Submission No 417

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Name: Mrs Rachelle Trudgett

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Submission to the Parliamentary Inquiry into Proposed Energy from Waste Facilities in Regional New South Wales

Submitted by: Rachelle Trudgett
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Resident Parkes NSW
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Rachelle Trudgett

Introduction:

I have lived near Goobang National Park for over a decade and have come to deeply appreciate both the natural beauty and the strong community spirit that define Parkes, NSW. This region is more than a place to live, it's an example of how progress and peaceful rural living can coexist. Parkes is already a forward-thinking, "state-of-the-art" town that continues to evolve while preserving the calmness, safety, and sense of connection that make country life so valuable, its priceless.

Before learning of the proposed waste-to-energy (WtE) incinerator, my family and I had invested emotionally and financially in our future here. We purchased property about 40 km from Parkes and intended to establish a small business. Our decision to relocate was made in good faith, guided by trust in the region's long-term safety and sustainability, an ideal place to raise our children and live close to the land.

That confidence has now been shaken. The government's long-concealed plans for an industrial incinerator have placed our future on hold and created deep uncertainty. The proposal feels profoundly out of step with the community's values. The possibility that we and many others may lose the life we've built and envisioned, through industrial pollution, toxic residues, or the erosion of rural identity is distressing and unjust.

My submission is not against progress, but in defence of genuine progress: development that protects public health, preserves community character, and meets the world's best environmental standards. Parkes deserves investment that reflects the care, innovation, and integrity its residents already demonstrate, not a project that risks undermining those very qualities.

If this project proceeds, Parkes residents will shoulder the environmental and social burden of a development offering little to no local benefit. We face the likelihood of reduced air quality, devalued property, and displacement. Regional communities must not be treated as collateral for metropolitan waste policy. Our wellbeing deserves equal weight to the interests of private proponents and city waste producers.

I have devoted significant time to researching WtE technologies, their emissions, and global health impacts. The scientific evidence of harm is extensive and accessible. The key question is whether these facts will be acted upon, or disregarded as they have been so far despite significant evidence of their long-term implications it will have on us and our environment for the next 40 years.

When Blacktown residents opposed a similar proposal, they invested millions to ensure it was stopped. The Minister for the Environment, Penny Sharpe, also opposed an incinerator in Western Sydney. Evidence any opposition has put forward should be considered and I respectfully reaffirm that same evidence and position for all of regional NSW.

The contrast between urban and regional life could not be clearer. As the old fable *The City Mouse and the Country Mouse* reminds us, some choose to live amid congestion and concrete, while others, like those of us in Parkes, choose space, clean air, and connection to nature and each other. We should not be punished for seeking and enjoying a different way of life to those in the city.

It is deeply troubling that, after years of selling off critical public assets, our electricity, water, and essential services, the very air we breathe now seems negotiable. This proposal is not a solution; it is a transfer of risk and harm from the city to the regions.

Community opposition has been met with dismissiveness and, at times, hostility, even the signs opposing the incinerator have been vandalised. Such conduct highlights the lack of transparency and social licence underpinning this project.

Australia's environment has already suffered severe contamination, from PFAS to heavy metals, the list goes on, only now are scientists making progress in remediation, yet this project would introduce an entirely new and preventable source of pollution. If the incinerator proceeds, where are we expected to go to find unpoisoned soil, clean water, and breathable air? What we are defending is not luxury, but a basic human need: the need for clean air.

WtE incineration generates complex, persistent toxins when plastics, lead, lithium batteries, and other hazardous materials are burned. These substances do not vanish they reappear as pollutants in air, soil, and water, with long-term health consequences.
To knowingly add to Australia's toxic burden at this time is irresponsible and short-sighted. We deserve better governance, genuine consultation, and policies that protect, not gamble, with the health and future of regional communities.

