



## **Waste Value Chain Extension & Plastics**

### **SPE Conference - Plastics and the Circular Economy**

**Vik Bansal – CEO and Managing Director**

*19 November 2020*

ASX: CWY

## Snapshot of Cleanaway

Australia's leading total waste management, industrial, environmental and health services company.

Vertically integrated from collection, to resource and energy recovery, to waste treatment and landfill.

ASX100 listed with a \$4.7 billion market capitalisation.



**6,000+**  
Employees



**5,300+**  
Vehicles



**250+**  
Sites Australia wide



**125+**  
Prized infrastructure  
assets



**134mkWh**  
Renewable energy  
generated



**ASX100**  
Listed  
company



**100+**  
Municipal Councils

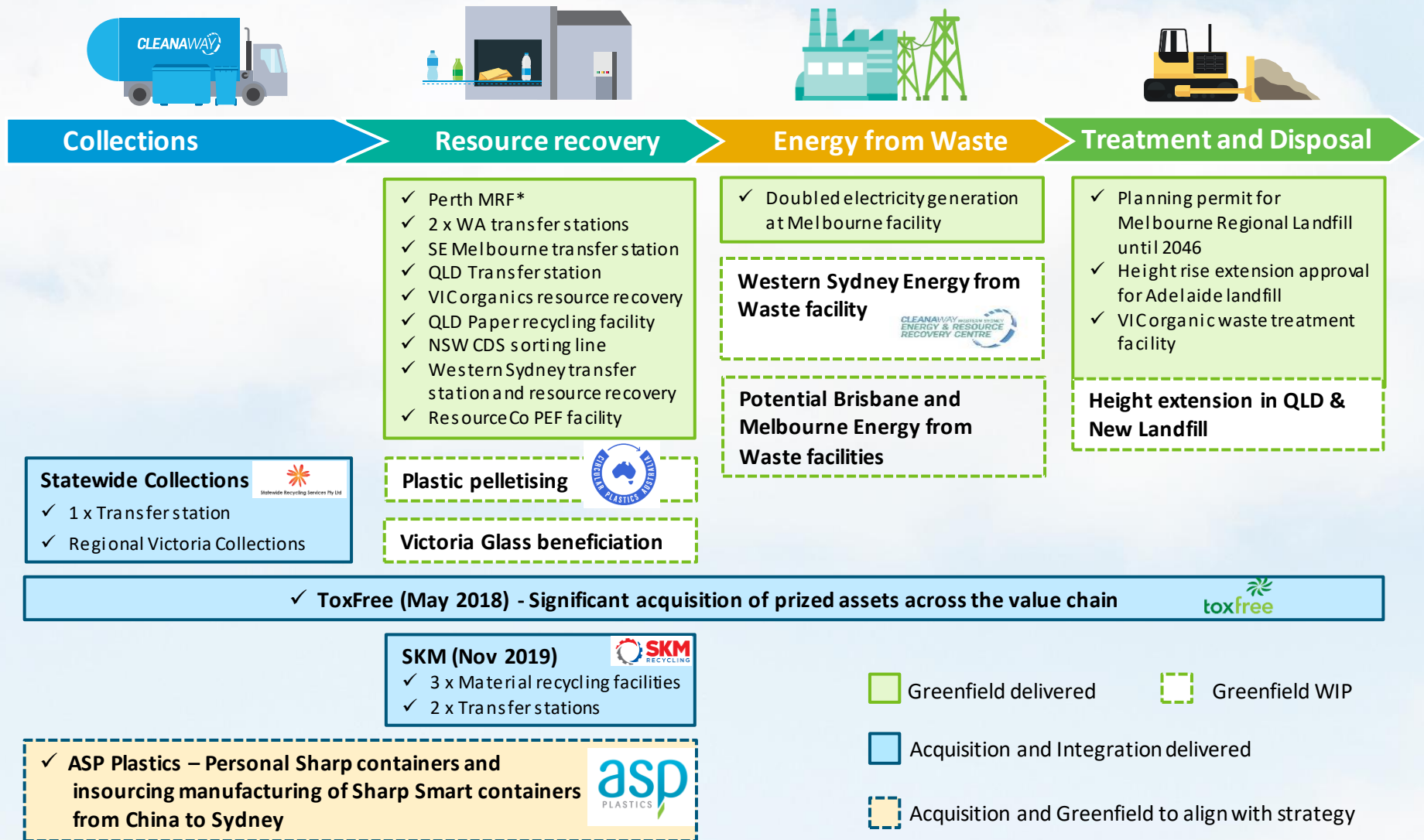


**140,000+**  
Commercial & Industrial  
customers



**~10,000**  
Medical waste  
customers

# We continue to invest in infrastructure across the value chain

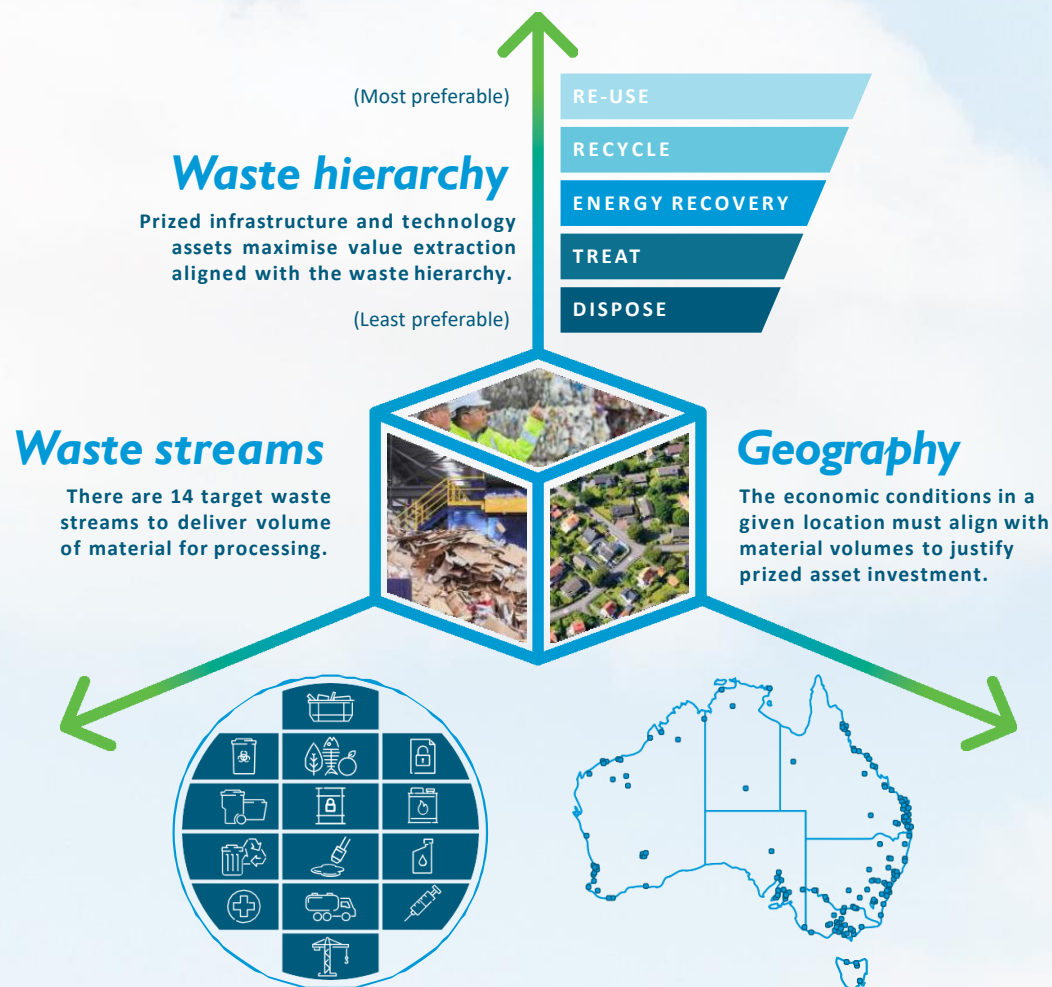


# *Our Footprint 2025 strategy considers multiple, dynamic dimensions*

The waste sector plays a **pivotal role in enabling a circular economy** ensuring waste is minimised and resources are re-used and recycled in the best possible way.

This requires significant **investments in new infrastructure** and a change in the way we think about and deal with our waste.

Our **Footprint 2025 strategy** considers which assets are required considering three dimensions.



