



Environmental Defenders' Office
AUSTRALIAN CAPITAL TERRITORY

Community Engagement Team
City Services, Transport Canberra and City Services Directorate
GPO Box 158
Canberra City 2601

19 December 2018

By email: TCCS.BDU@act.gov.au

Dear TCCS,

Waste-to-Energy Policy Consultation: Environmental Defenders Office ACT Submission

The Environmental Defender's Office (ACT) Inc ('EDO ACT') is a community legal centre specialising in public interest environmental law in the ACT and surrounds. We provide legal representation and advice, take an active role in environmental policy and law reform, and develop community legal education programs and resources.

Waste-to-energy (WtE) is a topic of much discussion in the ACT, particularly in recent years, given the ACT Government's commitment to a 90% diversion of waste from landfill by 2025. The EDO ACT welcomes the opportunity to comment on WtE in the ACT, through the "Waste-to-energy in the ACT Information Paper" ("Information paper"). We look forward to continued consultation on a future WtE policy including corresponding legislation.

1. The WtE policy must apply the precautionary principle

As a starting point, the ACT Government must take a precautionary approach when considering WtE in the ACT, to be documented in a future WtE policy. The precautionary principle is a well-recognised principle in ACT law.¹ It is derived from both national and international environmental law.² The Australian Panel of Experts on Environmental Law define the precautionary principle as follows:

¹ Section 3D *Environment Protection Act 1997* (ACT); section 9 *Planning and Development Act 2007* (ACT); section 6 *Nature Conservation Act 2014* (ACT).

² *Report of the United Nations Conference on Environment and Development (Rio Declaration)* UN Doc A/CONF.151/26 (1992), Principle 15.



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The precautionary principle requires that where there are threats of serious or irreversible damage to the environment, lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.³

The precautionary principle can be categorised as a 'directing principle', meaning that decision-makers need to take it into account when creating policies such as the WtE policy.⁴ One of the greatest concerns about thermal WtE facilities⁵ is the potential for toxic pollution⁶ caused by WtE processes, as has been the case at other WtE sites.⁷ Serious concerns have been raised about the impacts of WtE to human health and the environment. Community concerns often centre around the unknown environmental and health impacts of WtE in different contexts. As a consequence, it is imperative the ACT Government take a precautionary approach to any future WtE policy.

A precautionary approach involves:

- Only using technology that is proven to be safe to human health and the environment, whether in the ACT or elsewhere (for instance, should it be decided that a Processed Engineered Fuel (PEF) option be considered and PEF used outside the ACT);
- The development of robust legislation, regulation and policy, and an increase in the capacity of the Environment Protection Authority to monitor compliance with legislation;
- Ensuring proposals meet best practice standards, including air pollution and contamination standards;
- The appropriate treatment and disposal of any by-product;

³ Australian Panel of Experts on Environmental Law, The Foundations of Environmental Law: Goals, Objects, Principles and Norms (Technical Paper 1, 2017).

⁴ Australian Panel of Experts on Environmental Law, The Foundations of Environmental Law: Goals, Objects, Principles and Norms (Technical Paper 1, 2017)

⁵ PEF is considered a thermal WtE process, as it involves 'the recovery of energy (through burning) at a different site to where the waste is processed' (Introduction Paper page 15).

⁶ World Health Organisation <<http://www.who.int/mediacentre/factsheets/fs225/en/>>

⁷ See, e.g., Arkenbout, A., and K. H. Esbensen (2017) 'Sampling, monitoring and source tracking of dioxins in the environment of an incinerator in the Netherlands'

<https://www.researchgate.net/publication/321997816_Sampling_monitoring_and_source_tracking_of_dioxins_in_the_environment_of_an_incinerator_in_the_Netherlands>

Jindrich Petrik and Peter Behnisch (2015) 'Persistent Organic Pollutants (POPs) in Free Range Chicken Eggs from Western Balkan Countries: Bosnia and Herzegovina'

<https://www.researchgate.net/publication/315098247_Persistent_Organic_Pollutants_POPs_in_Free_Range_Chicken_Eggs_from_Western_Balkan_Countries_Bosnia_and_Herzegovina_Montenegro_and_Serbia_2014_-_2015>;

Hsiu-Ling Chen et al (2003) 'Associations between dietary intake and serum polychlorinated dibenzo-p-dioxin and dibenzofuran (PCDD/F) levels in Taiwanese' <'Associations between dietary intake and serum polychlorinated dibenzo-p-dioxin and dibenzofuran (PCDD/F) levels in Taiwanese'>



- Respect for the waste hierarchy, such that waste input must only be residual waste that cannot be reused or recycled;
- Competent monitoring of operations, to best practice standards, (discussed below at part 4) and swift and decision action where there is non-compliance of laws and regulations; and
- Finally and most importantly, the option for *not proceeding* with any future WtE facility must be genuinely considered where the risks to human health and the environment are deemed unacceptable.