I have addressed the Terms of Reference:
(a) (b) (h) (i) (j)

(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

The Committee should treat the "state-of-the-art" claim as a technical assertion that requires independent verification. Until the data is provided and independently verified, the Committee should be cautious about accepting "state-of-the-art" claims at face value.
Evidence needs to be presented and independently verified, claims that these projects represent *"state-of-the-art"* technology should be treated as unsubstantiated marketing language rather than a proven technical fact. True *state-of-the-art* facilities are distinguished not by the age of their combustion design but by their emissions performance, transparency, and lifecycle environmental outcomes.

Where is the demonstrable, long-term reference data that exists for the exact equipment and operating regime proposed?
My understanding is that neither of the Parkes nor Tarago proponents have published detailed engineering data, long-term emissions results, or independent verification demonstrating that their proposed configurations meet or exceed the benchmarks of worlds best practice. The combustion design, flue-gas treatment, APCr handling, monitoring and transparency.

Community reports also note that the Parkes design is based on a combustion package used in the Kwinana and East Rockingham plants in Western Australia, while the Tarago proposal utilises conventional combustion similar to older European installations. These are not novel nor demonstrably superior thermal systems so if one system is better than the other why are all the incinerators being designed differently?

Recommended Committee Actions

NSW assessment practices need to be in alignment with international best-practice standards and ensure that if any energy-recovery facility operated in the state does so with full public accountability, proven environmental safeguards, and verifiable performance data.

(b) the spread of the emissions predicted and the quality of emissions to be generated

During my research I have found a total lack of transparency in design and emission controls. No proposed facility has yet provided full, publicly accessible design documentation or emission-control schematics. Without clear disclosure of the combustion process, flue-gas treatment sequence, and how toxic residues are handled, the community cannot assess the true health and environmental risks. If the design and controls cannot withstand full public review, the technology should not be permitted.

There is currently no enforceable guarantee that real-time emissions monitoring including particulate matter, NOx, SO_2, HCl, heavy metals, and dioxins/furans, will be continuous and publicly accessible at all times. Without fully transparent continuous emissions monitoring (CEMS), residents cannot be protected or informed of exposure risks. Any project lacking real-time, public data should be rejected.

There is no verified emission data from identical plants operating for several years under Australian conditions. Without at least three years of continuous performance data demonstrating compliance, the claim that emissions will remain safe is unsubstantiated. Communities should not be used as test sites for unproven or imported technology.

The Committee should require Parkes Energy Recovery to provide full, independently verified reference-plant performance and emissions data (hourly CEMS and long-term trend data) from the exact technology package proposed and consider the facts that even with modern stack controls, EfW plants emit trace dioxins/furans etc, posing chronic health risks.

I am concerned of the current failure to guarantee compliance with International Health Standards, unless operators can prove that stack-emission limits will consistently outperform the European Union's *Best Available Techniques (BAT) Associated Emission Levels (AEL 2022)*, the proposal cannot be considered safe or modern. If meeting these international benchmarks is not achievable in practice, it confirms that such incinerators are not suitable for NSW.

The combination of transport, emissions, and ash handling disproportionately affects regional populations who did not generate the waste.

The Parkes WtE proposal would emit 90,000–480,000 tCO_2e/yr, depending on the assumptions for energy recovery efficiency, plus rail emissions. By comparison, modern landfills in NSW with gas capture emit 90,000–150,000 tCO_2e/yr for the same volume.

WtE is not necessarily a climate solution in NSW. When factoring rail transport, any modest climate benefit can be easily eroded, making landfill with improved gas capture or alternative waste diversion a potentially better short- and medium-term solution.

References:

- NSW EPA (2022). Energy from Waste Policy Statement.
- European Commission JRC (2022). Best Available Techniques Reference Document for Waste Incineration.
- CSIRO (2024). Air Quality and Health Impacts in Regional NSW.
- World Health Organization (2023). Waste Incineration and Health Risks.
- UK DEFRA (2021). Energy Recovery Facilities Review.

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

The very requirement for intensive emission monitoring itself demonstrates that waste-to-energy incineration cannot be regarded as inherently safe. Continuous and periodic monitoring are not preventive measures; they are detection measures, instruments that confirm contamination after it has occurred.

