Submission
No 228

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Organisation: Parkes Energy Recovery

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Parkes Energy Recovery

Parkes Energy Recovery submission to the NSW Parliamentary Inquiry into proposed energy-from-waste facilities

Executive summary

Energy-from-Waste (EfW) has a safe and proven role to play in contributing to a circular economy and supporting the transition away from landfill. That role is recognised in policies established by the NSW Government, such as the *Waste Avoidance and Resource Recovery Act 2001*, and reinforced in more recent documents, including the first chapter of the *NSW Waste and Circular Infrastructure Plan*, published in October 2025.

Realising the value of this technology relies on best-practice development of the infrastructure, supported by leading technology providers and long-term relationships with hosting communities.

In pursuing the development of an EfW facility in the Parkes Special Activation Precinct (SAP), Parkes Energy Recovery is committed to delivering on those priorities.

As we progress the first stages of this development, we recognise that, while this technology is safely used in thousands of facilities worldwide, it is new to Australia and to NSW. As such, Parkes Energy Recovery is pleased to support the work of the Committee in interrogating energy from waste's role, its value, and how concerns can be addressed at every level.

We're pleased to have the opportunity to build wider awareness of the challenges facing waste management and resource recovery, provide an opportunity for science to be shared and questions to be answered, and for us as developers to demonstrate our commitment to establishing infrastructure that will have a net positive impact on local communities and the state as a whole.

Background

In December 2024, Parkes Energy Recovery – a consortium led by Tribe Infrastructure Group (Tribe) – was selected by the NSW Government to develop, build, own, and operate an EfW facility in Parkes.

The consortium comprises companies with local and global expertise in waste management, EfW and infrastructure. Parkes Energy Recovery is also working with Kanadevia Inova (KVI) for the reference technology being used to design the facility.

Together, Parkes Energy Recovery brings together global best practice and local insight to help deliver a more sustainable future for NSW.

Parkes Energy Recovery will receive and process residual waste for the purpose of energy generation via thermal treatment. This material will comprise Municipal Solid Waste (MSW) –red bin waste – and Commercial and Industrial (C&I) waste from businesses and organisations. Much of this waste will be transported from Greater Sydney via rail, while waste from Parkes and the Central West will be delivered by truck.

In March 2025, Parkes Energy Recovery was introduced to the community as the developer for the earmarked EfW facility and commenced its permitting process and community engagement.

In the subsequent seven months, Parkes Energy Recovery has progressed its planning and approval processes, with its Scoping Report due to be submitted to the NSW Department of Planning, Housing and Infrastructure (DPHI) imminently, while building engagement, awareness and relationships in the Parkes region.

The problem

NSW creates about one-third of Australia's total waste. It's expected we'll be generating 37 million tonnes per annum by 2030 – nearly double what is produced today. Of that waste, material that can't be recycled or reused – known as residual waste – is also rising. In 2022-2023, NSW disposed of 7.7 million tonnes of waste to landfill.

In chapter one of the EPA's *NSW Waste and Circular Infrastructure Plan*[1], the Minister for the Environment, the Hon. Penny Sharpe, MLC clearly sets out the challenge ahead of us:

> *"NSW has a waste and recycling crisis. If we don't act now – by building new infrastructure and driving down our residual waste – red bins will not be able to be collected in Sydney and parts of regional NSW by 2030."*

Many attempts have been made to recycle or recover more from our red bin waste. One such example is Mechanical Biological Treatment processing facilities, built at great expense, which have failed to deliver due to contamination issues and an inability to genuinely recover more than a small fraction of the input material.

With poor recovery rates, and many other failed attempts worldwide, the technology to recycle or recover significantly greater proportions of residual waste on an economically viable basis does not yet exist.

The waste crisis will come with acute consequences unless urgent action is taken to avoid it. The consequences are wide-ranging and include households and businesses paying higher waste management costs; a greater risk of illegal dumping and environmental harm; and delays to building critical infrastructure such as new housing.[2]

The solution

In addressing the state's complex waste crisis, Parkes Energy Recovery supports all efforts and investments to avoid, reduce and reuse waste wherever possible.

