Submission
No 248

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Organisation: Clarence Valley Conservation Coalition Inc

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Select Committee on Proposed Energy from Waste Facilities
NSW Legislative Council
By email at: wasteenergy@parliament.nsw.gov.au or form at:
www.parliament.nsw.gov.au/committees/inquiries/Pages/lodge-a-submission.aspx?pk=3128

Submission on Proposed Energy from Waste Facilities

The Clarence Valley Conservation Coalition (CVCC) is a community group based in the Clarence Valley in the NSW Northern Rivers. Formed in 1988, the CVCC has been involved with environmental issues – both locally and beyond – since that time. It has had a long-term interest in climate change, waste management, energy production, the water cycle, and protecting the environment of our local area and further afield.

Like others in our local community, we were horrified when the previous NSW Government identified nearby Casino as one of only a few sites across the state where an energy-from-waste (EfW) facility would be permitted under its *Energy from Waste Infrastructure Plan*. Consultation on that plan was appallingly ill-timed, occurring as it did during the Northern Rivers' worst floods in living memory, which affected parts of Casino as well as Lismore, devastated all other towns in the Richmond Valley and isolated many rural areas for months. The EPA's decision to finalise that plan, without waiting until after the post-flood recovery could allow for meaningful engagement, demonstrated to us that the EPA is clearly not interested in listening to affected communities.

In this context, we provide the following comments in relation to each of the Committee's terms of reference:

1. **The performance of the technologies proposed for the Tarago and Parkes Energy Recovery Facilities as compared to leading thermal technologies employed in "state of the art" facilities internationally, noting such technologies as proposed are not employed anywhere else on the Eastern seaboard.**

   In 2022, the CVCC made a submission on the Environmental Impact Statement (EIS) for Veolia's proposed Tarago EfW facility, officially known as the "Woodlawn Advanced Energy Recovery Centre". As State Significant Development, the EIS was lengthy and supposedly a comprehensive description of the proposal, its potential impacts and the technology to be used.

   The CVCC objected to the Tarago proposal and identified there were numerous flaws in the documentation supporting the EIS, including the waste feedstock analysis and the greenhouse gas impact assessment. We urged the Department of Planning and Environment to **refuse** the proposal or, failing refusal, to seek further information before considering it any further.

The EPA's submission on the EIS (Bennett 2022) was also highly critical, pointing to a lack of information on:

- the nature of the waste proposed to be burnt, its treatment/processing and sorting before entering the incinerator, suggesting that non-compliant and/or radioactive waste may be delivered for thermal treatment at the facility
- the management of incinerator bottom ash, which may not meet the requirements for disposal as general solid waste, and so may not be suitable as cover material for the landfill cells at the Woodlawn site
- management of air pollution control residue (APCr), which is a hazardous waste stream
- design of the encapsulation cell for APCr disposal
- clarification on the design and configuration of the reference flue gas treatment system (Staffordshire, UK)
- the potential for air quality impacts.

Given the EPA had so many questions, and it has taken almost 3 years for Veolia to respond to submissions, we cannot be assured of the performance of the technology.

At least there is publicly available information on the technology proposed for Tarago. There is nothing other than glossy brochures available for Parkes.

2. The spread of emissions predicted and the quality of emissions to be generated.

The spread of air-borne emissions varies according to wind speed and direction, weather conditions, flue height above ground and terrain. We are aware that Community Against the Tarago Incinerator (CATTI) developed a plume plotting map using Veolia's own data for the proposed Tarago EfW facility.

We note that the NSW Chief Scientist and Engineer recommended strongly against any EfW facility being established in the Greater Sydney area, primarily on the basis of emissions adding to already poor air quality. This should not be an excuse to shift the problem of emissions to regional and rural areas.

The filters used to reduce the toxicity of emissions, creates another waste problem. APCr are a hazardous waste stream. The Rockingham EfW facility south of Perth is proposing to dispose of its APCr by trucking it through Perth to that city's only licensed hazardous waste facility, encapsulating the waste in solid concrete and then burying the concrete blocks in a separate lined landfill cell. An alternative would have been to truck it to the Goldfields where that state's only Class V waste facility exists.

The management of toxic APCr appears to ensure an ongoing need for secure landfill licensed to take hazardous waste.

3. Heath impacts from currently operating older technology waste incinerators as compared to the proposed newer technology.

It is true that, as people become aware of health impacts of industrial processes, improvements are made to reduce those impacts. As a result, we have laws and regulatory controls to limit toxic pollution and relevant international agreements (e.g. the Minamata Convention named for the city where release of methylmercury in industrial wastewater caused widespread neurological disease).

Incinerator age has been found to be a factor in the levels of dioxin in breast milk, presumably because newer incinerators were subject to better emissions controls (Tait et al. 2019). However, the review by Tait et al. (2019) concludes that there is insufficient evidence to conclude that newer incinerators are 'safe', just probably safer than older ones.