In practice, this means monitoring does not stop pollution; it only measures it. By the time a monitor detects elevated toxins, those emissions have already been released into the air, soil, and water, and potentially entered the food chain.
Once dioxins or heavy metals are dispersed, no remedial action can reverse their accumulation in the environment or their biomagnification through crops, livestock, and human tissues.

In New South Wales, the Environmental Protection Authority (EPA) traditionally acts after the fact, upon receipt of exceedance reports or community complaints. Enforcement usually follows exposure, not prevention. This reactive model is fundamentally incompatible with substances such as dioxins, mercury, and PFAS-related compounds, which have no safe threshold and persist for decades.
When monitoring results indicate contamination, what practical corrective options exist? Stopping the incinerator for a day or replacing filters cannot remove persistent toxins already deposited across surrounding farmland. There is no "clean-up" for dioxins in soil or our entire food chain; only containment and loss of agricultural confidence.

Absence of contingency planning ("Plan B")

No publicly available documentation outlines what will occur if emission monitoring systems fail, or if consistent exceedances are detected.

- What is the fallback plan if CEMS equipment malfunctions, or if an analysis confirms dioxin levels above safe limits?
- Will the facility be immediately shut down? It emits greater emissions when shut down so how does that even work?
- Who compensates affected landholders, growers, or processors if contamination is detected in crops or livestock?
- What emergency containment or product-recall mechanisms are in place?
- What happens when there is a fire in the Goobang National Park and ash is flying everywhere, how is the stored waste protected?

Without a fully developed contingency framework, the reliance on monitoring becomes a false reassurance rather than a safety guarantee.
Modern instrumentation can detect problems, but only strong policy can prevent them and NSW currently lacks both the infrastructure and governance for rapid, precautionary shutdowns so the strong policy needs to be a NO to Waste to Energy Incineration in regional NSW.

Ethical responsibility and precautionary governance

To proceed with a technology that requires continuous toxic-emission surveillance, without a pre-defined emergency response plan, is ethically unsound. It transfers the risk burden from the operator to the community and to future generations. A credible environmental protection regime must act before exposure occurs, not monitor it as it happens.
Monitoring is not proof of safety. It is proof that risk is ever-present.

(i) alternative solutions to reduce and manage residual waste

produced by Greater Sydney, and

Better alternatives exist, enhanced sorting, categorising, recycling, FOGO programs, circular economy innovation, and landfill mining can achieve environmental, social, and economic objectives more safely and cost-effectively than WtE.
Incineration often provides only short-term waste reduction while generating long-term liabilities.

Evidence from other regions, communities that have opposed WtE facilities, including Blacktown and parts of Western Sydney and now the Parkes clean air alliance? have clearly and repeatedly demonstrated that investment in recycling and organics diversion produces better long-term outcomes without the associated environmental and social harms.

Current waste management policies often place the onus on individuals to reduce waste. However, studies indicate that 80–90% of residual municipal waste consists of materials designed and supplied by producers, including single-use packaging and non-recyclable composites (NSW EPA, Local Government Waste Data 2023). This underscores the need for systemic interventions that address the root causes of waste generation.

Recommendations:

The government can effectively reduce residual waste, protect regional communities, and foster a truly sustainable circular economy, without exposing residents to the long-term harms associated with incineration:

1. Enhanced Organic Diversion

Investment in regional composting and anaerobic digestion facilities to process food and garden waste.

Returning nutrients to agricultural land rather than sending organic materials to landfill or incineration.

- **Topsoil Organics (Forbes, NSW)**: This company is expanding its composting facility with a new 50,000-tonne-per-year anaerobic digestion (AD) plant. This expansion aims to process organic waste more efficiently, producing biogas and compost while reducing greenhouse gas emissions.
- **Biosolids Composting by Australian Native Landscapes**: Operating nine horticultural product manufacturing facilities across New South Wales and Victoria, this company processes green waste, wood waste, and biosolids into compost, contributing to organic waste diversion and soil health.

