Nature Conservation Council
The voice for nature in NSW

16 May 2025

Submission to the EPA Energy from Waste Framework review

The Nature Conservation Council of New South Wales (NCC) is the state's peak environment organisation. We represent over 200 environment groups across NSW. Together we are dedicated to protecting and conserving the wildlife, landscapes and natural resources of NSW.

NCC welcomes the opportunity to comment on the energy from waste framework review. The changes proposed in the associated options paper would allow for the development of an energy from waste industry through expanding energy from waste precincts; expanding the definition of thermal treatment to allow additional input materials; and allowing the use of energy from waste plants to power onsite industrial and manufacturing processes.

NCC believes that thermal treatment of waste involving energy recovery must remain prohibited under Protection of the Environment Operations Regulations and that exemptions should be minimised. The bigger opportunity to address shrinking landfill capacity is to enhance efforts relating to circular economy. We also believe that energy from waste should not be considered renewable energy, and additional resources should be put into achievement of NSW renewable energy targets consistent with the objects of the Climate Change (Net Zero Future) Act.

Greater efforts should be placed on circular economy

To ensure the policy objective of circularity and resource recovery is prioritised, a stronger test of what constitutes residual waste is required. Current rules allow for plastic products at up to 35% to be thermally treated. Instead, greater efforts should be placed into product stewardship to avoid consumer products becoming residual waste. Recycling rates in NSW have room for improvement, with 66% of our 22 million tons of waste recycled in 2022-23. For plastics, recycling rates are even lower with only 10- 14% of all our plastic waste actually being recycled.

When burnt, plastics release harmful chemicals and large amounts of greenhouse gas emissions (being made from fossil fuels). The priority should be to reduce waste generation and invest in more reuse, recycling, and compost streams.

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For instance, the NSW Government and EPA should focus on increasing soft plastic recovery, supporting national consumer product stewardship, increasing the number of beverage containers under the Container Deposit Scheme (CDS), and bringing timelines forward on Food Organics and Garden Organics (FOGO) collection.

Energy from waste facilities risk incentivizing production of waste streams

There is a risk that energy from waste facilities counteract efforts to build a circular economy as they take pressure and funding away from dealing with reprocessing of waste.

Once built, facilities create market demand for waste products which runs counter to the circularity policy objective. They require long term contracts to secure this waste, which locks up municipalities' action and diverts attention away from developing more recycling and compost streams.

Energy from waste facilities should not be confused with renewable energy

Energy from waste plants involving thermal energy cannot be considered renewable energy generators because thermal treatment generates greenhouse gas emissions, and they mostly get their energy from burning plastic waste, which is made from fossil fuels.

Questions have been raised on the level of greenhouse gas emissions per unit of electricity output and the relatively low net energy gain from facilities.

International experience indicates community concern on human health impacts are significant

Thermal treatment of waste releases chemicals like dioxins, furans, and PFAS ("forever chemicals"), that are probable carcinogens. In Europe, although modern filters capture most of the dioxins, monitoring regimes are often lackluster, with only a few types of PFAS actively monitored. Most plants do not monitor their emissions continually, leading to large spikes in emissions from day to day or week to week.

Communities in Europe have also expressed concern that thermal treatment leaves behind "bottom ash", a substance filled with many harmful chemicals that must be discarded in hazardous material landfills. In some EU countries, bottom ash is used for roadmaking, with a risk that toxic chemicals leach in the environment when it rains.

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Due to community concern, the EU is now starting to divert funding away from their incinerators, and towards reuse, recovery, and recycling efforts.

Waste to energy has been removed from the list of activities considered sustainable in the EU, on the basis that it undermines its greenhouse gas emissions reduction objective and transition to a circular economy.

NCC believes that it would be worthwhile for the EPA to review the international experience as part of the NSW Energy from Waste Framework review. Further, it should be noted that dioxins and furans are included in the Stockholm Convention on Persistent Organic Pollutants (POPs), which Australia ratified in 2004. This means that Australia has a legal obligation to reduce the amount of POPs in the environment and it is unclear how this could be achieved with the construction of energy from waste facilities.

Comments on proposed changes to the energy from waste framework

1. **Proposed change to the precincts and associated risks**

NCC believes that the current regulatory framework which requires local community support for energy from waste facilities must be maintained, and the onus placed on proponents to demonstrate local community endorsement. There are numerous examples in other jurisdictions of negative social and environmental justice outcomes where community preferences have been overlooked.

The choice of precincts where energy from waste facilities are welcomed should not be proponent led. Rather, precincts should be determined based on best practice, such as making sure that they are not located near populated areas nor having negative impacts on vulnerable ecosystems.

2. **Proposed changes to the definition of thermal treatment**

The current allowance for plastics thermal treatment, requiring at least 65% of treated plastic be converted back into plastic products, still allows for the burning of 35% of the weight of these plastic products rather than its reuse or recycling.

Rather than extending this allowance to other materials, re use, recovery, and recycling streams should be improved to reduce residual waste for key materials. Efforts should also be put into reducing the amount of waste, and especially plastic waste, in product design and packaging, in addition to investing in reuse, recovery, and recycling.

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3. **Proposed changes to the exception relating to powering industrial or manufacturing processes on site**

Industrial decarbonisation policy settings should support movement away from fossil fuels towards electrification and genuine renewable energy sources such as wind or solar, backed by storage.

Where there are genuine obstacles to industrial decarbonisation as defined above, NCC believes that exemptions to the prohibition on energy from waste should be considered on a case-by-case basis.

Additionally, proponents should be required to demonstrate that energy from waste generation for manufacturing or industrial processes on a specific site would displace fossil fuel use, lead to an overall reduction in greenhouse gas emissions, and avoid the generation of additional harmful chemicals. A benchmark for the level of fossil fuel use/greenhouse gas emissions displacement necessary to consider a project proposal should be determined.

Thank you for the opportunity to participate in this consultation. Your contact person at NCC is Senior Climate and Energy Campaigner, Jacqui Mills.

Yours sincerely,

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