ACT GOVERNMENT

What's happening with waste?

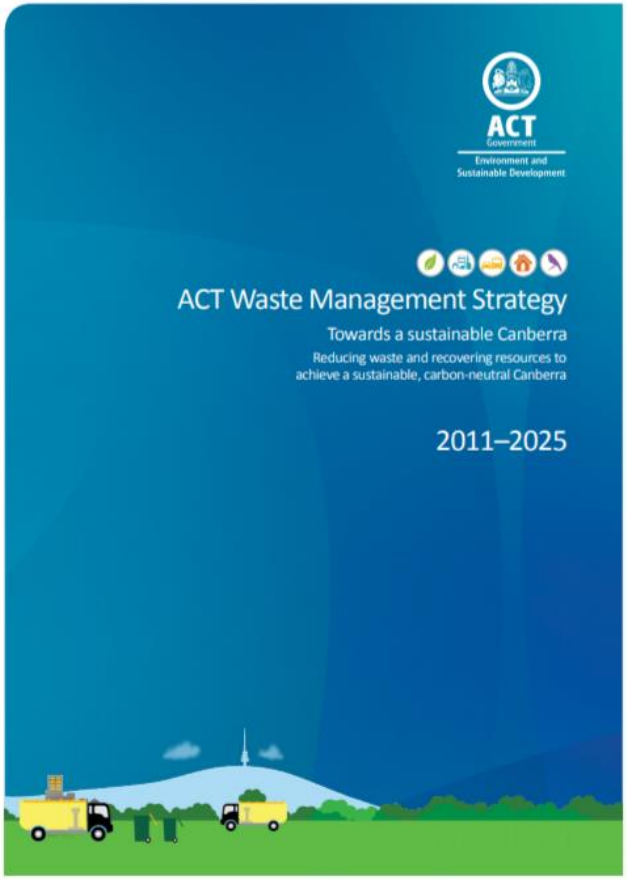
Inner South Canberra Community Council
Eastlake Football Club
13 November 2018

