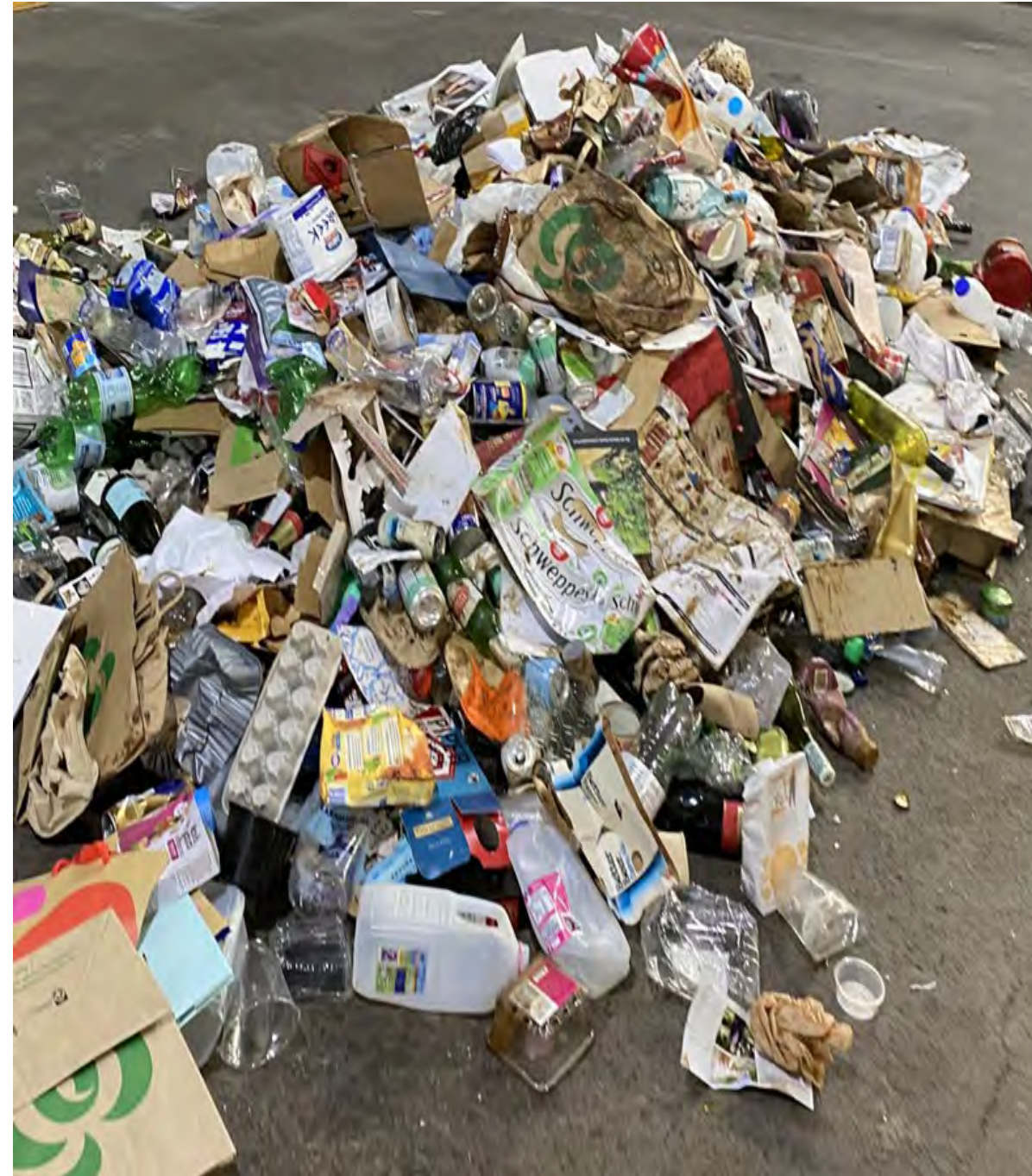


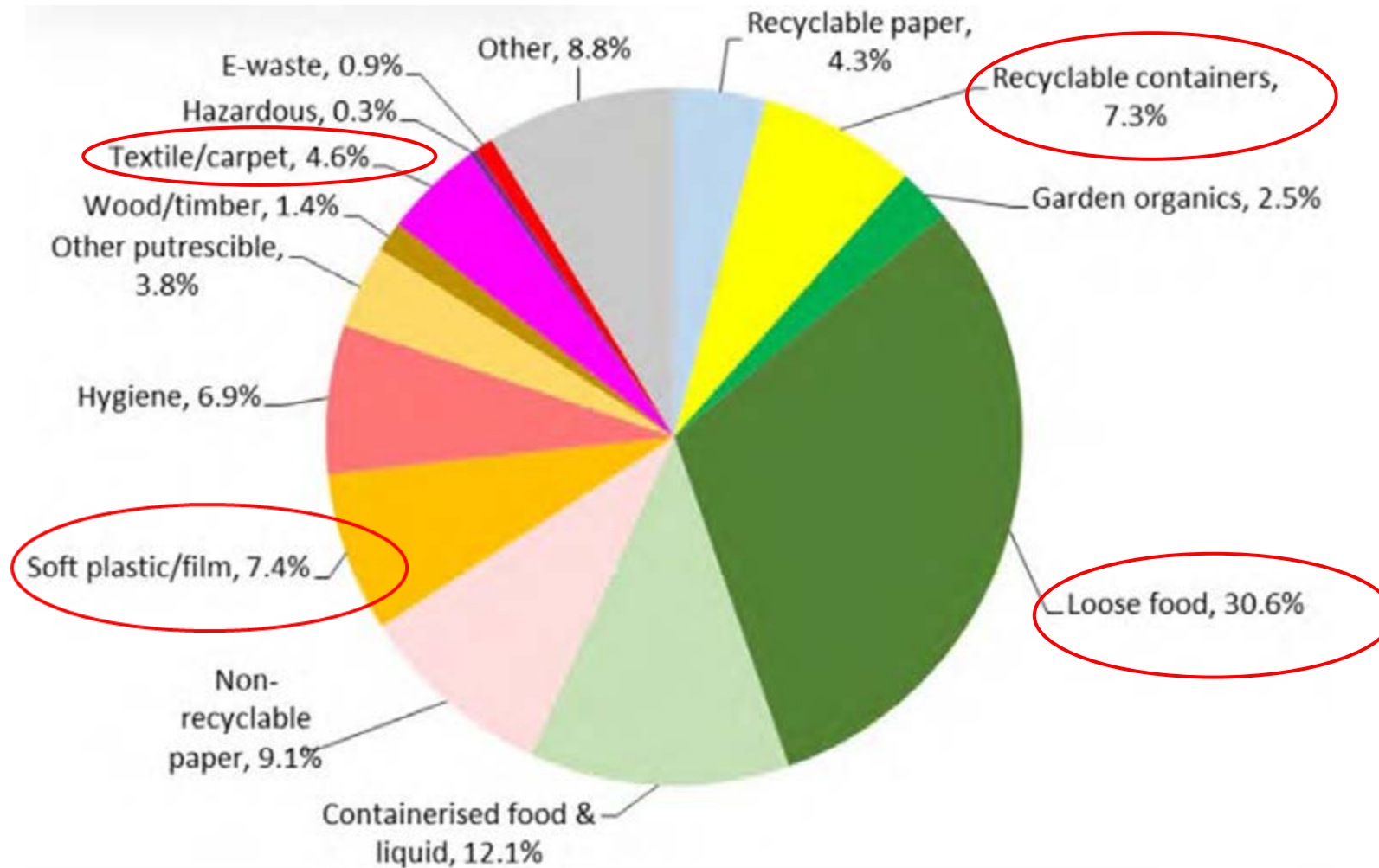


New recycling systems....new recovery opportunities

May 2025



What's in our bins ?