# *We are extending our value chain to enable a circular economy*

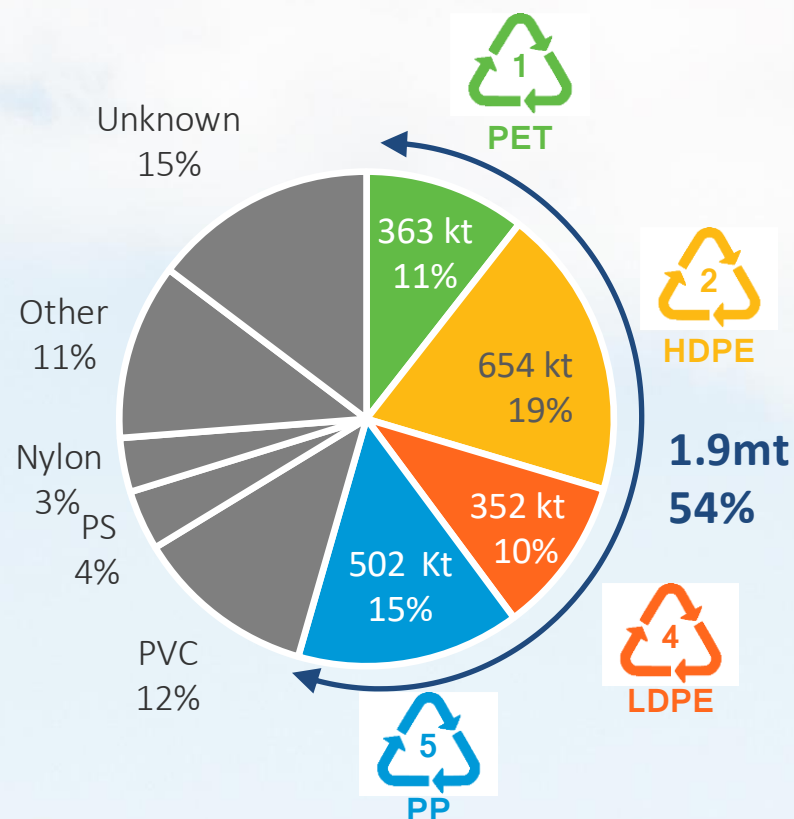




# Our focus in plastics – integrated value chain for four key polymers

Priority to collect, sort and re-process four key polymers, mostly from packaging, sourced through our leading customer base and national collection network

Australian Plastics Consumption by Polymer



100+ Councils &  
140k Commercial  
customers



Container Deposit  
Schemes in NSW, QLD  
and WA



~400 vehicles  
dedicated to recycling

## *What is needed to enable a circular economy for plastics*



- Packaging design to increase material efficiency & recyclability
  - Improve source separation and quality of recyclables
  - Container deposit schemes
- 
- Improvements in Material Recovery Facilities
  - Plastic Recovery Facilities to sort into polymers
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- New value-added flaking & pelletising facilities
  - Solutions for multiple polymers - PET, HDPE, PP, LDPE
- 
- Increase recycled content in packaging

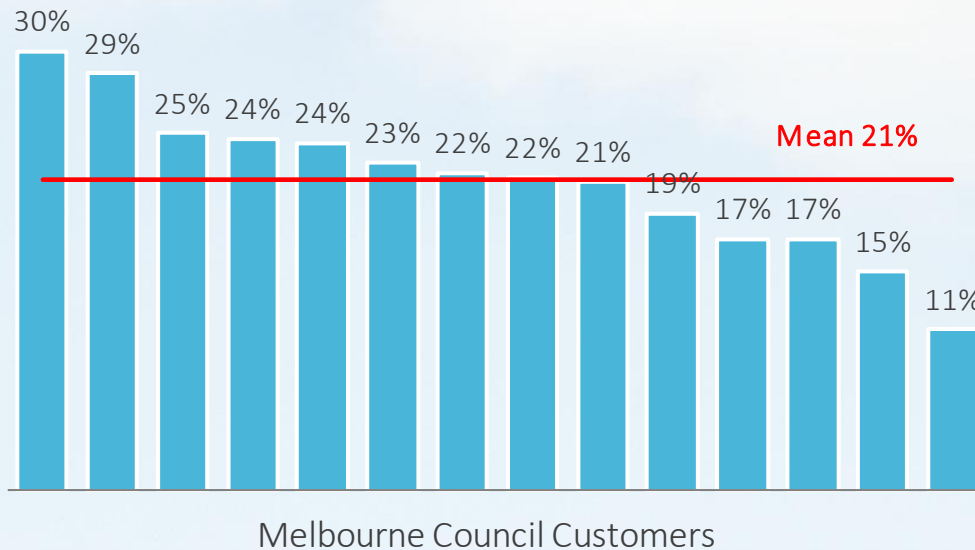
# Contamination is a major challenge



Contamination in the recycling bin leads to...

