Submission No 1

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Organisation: No Incinerator for Western Sydney (NIWS)

Date Received: 1 September 2025

SUBMISSION

SELECT COMMITTEE PARLIAMENTARY INQUIRY WASTE TO ENERGY INCINERATION

This submission is presented on behalf of NO INCINERATORS FOR WESTERN SYDNEY (NIWS) and responds to the various matters identified in the TERMS OF REFERENCE in sequence;

1 (a)

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

Whilst a direct comparison can be made in relation to Veolias' proposed incinerator at Tarago and its "state of the art" facility at its four ashes plant at Staffordshire in the UK despite some technical difficulties referenced by their consultant engineer, Ricardo Energy and Environment, it is not possible at this time to make a similar comparison in relation to Tribes proposal for Parkes due to the absence of any technical data and consultant engineers reports concerning this proposal.

See quoted extract from NIWS submission opposing Veolias' Tarago proposal. Quote: "The Energy from Waste Policy Statement requires a proponent that proposes to use non eligible waste feedstock, as is the case with this proposal, to nominate a reference facility.

The NSW EfW Policy Statement requires that: "*Energy recovery facilities must use technologies that are proven, well understood*

and capable of handling the expected variability and type of waste feedstock. This must be demonstrated through reference to fully operational plants using the same technologies and treating like waste streams in other similar jurisdictions

In appendix L Ricardo Energy and Environment found at 8.2 that "It is important to note that EfW plants operating within a similar regulatory environment in the UK and Europe are designed using BAT-C to the requirements of the IED and not the NSW EfW Policy and as a result the ultimate design requirements are not directly comparable. Therefore, potential reference plants are not currently available to benchmark against *all* the requirements of the NSW EfW Policy as the requirements on energy recovery facilities are different in other regions; notably, the Technical Requirements for emissions standards."

These findings therefore indicates that Veolia has not complied with all requirements of the NSW EFW Policy Statement as it is unable to do so." End quote.

As will be apparent from the abovementioned, comparisons are problematic, but in the case of the Tribe proposal for Parkes, literally impossible.

Despite these difficulties, however, a comprehensive analysis of proposed operational processes, once known, is able to be carried out, as has occurred with Veolia at Tarago. This has revealed significant departures from regulatory requirements resulting in a major amendment to the original DA.

This has raised concerns within NIWS as to why these regulatory matters were not required in the Secretarys' environmental assessment requirements (SEARS) and required to be addressed by the proponent in the EIS. DPHI have subsequently raised these matters with the applicant.

1(b)

the spread of the emissions predicted and the quality of emissions to be generated

Once again this is problematic due to the absence of reliable independent data or in the case of Parkes, no available data.

It is, however, known from international studies that atmospheric emissions from these plants can be spread over a wide area, particularly where local ambient conditions are conducive to a wide dispersion of incinerator emissions. Other contributing factors affecting emission spreads and quality relate to the currency of the plants APC technology and the adherence to regular maintenance regimes.

1(C) health impacts from currently operating older technology waste incinerators as compared to the proposed newer technology

The health impacts from the de- novo formation of known toxic chemicals arising from the operation of WTE incinerators is the same for both older and newer technology incinerators. These endocrine disrupting chemicals are known to cause both teratogenic and mutagenic harm in humans.
Whilst it is contended by the proponents of WTE incinerators that newer technology incinerators pose a lesser risk of these harms there is currently no empirical evidence to support these contentions.
These highly toxic bio- accumulative chemicals are emitted both atmospherically, through channelled stack emissions and through the disposal of air pollution control residues (APC_R) and fly ash.

1(d) impacts on human health including on regional town drinking water, rainwater harvesting and soil contamination

There are various epidemiological studies on the health impacts of exposures to these toxic chemicals, the most recent being quoted by the NSW Chief Scientist and Engineer (NSWCSE) in the final report of his review of Energy from Waste in NSW that being the recent systematic review of health impacts (Tait et al, 2020).
The impacts on regional town drinking water, whether that be by rain water harvesting or bore supplied are both susceptible to contamination by operational discharges from WTE incinerators either through aquifer contamination or from rain water collection from roof tops where emission deposits have occurred. Indeed the NSW CSE has recommended the avoidance of WTE incinerators in proximity to food production in his final report to the Minister (2023).

1(e) the impact on agriculture locally and across the wider region

The impacts on agriculture cannot be underestimated and may be quite catastrophic as evidenced in the various studies referred to in the (Jelinek et al reports 2024)[1]

Ref1

Jelinek_2024_Waste-Incineration.pdf

1(f) alterations to the Parkes Special Activation Precinct specifically in relation to the proposed Energy Recovery Facility in that region

Due to the lack of current data it is not therefore possible to comment on this matter, local commentary may be more relevant.

1(g) impacts of waste-dumping over a number of decades in the Tarago region

Due to the lack of current data it is not therefore possible to comment on this matter, local commentary may be more relevant.

