

**Submission
No 620**

INQUIRY INTO PROPOSED ENERGY FROM WASTE FACILITIES

Organisation: EMCrfi Consultancy

Date Received: 27 October 2025

SUBMISSION TO THE NSW INQUIRY INTO ENERGY FROM WASTE

I'm Erik Lensson. Thank you for the opportunity to contribute to the work of the Select Committee. Noting the Inquiry Terms of Reference (ToR, **Ref.1**), this submission is on behalf of the EMCrfi Consultancy (ABN: 26 7836 816 60), a Parkes based business providing professional engineering research services. I am conversant with, *inter alia*, physics, materials science, advanced statistics and complex systems engineering. Complemented by extensive senior management roles at national science facilities, federal regulatory agencies and the ADF. And extensive experience in public policy development; national & international legislation, standards & regulation including representing the Australian Government at treaty level.

Comments against the Terms of Reference (ToR):

- 1. ToR (a. Performance & 'state-of-the-art'):** Noting the lack of details about the Parkes Energy Recovery (PER) consortium's specific technology & performance information; the many 'handballs' in the PER released documentation to the EPA; the inhomogeneity and lack of pre-filtering of the waste stream prior to incineration – I would not consider the PER proposed facility to meet the inquiry criteria as representing international 'state-of-the-art'. No doubt the performance will be better than any existing Australian incinerator, but this is hardly a challenge, as there are few such small-scale old incinerator plants operating, with most already shut down for health reasons (Toowoomba, QLD) or outright rejected (Parkes, NSW) in the past.
- 2. ToR (b. Emission quality):** Noting the lack of PER detail on emissions (ie. PER 'handballed' to the EPA) and in the absence of the 'Parkes *Environmental Impact Statement*' (EIS) it is difficult to make specific comments emission quality relating to the proposed Parkes waste incineration facility. But let's take it that the proposed plant meets basic EU incinerator criteria for emissions compliance. The PER publicly¹ stated operating temperature for the facility is 850°C. Operating temperatures for general municipal waste incinerators typically range from 850° to 1200°C, depending upon the kind of waste and its design environment. For example, medical and industrial incinerators may operate at even higher temperatures. Therefore, the standard type (850°C) incinerator proposed for Parkes, leads to concerns over incomplete combustion (**Ref. 2**) - especially considering the rudimentary consumer based 'red bin' sorting, the resulting variability of moisture, content toxicity and lack of substantive waste stream prefiltering prior to incineration, it should be considered unsafe², inefficient and environmentally unsound (**Ref. 3**). Again, the proposed plant fails to meet inquiry ToR criteria 1.a in respect of emissions performance & international 'state-of-the-art'.
- 3. ToR (b. Emission spread):** The town centre of Parkes lies only about 7 kilometres almost due East from 'ground zero', the incinerator stack. The entire town population is effectively contained within a primary fallout zone of less than 10km radius from EfW. The area immediately surrounding the proposed incinerator stack and wider Central West Region also includes prime farming land. The NSW Central West winds are predominantly **westerly**, especially during winter, influenced by the general high-pressure systems that move across southern Australia³. These winds are often strong and can briefly turn north or north-westerly as a high-pressure system moves away into

¹ PER 'Business Engagement Opportunity' forum, Parkes Services Club, 7th May 2025.

² In effect, based on the 'GIGO' (garbage-in-garbage-out) principle.

³ https://www.dpi.nsw.gov.au/data/assets/pdf_file/0004/139999/what-drives-nsw-weather.pdf

the Tasman Sea. Thus the SW-NW prevailing winds blow incinerator emissions straight into town and beyond. The town lies on the higher ground between EfW and Parkes Airport, about 6km further East, on roughly the same heading the airport(**Fig.1**).