However, with rising populations and living standards, residual waste challenges will persist and new solutions are required to adequately address this whole-of-government issue. Parkes Energy Recovery is set to be a key feature of sustainable waste infrastructure to meet this need in NSW.

[1] Accessed 24 October 2025 from https://www.epa.nsw.gov.au/sites/default/files/2025-09/25p4616-nsw-waste-and-circular-infrastructure-plan.pdf
[2] Accessed 7 October 2025 from https://www.epa.nsw.gov.au/Working-together/Community-engagement/updates-on-issues/Sydney-landfill-shortage - :~:text=NSW is on the cusp,unless urgent action is taken.

In a circular economy, EfW is recognised as a higher order waste management solution to landfill, recognising the environmental benefits it delivers by diverting waste from landfill, reducing greenhouse gas emissions from landfill, and generating baseload energy.

Parkes Energy Recovery will support more sustainable management of residual waste in NSW and the Parkes region and be a catalyst for economic growth in regional NSW.

Parkes Energy Recovery will deliver real local, regional and state benefits, including by:

- Creating around 400 local, direct jobs during construction and 50 permanent local jobs for the 40-year life of the facility.
- Generating approximately 70 megawatts (MW) of baseload electricity, which can be used to power other commercial and industrial sites within the Parkes SAP, as well as businesses and homes within Parkes and surrounding areas.
- Delivering over $1 million per year to support communities and businesses in the area via a Voluntary Planning Agreement (VPA) with Regional Growth NSW Development Corporation (RGDC).
- Supporting millions of dollars annually in local spend as the project is developed and operated.

Alignment with NSW government policies

In Chapter 1 of the *NSW Waste and Circular Infrastructure Plan*, Minister Sharpe notes that the NSW Government will work with industries and local councils to:

> *"enable energy from waste, where doing so will reduce reliance on landfill, build resilience in waste management, and maintain protections for human health and the environment."*[3]

Parkes Energy Recovery's demonstrated capability to meet these requirements drove the NSW Government to select the consortium to deliver this critical piece of essential services infrastructure for NSW.

Parkes Energy Recovery delivers on the NSW Government's energy from waste policy, including:

- **Chapter 1 of the NSW Waste and Circular Infrastructure Plan.** This Plan identifies EfW as a solution to reducing reliance on landfill and building a resilient waste management system in NSW.
- **The NSW Waste and Sustainable Materials Strategy 2041: Stage 1 2021 – 2027.** The Strategy recommends at least one large-scale regional energy recovery facility by 2030, and at least three large-scale energy recovery facilities by 2040 to manage residual waste needs in NSW.
- **The Master Plan for the Parkes SAP.** An EfW facility has been included in the Master Plan for the Parkes SAP from the outset.

Current phase of development

Parkes Energy Recovery is at the first stage of the planning and approvals process, which will begin with its Scoping Report to be submitted to the Department of Planning, Housing and

[3] Accessed 24 October 2025 from https://www.epa.nsw.gov.au/sites/default/files/2025-09/25p4616-nsw-waste-and-circular-infrastructure-plan.pdf

Infrastructure (DPHI). Following receipt from DPHI of the Secretary's Environmental Assessment Requirements (SEARs), Parkes Energy Recovery will complete the necessary studies and submit its Environmental Impact Statement (EIS) to DPHI in 2026.

In preparing its EIS, Parkes Energy Recovery is wholly committed to taking a best-practice, conservative approach to consider long-term, cumulative impacts, as well as 'worst-case' scenarios. This approach enables Parkes Energy Recovery to provide the community, the NSW EPA, and the State Government with assurance of the facility's safety and compatibility with surrounding land uses now and into the future.

As Parkes Energy Recovery pursues its development application, we're considering both anticipated EPA and Government expectations, as well as issues we know to be of most importance to the community.

As such, Parkes Energy Recovery will conduct detailed assessments on air quality, human health, agricultural risk, noise, traffic and transport, biodiversity and landscape, social and economic impacts, water quality and water use, soil and sustainability. In doing so, we aim to address the feedback we have heard and provide site-specific data and evidence to substantiate the facility as proposed.

Terms of Reference

Below we address the Inquiry's Terms of Reference in relation to emissions, human health, and agriculture.