- Higher cost for our customers and ultimately ratepayers
- Equipment blockages and risks of fires (e.g. from batteries)
- Lower quality commodities

Waste as a % of recycling volumes received





# Improving quality of recyclables at the source



## Standardised, multi-bin collection systems

- Reduce cross-contamination of recyclables (e.g. glass-paper)
- Standardisation of rules and lid colours to help education across jurisdictions
- Monitoring of compliance levels and passing on the cost of excess contamination



# Container Deposit Schemes (CDS)

## Increased recovery – reduced litter – food grade PET

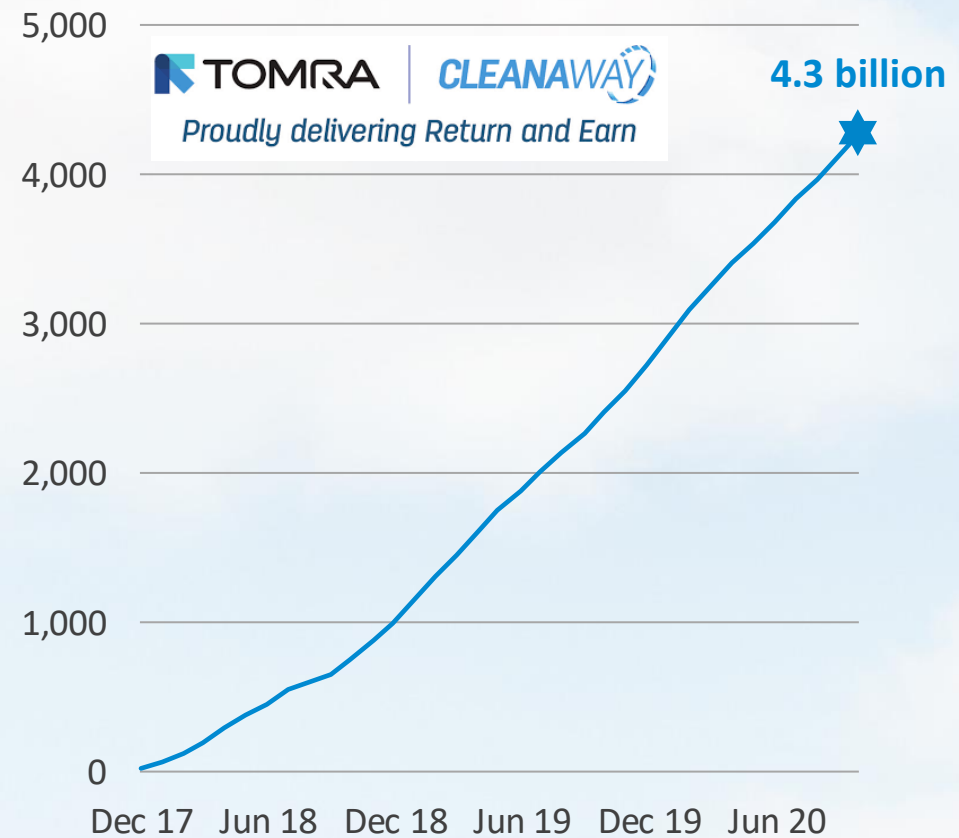


- Tomra-Cleanaway is the network operator in the highly successful NSW CDS
  - 4.3bn containers returned since start
  - \$430m refunded to customers & charities
- VIC and TAS schemes to follow



### Containers returned in NSW CDS

Millions





# Upgrades in Material Recovery Facilities (MRFs) required

Last year the Victorian recycling market was in turmoil as SKM went into liquidation

