Submission
No 304

# INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

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**Submission to the NSW Legislative Council Select Committee on Proposed Energy from Waste Facilities**

**Opposing the proposed Energy-from-Waste (EfW) facility in Parkes**

From: Jacob Cass - A former Parkes Shire Councillor and resident of Parkes.

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**Executive summary**

I oppose the proposed Parkes Energy-from-Waste (EfW) facility on public-interest, governance and evidence-based health and environmental grounds. My position aligns with the Committee's Terms of Reference (ToR) and rests on three core concerns:

1. **Process and consultation** – Residents were not meaningfully consulted before the NSW Government advanced the project to market, and councillors during the NSW tender period were not given a full account of the project's history and previous dealings between the former Council and NSW Government. As a Councillor, we were not updated on the tender process outside of being informed that three tenderers had submitted. We knew that the tender process had ran over its timeframe but were given no explanation as to why, what issues there were with tenders or how these would be rectified. The Regional Growth NSW Development Corporation (RDGC) called for expressions of interest in December 2020, and Council was excluded from the tender panel; only later did limited information sessions occur (Parkes Shire Council, 2025). As a Councillor, I asked for updates, as did other Councillors, including Cr Webber and Cr Wilson. When asked, we were told that Council had not received any updates on the tender process. This lack of consultation with the elected representatives of the community was felt even more keenly by those who received no opportunities to consult with RDGC before the tender process began.
2. **Health, environmental, and agricultural risk –** While modern EfW plants emit less than older facilities, peer-reviewed literature remains mixed and inconclusive for newer plants and highlights unresolved uncertainties (Negri et al., 2020; Bottini et al., 2025). Moreover, key pollutants (e.g., ultrafine particles and dioxins/furans) remain difficult to monitor continuously and can deposit to soils and biota, with potential implications for regional town water/rainwater harvesting and agriculture (Buonanno & Morawska, 2015; European Commission, 2019; Xu et al., 2009).
3. **Strategic fit and alternatives –** The Parkes Special Activation Precinct (SAP) was framed to host an "Eco-Industrial Park," including EfW "only on land west of Coopers Road," adjacent to intensive livestock agriculture (NSW Government,

2019, pp. 46–47, 83). This co-location heightens risk pathways for deposition to agricultural land and food chains and therefore warrants a precautionary approach under ToR (d) and (e). Credible, peer-reviewed alternatives (advanced sorting, mechanical-biological treatment, and anaerobic digestion of organics) exist and can reduce Sydney's residual waste without exposing Parkes to the long-lived risk profile of a metropolitan-scale incinerator (Montejo et al., 2013; Dastjerdi et al., 2021; Gadaleta et al., 2022; Jayawickrama et al., 2024).

The Committee's ToR (a)–(j) invite a comprehensive assessment across technology, emissions, health, agriculture, Parkes SAP planning context, monitoring methodology and alternatives. I address each in turn.

**1. Context and ToR alignment**

The Committee has been asked to examine: technology performance (ToR a); emissions spread and quality (b); health impacts (c, d); agricultural impacts (e); alterations to the Parkes SAP (f); emissions monitoring methodology (h); and alternatives for Greater Sydney's residual waste (i), along with related matters (j) (NSW Legislative Council, 2025).

Parkes Council's own submission to this Inquiry records persistent community concern and requests for independent assessment via the Independent Planning Commission and extended exhibition (Parkes Shire Council, 2025).  NSW Member for Orange Phil Donato, who released a mailout survey on the proposal, has stated that he has received over 800 responses, of which 70% oppose the facility in Parkes.

This underscores the need for a reset of the process and for rigorous, independent scrutiny.

**2. Process and consultation (ToR j)**

As a former councillor, it is my firm view that Parkes residents were not adequately consulted before the project went to tender, and councillors were not provided with the full history of discussions between the former Council and the NSW Government prior to or during the tender process. Documentary records show the NSW Government progressed the EfW concept inside the SAP from at least 2019; the State then called for EfW expressions of interest in December 2020, with Council excluded from the tender panel (Parkes Shire Council, 2025). As a Councillor, I, along with Cr Wilson and Cr Webber, requested numerous updates on the project and the tender from RDGC, only to be told that Parkes Council had received none. Despite the tender process running over, and two of the tender proponents merging before being awarded the tender, we received no update on why this occurred and what the benefit of this process being expanded were.

Although a public information session was held in August 2022, that was long after market engagement began, limiting the community's opportunity to shape foundational choices (Parkes Shire Council, 2025). As an attendee at this information session and the RDGC session run on the SAP project in general, no additional information was provided around the project, safeguards, scope, or timeframes.

The EPA has emphasised that extensive consultation occurs at the Environmental Impact Statement (EIS) stage and that an EPL would include continuous monitoring for many pollutants (NSW EPA, 2025). Yet the EIS stage consultation occurs after key decisions (e.g., technology selection and siting) are effectively baked in, undermining social licence for a project of this scale. There were promises made to Parkes Shire Council that RDGC would undertake an information campaign for the community, but this was never conducted.