The Introduction Paper indicates that the ACT Government is particularly considering PEF as a WtE process.⁸ PEF is considered a thermal WtE process, as it involves 'the recovery of energy (through burning) at a different site to where the waste is processed' (Introduction Paper page 15). There is limited research available on the benefits and risks of PEF over the long term. Given the limited information available for PEF technologies, and that environmental outcomes can differ drastically depending on techniques used, the ACT Government must apply the precautionary principle strictly when making decisions and designing a WtE policy.

A precautionary approach must also be taken in relation to climate impacts. WtE has the potential to create harmful greenhouse gas emissions. The total emissions created by any WtE facility, throughout the entire process (from pre-treatment to combustion) must have reduced greenhouse gas emissions in comparison to the standard fuel that it replaces.

Recommendation 1: The ACT Government must take a precautionary approach to any future WtE facilities in the ACT.

2. Overarching policy principles

A central concern is that WtE will act as a perverse incentive to create waste and undermine efforts to reduce, reuse and recycle waste. The Waste Feasibility Study (May 2018) outlines a waste hierarchy, including the principles of a circular economy and waste minimisation. The focus of waste management must be on minimising the generation of waste at the source.

We note that "respecting the circular economy" is discussed in the Information Paper. It is essential that any WtE policy goes beyond *respecting* the circular economy and creates strategies to *implement* and *enforce* such an economy. Implementation of a circular economy includes through:⁹

⁸ Introduction Paper page 10.

⁹ See e.g., Gunningham, Neil, Peter Grabosky, and Darren Sinclair. "Smart regulation: Designing environmental policy." (1999): 389-390; Institute for Environmental Studies, the Netherlands, 'Policies to



- Economic instruments (e.g. putting a price for disposal on waste being disposed through WtE, just as there is currently a price on waste being disposed at landfill). Any waste management contract must not require or depend on long-term high levels of waste generation to ensure they are financially viable. This includes ensuring that any agreements with NSW or other States do not incentivise generating waste for WtE.
- Direct regulatory instruments (e.g. implementing a kerbside food and garden organics (FOGO) collection service, as recommended by the Waste Feasibility Study). Any WtE policy must support the avoidance, reuse, repair, recycling and composting of waste, including through source separation.
- Communicative instruments (e.g. ongoing education and campaigns). This includes ongoing publication of monitoring data (discussed below at 4).

In addition, other principles that must be legislated and enforced, include:

- The polluter pays principle: those who generate pollution and waste should bear the costs of containment, avoidance or abatement;
- Extended producer responsibility: where producers have responsibility for the treatment or disposal of post-consumer products;
- Sustainable consumption and production: the use of services and related products that minimise the use of resources and toxic materials, in addition to minimising waste created over the life cycle of the product;¹⁰ and
- The harm prevention principle: requires action to be taken to prevent known risks of environmental harm from materialising (included in Rio Declaration Principle 2).

Recommendation 2: The circular economy and relevant principles be implemented in any future WtE policy.

3. Need for comprehensive legislation to address WtE

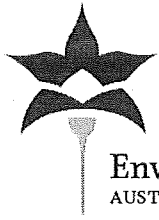
The EDO ACT is concerned that a WtE policy is being developed prior to a robust examination of the ability of existing laws to manage future WtE facilities, in whatever form they it will take. The Information Paper states that *'a WtE policy is intended to provide guidance to industry and the community on what the ACT expects when it comes to WtE in the Nation's Capital. It could result in*

Promote the Waste Management Hierarchy'

<<https://pdfs.semanticscholar.org/db28/c38efe685fe3b840a722721b5561f228d75d.pdf>>

¹⁰ See Sustainable Development Goal 12; available at:

<https://www.un.org/sustainabledevelopment/sustainable-development-goals>.



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further regulation of WtE projects'. ACT legislation is currently not equipped to regulate for future WtE proposals. It is essential that any future WtE policy thoroughly identifies legislation that requires amending, including the Waste Management and Resource Recovery Act 2016, Environment Protection Act 1997 and associated air pollution standards, and the planning framework.

Air quality standards are regulated under the Environment Protection Act 1997 by the ACT Environmental Protection Agency through the Air Environmental Protection Policy. The Information Paper states that these standards are currently being reviewed, although the nature of this review is not outlined.¹¹ Although the *National Environment Protection (Ambient Air Quality) Measure* provides a national framework for monitoring and reporting on common ambient air pollutants, there are no enforceable national standards for certain relevant criteria pollutants (including fine particle pollution PM2.5 or coarse particles PM10).¹² It is essential that new ACT air pollution standards reflect best practice not only in the emission limits set, but in the monitoring of these emissions and penalties for any breach.

In addition, future air pollution standards should be reduced to the lowest possible level, not just to below the standard, because there is no threshold below which particle pollution is not harmful to human health.¹³ At a minimum, emissions standards and licencing conditions must be continually updated to reflect improvements in technology.

The EDO ACT has also commented extensively on improvements to be made to improve planning and development processes in the ACT, particularly in relation to major projects such as WtE. These can be viewed at www.edoact.org.au/submissions.