2. Support for Recycling and Reprocessing Industries

Financial incentives, grants, and guaranteed procurement for recycled materials to strengthen domestic recycling capacity.

Expansion of infrastructure for plastics, metals, and glass to reduce reliance on overseas processing.

- **iQRenew and Recycling Plastics Australia**: These companies are scaling mechanical recycling plants, supported by the Recycling Modernisation Fund (RMF). They are expanding Australia's capacity to sort, process, and remanufacture plastics, aiming to reduce reliance on virgin materials and enhance recycling rates.
- **Samsara Eco**: An Australian environmental tech startup that has developed an enzymatic process to recycle mixed plastics, including nylon 6, into reusable materials. With over $150 million in funding, Samsara is building an innovation hub in Canberra to advance its recycling technologies.

3. Implementation of Extended Producer Responsibility (EPR) and Packaging Reform

Improved and increased mandated reductions in single-use packaging and requirements for products to be recyclable or compostable.

Extended Producer Responsibility (EPR) **Australian Packaging Covenant Organisation (APCO)**: APCO is leading the implementation of EPR schemes and eco-modulated fees in Australia's packaging system. These reforms aim to hold producers accountable for the lifecycle of their packaging, encouraging design for recyclability and reduction of single-use plastics.

- **SIG's Recyclable Wine Packaging**: In partnership with Australian winemakers, SIG has developed the country's first fully recyclable bag-in-box wine packaging. This initiative aligns with sustainability goals by reducing packaging waste and promoting recyclability.
- **NSW Plastics Action Plan & Waste and Sustainable Materials Strategy 2041 (NSW EPA)** NSW's plan, outcomes and details of Circular Materials Fund and other funding measures.
- **Packaging stewardship / product stewardship & EPR powers (NSW EPA pages)** overview of how NSW law can deploy product stewardship/EPR and the EPA's role.
- **APCO National Packaging Targets and reform activity** industry/government targets and APCO's role in transition to circular packaging. apco.org.au
- **Circular Materials Fund Circular Plastics Program (NSW EPA guidelines)** shows existing NSW funding targeted at plastics/circular materials and how it is administered. A precedent for ring-fenced manufacturing funds.

4. Bans and Phase-Outs of Hazardous Chemicals

Prohibiting the use of PFAS and other persistent toxic substances in consumer products to prevent contamination of soil, water, and air.

- Australia's PFAS Ban: Effective 1 July 2025, Australia has prohibited the manufacture, import, export, and use of specific per- and polyfluoroalkyl substances (PFAS), including PFOS, PFOA, and PFHxS. This regulatory measure is intended to reduce environmental contamination and protect human health from these persistent and bio accumulative chemicals.

However, further action is required. Additional PFAS compounds should be reviewed and phased out to prevent ongoing contamination. Legislation must also ensure that banned PFAS are not simply replaced with alternative chemicals of equivalent or unknown toxicity, which could perpetuate environmental and health risks especially in a waste to energy incinerator context.
Robust regulatory oversight, transparency, and independent scientific assessment are essential to guarantee that replacement substances are genuinely safer and do not undermine the objectives of the ban.

5. Promotion of Reuse, Repair, and Circular Design

Supporting community repair hubs, refill stations, and product-sharing initiatives to keep materials in circulation.

Encouraging manufacturers to design products for longevity, repairability, and recyclability.

- **Resource Recovery Australia (RRA)**: RRA focuses on community engagement through reuse, repair, and education initiatives. Their programs help councils build more connected and sustainable communities by promoting resourcefulness and creativity.

- **Australian Repair Network**: This network brings together stakeholders interested in the repair sector, advocating for legislative and policy changes to support the right to repair movement and reduce waste.

6. Regulation of High-Emissions Industries

Requiring fossil fuel, petrochemical, and other polluting sectors to implement emissions reductions and waste minimisation measures.