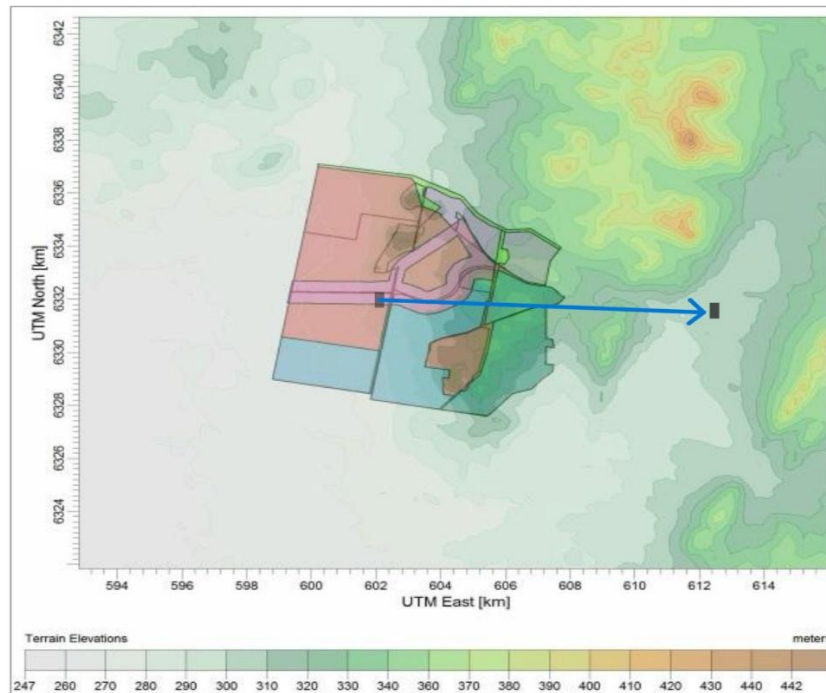


Figure 6.1 Topography surrounding Parkes SAP

Fig.1 The SAP overlaid with terrain – arrow points to Parkes Airport (YPKS)⁴.

The NSW Government Master Plan ‘Air Quality and Odour Assessment’ (**Ref.4**) in section 6.3 ‘Wind Speed and Direction’, asserts that the prevailing wind direction in Parkes is from the North-East, including ‘wind roses’ incorrectly suggesting that EfW emissions will blow away from Parkes township for much of the time. The assertion is based on data sourced from the BoM aviation weather monitoring station located at the Parkes Airport⁵. However, it is based on the (false) premise that the surface winds at the BoM aviation services monitoring site (elevation 322m AMSL) are equivalent to the winds aloft (~290m + 70m = 360m) at the EfW stack – thirteen kilometres away from the EfW site.

The prevailing winds at the EfW site and Parkes township are NOT the same as the (surface) winds measured the at Parkes Airport. The township itself lies on the foothills of the Goobang Range which effectively separates the airport surface wind patterns from the prevailing westerly wind patterns on the western (EfW) side.

As any pilot knows, real time knowledge of airport surface winds are very important for aviation safety – especially for regular passenger transport (RPT) services like the daily commercial flights by REX, as well as other commercial and private operations. But winds aloft differ from surface winds which are strongly influenced by terrain.

⁴ Image source: Parkes – ‘Design for a Better Future—Air Quality and Odour’ Masterplan (**Ref. 4**).

⁵ <https://www.bom.gov.au/aviation/>

Considering:

- (a) the location of the proposed EfW facility on the western side of the Parkes township, its site elevation (~290m) and height (70m) of the proposed emission stack (ie. 360m AMSL)
- (b) that the prevailing wind direction on the western side of the Goobang Range and its foothills are dominated by westerly winds;
- (c) the location of the Parkes township upon the foothills of the Goobang Ranges, with average terrain elevations, ranging about 340 - 380 metre and some peaks at East Parkes (eg. Memorial Hill) around 400 metres;
- (d) that its incorrect to assume that surface winds on the eastern side of the Goobang Range and its foothills are the same as the prevailing winds western side, noting that Parkes Airport (elevation 322m) lies in a valley on the eastern side of the range.

Conclusion: I conclude that the emissions from the proposed Parkes EfW facility will blow directly into the most populous part of the Parkes township most of the time.

Inevitably, regardless of scrubbers, filters and EPA assurances, the EfW site will be the centre of a fallout zone, accumulating increasing levels of toxins in the soil and water resources of the surrounding agricultural land, permanently contaminating family farms, to be absorbed by local people, children, farm animals and therefore entering the foodchain for anyone purchasing & consuming farm agproducts.

NOTE: Some of the PER distributed PR material is misleading by omission and make some ridiculous statements about emissions – e.g the PER PR handout ‘Air Qualify and emissions’, with comparisons against (momentary) emissions from leaf blowers and wood heaters. Crafted with purpose to fool or confuse people with irrelevant facts.