1(h) the methodology of emission monitoring employed by leading large scale waste-to-energy facilities in Australia and across the world

At present there is not an operating WTE facility in Australia, there is, however, a facility at Kwinana WA that is currently undertaking plant commissioning phase of its approval process. Typically these WTE facilities would deploy emission monitoring systems in operation at international plants which take various forms, from portable gas monitoring systems, chemo- luminescence, infrared spectroscopy to laser particle detection and anolyte gathering techniques for some emitted substances.
The methodology of emission monitoring is critical to the dosing of chemicals that are intended to mitigate the hazardous nature of some emitted persistent organic pollutants.

1(i) alternative solutions to reduce and manage residual waste produced by Greater Sydney, and

NIWS is aware of less hazardous and more beneficial methods of managing the residual waste produced by Greater Sydney.
These methods have been deployed in California preceding the closure of its last remaining WTE incineration plant in November 2024.
NIWS has submitted these alternative methods to the EPAS' review of the Thermal Waste to Energy General Regulation 2022. (See below)

SUBMISSION RE: THERMAL ENERGY FROM WASTE GENERAL REGULATION 2022

This submission is presented on behalf of No Incinerator for Western Sydney (NIWS) and we welcome the opportunity to express our view in relation to the review of the Waste to Energy framework and the Thermal Energy from Waste general Regulation 2022

1. **Whilst we acknowledge the grounds for this review in examining options by which NSWs' residual waste problem following recovery of recyclable materials should be managed we are of the view that incineration is by far the least acceptable environmentally sound solution. Moreover, we are of the view that the grounds relied upon in initiating this review by the EPA are questionable in that the reasons advanced for the review were known to the reviewer at the time of promulgating the Thermal Energy from Waste Regulation 2022 which is now sought to be amended. This we believe is at the behest of the Waste Industry and the direction of the Minister and not solely for the reasons advanced by the NSW EPA.**
2. **The problems with incineration are considerable as is evidenced by the extensive worldwide attempts to successfully regulate this industry. The irreversible destruction of resources, the problematic issue of managing residual operational wastes such as the highly toxic air pollution control residues, the exposure of sensitive receptors to bio accumulative emissions. The inability of regulatory authorities to maintain consistent compliance with regulatory standards. These views held by NIWS are further supported by a recent study and referenced research into the many and varied negative impacts of large scale WTE incineration (see referenced Jelinek et al reports "Waste Incineration and the Environment) This research clearly establishes beyond any**

reasonable doubt that modern WTE incinerators utilising the latest combustion and air pollution control technology are incapable of operating in full compliance of regulatory emissions limits during all periods of operation.

3. **NIWS is of the view that a more environmentally acceptable and less hazardous option should be examined in the alternative. We raise this alternative in response to what we regard as alternative relaxed regulatory measures proposed by this industry**
4. **The option to which we refer is the application of anaerobic digestion for which current technology and systems are proven and available.**
5. **These systems produce syngas for combustion in a gas engine for the generation of electricity, digestate for land improvement application and are not considered to produce toxic emissions or hazardous by-products.**
6. **NIWS shall now respond to your proposed variations to the Regulation in the order they are presented;**
7. **The first being the precinct changes. As is evident from our submission NIWS does not support WTE incineration throughout NSW, therefore any tinkering with precinct locations is unacceptable, indeed the "principles for location" are highly questionable given the choice of the Southern Goulburn/Mulwaree precinct situated within the Sydney drinking water catchment is beyond comprehension. Similar comments could be made in respect of your proposal to include Wallerawang being added to the West Lithgow precinct given its proximity to the Fish and Cox rivers systems catchment. Your proposal assumes 100% containment of all toxic emissions releases from any subsequent WTE facility**

including PFAS emissions. The dichotomy in its' application to regional and metropolitan communities is such that it is inherently unjust.

8. **The EPA has not provided a draft of the changes proposed for clause 142 of the regulation and therefore we believe it imprudent to comment on what appears to be little more than a blank cheque for the industry. Should a draft clause be provided we would of course respond.**
9. **NIWS submits similar comments abovementioned in para 8 in relation to clause 144 (4) of the regulation.**

References: Jelinek_2024_Waste-Incineration.pdf

These methods coupled with an effective Extended Producer Responsibility (EPR) regime to deal with non bio - degradable waste streams are being adopted in the US as a more environmentally sensitive means of managing residual waste streams.

1(j) any other related matter

The following information on Californias' recently commissioned Anaerobic Digester is provided via the below link to assist the Select Committee in its understanding of this technology.

https://jrma.com/projectsdetails/cr-r-environmental-center-ad-facility

CR&R_Project_Profile_Californian largest a

NIWS further notes the submission of the Goulburn / Mulwarree Council 27th November 2024 to the Legislative Council inquiry into PFAS contamination in waterways and drinking water supplies throughout NSW. Select Committee members should be aware that WTE incineration is a known source of PFAS emissions. Whilst the Goulburn Council expressed their concern about the costs and depletion of resources to effect the remediation of these PFAS pollutants NIWS has in the past advocated for the "principle of polluter pays" and to that end we believe that greater emphasis should be placed on securing financial assurances from developers of WTE facilities pursuant to Part 9.4 of the POEO ACT1997 to meet these costs arising from the operation of polluting WTE infrastructure developments. Similar provisions are required in some EU States under their closure, rehabilitation and maintenance plans (CRAMP) for site closure and rehabilitation.

Colin J Bosworth – Treasurer
NIWS
1st September 2025