**3. Technology performance (ToR a) and emissions (ToR b)**

Peer-reviewed syntheses distinguish older from "last-generation" incinerators, noting major emission reductions over time but also scarce and methodologically limited evidence for modern plants (Negri et al., 2020). The 2025 systematic review by Bottini et al. similarly updates risk estimates and reinforces that uncertainty remains for newer facilities and specific endpoints (Bottini et al., 2025).

**Ultrafine particles (UFP, <100 nm)** are not regulated by mass-based standards and remain challenging to characterise. Reviews find limited but concerning data on UFP number emissions from modern plants; bag filters help but do not eliminate potential downwind exposure (Buonanno & Morawska, 2015; Jones & Harrison, 2016). Given UFP's ability to penetrate deep into the lung and translocate systemically, this is not a trivial unknown for a regional host community.

**Dioxins/furans (PCDD/Fs)**: EU Best Available Techniques (BAT) conclusions require strengthened controls and long-term sampling for PCDD/Fs, yet continuous real-time measurement is not technically available; monitoring typically relies on periodic (short-term) or long-term sampling systems that may miss short-duration peaks and Other Than Normal Operating Conditions (OTNOC) events (European Commission, 2019; EEB, 2019; Gasmet, 2024). These monitoring limitations directly affect our confidence in the predicted quality and dispersion of emissions.

It is worth noting that Parkes receives westerly weather fronts, while initial testing for this site was conducted on the eastern side of the township, where the Bureau of Meteorology weather station is positioned. This does not give an accurate representation of the project's impact on the township when mapping particle spread from the facility.

**4. Health impacts: older vs proposed newer technology (ToR c) and human health pathways including water/soil (ToR d)**

Evidence from older plants often shows elevated risks for some cancers and adverse reproductive outcomes (Franchini et al., 2004; Porta et al., 2009; Vinti et al., 2021). For modern plants, Negri et al. (2020) concluded that data are limited; although overall cancer excesses are not consistently observed, methodological weaknesses and the scarcity of studies mean that uncertainty persists and additional monitoring is required (Negri et al., 2020). An updated systematic review (Bottini et al., 2025) likewise underscores that evidence is evolving and emphasises the need for rigorous exposure assessment and study design.

Crucially for Parkes, exposure is not limited to stack inhalation. International studies reveal that PCDD/Fs and heavy metals can deposit onto soils and vegetation in the vicinity of incinerators, with potential entry into food chains (Xu et al., 2009; Mari et al., 2008; Meng et al., 2016). The combination of rainwater harvesting by households and regional agriculture increases the relevance of deposition pathways for human health and produce quality. Even where average concentrations meet regulatory limits, short-term spikes during OTNOC may not be captured by periodic sampling, leaving risk characterisation incomplete (European Commission, 2019; EEB, 2019).

When examining the potential health risks of this facility, it is important to note the limited medical facilities available to the Parkes community. Parkes Hospital, although less than a decade old, is not equipped to manage potential health impacts from an Energy-from-Waste facility. The limited number of general practitioners within the Shire, combined with long wait times for appointments and the scarcity of visiting specialists, restricts early diagnosis and management of long-term or complex illnesses. This lack of local specialist medical services means residents would likely need to travel significant distances for diagnosis and treatment, adding further financial, physical, and emotional stress on individuals and families already coping with serious health concerns (Gregory, 2021).

**5. Agricultural impacts (ToR e)**

The Parkes SAP deliberately co-locates the Resource Recovery + Recycling sub-precinct (including "energy from waste including incineration… only on land west of Coopers Road") next to intensive livestock/agri-business areas, with maps showing the EfW site immediately south of the Sydney-Perth rail and adjacent to proposed abattoir and agricultural activities (NSW Government, 2019, pp. 46–47, 83–84).

From a risk perspective, this spatial adjacency heightens concern about deposition to soils, forage, and water reuse schemes, especially given that dioxins and certain metals bioaccumulate and are regulated in animal products in export markets. International monitoring programs have documented PCDD/F declines around modern facilities, but also variability and the need for robust, long-term surveillance of soils, plants, eggs and milk (Vilavert et al., 2012; González et al., 2019). In short, agriculture in the Parkes region is a strength to be protected, not a risk receptor.

When the original masterplan for the SAP, including an EfW site, was conducted, the DA for the now operational pet food factory located in the SAP had not yet been lodged. The potential for contamination is high on this site.

**6. Alterations to the Parkes Special Activation Precinct (ToR f)**

The SAP structure plan positions EfW as a "national-scale" plant within an "Eco-Industrial Park," connected to rail for importing waste and exporting electricity/heat; it is sited away from town to reduce air, noise, and odour impacts (NSW Government, 2019, pp. 46–47).

At the same time, the Council landfill precinct is explicitly not proposed for EfW, highlighting the State-level decision to use a new locus for waste importation and treatment (NSW Government, 2019, p. 49).

Given the SAP's original promise to Parkes, agricultural value-adding and circular-economy industries, introducing a metropolitan-scale incinerator substantially alters the precinct's risk profile and the community's perception that Parkes is being positioned as Sydney's waste sink. This change has never enjoyed social licence in Parkes and was pursued without early, substantive community co-design. (Parkes Shire Council, 2025).