- 4. ToR(c. Health Impacts, current vs newer technology):** Whilst the scope of the question seems unclear, in respect of older technology I take it refers to few, generally small-scale old incinerator plants, still operating in Australia. These have little of value as a yardstick - most such plants are already shut down for health reasons (Toowoomba, QLD) or outright rejected (Parkes, NSW) in the past. Accordingly, the health impacts from these older ‘rubbish burners’ are of course well known.

For the ‘newer’ technology, I take it that we refer to the moving grate “...technology proposed for Parkes is currently used in hundreds of facilities around the world”, as describe in the PER Q&A (**Ref.5**). On the face of the (limited) information and the absence of the EIS, it is difficult to be definitive about the technology planned for Parkes. However, noting (ToR b), the inhomogeneity and lack of pre-filtering of the input waste stream, coupled with its low operating temperature makes it inevitable that its output contains variable levels of toxic emissions (**Ref.2**). In other words, whilst less toxic than the ‘rubbish burners’ of the past, the PER proposed plant represents just a standard WtE incinerator, operated for many years by KVI and other companies worldwide.

- 5. ToR (d. Impacts on human health, including on regional town drinking water, rainwater harvesting and soil contamination):** EfW emissions from 24/7 a plant operating for up to forty (40) years must affect not only the short-term air quality, but also long-term due to particulates and heavier pollutant fallout, impacting on the quality and safety of drinking water from dams, including individual farm dams. The areas around Parkes are dotted with farmhouses without town water, relying entirely on drinking rainwater collected from the farmhouse roof, sheds and outbuildings. Sheep,

cows and farm animals drinking from farm dams and streams are also exposed to toxic fallout, forming another entryway into the food chain for human consumption.

PER in their Q&A (Ref. G, 'Environment' section, item 7) state that "... *EfW facilities commonly operate in dense urban centres, in close proximity to residential populations and natural ecosystems, including farming. The technology is proven to operate near these receptors with negligible impact.*" However, no actual evidence is provided to substantiate such claim, yet evidence contrary evidence is readily available (eg. **Ref. 3, and 6**). Many Parkes townfolk enjoy their chickens and eggs and poultry farming is just one of the many means by which people living in the regions supplement their income and family foods. In practice, there are at least two poultry farm 'receptors' within about a 3km distance from the proposed incinerator stack.

EfW incinerator fallout, collecting in farm soil over time means that toxics, POP's, PCB's and dioxins will become increasingly imbedded in the food chains, for humans and animals alike. The health impact on humans are detailed in many publications, (including, but certainly not limited to, **References 13, 14,15, 16 and 17**).

- 6. ToR (e. the impact on agriculture locally and across the wider region):** Parkes Shire and the Central West of NSW is historically a major food production district, with multi-generational investments centered upon agricultural produce. The district is renowned for clean and safe food, a reputation underpinned by certification.

The act of willingly and knowingly seeking to institute inappropriate policies, such as represented by EfW incineration, impacting on farmland and major food production districts have immediate and ongoing impact on the ability of the state of NSW to support an increasing population and nationally important exports of reputable certified food products, including cereal crops (eg. wheat, barley, canola), meat products such as beef & lamb, not forgetting viticulture and wine.

Produce certification of itself has a reputational commercial value that should not be discounted. Locating industrial EfW incineration facilities within food preparation and primary production areas has the immediate effect of devaluing the reputation of regional food and consumer products identified as being sourced from potentially contaminated sources. That is, even in the absence of toxic emission incidents, as evident from recently reported from the UK, the EU and elsewhere. No amount of greenwashing and promises that 'the emissions are all tightly controlled' will satisfy a consumers mind when it comes to knowing that the food products are from a potentially contaminated area (EfW or other) incinerator plants producing toxic emissions; and following the inevitable toxic release event, reputations and certifications suffer ongoing permanent damage.