Greg Haraldson
Manager – Industry Development

ACT Government
Transport Canberra and City Services

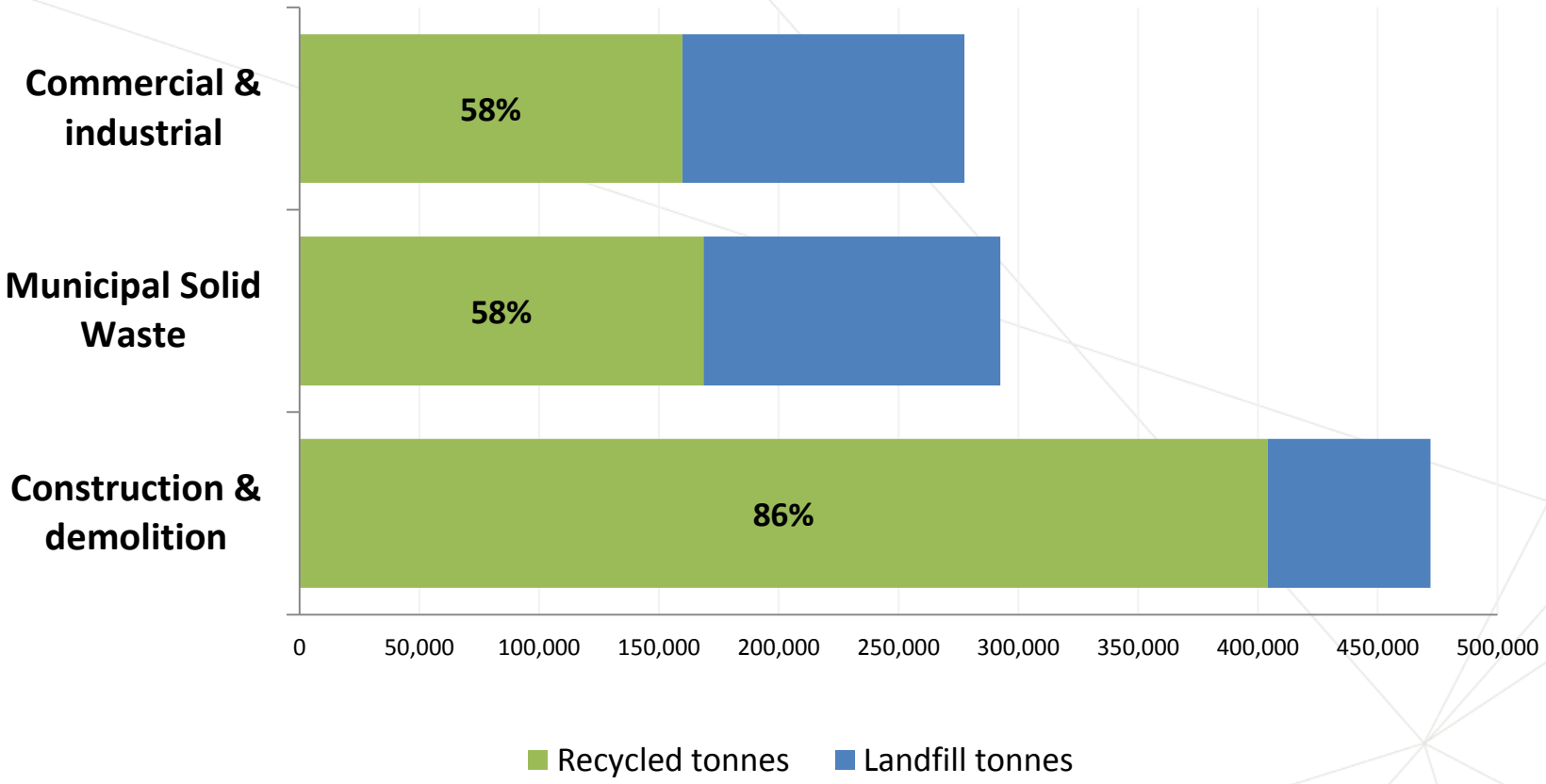
Strategic Context – ACT Waste Management Strategy 2011-2025

- Objectives:
  - Less waste generated
  - Full resource recovery
    - >90% resource recovery by 2025
  - A clean environment
    - Low levels of littering and illegal dumping
  - A carbon neutral waste sector
    - e.g. minimise organic waste to landfill



Waste streams and recovery rates[1]

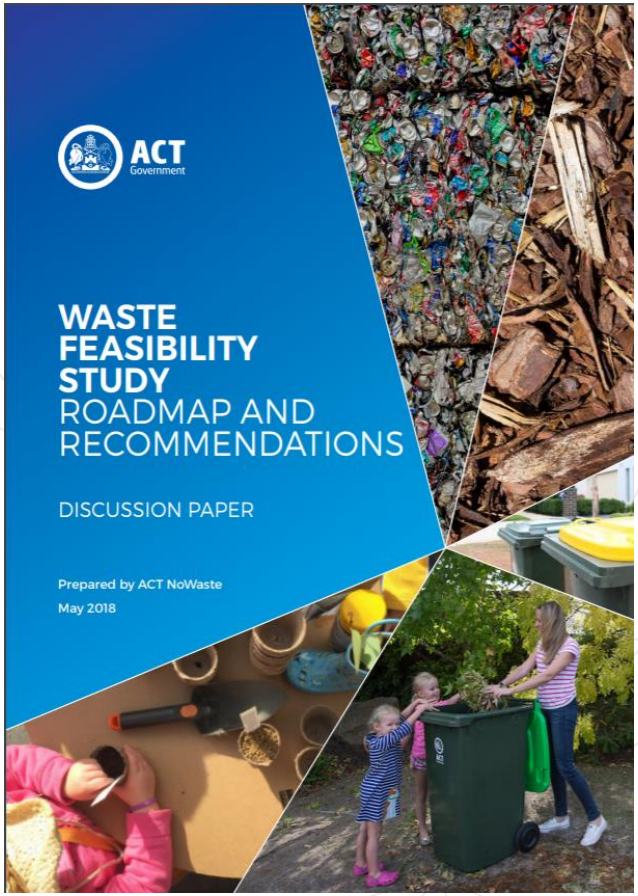
Around 1 million tonnes of waste generated in the ACT & ~70% recovered