Although waste and its disposal are issues for all communities, the perceived risks for this project fall entirely on the residents of the Parkes Shire, with only the benefit being a handful of jobs post-construction and a per-tonne fee paid to the Parkes Shire Council for waste entering the Shire. When did we put a price on human health? No amount of money is worth the potential risk to my community.

**7. Emissions monitoring methodology (ToR h)**

The EPA has assured that many pollutants will be continuously monitored and that proposals must comply with the EPA's EfW Policy Statement (NSW EPA, 2025).

However, neither NSW nor EU practice involves truly continuous real-time monitoring of dioxins/furans. EU BAT introduced long-term sampling and enhanced requirements, but guidance recognises challenges, especially during OTNOC (European Commission, 2019; CEWEP/EEB briefings, 2019). Moreover, expert workshops emphasise the need for risk-based OTNOC management and targeted sampling during start-up/shut-down when emissions can spike (CEWEP, 2019; ESWET, 2019).

**Recommendation**: If the project proceeds to any assessment stage, Parkes should require: (i) continuous ambient monitoring (PM2.5, $NO_2$, $SO_2$, HCl, HF, $NH_3$, Hg) with live public data; (ii) long-term stack and ambient sampling for PCDD/Fs and dioxin-like PCBs; (iii) a sentinel agricultural monitoring program (soil, forage, eggs/milk) with independently managed laboratories; and (iv) legally enforceable OTNOC protocols that include automatic shutdown thresholds and public reporting.

It is not good enough that a fine be issued by the government, payable to the government, after the community has already suffered the adverse effects of an OTNOC event.

**8. Alternatives for Greater Sydney's residual waste (ToR i)**

Peer-reviewed LCAs demonstrate that diversion-first systems, universal FOGO, advanced sorting, and mechanical-biological treatment (MBT) with anaerobic digestion (AD) for organics, can significantly reduce residuals requiring treatment while delivering climate and health co-benefits (Montejo et al., 2013; Edwards et al., 2018; Paritosh et al., 2018; Jayawickrama et al., 2024).

For NSW specifically, Dastjerdi et al. (2021) compared residual-waste scenarios and found that combinations emphasising source-separated organics treatment and material recovery reduced environmental burdens relative to straight incineration scenarios (Science of the Total Environment; Sustainability). The NSW Waste and Sustainable Materials Strategy 2041 likewise points to the need to drive down residuals and build recycling and organics capacity, not just disposal capacity (NSW EPA, 2021).

**Practical pathway**: Sydney can (i) mandate universal FOGO, (ii) expand advanced MRFs and MBT for residuals with strict fuel quality standards, (iii) scale AD for organics to deliver renewable gas and digestate managed to agronomic standards, and (iv) improve producer responsibility to reduce plastics that otherwise elevate EfW carbon intensity. These measures reduce the demand for long-haul waste shipments and safeguard Parkes from becoming a de facto disposal hub.

Make Sydney's waste problem a Sydney-based solution. Why should a rural community bear the burden of risk when there are other options? Yes, these options are more work for Sydney residents and the government, but they put the responsibility back on the people causing the problem.

**9. Recommendations to the Committee (cross-cutting ToR)**

1. **Recommend against approving** an EfW facility in Parkes on the present record, due to unresolved uncertainties around health, agricultural deposition pathways, and the absence of demonstrated social licence.
2. **Process integrity**: If any assessment proceeds, refer the project ab initio to the Independent Planning Commission and require an exhibition period of at least

8 weeks, consistent with the concerns already raised to the Government (Parkes Shire Council, 2025).

3. **Monitoring uplift**: Mandate the enhanced monitoring package in Section 7 and require open data and independent funding/oversight mechanisms.
4. **Alternatives first**: Direct NSW agencies to implement diversion-first infrastructure for Greater Sydney (FOGO, MBT, AD, advanced sorting) before contemplating remote incineration, consistent with peer-reviewed LCA findings and the NSW Strategy (Montejo et al., 2013; Dastjerdi et al., 2021; NSW EPA, 2021).
5. **Parkes SAP integrity**: Re-examine SAP land-use controls to remove EfW from the Resource Recovery + Recycling sub-precinct or, at a minimum, apply a precautionary prohibition pending independent evidence that agricultural risks can be ruled out (NSW Government, 2019, pp. 46–47, 83–84).

**Closing statement**

Parkes has always been a community built on trust, hard work, and the belief that our best future is one we build together. The decisions we make today will shape the safety, health, and prosperity of future generations. This proposal has shown me one simple truth: when the community is left out of the conversation, we risk losing the very heart of what makes Parkes special. It all adds up. The mantra of our destination strategy includes the people, their health, and their futures

We deserve industries that grow opportunity, not uncertainty. We deserve clean air, safe water, and meaningful jobs that our children can build their lives around. The people of Parkes have proven time and again that we can innovate, collaborate, and thrive when we are heard and respected.

This isn't about being against progress; it's about demanding *the right kind* of progress, progress that protects what matters most. And together, we can build a future that's safe, strong, and worthy of the place we all call home.

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Thank you for considering this submission.