- 7. ToR (f. alterations to the Parkes SAP, specifically in relation to the proposed Energy Recovery Facility in that region):** I have personally reviewed and analysed the . references and other objective material, both for and against EfW, with a view to forming an objective professional opinion about the proposed Parkes facility and generally (including the **References 19, 20, 21, 22** and the **Stockholm Convention**⁶). Three are three broad types of waste-to-energy conversion methods, biological, chemical and thermal.
- Biological:** FOGO and such methods as to use microorganisms to break down organic matter, for recovering methane, which can be used for heating or burnt for energy. I see

⁶The Stockholm Convention on Persistent Organic Pollutants <https://www.pops.int/>

no reason to object to this type of EfW operation at Parkes and elsewhere;

Chemical: Pyrolysis or hydrothermal liquefaction of difficult waste product into fuels or industrial chemicals. I do not have enough information about these technologies to give an opinion with respect to health, safety and the environment. Accordingly, until proven that they are safe, they should not be deployed on the Parkes SAP or anywhere else where people grow food, live, work and play.

Thermal: Despite comprehensive regulations, filters and control systems the incineration of municipal and industrial waste have been found to produce dioxins, heavy metals (eg. Mercury), PCB's and POP's. The evidence is overwhelming.

Conclusion: After reviewing many information sources, including the advice of a well-respected industrial chemist colleague, I remain of the opinion that it is immoral and indeed criminal to proceed with an EfW incinerator at the Parkes SAP or anywhere else where people, grow food, live, work and play. Any industrial facility which burns massive quantities of municipal waste, including plastic, (inevitably) batteries and such like toxic materials must not be placed in proximity to towns or agricultural areas where people grow food, live work and play.

** If it's not good enough for Sydney, then its not good enough for Parkes or anywhere else near a regional community and farmland. **

8. ToR (g. impacts of waste dumping over a number of decades in the Tarago region):

As I am substantially unaware of the situation around Tarago, I am unable to make substantive comment against this item, beyond that already stated in the previous section.

9. ToR (h. the methodology of monitoring employed by leading large scale waste-to-energy facilities in Australia and overseas):

In the absence of the EIS or otherwise - little information is available about the PER methodology or any actual monitoring proposals put forward by the NSW EPA. I do have concerns about the EPA and their effectiveness in emissions monitoring and, quite frankly, their demonstrated 'soft touch' approach to compliance. Regulatory capture is not unknown Australia and a current topic as you are no doubt aware of EPA tardiness & cover up concerning the lead exposures at Broken Hill⁷. Similarly, on monitoring issues events like the 'Volkswagen Dieselgate'⁸ are synergistic. EPA compliance fines are useless, when companies simply factor in these token amounts into corporate budgets as part of their 'normal' operating costs. *If, despite almost universal community opposition, the NSW EPA gives these EfW plants the go-ahead, then real-time monitoring of every possible toxin needs to be implemented. Where real-time testing of a particular toxin is not possible, operators must not be notified in advance or allowed the opportunity to alter test results to advantage through waste input (eg. type, humidity) manipulation and regulatory negligence.*

10. ToR (i. alternative solutions to reduce and manage residual waste produced by Greater Sydney):

It's incredible that NSW seems willingly & knowingly following in the footsteps of other

⁷ <https://www.theguardian.com/australia-news/2025/sep/05/environment-watchdog-buried-report-on-lead-in-childrens-blood-to-placate-mining-companies-emails-show>

⁸ <https://www.carexpert.com.au/car-news/dieselgate-five-automakers-face-trial>

countries, so many years after they (eg. EU⁹ & the Nordics¹⁰) have already acknowledged their mistakes. In practice the nordics were among the first countries to adopt (initially forestry and later municipal waste) incineration for district heating¹¹, heating being particularly important in the arctic regions. Energy production there has always been (and remains) an incidental secondary consideration. In some towns, even the road surface at major street intersections and roundabouts are heated in order to reduce the incidence of traffic accidents due to winter ice. However, within our Australian geoclimatic zone, I cannot foresee any purposeful reason for waste incinerator district heating. On the contrary, district cooling I'm sure would find universal purpose.

Given the well documented Nordic experience (**Ref. 7**), I would at least expect Australia to pay regard to their conclusions about waste incineration – “The clearest are of required change will be a significant shift away from incineration”, including:

a. A dramatic increase in coverage (both in terms of proportion on population and materials collected) of separate door-to-door collection of recyclables and biowaste;

b. the introduction of more sorting capacity for mixed waste after separate collection has been maximized. This will help to capture more material for recycling (especially plastic) and to reduce the carbon intensity of municipal waste incineration fuels;

c. the reform of policies that will help to drive this shift towards much higher rates of recycling, including:

- increased taxes or bans on recyclable materials and biowaste entering incineration plants;

- reform of extended producer responsibility systems, regarding municipal waste especially in respect of packaging, this will be a requirement for EU Member States as a result of the 2018 revisions to the Waste Framework Directive with minimum requirements specified;

d. the development of new recycling and biowaste infrastructure; and,

e. behaviour change interventions for very high material capture rates to be possible. This could include pay-as-you-throw systems or other communications initiatives backed by economic incentives (eg. fines and surcharges) and enforcement.