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

Parkes Energy Recovery is undertaking a comprehensive air quality assessment to explore emissions, potential impact, and mitigation measures. This is being done recognising that the site is in an area primarily characterised by agricultural land use, where ambient air may be affected by activities such as cropping and grazing, and where pollution may be particularly detrimental to livelihoods.

Prior to Parkes Energy Recovery's involvement, in July 2019, the Parkes SAP Master Plan Air Quality and Odour Assessment analysed the impact of potential air pollutants arising from future land use of the Parkes SAP. This assessment demonstrated that the inclusion of a best-practice EfW facility in the Parkes SAP would not lead to any exceedance of relevant limits.

To test these findings and build on this evidence base, Parkes Energy Recovery is conducting additional air quality assessments in line with relevant NSW and international legislation and policies and is designing its proposal to incorporate best practice air quality management infrastructure.

In particular, our assessments adhere to the *NSW Energy from Waste Policy Statement*, and European Union standards, which represent global best-practice when it comes to controlling and measuring emissions from EfW technologies. This includes the European IPPC Bureau's '*Industrial Emissions Directive*', Best Available Technology (BAT) Reference Document for Waste Incineration.

These assessments are analysing the types and spread of emissions generated by the proposed facility, evaluating the potential effects of key pollutants and informing the facility's design.

The assessment is being conducted in line with relevant NSW guidelines, policies, and legislation. This includes the NSW Energy from Waste framework, the *Protection of the Environment Operations (Clean Air) Regulation 2010*, and the NSW Environment Protection Authority's (NSW EPA's) approved methods for the modelling and assessment of air pollutants.

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

Parkes Energy Recovery prioritises human health and environmental protection when considering the development of this facility.

The team working on Parkes Energy Recovery has direct experience working on or near to these facilities internationally, and understands the importance of implementing proven, reliable, best-available technologies. The technology being proposed for Parkes has been demonstrated to be safe in hundreds of locations around the world.

To demonstrate safety in the context of regional NSW, Parkes Energy Recovery is developing a detailed human health assessment, which will follow principles outlined in the Environmental Health Standing Committee's (enHealth's) *Environmental Health Risk Assessment: Guidelines for Assessing Human Health Risks from Environmental Hazards* (enHealth, 2012).

This report is assessing the character of the receiving environment, including land uses and sensitive receptors, character of potential pollutants and any associated health risks, impacts to agricultural land use including livestock, crops and soil, and any other health risks.

We are also acutely aware of the importance of water quality and water usage in regional NSW. The proposed facility would consume approximately 0.4ML net of water per day, or 150ML net per year. Whilst modest in comparison with mining or agricultural users, we are focused on ensuring this water requirement does not affect town water supply – even in times of drought. We will establish a water treatment plant on-site to support our closed-loop water capture and recycling system. Our facility will have zero discharge of water to the surrounding environment.

Details of water quality and water usage will be included in a water impact assessment being developed as part of the EIS.

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

Since the announcement of Parkes Energy Recovery in March 2025, we have heard community feedback regarding potential impact to agricultural land in the Parkes region, and we understand our responsibility in protecting this land and the sector.

Modern energy from waste technology has been proven to operate safely in close proximity to agricultural and food production regions worldwide. Parkes Energy Recovery will bring the same proven technology to our proposed facility in Parkes.

To ensure we understand the local context and site-specific data, a comprehensive agricultural risk study is being developed as part of the EIS. This will consider direct risk to agricultural land, as well as possible impacts to livestock or through absorption into crops. Evidence from this study will be available to the community through the DPHI's public exhibition of the EIS.

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

Parkes Energy Recovery is using reference technology from Kanadevia Inova (KVI) in the design and development of the facility.

KVI is the world-leader in EfW technology. Its technology is operating in hundreds of facilities across the world and KVI is constructing new facilities in dozens of locations in the UK, Europe and the Middle East.

In developing the methodology for emission monitoring, Parkes Energy Recovery is considering the emission monitoring from facilities of similar scale and design. The Parkes Energy Recovery facility will also adhere to any conditions set by the NSW Government should the facility receive approval.