Incentivising innovation in sustainable materials and industrial processes.

NSW collects hundreds of millions of dollars annually through the Waste and Environment Levy. Currently, my understanding is that much of this revenue is absorbed into consolidated revenue rather than reinvested into circular economy innovation. Earmarking even a modest percentage of levy funds could convert the waste levy from a penalty into a productive reinvestment mechanism:

- Support research grants for recyclable, compostable, or low-toxicity material design
- Co-fund pilot facilities for material recovery, bio-based plastics, enzyme recycling, or chemical depolymerisation
- Create Circular Economy Innovation Zones in regional manufacturing hubs such as Orange, linking local universities, TAFEs, and manufacturers.
- Climate Change Authority's Sector Pathways Review: The review outlines strategies for reducing emissions in the industry and waste sectors, including the implementation of low-carbon fuels and circular design principles. These measures aim to decrease reliance on fossil fuels and mitigate environmental impacts.

7. Investment in Circular Economy Innovation

Funding research into advanced recycling technologies, circular economy solutions, and local manufacturing using recovered materials.
Public awareness campaigns to encourage waste reduction and responsible consumption at the household and business level.

- **Circular Economy Innovation Fund (Victoria)**: This fund supports collaborative projects between businesses, industry groups, charities, and research institutions to advance circular economy practices. Funded through the Recycling Victoria policy, these projects aim to reduce waste and promote sustainable resource use.
- **CSIRO's 'Innovate to Grow' Program**: CSIRO's program assists small and medium-sized enterprises (SMEs) in the recycling and circular economy sectors by providing resources to advance their research and development goals, fostering innovation in sustainable practices.

By adopting more of these measures, the government can effectively reduce residual waste, protect regional communities, and foster a truly sustainable circular economy without exposing residents to the long-term harms associated with incineration.

8. Opportunities for Government to Incentivise Innovation

A key barrier to transitioning from waste-to-energy incineration toward sustainable, circular manufacturing is the lack of clear, transparent funding information on research and development in advanced recycling technologies and the use of recovered materials. While the NSW Government has publicly committed significant resources under the Waste and Sustainable Materials Strategy, the exact allocation for research, innovation, and local manufacturing using recovered materials is not clearly disclosed in the 2025 budget or supporting documentation.

The EPA page states that from July 2022, the NSW Government is investing $356 million to deliver priority programs and reforms under the NSW Waste and Sustainable Materials Strategy 2041 and the NSW Plastics Action Plan. however, there is no clear delineation of how much of the $356 million (or other budget lines) is dedicated to manufacturing using recovered materials rather than broader waste & materials strategy implementation.

This lack of transparency raises important concerns. Stakeholders, including local communities, industry, and farmers, cannot see how much funding is directed toward circular economy initiatives and material innovation so it is difficult to evaluate the government's commitment to finding alternatives to incineration.
Without a clear picture of investment priorities, there is a risk that the strategy remains heavily weighted toward waste disposal technologies rather than preventive and regenerative solutions that create economic and environmental value.

Recommendations:

The committee should recommend that the NSW Government:

1. Publish a transparent budget schedule with a dedicated budget line specifically for "Research, Manufacturing and Best Use of Recovered Materials," detailing:
    - Annual funding amounts;
    - Program objectives and outcomes;
    - Implementation timelines;
    - Responsible agencies and partner institutions.

2. Ensure that this funding is transparent, measurable, and auditable, so that progress toward circular economy objectives can be independently tracked and assessed by stakeholders. Providing a clear, dedicated funding allocation will enhance accountability and public trust, encourage private-sector innovation, and signal that the state is genuinely committed to reducing residual waste through circular, sustainable industrial processes rather than relying on high-risk disposal methods such as incineration.

3. Instead of exporting waste to regional NSW, uphold stringent systemic measures for extended producer responsibility (EPR) schemes to hold manufacturers accountable for the full lifecycle of their products, enforce eco-design mandates, and packaging take-back obligations will significantly reduce waste volumes before collection, benefiting both urban and regional communities.