Conclusion: I would assert that these clearly expressed ideas, if implemented in “The Greater Sydney” would serve to reduce the volume of waste generated and not only in that ‘great’ region but more widely. Furthermore, unlike many European countries, NSW and Australia is a large country perforated with numerous (mining) holes, therefore it’s difficult to believe that the only solution is burning toxic wastes in regional agricultural areas and close to populated towns.

The (EfW) burning obsession is clearly a self-serving goal for the waste industry and multinational industrial corporations. We need to work more diligently at implementing

⁹<https://e360.yale.edu/features/in-europe-a-backlash-is-growing-over-incinerating-garbage>

¹⁰ <https://www.norden.org/en/publication/analysis-nordic-regulatory-framework-and-its-effect-waste-prevention-and-recycling> .

¹¹ <https://energia.fi/en/energy-sector-in-finland/energy-production/district-heating-and-cooling/>

solutions, rather than the (seemingly) quick & easy 'fix' offered by international corporations seeking 'virgin' markets after getting the brush-off from Europe.

11. ToR (j1. Other related matters: Consultation, trust & social licence): The *Parkes Energy Recovery* (PER) proposal to build an Energy from Waste (EfW) incinerator facility was announced in the local *Parkes Champion Post* newspaper (**Ref.8**) on 27th March 2025, with the headline “*Powerful next step, 1.5 billion Energy from Waste facility development in Parkes approved*”. This ‘next step’ was a big surprise, as many suddenly realised, most of the community were in the dark about any ‘earlier steps’. It is evident that, until quite recently, the principal local drive for the creation of the Parkes SAP came from the Parkes Shire Council, acting as the ‘conciierge’ for the NSW Regional Growth Development Corporation (RGDC) and NSW Department of Primary Industries and Regional Development (DPIRD).

The document NSW ‘*Parkes Special Activation Precinct: Master Plan*’ (**Ref.9**) contains not a single mention of waste incineration – **I commend this document to the Inquiry members as a masterpiece of greenwashing**. With the benefit of hindsight, from as far back as 2017, the Parkes SAP was sold to the local community as having major positives for the shire, including the investment in a commercial transport hub, providing integrated logistics between road and rail transport from all over Australia. The commitment to the principles of waste reduction and the circular economy, on the face of it, also appeared promising, with evident commitment to related small-scale ‘green’ industrial research. But frankly, there was no mention of waste incineration as the centerpiece of the SAP – certainly not a single mention of up to a million tons per annum Sydney ‘red bin’ waste being imported 550km by rail for burning, just upwind from the town.

The PSC commitment to the Parkes SAP is self-evident. Also evident is the failure of due diligence by PSC, the NSW Government and its agencies¹² to effectively consult and inform stakeholder communities. Residents are now (quite rightly) enraged by the lead-up secretiveness and lack of transparency. The PSC endorsed (10-12 April 2025) Parkes “WtE Information Event” on behalf of the PER consortium was hosted by people with little direct actual knowledge of WtE, but with a clearly evident conflict of interest. Many categorized the three day event as a well-orchestrated public relations (PR) campaign.

It is galling for Parkes citizens to suddenly discover the SAP initiative was actually a Trojan Horse, ambushing the 14,000 citizens of Parkes Shire with a waste incinerator, to burn up to a million tons per year of big city ‘red bin’ waste, transported by daily streams of garbage trains to within less than 5km and upwind from our little town. Burning up diesel fuel for up to 40 years, massively increasing fossil CO2 emissions, compromising Australia’s Net Zero obligations.

Conclusion: The corollary is that the proposed **EfW incinerator has no Social Licence**, having been imposed on the citizens of Parkes under false pretenses and relegating the 14,000 people who live in the shire to the status of second class citizens.

¹² The NSW Regional Growth Development Corporation and the Department of Primary Industries and Regional Development.