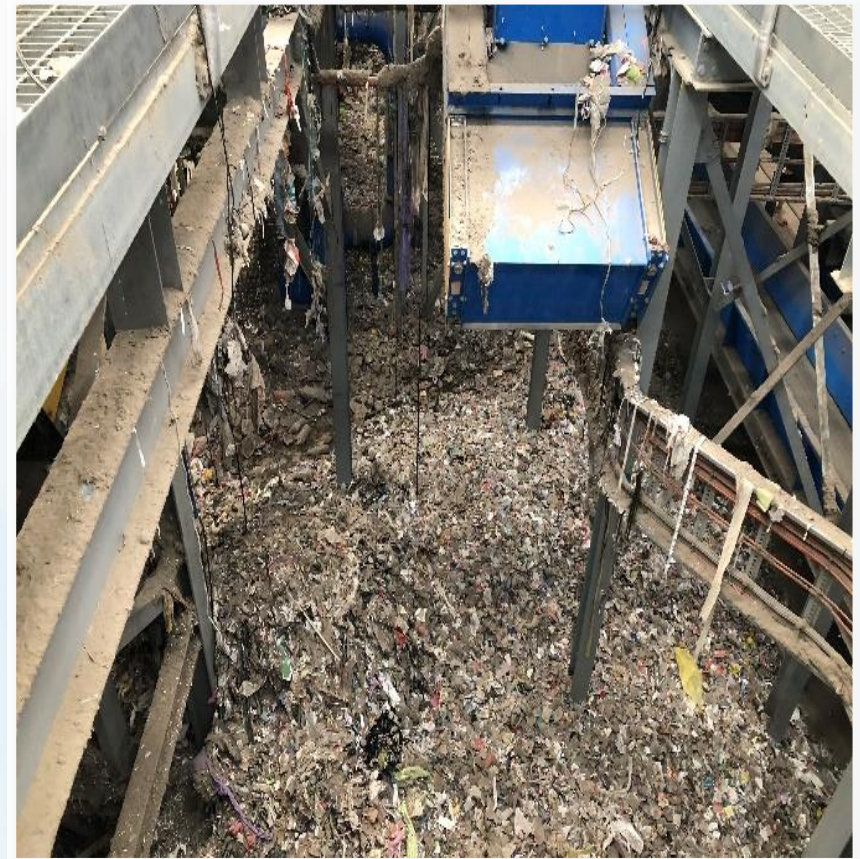


THE  AGE

National Victoria Recycling crisis

This was published 1 year ago

**Recycling firm SKM Industries goes into liquidation, sale expected**





# Upgrades in Material Recovery Facilities (MRFs) required



Cleanaway acquired SKM from the administrators and restructured the business with the MRFs cleaned up and upgraded and new contracts signed with councils



- Cleared stockpiles
- Implementation of R&M regime
- Relocate management within plant
- Installation of glass quality improvement equipment
- Overhaul metals extraction and baling
- Upgrade fire and safety systems





# *Plastic Sorting Facilities (PRFs) a key part of the value chain*

Cleanaway's Laverton PRF processes ~40kt of mixed plastics into individual polymers