(j) any other related matter

1. Enforceable Responsibility and Consequence Framework- Assurance of Accountability and Legal Recourse

There must be clear, legally enforceable accountability measures ensuring that if harm is caused to the community, those responsible, whether individuals, professionals, corporate entities, or approving authorities including individuals in government, are held fully liable. Binding guarantees must be established so that personal, professional, and corporate consequences are not only possible but inevitable where fault is found. The community deserves assurance that accountability will extend beyond written promises to real, enforceable action against those whose decisions or negligence result in harm.

2. Insurance issues

- Studies indicate there can be health impacts for people living near a poorly managed incinerator: e.g., heightened risks of respiratory issues, cardiovascular problems and other longer-term concerns.
  https://www.sciencedirect.com/science/article/pii/S132602002300732X

- The proposed facility near Parkes has raised health and property value concerns from locals. The incinerator in Parkes is proposed, not yet operational, so its full impact on health, environment, property values are not yet reflected in insurer models.

- If property values drop significantly in the local market (due to perceived health/environment risk), then rebuild or replacement values might change, which can influence insurance underwriting.
- If the incinerator site becomes associated with greater risk of environmental damage, contamination or liability (e.g., fly-ash, emissions, heavy metals) and insurers consider the local area as higher risk, then premiums could increase, or cover might exclude certain events and if an insurer re-underwrites or decides to withdraw cover in the area (because they consider the risk too high) the community will face higher excesses, special conditions, or be forced to seek alternative cover.
- If there are recognised elevated health risks, and a cluster of claims or a declared public health issue emerges, insurers might reassess risk across the region.
- Where personal liability or property cover links to environmental or contamination risk, some insurers may include pollutant-exclusion clauses or require disclosures (as seen for asbestos). https://www.asbestossafety.gov.au/asbestos-and-insurance
- How will the risk profile of this area change? Will premiums go up because of new industrial developments?

3. Ethical Responsibility and National Security Risks

Approving a network of Waste-to-Energy incinerators without fully addressing the ethical and national-security implications would be dangerous and reckless. These are not benign municipal facilities: they concentrate hazardous materials, specialised combustion systems, emissions controls, and toxic residues at fixed sites. If ownership, operation, or critical control systems are placed under foreign investment or third-party control, Australia would be creating strategic vulnerabilities that could be exploited in times of geopolitical tension or conflict.

It is not alarmism to point out that industrial infrastructure can be repurposed, disrupted, or weaponised by hostile actors, whether by denial of service (shutting facilities down), sabotage, cyber-attack on monitoring and control systems, or deliberate contamination that renders land and water unusable. Any scenario in which control of these facilities is external to Australian democratic oversight places communities, food production, and environmental safety at unacceptable risk.

Ethically, we cannot outsource decisions that affect the survival, health and environmental inheritance of our communities. approving infrastructure that creates concentration points of toxic materials and transfers meaningful operational control to foreign or unaccountable interests would fail the obligation to prevent foreseeable risks. To proceed without iron-clad legal guarantees including national ownership or veto over critical systems, enforceable prohibitions on foreign control of operations and data, immediate national emergency takeover powers, and independent, public oversight of all safety and monitoring data would be a dereliction of duty.

Government policy should not allow WtE projects that reduce Australia's sovereign control over hazardous infrastructure.

Conclusion:

Every submission you receive tries to make clear the serious concerns, evidence, and solutions that must not be ignored. The science is not hidden, it is freely available, consistent, and conclusive. Proven pathways exist to deliver safer, cleaner, and more sustainable outcomes for NSW.

Just because everyone else is doing it, does not make it a good idea! We don't need to follow others down the wrong path just because they went first, NSW can and should choose better.

The facts are evident and are before this Parliamentary Inquiry. The real test is whether the committee will look away and allow new harmful industry in NSW or confront the evidence with integrity and act in the best interests of our communities, our environment, and the future of this state.