the view that any incinerator is safe.
To quote one review (italics added):

"Many older incinerators were linked with neoplasia, reproductive issues and other diseases. While the results were not consistent across the literature, based on a precautionary principle there is *insufficient evidence to conclude that any incinerator is safe*. *There is some suggestion that newer incinerator technologies with robust maintenance schedules may be less harmful, but diseases from exposures tend to manifest only after many years of cumulative exposure, so it is premature to conclude that these newer technologies improve safety."*

Re the impact on agriculture locally and across the wider region:
Contamination of food and ingestion of pollutants is a significant risk pathway for both nearby and distant residents. Contaminants include particulate matter air pollution (causes

oxidative stress), dioxins, furans, heavy metals and polycylic aromatic hydrocarbons. (1, 2) Dioxins decompose very slowly in the environment, remaining there for very long periods.(2) Two systematic reviews have concluded that food grown near an incinerator should be avoided. Local residents ingesting food grown in close proximity to incinerators AND more distant populations consuming food transported from areas near an incinerator, are open to exposure.

Re Proposed emission monitoring:
Intermittent monitoring is not best practice and cannot be justified because it would fail to produce reliable data and thus fail to protect health and the environment. **Continuous monitoring of contaminants of air, soil and water nearby incinerators is essential.**

Re alternative solutions to reduce and manage residual waste produced by Greater Sydney:
NSW urgently needs a zero waste future. The direction of waste policy in NSW needs to turn towards the development of non-combustion technologies and a system to achieve a zero waste future. Zero waste city models work. They are cheaper, more effective and supportive of human wellbeing and emissions reduction targets. They are operating throughout Europe. These models of mechanical recovery and biological treatment technologies can replace incineration.

We note that NSW has become the first state in Australia to require brand owners to take responsibility for the entire lifecycle of regulated products, starting with batteries. By targeting the entire lifecycle of batteries – from design and manufacturing to use, reuse, recycling and disposal – these problematic or dangerous products can be managed safely and responsibly. This is a commendable first step in one area and we urge NSW government to use this as a template for other areas of waste management.

Extended producer responsibility must be legislated, by using tracked meaningful deposits/refunds to ensure industry takes back and pays for its waste. It will be in industry's benefit to design out manufactured obsolescence and to redesign and renormalise zero waste manufacturing. Zero waste legislation and extended producer responsibility legislation negates any perceived 'need' for toxic waste to energy incineration.

Energy from Waste incineration does not form part of a circular economy. In fact the technology undermines the circular economy. A circular economy will not be fostered by creating waste facilities that profit from the generation and burning of waste and demand a constant or growing supply of waste. Only reducing, reusing and recycling materials that end up as waste will solve our current waste problems.

References

(1) Tait PW, Brew J, Che A, Costanzo A, Danyluk A, Davis M, Khalaf A, McMahon K, Watson A, Rowcliff K, Bowles D. **The health impacts of waste incineration: a**

systematic review. Aust N Z J Public Health. 2020 Feb;44(1):40-48. doi: 10.1111/1753-6405.12939.

(2) Vinti G, Bauza V, Clasen T, Medlicott K, Tudor T, Zurbrügg C, Vaccari M. **Municipal Solid Waste Management and Adverse Health Outcomes: A Systematic Review.** Int J Environ Res Public Health. 2021 Apr 19;18(8):4331. doi: 10.3390/ijerph18084331.