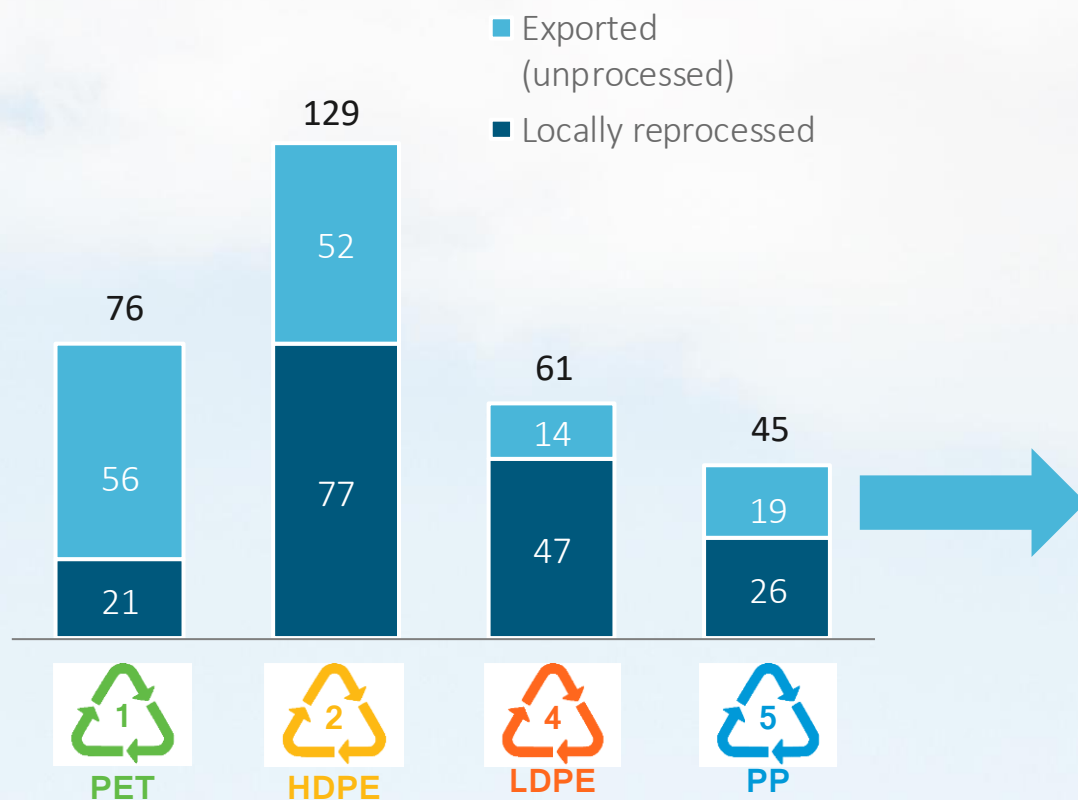


# Market for recovered plastics still heavily reliant on export



## Exports account for the majority of recovered plastics destination

Recovered plastics by destination and polymer (kt)



## Export ban for unprocessed single resin plastics from July'22

Domestic reprocessing capacity needed for >140kt of these plastics alone.

Almost double of what is currently processed locally.

Significantly more if recovery rates increase.

# Cleanaway's cross-value chain PET re-processing solution



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**CLEANAWAY**

**Asahi**  
BEVERAGES

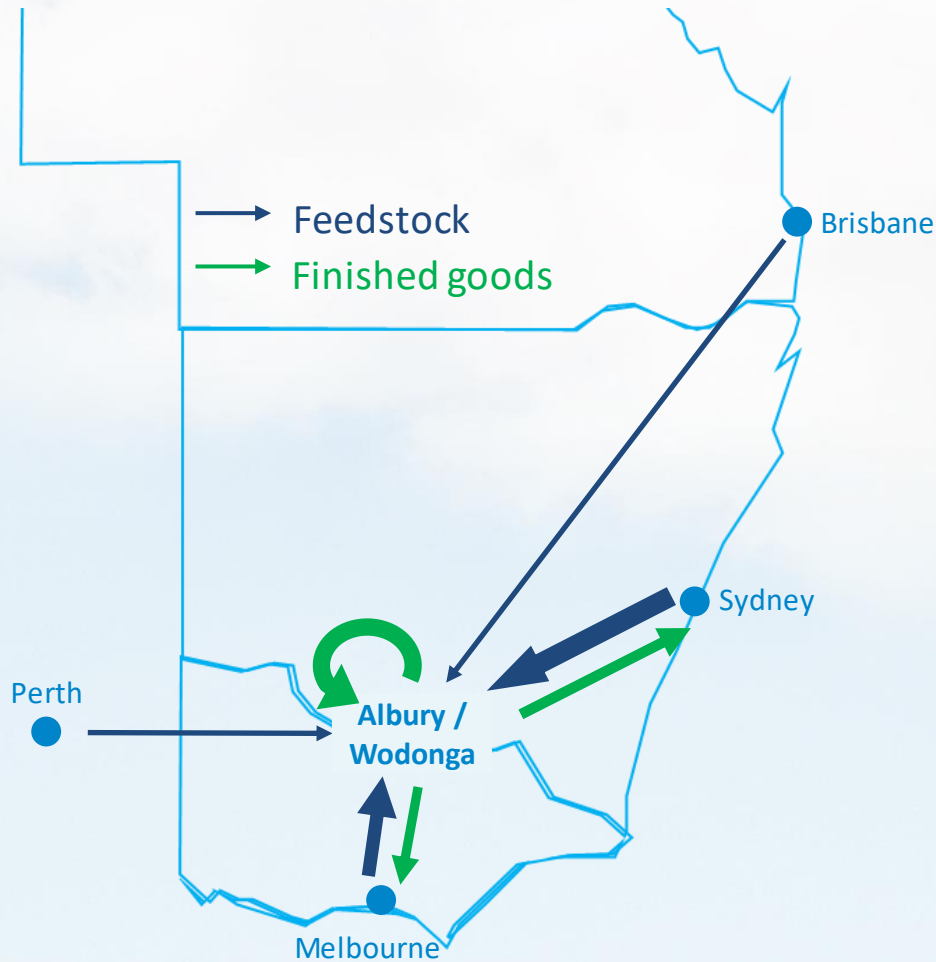
**PACT**  
GROUP

We have formed a 3-way joint venture bringing together feedstock supply, manufacturing expertise and offtake.