12. ToR (j2. Circularity and waste reduction): EfW and waste incineration, is fundamentally inconsistent with the core Circular Economy paradigm of ‘Reduce, Reuse & Recycle’. Australia’s premier scientific research CSIRO and their circular economy roadmap and advice to the NSW Chief Scientist addresses managing waste and waste reduction, yet makes no reference to EfW or incineration even being a part of the circular economy! **(Ref.22)**.

Incineration eliminates circularity, taking waste management back to a linear waste model, defeating the objectives of recycling and the closed loop. Misleading public statements made by PSC and NSW government during the planning of the SAP also rely on deliberate greenwashing – eg. *“The precinct will focus on sustainability as Australia’s first UNIDO Eco industrial park where businesses will work together to create a true circular economy”* **(Ref.10)**.

On the other hand, following their 2022 visit to Australia¹³, we have the UN Special Rapporteur on Toxics and Human Rights debrief concluding: *“Waste-to-energy incinerators largely burn plastic waste, thus encouraging further production of plastics, which is made from fossil fuels. As such, it’s ludicrous for the NSW Government to attempt to align waste incineration with a circular economy...”* **(Ref.11)**.

With the benefit of experience from overseas, waste incineration leads to the perverse incentive to just burn waste and keep on burning. EfW facilities run ‘hot’ for 24 hours per day, 365 days of the year out of the need to maintain baseload power and volumetric commercial economics. EfW demands a consistent volume of waste to be economically viable and to maintain baseload power. The Nordic experience **(Ref.7)** is that EfW systems have led to a "scramble for waste" importing waste from elsewhere, as well as the UK, Norway, and Ireland, just to maintain operation. Being locked into operator contracts demanding does nothing to improve the situation.

Accordingly, it is remiss of the NSW Government to go down the path of burning waste, when there are more productive and less toxic means of reducing waste. Ultimately, unlike many others, Australia is a large country with many large (mining) holes available for landfill.

You only need to visit any major supermarket or store, pick out a few products and your shopping basket is filled with multiple layers of disposable non-recyclable plastic wrappers. The Australian supermarkets’ very late and singular contribution to the Circular Economy appears to be limited to the sale of paper checkout bags. This situation has remained static for years and it is unforgivable from a public policy perspective. For advice on how to deal with the situation, refer **to Reference 7** and **section 10** (ToR (i, alternative solutions...)) of this submission.

13. ToR (j3, EPA Consultation and efficiency related matters) Having responded, in detail, to several EPA ‘Have Your Say’ consultations about EfW without receiving any response, I will copy some of the text for the consideration of the Inquiry in the hope of receiving answers to several questions which the EPA appears to be struggling to clarify.

¹³ <https://www.ohchr.org/en/press-releases/2023/09/australia-deep-divide-between-government-and-community-narratives-toxics>

Sydney has a waste problem, exacerbated by the fact that we can no longer ship Sydney waste off to China or developing countries¹⁴. This is a known problem that has been coming for years. It is also hard to ignore the controversy surrounding these EfW incinerators, with numerous attempts to introduce them at various locations in NSW, in Sydney, Eastern Creek, Matraville etc; and other Australian states (**Ref.23**). Opposition has not just come from local people and local shire councils but also various Federal MP's, including the current Federal Minister for Climate Change and Energy, Chris Bowen¹⁵.

The EPA 'Have Your Say' consultation document (**Ref.18**) stated that:

"The regional precinct model was outlined in the "NSW Energy from Waste Infrastructure Plan" (Reference 20). The aim is to ensure a strategic approach to the role and locations of energy recovery from waste facilities in NSW. The infrastructure plan provides that the following principles guide the location of energy from waste infrastructure in NSW. Energy from waste must:

- *improve certainty for communities and industry around acceptable locations and facilities.*
- *Adhere to the precautionary principle where there is a greater risk of harm to human health due to proximity to high population areas (now and into the future), and in areas where there are regular exceedances of air quality standards from existing sources.*
- *maximize efficiency in infrastructure, waste management, innovation and energy recovery.*

Responding to the first (dot point) EPA policy principle - it is difficult to see how this 'regional precinct model' delivers anything other than uncertainty, stress and anxiety for communities.