Any WtE proposal presents a particular challenge to current ACT planning laws because of the size of any likely project, the complexity of environmental impacts, the fragmentation of relevant legislation and the robustness of community concerns. Any consideration of a WtE facility policy must take into account the necessary changes to the *Planning and Development Act*, to ensure it is appropriately considered in the impact track.

¹¹ Introduction Paper, Waste-to-Energy in the ACT (October 2018).

¹² NSW Legislative Council Portfolio Committee No. 6 - Planning and Environment 'Energy from Waste Technology' [5.30].

¹³ Whelan, Dr J., Environmental Justice Australia 'Seven reasons to reject the Eastern Creek waste to energy facility' Paper prepared for the Planning Assessment Commission hearing (NSW), 14 May 2018.



Recommendation 3: Legislation such as the *Environment Protection Act*, *Waste Resource and Recovery Act* and the *Planning and Development Act* be examined to identify amendments required to safeguard the environment and human health.

4. Monitoring and enforcement

Any legislative and regulatory framework to deal with WtE must ensure the monitoring of environmental impacts, and enforcement of relevant laws and standards. This includes ensuring that the ACT EPA is adequately resourced to monitor and enforce these laws. The EDO ACT has previously expressed concerns about a lack of monitoring and enforcement of the Environment Protection Act by the EPA in the ACT.

Enforcement by the EPA is done through referring a matter to the ACT Department of Public Prosecutions. As shown in Table 1 below, there have been no offences proven for breaches of the EP Act or regulations in the past 5 years.

Year	Matters finalised under the <i>Environment Protection Regulation</i>	Matters proved under the <i>Environment Protection Regulation</i>
<u>2016/17</u>	0	0
<u>2015/16</u>	0	0
<u>2014/15</u>	0	0
<u>2013/14</u>	1	0

Table 1: Matters finalised and offences proved under the *Environment Protection Regulation 2005*

The lack of prosecutions does not mean that there are no breaches. Rather, it indicates that there are likely to be barriers to enforcement of breaches. These barriers can be improved by streamlining the complaints system and resourcing the EPA to ensure compliance with environmental legislation. It is essential that any laws and standards introduced to protect the environment from the impacts of any future WtE facility are strictly enforced.

In addition, monitoring and enforcement for any WtE facility must include the obligation to:

- Obtain accurate and thorough baseline data for air, soil and water quality to determine whether there is any adverse environmental impact;
- Complete ongoing monitoring of emissions, with online broadcasting of real time emission testing data;
- Set up monitoring stations in nearby residential areas to make sure that there is no impact on local communities;



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- Monitor all relevant contaminants;
- Provide accurate, ongoing and publicly available greenhouse gas accounting for WtE facilities; and
- Biomonitor nearby areas, including testing flora and fauna to monitor any impacts.

In addition, significant penalties must be imposed for non-compliance of these requirements.

Recommendation 4(i): Provide adequate resources to the EPA to monitor the implementation of existing laws, and enforce them where required; and

(ii) In any WtE policy, best practice monitoring techniques must be incorporated to ensure the safety of human health and the environment.

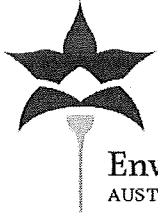
5. Community consultation

WtE projects across the world have faced community opposition due to concerns about human health and environmental impact.¹⁴ There has been previous community opposition to WtE in the ACT, particularly in the context of the Foy proposal in Hume and the Capital Recycling Proposal in Fyshwick. The FOY Inquiry received more than 100 submissions from the community. As discussed in the consultation report, "community council submissions were opposed to any form of incineration."¹⁵ It is essential that any WtE facility has social license to operate, and that the ACT community have an opportunity to make their voices heard with respect to WtE.

One barrier to community consultation that has been identified by the EDO ACT is the fragmentation in the processing of large-scale projects, including WtE proposals. In the EDO ACT's experience, large-scale projects are often completed in stages with DAs lodged separately. Where stages are approached in a piecemeal way, without consideration of the larger development, it is difficult for members of the public to articulate their concerns about a project in its entirety because they are restricted to commenting on the smaller DA before them. A development is the sum of its parts and being unable to comment on the wider implications of a smaller DA takes away from community engagement and consultation. Both a long-term, large-scale lens and short-term, small scale evaluation is essential to the DA process to ensure that environmental considerations are balanced with economic and social objectives. Where smaller DAs are part of a larger project, both the immediate DA and long term proposal must be submitted to the Planning and Land Authority as part

¹⁴ Whelan, Dr J. p4. In addition, see above n 8.

¹⁵ Waste Feasibility Study Roadmap Consultation Report (October 2018).



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of the DA process to provide context and information to the Authority and those members of the public wanting to make a representation.

Recommendation 6: Any future proposal for a WtE facility must give community members the opportunity to comment on the projects as a whole. All information on such proposals must be presented in an accessible manner so that the public can understand each DA and how it fits in to the larger development.

If you have any questions or wish to clarify any of the above, please do not hesitate to contact the EDO ACT on (02) 6243 3460 or Stephanie.Booker@edoact.org.au.

Yours faithfully,

Stephanie Booker
Principal Legal Officer