The \$45 million facility can process 30kt per annum of PET, providing a bottle-to-bottle recycling solution for the equivalent of almost **1 billion bottles each year**

# Facility location and supporting feedstock infrastructure



Eastern Creek Container Deposit Scheme Facility



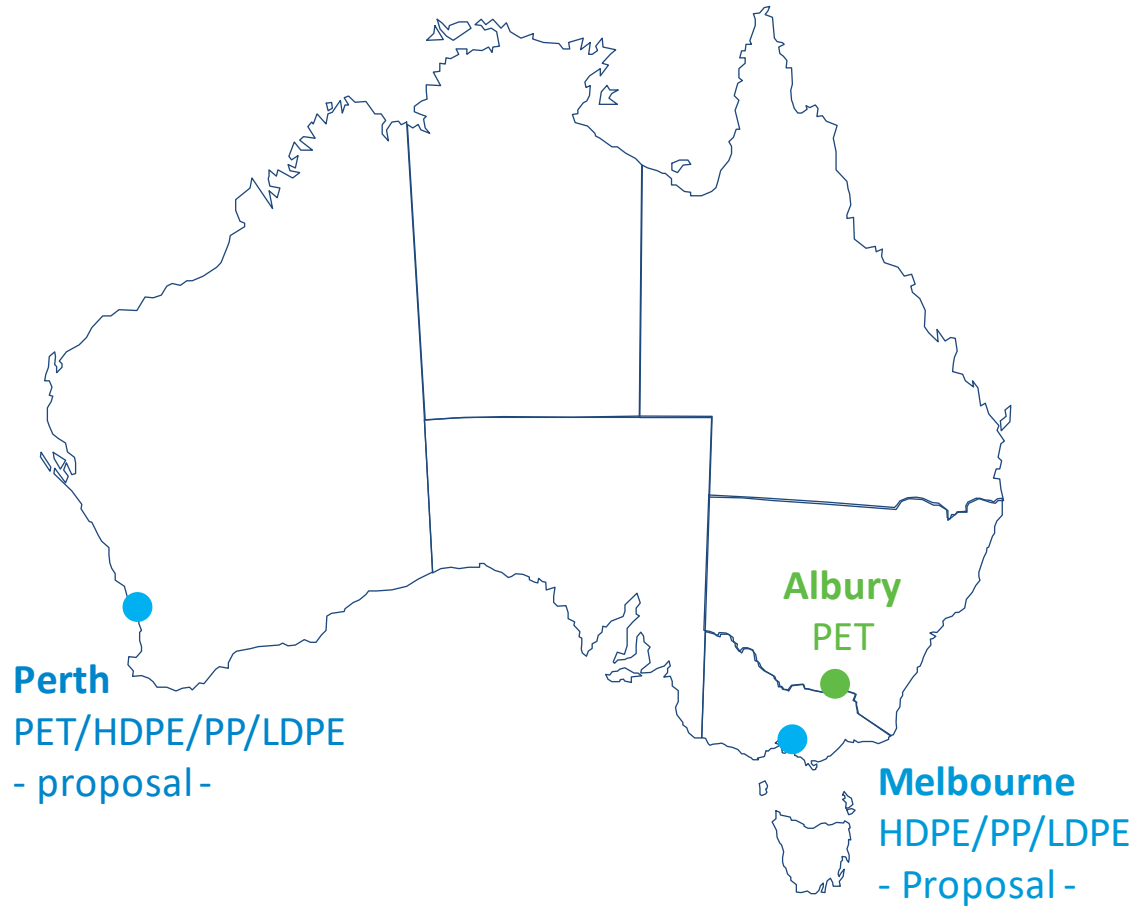
Victoria and WA MRF and PRF Infrastructure



# Further re-processing developments for other polymers



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# *Additional local demand required for a true circular economy*



- Cleanaway will continue to invest to increase recovery rates and improve the quality of materials.
- Circular Plastics Australia partnership with Pact and Asahi 'closes the loop' on PET.
- Broader FMCG and packaging sector need to be ambitious in increasing recycled content.
- Increases have to align with time of export bans in July 2022.
- Recycled content should be sourced from Australian flake and pellets where available.







*Questions*