Current Opportunities



12%

should be in
the recycling

containers
cardboard/paper

2.5%

should be in
the garden
bin

Garden and lawn

1%

CRC

E waste
hazardous

31- 43%

Could go into
FOGO

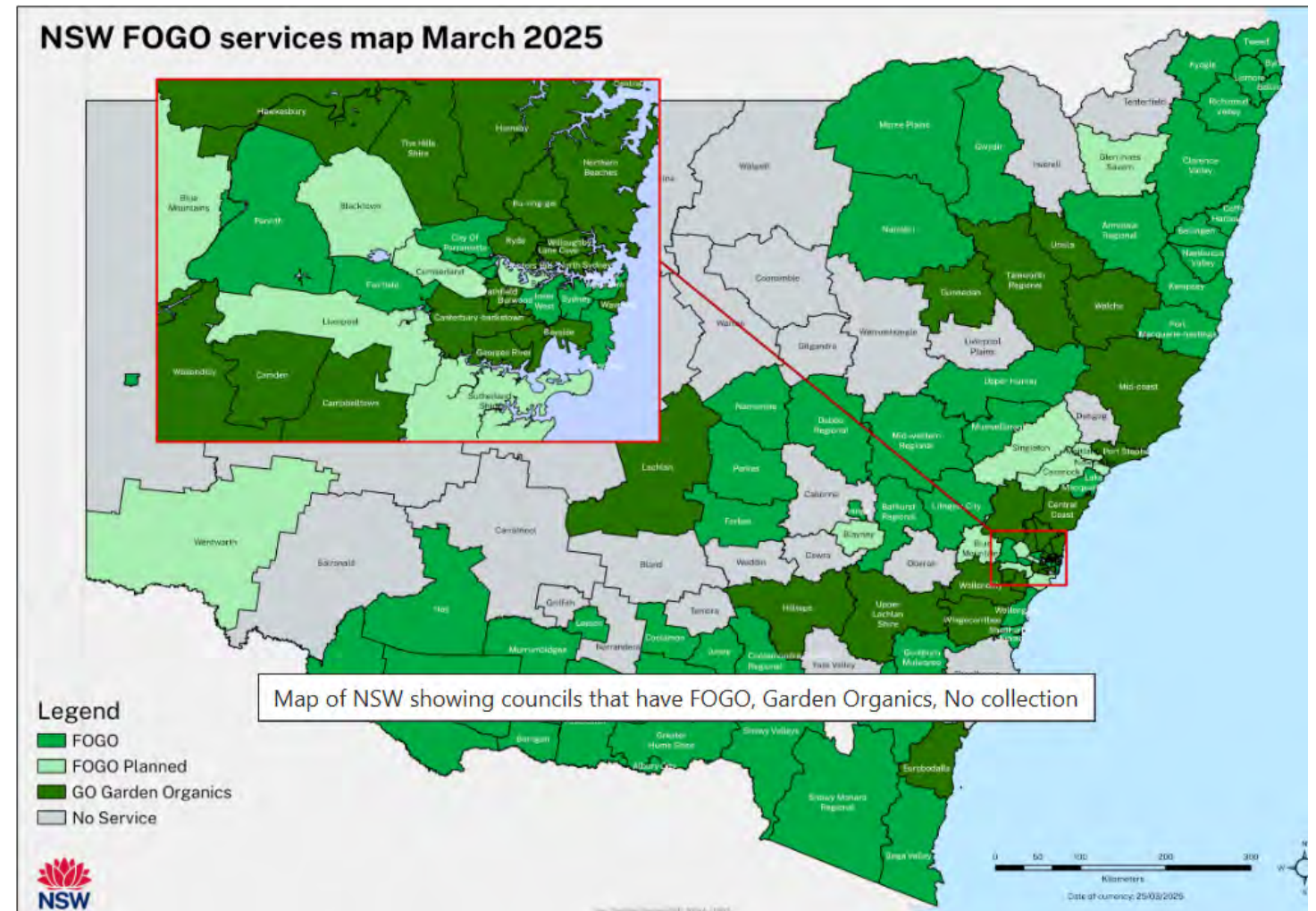
Loose food + containerised

FOGO

NSW Waste and Sustainable Materials Strategy 2041

Mandates food waste separation

- by 2030 - all NSW households
 - Food (FO)
 - Food and garden (FOGO)