The second EPA policy principle implies that human health concerns are limited to 'air quality', and this is simply untrue, especially for an agricultural area like Parkes where human health concerns to the foodchain also extends back to the source (Sydney), among others;

The third policy principle could be argued to 'maximise efficiency in infrastructure and waste management', but only for the sake of political expediency. PER advises that the proposed waste trains will travel from Sydney to Parkes via Cootamundra, a rail journey distance of 550km. How is this efficient, is it safe to transport, when it could be 'safely' incinerated close to the waste source?

Through plans identifying the Parkes as a most suitable location for EfW incineration, the EPA is in effect consigning the 12,000 (Parkes Shire, 14,000) population of the township to the status of 2nd class citizens.

- On the one hand, we are led to believe that the emission standards applied by the NSW EPA are the 'most stringent in the world';
- yet it is not good enough for Sydney or even anywhere in the Greater Sydney Basin; and,

¹⁴ By virtue of the Basel Convention, a global agreement which prohibits transboundary trafficking of hazardous waste across international borders.

¹⁵ <https://youtu.be/jmlfU-o0FgU?si=Ms7VdSr96waSUs9k>

- the EU, USA and a number of OECD countries with credible health standards & regulations are moving away from waste incineration for good reasons.

Conclusion: Placing an EfW facility in Regional NSW does not eliminate the risk, it just redirects the risk to a population perceived to be of lesser value, visibility and political power. The NSW EPA 'precautionary principles' just don't hold water and are openly hypocritical.

Recommendation: That the Inquiry consider the 'elephant in the room' – that of transport costs of sending 600,000 tons of 'red bin' municipal waste (annually) from Sydney to Parkes, including:

- (a) the annual diesel fuel cost needed to transport the waste by train via Cootamundra, NSW;
- (b) the greenhouse gas cost, including the excess CO₂ generated during transport;
- (c) the impact of (b) on Australia's Net Zero commitments.

14. ToR (j4, EfW facility impact on Parkes Airport operation): I note that, given the location and nature of the proposed Parkes EfW facility, the incinerator will have some impact on safe air navigation. As I have not seen any reference in the SAP planning documents, so I feel obliged to bring that to the attention of the Inquiry that the Civil Aviation Safety Authority (CASA) places restrictions on tall structures like chimneys, primarily to prevent them from posing an obstruction or hazard to aviation. These restrictions include ensuring chimneys do not penetrate or interfere with prescribed airspace around airports, and in the case of industrial exhaust plumes, the velocity of the plume must not exceed the CASA-defined limit of 4.3m/s at a height of 110m or higher. The rules are detailed in CASA Advisory Circular AC 139.E-01 '*Reporting of tall structures*', though there is a current consultation process on a Draft version¹⁶ (**Ref.26**)

Considering that:

- a) Parker Regional Airport (YPKS) supports regular passenger transport (RPT), agricultural and light aircraft operations;
- b) the plume velocities for a large EfW incinerator of the type proposed for Parkes will exceed 10 m/s;
- c) the proposed EfW facility is located on the approaches to the YPKS circuit area.

I expect that CASA assessment against AC 139 and potential impact on Parkes Airport and aviation operations, including appropriate inclusion in the relevant flight safety and planning documentation (eg. the En Route Supplement Australia or ERSA).

Thanks again for the opportunity to comment and feel free to contact me if you wish to clarify any aspect in this document.

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¹⁶ Objects and structures that affect aviation safety, <https://consultation.casa.gov.au/regulatory-program/mp-ac-139-e-01-and-ac-175-e-02-v2-0/>

22. CSIRO report to NSW Chief Scientist 'Australia's comparative advantages in transitioning to a circular economy', January 2024.
<https://research.csiro.au/circulareconomy/australias-circular-economy-comparative-and-competitive-advantages/>
23. ABC News <https://amp.abc.net.au/article/103440836>
24. ZWE (2021) "The EU is clear: Waste-To-Energy incineration has no place in the sustainability agenda." written by Cassandra Makavou for Zero Waste Europe.
<https://zerowasteeurope.eu/2021/05/wte-incineration-no-place-sustainability-agenda/>
25. <https://www.gov.wales/wales-takes-action-circular-economy-funding-upcoming-reforms-plastic-and-moratorium-large-scale>
26. <https://consultation.casa.gov.au/regulatory-program/mp-ac-139-e-01-and-ac-175-e-02-v2-0/>