Emissions monitoring for Parkes Energy Recovery will include:

- Fitting a multi-stage air pollution control system referred to as 'scrubbing' to remove and neutralise pollutants before the flue gas leaves the stack.
- Embedding a continuous emissions monitoring system into the facility, which will monitor all emissions from the facility stack in real time.
- Publishing emissions data from the facility on an ongoing basis for the duration of the facility's life.
- Adhering to any additional monitoring conditions required by EPA NSW.

(j) any other related matters

Parkes Energy Recovery wishes to express its firm belief that if these facilities cannot be proven to be safe in NSW, they should not be built anywhere.

As outlined in this submission, Parkes Energy Recovery is taking a comprehensive, best-practice approach to designing its proposed facility, with a core focus on bringing the latest, proven technology to regional NSW.

Parkes Energy Recovery recognises and supports the NSW Government in setting some of the world's strictest regulations, and we are committed to meeting and beating these.

Parkes Energy Recovery Facility will be designed and operated in accordance with international best practice, consistent with the performance standards set out in the EU *Industrial Emissions Directive (2010/75/EU)* and the associated *Best Available Techniques (BAT) Reference Document for Waste Incineration* (2019).

Project views formed to date have largely been based on information from other sources or separate facilities, rather than the site-specific data that will come through the EIS process. As such, we implore the Committee to recognise that when safety is proven through this process, the environmental and economic benefits these facilities can bring to regional NSW must not be overlooked.

Community Engagement

Parkes Energy Recovery is actively and deeply involved in stakeholder and community consultations. Since March 2025, Parkes Energy Recovery has undertaken a range of engagement activities to ensure informed understandings of EfW and to answer stakeholders' questions in relation to the project.

These activities have included direct briefings, meetings, and open forums to lower barriers to entry and encourage participation from all interested parties. These activities have focused on introducing Parkes Energy Recovery, the consortium behind the project, and the proposed EfW technology.

Engagement activities undertaken so far have included:

- Direct meetings and briefings with each layer of government, including members of the Parkes Shire Council and Forbes Shire Council; members of the NSW Parliament; and members of the Federal Parliament.
- Facilitating open community forums, including through drop-in sessions; electronic direct mail; and written information and updates, including comprehensive questions and answers (Q&As) and fact sheets.
- Engaging with Aboriginal Peoples — including the Peak Hill Local Aboriginal Land Council, the Parkes Aboriginal Working Party, and the leadership of the Wiradjuri Council of Elders — to ensure culturally informed consultation and meaningful participation.
- Maintaining a dedicated Parkes Energy Recovery website (parkesenergy.com.au), phone line and email address to provide a hub of up-to-date and accurate information and liaise with the community.
- Sharing information from the reference technology provider to ensure technical information is provided to the community.
- Engaging with local, state, and national media to provide accurate information about Parkes Energy Recovery.
- Taking a stall at the Parkes Show, getting information out into the community.

The depth of this engagement to date is demonstrable:

- Over 275 attendees at a Parkes Energy Recovery drop-in session hosted at the Cooke Park Pavillion in Parkes. This session ran for three days, from Thursday, 10 April to Saturday, 12 April 2025.
- Over 100 emails and Q&As provided to interested community members, as well as detailed fact sheets. These include information about the proposed EfW technology, the timeline for Parkes Energy Recovery, and air quality and emissions.
- A comprehensive Q&A responding to 117 questions posed by the community, all available on the Parkes Energy Recovery website.
- Over 250 subscribers to the Parkes Energy Recovery mailing list receiving monthly updates as we develop the project.

Parkes Energy Recovery is committed to maintaining open and accessible communication with interested community members and stakeholders. Parkes Energy Recovery will undertake further engagement during the EIS phase, which will include:

- Hosting a stall at local Shows and other community events.
- A letterbox drop to the Parkes community when our EIS goes on exhibition.
- Establishing a Community Information Centre in Parkes as an accessible point of contact.
- Continuing to distribute written information and updates through the mailing list and website.
- Hosting webinars and further information sessions in the lead-up to and during public exhibition of the EIS, featuring experts on EfW technology to outline key technical aspects of the project and to answer questions.
- Maintaining our phoneline and website.
- Providing updated information, fact sheets and summaries of technical information.

If the proposal is approved, stakeholder and community consultation will continue during the construction and operation of Parkes Energy Recovery.