

# A SUSTAINABLE ZERO WASTE FUTURE

ACT Greens Waste Policy Framework

## Introduction

The Greens are committed to meaningful and smart solutions to ensure future generations of Canberrans have clean air, clean water and clean soil. That's why we believe the ACT's waste must be minimised and managed sustainably to reduce greenhouse gas emissions, mitigate climate change, and keep our city clean and liveable for all Canberrans.

The ACT Greens believe that all "waste" should be treated as a potentially valuable resource and processed in a way that achieves the maximum economic and environmental benefit. In line with this, the ACT Greens are concerned that thermal waste-to-energy processes such as incineration present significant health and environmental challenges. Burning waste is no better than burning dirty fossil fuels and will not support the ACT's goal of achieving carbon neutrality.

The following framework seeks to provide a set of principles to assess proposals for waste management to ensure we reduce waste production, and minimise environmental impacts. The ACT Greens support the inclusion of these principles in the Territory's broader waste management strategy.

Additionally, the ACT Greens believe that the Government must conduct proper community engagement to reflect the needs of our diverse and changing Canberra community and to provide community confidence and a social licence to operate any large-scale waste management facility. The Government should also improve waste education in the ACT so that our community is well informed about waste generation, and how to reduce waste.

## Waste Management in the ACT

The ACT Greens support a zero waste strategy. As Canberra's population grows, minimising our waste is increasingly important to both reduce greenhouse gas emissions and conserve scarce resources. Using a zero waste model, we can capture the things we throw away and use them to make new products, create less pollution and feed the local economy. This approach is ecologically sustainable, creates jobs and avoids the generation of dangerous pollution and toxic ash.

While the ACT's resource recovery rate has increased significantly from around 33% in 1995, it now sits near 60%, with around 40% of our waste still being sent to landfill. The ACT Government, through the current ACT Waste Management Strategy 2011-2025, has set a goal of recovering over 90% of waste in the ACT by 2025.

The goal of recovering 90% of our waste is achievable but cannot be reached if we simply continue on our current path. The ACT Greens believe that the Government must develop clear plans that align with the principles in this framework and that are consistent with a zero waste model. We need to focus on improving waste education, separating out food and green waste for composting and improving product design to minimise waste generation. The ACT Greens support moving to a sustainable zero waste future underpinned by a circular economic model where everything has value and products and materials are kept in the economy for as long as possible.

# Key Principles:

The ACT Greens believe these principles should be incorporated into the ACT's waste reduction and management strategy:

1. Waste reduction and management should be based on the hierarchy of product redesign, avoiding consumption, and reusing and recycling residual waste into beneficial products;
2. Deal with waste at its source rather than make it a management issue. Minimise the generation of waste, and actively engage in waste education as a priority. This will provide for better separation of waste at the source, leading to reduced residual waste;
3. Minimise the amount of waste that goes to landfill;
4. Maximise avoidance, reuse, repair, recycling and composting of our waste so as to preserve the finite resources contained in our waste stream (including through the source separation and composting of food and organic waste streams);
5. Align the ACT's waste management strategies with the ACT's zero net greenhouse gas emissions target and our commitments to the Paris Climate Agreement;
6. Protect air quality and human health, including eliminating toxic air emissions such as Persistent Organic Pollutants (POPs) in line with Australia's commitment to the Stockholm Convention for the protection of human health and the environment;
7. Prohibit the incineration of waste through combustion, gasification, pyrolysis, plasma arc and other waste-to-energy incineration technologies, and ensure the waste-to-energy incineration sector does not receive clean energy subsidies;
8. Support zero waste industry and clean energy innovations that do not rely on thermal destruction of finite resources; and
9. Ensure that the ACT's waste management contracts do not require or depend on long-term high levels of waste generation to ensure they are financially viable.

# A Sustainable Zero Waste Future

The ACT Greens believe the focus of our waste management should be on minimising the generation of waste so that we see significantly less waste going to landfill. We support a zero waste strategy that will lead to higher resource recovery rates through a focus on product and packaging redesign, waste reduction, source-separated recycling and composting, and reuse and repair programs.

Under a zero waste strategy, the ACT would reduce its residual waste stream to the smallest fraction possible and then manage the storage of any remaining residual waste in a secured landfill. There is strong evidence to suggest that the storage of cleaned and shredded residual waste in a secure landfill has lower environmental impacts than using thermal waste-to-energy technologies such as incineration.<sup>1</sup> It also provides the opportunity in the future to reuse those resources that would otherwise be lost through waste-to-energy incineration.