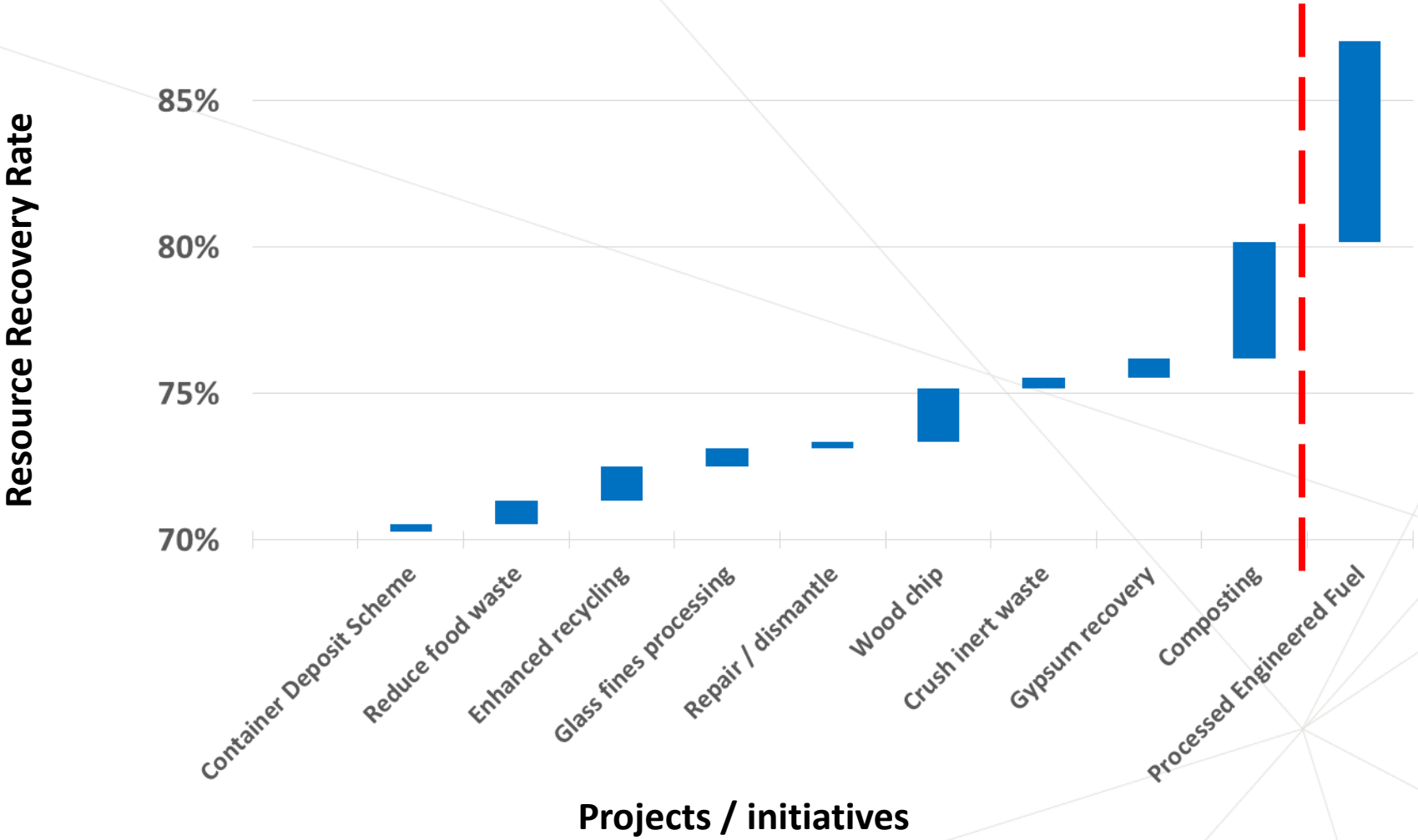
[1] Based on FY14-15 baseline data

Waste Feasibility Study ‘Roadmap’