FOGO

APC data - 19 FOGO services
3787 hhlds

Various Service options

- Caddies
- Bags
- FOGO weekly / fortnightly
- General waste – weekly / fortnightly

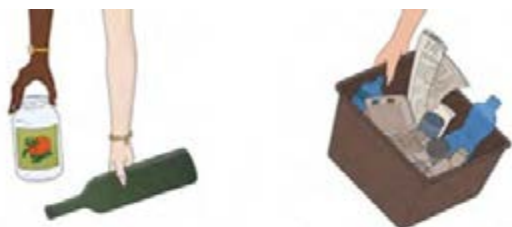


% loose food in garbage	% containerised food in garbage	% food in FOGO	recovery rate
28%	13%	6%	20%
15%	14%	18%	75%
16%	13%	24%	61%
29%	14%	8%	15%
15%	11%	2%	25%
12%	8%	2.50%	34%
19%	8%	3%	22%
18%	7%	78%	37%
16%	12%		75%
20%	11%	87%	32%
16%	12%	4.4%	38%
14%	9%	4.4%	43%
15%	9%	3.5%	33%
18%	8%	21%	67%
17%	12%	9%	49%
33%	?	6%	18%
32%	8%	5%	8%
14%	14%	4%	35%
37%	1%	3%	15%
Weighted average:			34%

Glass recovery bins in Victoria

Victoria mandated separate glass bin

- By July 2027
- Of the 79 Vic Councils
 - ✓ 22 have introduced glass bin
 - ✓ 18 regional / rural
 - ✓ 4 metro