4. **Impacts on human health including on regional town drinking water, rainwater harvesting and soil contamination.**

   It is not just air quality that is affected by emissions. When the rain falls, those air-borne pollutants are trapped in water droplets that enter rainwater tanks, rivers and dams that provide people's water supplies. Or they are washed into the soil and affect crops.

   The health implications are clear. The CVCC understands 12 million people in and surrounding Paris, France, have been prohibited from eating their backyard produce as a result of contamination by persistent organic pollutants [POPs] attributed to emissions from waste incineration (Smith 2023).

   Tait et al. (2019) reported that there were several studies showing that people living in proximity to incinerators are more likely to have cancers, such as non-Hodgkin lymphoma, soft tissue sarcoma, and bowel, stomach, gallbladder, lung and pleural cancers.

5. **The impact on agriculture locally and across the wider region.**

   While the report by Smith (2023) focuses on backyard produce, presumably there are similar restrictions on agricultural produce being sold for human consumption. Tait et al. (2019) strongly recommend new incinerators should be located away from areas of food production, and complete avoidance of food grown near an incinerator. This obviously will have a significant adverse impact on any food-oriented agriculture in proximity to an EfW facility.

6. **Impacts of waste dumping over a number of decades in the Tarago region.**

   The CVCC will defer to local knowledge and experiences in relation to this point. CATTI has documented complaints of poor practices by Veolia in managing their Woodlawn landfill near Tarago, including odours described as an 'unbearable smell' (CATTI 2022).

7. **The methodology of emission monitoring employed by leading large scale waste-to-energy facilities in Australia and across the world.**

   The European Commission has published an industrial emissions directive outlining Best Available Techniques (BAT) for waste incineration (Neuwahl et al. 2019). BAT4 identifies continuous monitoring for only a selection of substances (including carbon monoxide, ammonia, sulphur dioxide and mercury), biannual monitoring for other metals, metalloids and Polybrominated Dibenzo-p-dioxins and Furans, and annual monitoring for nitrous oxide and benzopyrene. There have been widespread concerns that BAT5 provided no clear guidance on the monitoring of emissions during other than normal operating conditions (OTNOC) which may be associated with greater venting of toxic emissions. This regulatory gap has only been partially filled (Zero Waste Europe 2023).

8. **Alternative solutions to reduce and manage residual waste produced by Greater Sydney.**

   The CVCC is disappointed with the slow progress on improving waste management in Sydney. The diversion of organic waste from landfill in the Sydney region will only be introduced in 2030 – almost 2 decades after FOGO bins were introduced in the Clarence Valley.

   The CVCC is convinced that the correct order of waste management is reduce, re-use and recycle. At a tiny scale, the community on Lord Howe Island was leading the way in terms of minimising waste generation more than 20 years ago. Their incentive to do so, was the fact that their home was part of a world heritage property, listed in part due its superlative natural beauty. Disposing of waste on the island (or its surrounding waters that also form part of the world heritage area) was out of the question – anything that could not be composted on site needed to be shipped at great expense back to the mainland.

At a larger scale, the German city of Munich has committed to develop a strategy towards zero waste and a circular economy (McQuibban 2020).

There are a multiple of solutions to reduce residual waste, such as:

- encouraging recycling and re-use through waste separation
- banning single-use items like coffee cups, water bottles and shopping bags (whether made of paper, bamboo or plastic – they all generate waste!)
- extended producer responsibility for packaging and products
- introducing right-to-repair legislation, and encouraging establishment of repair workshops
- encouraging Sydney councils to introduce FOGO kerbside collection and composting sooner than 2030!

9. Any other related matter.

The CVCC strongly believes that EfW facilities:

- provide a contractual imperative for councils to continue to supply large volumes of waste to feed the furnaces of EfW facilities
- undermine moves to a more sustainable waste management future based on the actual resource recovery that is intrinsic to a circular economy
- add to greenhouse gas emissions, producing more carbon dioxide per unit of energy generated than the grid, contrary to the urgent need to reach carbon neutrality in this climate emergency
- produce air-borne dioxins and furans, compounds which are known to be highly toxic and cumulative with no safe limit
- generate a large volume of toxic ash residues that will still require disposal in landfill, equivalent to about a quarter of the weight of the waste burnt.

Waste incineration entrenches a linear economy in our society that relies on the extraction of virgin materials and rewards consumptive and wasteful lifestyle choices. A waste-to-energy incinerator is not an ecologically sustainable solution to Sydney's waste management. It is neither 'green' nor 'renewable'. Waste incinerators are a polluting, expensive and unsustainable technology that undermines zero waste strategies (such as recycling and composting) and stifles innovation in the waste management and energy sectors.

Burning resources and creating toxic pollution, whether for energy generation or waste disposal, makes no sense if we are serious about reducing greenhouse gas emissions and addressing climate change. For the amount of greenhouse pollution it will cause, it will produce very little energy.

Leonie Blain
Honorary Secretary.

30 October 2025.

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