- Evidence based research
- Consultation – community and industry
- ‘Market Sounding’
- A new regulatory approach- *WMRR Act 2016*
- Final Roadmap and recommendations announced for comment in May 2018

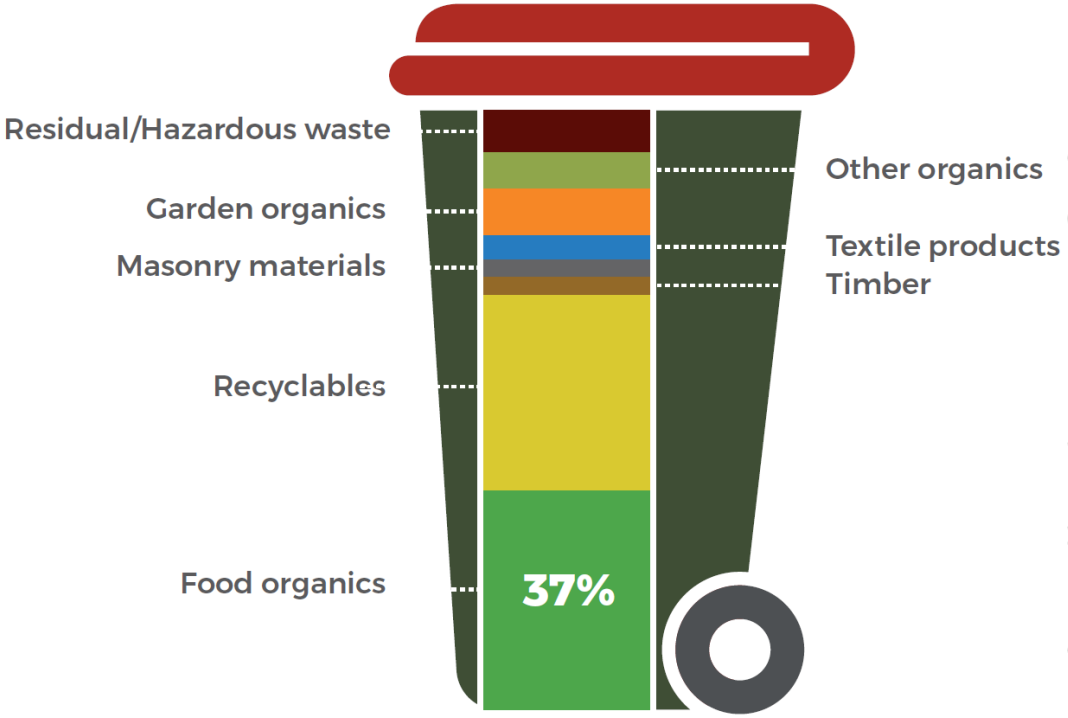


Recommended roadmap



FOGO considerations

- **Site selection** - in the ACT or region?
- **Education** - waste reduction and sorting behaviours
- **Staged roll-out** - MUDS and commercial sector
- **Technology selection** – aeration techniques, scalability
- **Contractual matters** – kerbside collection contract concludes 2023



Where to from here… recommended priorities

Promote waste avoidance
(e.g. food waste reduction campaign)