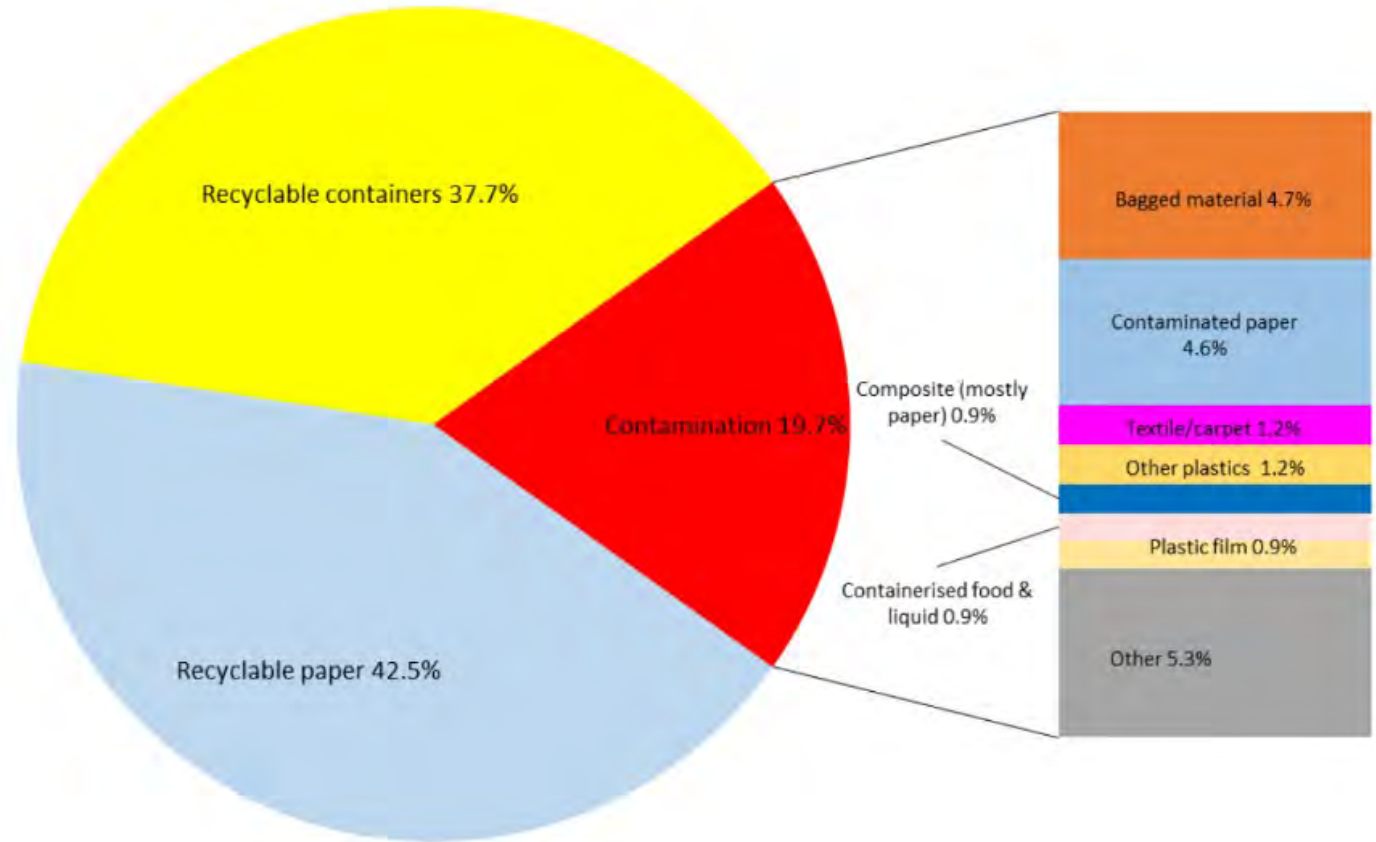
**Glass is getting its own bin
so more of it can be recycled.**



Glass recovery

Glass NSW data

- General waste bin - 1.5%
 - Recycling bin - 27%
 - Recovery rate - 81%
-
- Remove glass = increase contamination



Textiles

Almost 80 per cent of unwanted textiles end up in landfill, a report finds

Current options

1. Good quality - “wearable used clothing”, linen, towels

Donation - Op shops or clothing bins

2. Poor quality - “unwearable”

Recycling @ selected waste facilities for local/ OS recycling

3. Kerbside bins (APC data)

➤ 5% in red bin + 1% in recycling bin = wish recycling

➤ 20kg per hhld pa



Textile kerbside collection - "Bag in a bin"



Textile kerbside collection - “bag in a bin”



First kerbside clothing collection scheme in Oz by Handy Bin Services

Pilot @ Coffs Coast in 2013 and 2014 of good quality clean clothing to determine weight, volume, type, quality, contamination

Collected by truck and extracted at MRF pick line

Partnership with local Op shop - sorted saleable, export, rag, waste. 42% saleable, 35% export grade, 10% rag, 14% waste

Textile kerbside collection - “bag in a bin”

Learnings

- ▶ Community embraced program
- ▶ 3 bags pa x 3.7 kgs / bag = 500 T from landfill
- ▶ 50% bags in bin, 50% bags beside bin
- ▶ 10% bag breakage - seams split / compaction
- ▶ 240L bins full need to upsize to 360L recycling bin
- ▶ Bags easily removed at front end MRF
- ▶ 2nd trial 360L vrs 240L recycling bins = 4kgs more / collection
- ▶ Added volume = truck re-routing required

Issue

- ▶ Charities couldn't keep up with supply



Textile recovery and reprocessing

Shoalhaven City Council - value-based end uses

- Aligned to waste hierarchy: reuse, repurpose, energy recovery

Domestic Textiles: 252 T pa

Sources: Clothing, bedding, towels, curtains, soft furnishings

Pathways:

- **Reuse:** Saleable via charity networks or SCC's Buy-Back Shops
- **Repurpose:** mechanically deconstructed to manufacture:
 - Removalist blankets, camping mats, rugs and decorative items
- **Recovery:** manufacture Process Engineered Fuel (PEF)
 - Textiles, mattresses, lounges, plastics, timbers and foams



Bag in a bin - Soft plastics

- Currently 500,000 tonnes soft plastics landfill
- Average red bin contains 7% by wt !
- IQRenew & Curby undertook 5 years of pilot projects
- Late 2020 Curby soft plastics kerbside recycling program launched
- Using any device with a web browser to register CurbyRewards.com
 - Put household soft plastics into a Curby Program Bag
 - Scan the QR code using the Curby website - CurbyRewards.com
 - Place the Curby Program bag into the yellow kerbside bin
- If bagged but not a Curby Program Bag = contamination
- 1% bag breakage

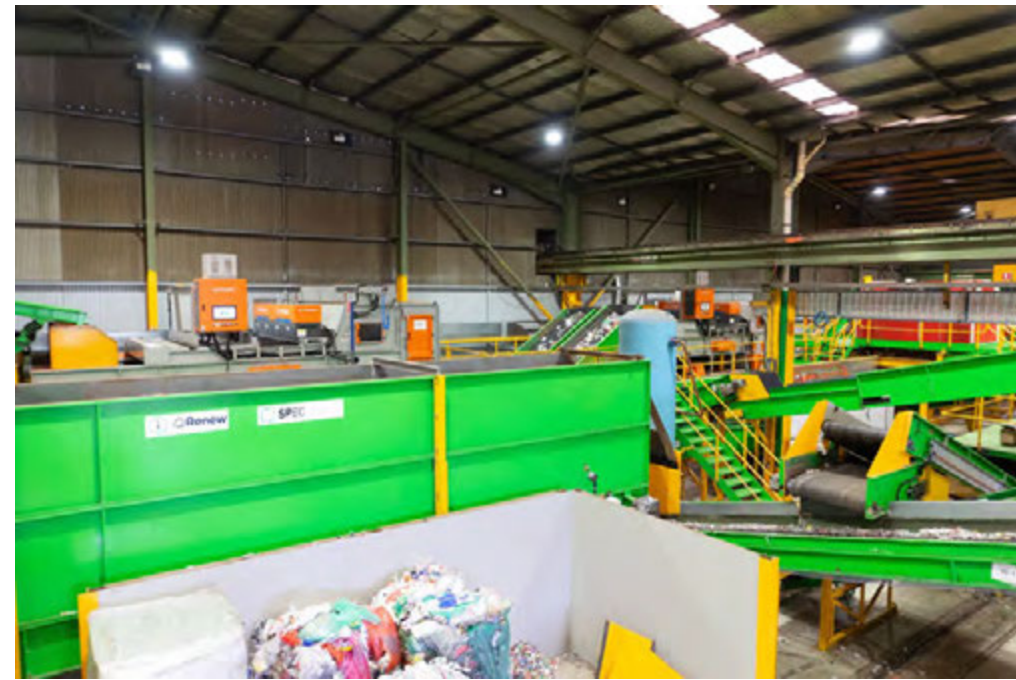


Curbycycle

iQRenew

Bag in a bin - Soft plastics

- Average bag weight – 550g
- Average household recycles every fortnight
- MRF / week – 6,000 bags = 2-3 T
- 39,000 active users, across 4 NSW Councils
- Diverted 350 T of soft plastic from landfill
- IQrenew built 1st Soft Plastic Engineered Commodity (SPEC) facility @ Taree
- Mechanically sorts and processes post consumer soft plastic by:
 - polymer type
 - colour
 - into 3 grades pellets



[link](#)



Thank you

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