

Submission  
No 995

**INQUIRY INTO PROPOSED ENERGY FROM WASTE  
FACILITIES**

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Partially  
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# Submission to the NSW Legislative Council: Support for the Parkes Energy Recovery Facility

## 1. Executive Summary

This submission supports the development of the Parkes Energy Recovery Facility (PERF) as a scientifically sound, environmentally regulated, and economically strategic solution to New South Wales' residual waste management challenge. The facility, proposed within the Parkes Special Activation Precinct, represents the application of world-class energy recovery technology consistent with the NSW Environment Protection Authority (EPA) Energy from Waste Policy Statement (2021)<sup>1</sup> and the recommendations of the NSW Chief Scientist and Engineer's independent review<sup>2</sup>. The project will enable responsible diversion of non-recyclable waste from landfill, generate baseload renewable energy, and enhance regional economic development while operating within strict environmental and health safeguards.

## 2. Introduction – Parkes' Regional Context

Parkes has long been a hub of scientific, industrial, and agricultural innovation in regional New South Wales. From its early mining heritage and manufacturing base to its current role as a major logistics node within the Inland Rail corridor, the town has consistently adapted to technological change. The Parkes Radio Telescope, operated by the CSIRO, stands as an enduring symbol of regional scientific excellence and environmental stewardship. The establishment of the Parkes Special Activation Precinct (SAP) continues this legacy by encouraging sustainable industry, resource recovery, and low-emission innovation.

The Parkes Energy Recovery Facility aligns with these regional strengths. By converting non-recyclable residual waste into energy through controlled combustion and recovery processes, the facility offers an evidence-based, regulated, and environmentally preferable alternative to landfill disposal.

## 3. The Need for Energy Recovery in NSW

New South Wales faces ongoing challenges in managing municipal solid waste and commercial and industrial residuals. Despite the state's strong recycling initiatives, approximately one-third of waste remains non-recyclable<sup>3</sup>. Without energy recovery, this material would continue to generate methane emissions in landfill environments — a greenhouse gas with a global warming potential approximately 28 times that of carbon dioxide<sup>4</sup>.

The NSW Government's Waste and Sustainable Materials Strategy 2041 identifies energy recovery as an essential component of the circular economy hierarchy, sitting above landfill disposal and below recycling<sup>5</sup>. The PERF directly supports these objectives by providing an advanced, clean, and regulated process for extracting energy from waste that would otherwise be lost.

#### **4. Technology Overview and International Precedent**

The Parkes Energy Recovery Facility will utilise a proven moving grate combustion system supplied by Kanadevia Inova (KVI), a company with extensive international experience in the design, construction, and operation of energy-from-waste facilities. The process involves the thermal oxidation of non-recyclable waste at high temperatures, the recovery of energy as steam and electricity, and the safe capture and treatment of emissions.

Such systems have been in continuous use for decades across Europe and Asia, where more than 500 similar plants operate under the stringent emission standards of the European Union's Industrial Emissions Directive 2010/75/EU<sup>6</sup>. These facilities demonstrate reliable performance, minimal environmental impact, and measurable contributions to landfill diversion and clean energy generation.

#### **5. Environmental and Health Safeguards**

The NSW EPA's Energy from Waste Policy Statement sets emission limits equal to or more stringent than those required under the EU Industrial Emissions Directive. For example, the limit for dioxins and furans is 0.1 nanograms per cubic metre, identical to the EU benchmark<sup>7</sup>. Continuous Emissions Monitoring Systems (CEMS) will record stack gases for key parameters including nitrogen oxides, carbon monoxide, sulphur dioxide, hydrogen chloride, particulates, and volatile organic compounds.

Independent testing will verify compliance through periodic analysis of heavy metals, mercury, cadmium, and thallium emissions. Data will be provided to the EPA and made available to the public. These regulatory controls, combined with advanced filtration systems such as fabric filters, lime scrubbers, and activated carbon injection, ensure that emissions remain well below health-based standards.