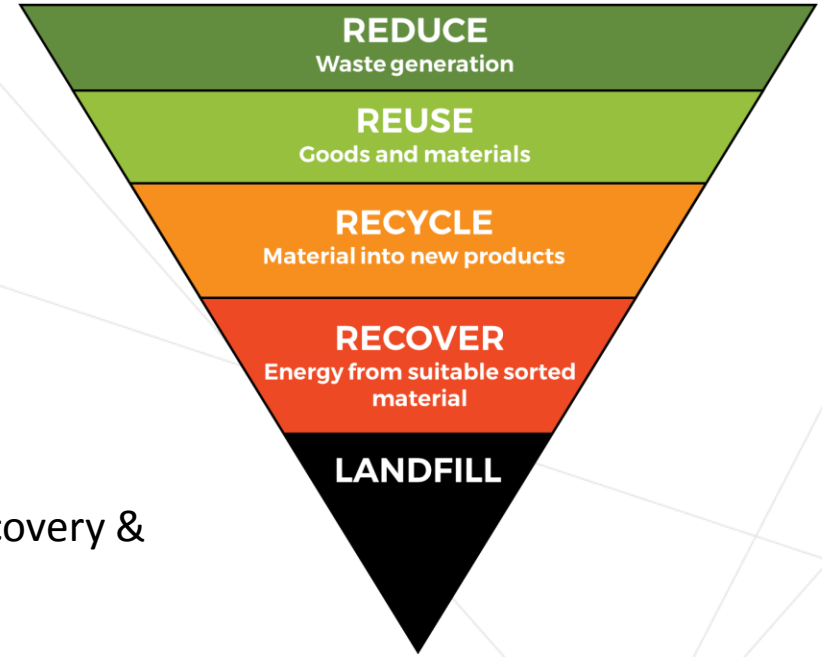
Establish composting site

Expand green bins to FOGO service
(five year timeframe)

Establish contracts and facilitate markets
(Woodchip, glass recycling, crushing, gypsum recovery & improved C&D waste sorting)

Develop a waste to energy policy and revisit *ACT Waste Management Strategy 2011-2025*

Investigate a Processed Engineered Fuel (PEF) facility



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Waste-to-energy community consultation

Inner South Canberra Community Council
Eastlake Football Club
13 November 2018

Lisa Johnson

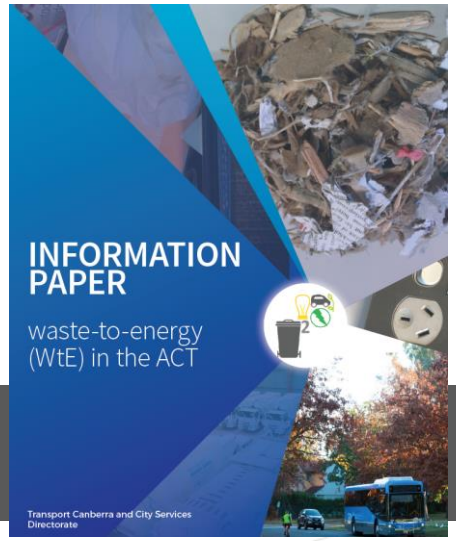
ACT Government
Transport Canberra and City Services

Waste-to-energy consultation process

- There is currently a community consultation process open until **14 December 2018**

- There are a variety of ways that people can have their say

www.yoursay.act.gov.au

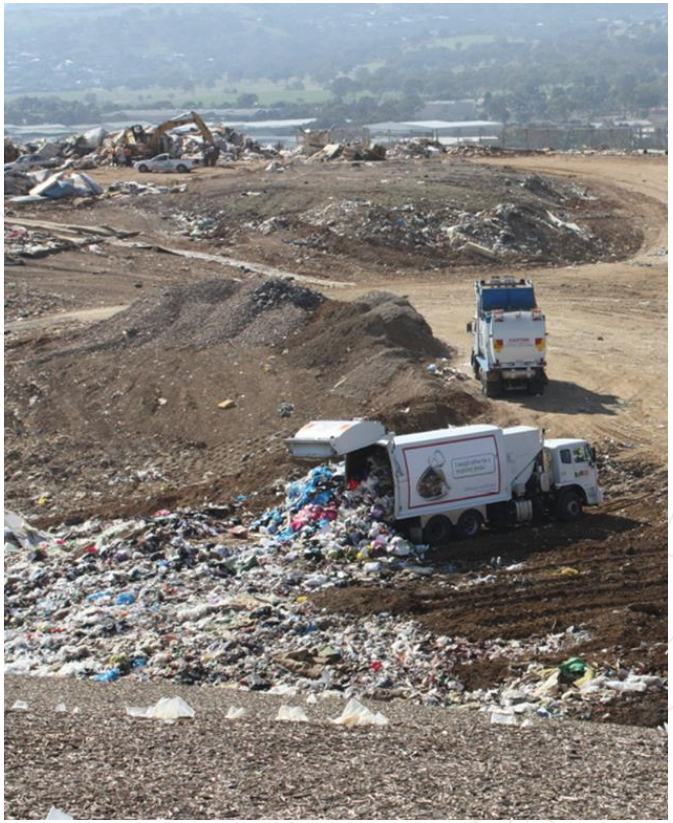


We want to co-design an ACT waste-to-energy policy to outline the Territory's position on energy recovery from waste and provide a framework for assessing future waste-to-energy proposals.