## Our Position: *The ACT Greens support sustainable zero waste strategies for managing our waste*

WE SUPPORT <span style="float: right;">✓</span>	WE DO NOT SUPPORT <span style="float: right;">✗</span>
<p>The ACT Greens do support non-thermal, or cool technologies, such as anaerobic digestion and composting, with the capture and use of any outputs produced.</p> <p>We support collecting source separated food and garden organics for composting to divert these resources away from landfill and incineration.</p>	<p>The ACT Greens do not support thermal waste-to-energy technologies such as incineration, combustion, gasification, pyrolysis and plasma arc technologies for the disposal and treatment of our waste.</p>

<sup>1</sup> "What is the best disposal option for the 'Leftovers' on the way to Zero Waste?" – [www.ecocycle.org/specialreports/leftovers](http://www.ecocycle.org/specialreports/leftovers)

# Community consultation

The Greens have a vision for Canberra that puts the community first. That is why the ACT Greens believe that proponents of waste management facilities must:

- Demonstrate that their facility reduces or avoids greenhouse gas emissions and is compatible with a zero net emissions future;
- Demonstrate that their facility will not emit toxic pollutants and that residues, filters, water runoff and other by-products are not themselves toxic wastes;
- Provide accurate and extensive evidence as to the effectiveness of their proposals to both the community and planning authorities, including but not limited to: performance data, operational capacity, emissions data, resource recovery outcomes, and regulatory compliance; and
- Commit to undertaking an open and transparent process of community and stakeholder consultation, with a view to engaging in a genuine dialogue with our Canberra community and stakeholders.

## Glossary

**Residual waste** – waste that isn't prevented, reused, recycled or composted

**Zero waste strategy** – strategy that aims to produce no waste in the long term by designing products and services that reduce or reuse waste as far as possible

**Thermal waste-to-energy technologies** – the process of generating energy in the form of electricity and/or heat by treating waste at high temperatures (either direct combustion or incineration)

**Anaerobic digestion** - the conversion of biodegradable organic matter to energy by microbiological organisms in the absence of oxygen

**Combustion** – chemical process where the waste feedstock is burnt with oxygen to produce ash, flue gases and heat

**FOGO** – food and garden organic waste products

**Gasification** – the thermal conversion of organic materials at high temperatures (>700 °C), without combustion, with a controlled amount of oxygen and/or steam

**Incineration** – a materials reduction process that involves the combustion of organic substances. In a mixed waste process this leaves a residual product which is toxic and must be contained in a suitably licensed landfill

**Landfill** - of waste materials by burial often in pits or low areas. The ACT's landfill is located at Mugga Lane and is a growing pile above ground

**Pyrolysis** – the thermo-chemical decomposition of organic material, at elevated temperatures without the participation of oxygen. The syn-gas that is produced during the reaction is generally converted to liquid hydrocarbons, such as biodiesel

**Plasma arc technologies** – a process that utilises a plasma torch or plasma arc using carbon electrodes or other elements to initiate the temperature resulting in the gasification reaction and which converts organic matter into a syngas

**Resource recovery rate** – the percentage of waste materials diverted from landfill because the materials are suitable for reuse, recycling, composting or another higher order purpose

**Waste hierarchy** – the classification of waste management strategies according to their order of importance, with the aim of extracting the maximum practical benefits and generating the minimum amount of waste e.g. ACT Waste Management Strategy 2011-2025 (page 3)<sup>2</sup>, Energy Justice Zero Waste Hierarchy<sup>3</sup>

**Persistent Organic Pollutants (POPs)** – chemicals which have the potential for long-range transport, persistence in the environment, ability to bio-magnify and bio-accumulate in ecosystems and significant negative effects on human health and the environment

**Source-separation** - sorting of different materials making up solid waste (such as glass, metals, paper, plastics) at the point of production or consumption, for a simpler and more efficient recycling or disposal process

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<sup>2</sup> [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0007/576916/ACT-Waste-Strategy-Policy\\_access.pdf](https://www.environment.act.gov.au/_data/assets/pdf_file/0007/576916/ACT-Waste-Strategy-Policy_access.pdf)

<sup>3</sup> <http://www.energyjustice.net/files/waste/hierarchy.pdf>