The NSW Chief Scientist and Engineer's independent review (2020) concluded that modern energy-from-waste technologies, when properly regulated and monitored, pose negligible risk to public health<sup>8</sup>. Similarly, international assessments by the World Health Organization and the European Environment Agency confirm that facilities operating within best-practice emission limits do not contribute significantly to local air, soil, or water contamination<sup>9</sup>.

#### **6. Economic and Regional Benefits**

The PERF will deliver substantial economic benefits to Parkes and the Central West region. During construction, the project is expected to create approximately 400 jobs, followed by 50 ongoing operational positions once commissioned<sup>10</sup>. The facility will inject significant investment—estimated at \$1.5 billion—into the regional economy, while stimulating secondary industries related to maintenance, logistics, and materials recovery.

The project also complements the infrastructure objectives of the Parkes Special Activation Precinct, supporting local energy resilience and offering a baseload supply of approximately 60 MW. This aligns with NSW's broader energy transition objectives by displacing fossil fuel

generation and providing a consistent complement to intermittent renewables such as solar and wind.

The Parkes community needs these jobs to assist in maintaining an effective bustling community. With the impact of the bypass yet to be fully realized, impending closure or downgrading of production at Northparkes mine could exacerbate the rural downturn that the Special Activation Precincts were designed to better.

## 7. Addressing Community Concerns

Concerns have been raised regarding potential impacts on agriculture, air quality, and water resources. These issues have been rigorously addressed in both the EPA's regulatory framework and international peer-reviewed research. Studies conducted around modern European energy recovery facilities show that concentrations of dioxins and heavy metals in surrounding soils, crops, and livestock are typically indistinguishable from natural background levels<sup>12</sup>. It is also more than likely that through the infrequent burning off of on agricultural land, fires at the current land-fill waste centre, and the desire for some locals to incinerate their own rubbish, smoke etc, that they will be more than likely in a day to inhale more dioxins than a year's worth from the incinerator.

The dispersion of emissions is governed by atmospheric modelling and controlled through strict stack height and operating conditions. At ground level, it is noted that predicted concentrations are several orders of magnitude below health-based ambient air quality criteria established by the World Health Organization<sup>13</sup>. The facility's wastewater systems will be fully contained, preventing discharge to local waterways.

Community concerns do seem to be driven partly by the influence of Toxics Free Australia, particularly through the advocacy of Jane Bremmer who has used older studies from previous installations using non-current technology to spread alarm.

## 8. Conclusion

The Parkes Energy Recovery Facility represents a responsible, scientifically grounded, and economically significant step towards a sustainable circular economy in New South Wales. Supported by world-best-practice emission standards, continuous monitoring, and independent oversight, the facility aligns fully with state policy, environmental protection objectives, and the long-term prosperity of Parkes and the Central West.

## References

1. NSW Environment Protection Authority (EPA). (2021). Energy from Waste Policy Statement.
2. NSW Chief Scientist and Engineer. (2020). Independent Review of Energy from Waste in NSW.
3. NSW EPA. (2022). Waste and Resource Recovery Data Report.
4. Intergovernmental Panel on Climate Change (IPCC). (2021). Sixth Assessment Report.
5. NSW Department of Planning, Industry and Environment. (2021). Waste and Sustainable Materials Strategy 2041.

6. European Union. (2010). Directive 2010/75/EU on Industrial Emissions (Integrated Pollution Prevention and Control).
7. NSW EPA. (2021). Energy from Waste Policy Statement – Table 1 Emission Limit Values.
8. NSW Chief Scientist and Engineer. (2020). Independent Review of Energy from Waste in NSW – Key Findings.
9. World Health Organization (WHO). (2016). Review of Evidence on Health Aspects of Air Pollution.
10. Tribe Infrastructure Group. (2025). Parkes Energy Recovery Project Overview.
11. Regional Growth NSW Development Corporation. (2025). Parkes Special Activation Precinct Fact Sheet.
12. European Environment Agency (EEA). (2020). Impacts of Waste-to-Energy on the Environment and Health.
13. WHO. (2021). Ambient (Outdoor) Air Pollution: Health Impact Assessment Guidelines.
14. NSW Department of Planning, Housing and Infrastructure (DPHI). (2025). Environmental Impact Statement Guidelines for EfW Projects.