This could mean saying no to certain technologies.

ACT context

- There is currently no national framework for WtE and jurisdictions across Australia are establishing their own policies
- Two WtE projects have been proposed in the ACT (FOY Plastic to Fuel and CRS Incineration of Waste at Fyshwick)
- Waste to Energy already occurs in the ACT at the Mugga Lane landfill
- The energy is used to power 3000 homes and prevents methane (a potent greenhouse gas) leaking into the atmosphere
- Thermal (heated) processes have also been used to treat sewage in the ACT since the 1970's



What is waste-to-energy

	Thermal ('hot') methods			Prior to combustion	Non thermal methods	
	1 Incineration (combustion)	2 Gasification	3 Pyrolysis	4 Refuse Derived Fuel (inc. PEF)	5 Landfill gas capture	6 Anaerobic digestion
Burning	✓					
Heating (thermal)	✓	✓	✓			
Technology	Combustion of waste through incineration	Heated with controlled amounts of oxygen (chemical reaction)	Biomass heated in very low or no oxygen	Simple mechanical process of sorting, crushing and shredding	Capture the methane from landfill	Breakdown organic material in a facility
Product	Steam* and ash	Gas and ash	Gas, biochar, oils and tar	Pellets/shredded waste	Methane	Biogas
Burning of end product e.g. in gas grid	✓	✓	✓	✓	✓	✓
GHG emissions compared to landfill**	↓	↓	↓	Displaces fossil fuels already being used		
Emissions compared to coal power plants	↓	↓	↓	Displaces fossil fuels already being used		
Feedstock (what goes in)	Varied waste	Varied but uniform waste (pre-processing needed)	Only really viable for organic waste at the moment	Varied but uniform waste (pre-processing needed)	All landfill, but needs an organic component	Organic waste
Successful at large scale	Yes	No	No	Yes – at Berrima	Yes – already in ACT	Yes - some underway in Aus
Health and pollution outcomes clear	Yes – If managed appropriately and feedstock known	Not demonstrated large scale	Not demonstrated large scale	Yes – part of existing burning process (e.g. cement kiln)	Yes – already in ACT, but methane leakage	Yes – already in ACT
Proven technology	✓			✓	✓	✓

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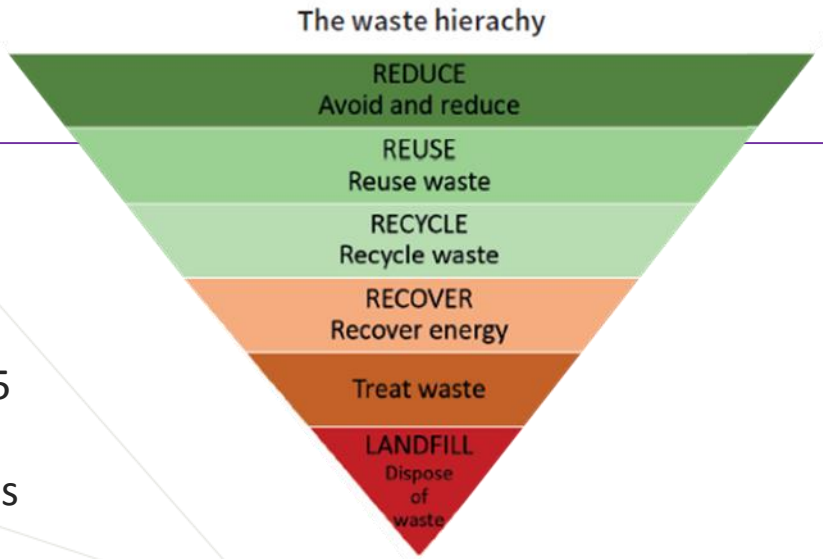
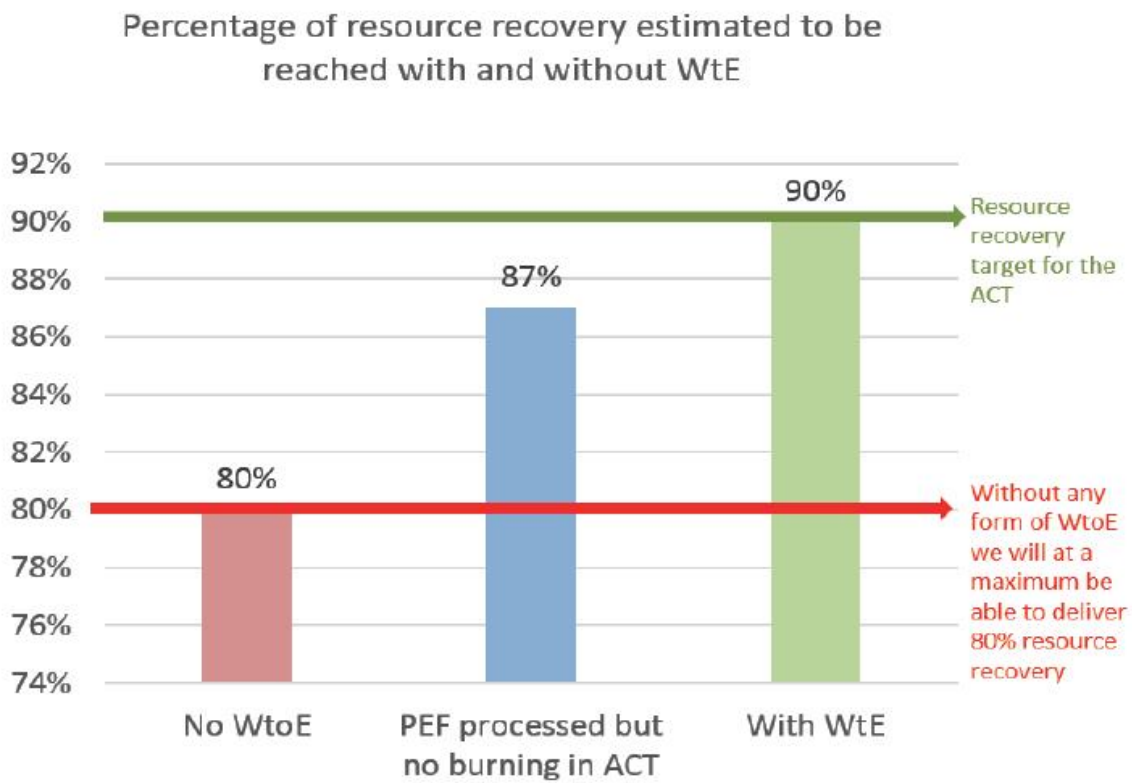
Overarching policy principles

- Respecting the waste hierarchy and circular economy
- Accurate and evidence based decision making
- Achievement of 90% resource recovery by 2025 without some form of WtE is unlikely
- The ACT has a target of zero net greenhouse gas emissions
- The community is a critical stakeholder and a partner in developing a WtoE policy
- Industry is seeking certainty about the ACT's position on WtoE
- Protecting human health and our environment is critical
- The ACT has energy needs and has set a range of targets to 2020 including secure and affordable energy, smarter use of energy, cleaner energy and growth in the clean economy
- Great cities work by taking sound long-term policy decisions



Community support and buy-in is critical to a successful WtE policy

Waste-to-energy will impact on our resource recovery rates moving forward



PEF can be produced as shredded or pelatised material (left and right)

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What next?

Review process and timeline

How to have Your Say

- Fill out the survey
- Register for focus groups
- Register for a one-on-one session
- Attend a drop-in session
- Community stalls
- Write to us

www.yoursay.act.gov.au