Reviving Resources: Two Ongoing Citizen-Led Studies on Reusable E-Waste and Textiles in Australia's Circular Economy

This submission represents: the views of organization/s or group/s

Group Name: Mend It, Australia

Introduction

The Productivity Commission's inquiry into Australia's Circular Economy: Unlocking the Opportunities offers a vital platform to shape sustainable policy, and Mend It, Australia (MiA) is grateful for the opportunity to contribute.

MiA's self-funded, citizen-led study, supported informally by Hume City Council (sub 020), audits dumped e-waste and discarded textiles to quantify reuse potential.

Since 17 September 2024, MiA has assessed over 550 e-waste items and, starting February 2025, an initial 34 kgs of textiles with more in progress. Australians, according to the Australia Institute, lead globally in per-capita clothing consumption, and e-waste is surging with valuable yet hazardous materials and is challenging the Commission to seek to address with scalable, data-driven solutions.

In the e-waste study and as experienced repairers, MiA expected to find many non-working items it could easily repair, but were surprised by the large percentage already working, needing only checks, maintenance, and cleaning, (as in lots of elbow grease!) strengthening the case for funding reuse at its local resource recovery facility in Sunbury, Victoria.

The Study: Reuse Prevails

MiA's two studies began with dumped e-waste in the municipality of Hume, aiming to audit reusability through an informal partnership with Hume City Council's Re-sale Centre. Self-funded and focused on repair, it expected to still revive many non-working items with simple fixes, yet it was surprised by how much was already functional, requiring just cleaning and basic maintenance for resale.

However, what's basic maintenance to MiA appears not to be the case with many who owned these e-products in the past. Vacuums packed with dust, blackened air fryers, greasy sandwich makers with cheese and toasters filled with crumbs.

From September 17, 2024, for e-waste, and starting in February 2025, for textiles,

we've tracked conditions and outcomes, repairing only when simple (e.g., reattaching plugs, stitching seams). Hume's circular economy commitment, evident in their waste recovery efforts, drives this work.

Their staff's support, including letting MiA collaborate with on-site shop staff and sorters, and sharing how the items they retrieve are being returned clean, working, or wearable, make a difference to the circular economy of the Hume municipality.

E-Waste Findings: Reuse Outpaces Repair

Over 550 e-waste items since 17 September 2024 show over 70% are reusable as-is, sometimes this percentage is higher depending what is in the e-waste bins to collect once a week, and what is easily and safely accessible to pull out. Hume's Re-sale Centre returns since then include 47 kgs on March 3, 2025 and 93.5 kgs from then onwards to April 8, 2025, selling very well, according to shop staff.

By December 3, 2024, MiA had repaired 91 items but most needed minimal intervention. The repair data is being captured on the International Repair Monitor database under Jacksons Hill Repair Café ~ City of Hume. The items are being fixed and mended at MiA's private residence on Jacksons Hill in Sunbury, until a dedicated location can be allocated for community reuse and repair activities.

Household appliances top at 44%, followed by small electronics. MiA began weighing returns on March 3, 2025, after finding out about the industrial scale on-site; earlier weights from September 17, 2024 to March 2, 2025 are unrecorded but the items collected contribute to the 550 total.

The 93.5 kgs, avoids 1,870 kgs CO2 emissions (20 kg CO2/kg production) and yields $900 to $1,800 with not much repair needing to be carried out. 70% functionality at a current minimum, means funding should boost Hume's reuse capacity as a priority with repair as secondary. This data aligns with Recommendation 9.2's tracking and reuse targets.

*** Over 550 Items: Total assessed since 17 September, 2024, reflects ongoing work as of April 9, 2025, supporting a current 70% reusable trend.*

*** 93.5 kgs: Total weighed from March 3 to April 8, 2025, using the on-site industrial scale, shows real-impact, scaling up from 47 kgs on March 3.*

*** Emissions and Revenue: 1,870 kgs CO2 avoided from 93.5 kgs reused, assumes 20 kg CO2/kg production from small electronics lifecycle studies; $900-$1,800 revenue assumes $10-$20 per item, typical Re-sale Centre prices.*

Textiles Findings: Resale-Ready

Since February 2025, MiA has audited 34 kg of mostly fast-fashion textiles, with more to come, retrieved by Hume staff. Most are good to very good, perfect for the Re-sale Centre's low-cost model, an alternative to Op shops where prices are subject to costly retail overheads and meeting the financial demands of their charitable operations.

Few garments so far have required mending; 63.2% are synthetic, 36.8% cotton, mirroring global trends. Hume's sorters witness this as we return wearable items, informing Information Request 6.2's labelling potential.

Addressing the Productivity Commission's Priorities

Data for Circularity (Information Requests 6.2, 9.1)

Over 70% e-waste reusability and textiles' resale readiness show supply exceeds demand, Hume's sales prove it. This could refine labelling (Recommendation 9.1) with reuse metrics. Barriers (Information Request 9.1) are logistical, funding Hume's model trumps a repair focus from a funding perspective. However, MiA recommends repair should be a secondary consideration however should be included for in a funded reuse model.

Economic Viability (Reform Direction 9.3)

Scaling 93.5 kgs e-waste and 34 kgs textiles to 10% of Hume's 5-tonne e-waste and 10-tonne textile waste could yield $50,000 to $100,000 yearly. Nationally, 5% of 512 kg/capita waste reused could spark jobs. Low repair needs would cut costs and prioritise reuse funding.

Textiles and Stewardship (Information Requests 6.1, 6.3)

Reusable textiles back labelling (Reform Direction 6.1). Hume buyers favor cost over 'green' certifications. Co-regulatory schemes (Information Request 6.3) could fund reuse and repair hubs, leveraging Hume's lead.

Scaling the Model: Hume as a Template

Minimal repair needs will shift MiA's recommendations to Hume City Council. Scaling via Hume could:

Citizen Audits: Train volunteers council-wide for a reuse dataset.

Council Funding: Shift Hume's budgets to Reuse and Repair Hubs with Re-sale Centres, backed by 70% reusability.

Market Links: Track sales and CO2 savings for investment.

This supports Recommendation 9.2 and Reform Direction 9.3, favoring reuse. For textiles, it aligns with Information Request 6.3's co-regulatory push, with Hume Council as a circular economy pioneer.

Charitable Reuse Australia Alignment

Charitable Reuse Australia's submission (sub018-circular-economy-comments.pdf) champions reuse (pp. 8, 12), often via charity shops, though tip shop partnerships could emerge.

MiA's Hume-backed study, 70% reusable e-waste, resale-ready textiles, informs their case for local infrastructure. MiA offers a distinct model that others may be able to adapt.

The National Television and Computer Recycling Scheme (NTCRS)

The NTCRS submission (sub195-circular-economy.pdf) also engages e-waste, now proposing to manage small electricals. Whilst its material recovery focus is established, it leans on downcycling over reuse, missing local circular economy goals.

The Global E-waste Monitor 2024 reports 62 million tonnes of e-waste globally in 2022, projected to reach 82 Mt by 2030, with Australians generating 20 kgs per capita, far above the 7 kgs global average, yet only 22.3% is recycled properly.

MiA's study, with over 550 small e-products assessed and 70% working and immediately reusable, 93.5 kgs recently re-sold locally, shows older appliances retain market value onshore, a trend echoed in second-hand markets like Op and TIP shops,

eBay and Facebook Marketplace.

The NTCRS also suggests ‘a framework allowing movement of products and parts to non-OECD countries’ like China for repair and return. This risks undermining circularity with high transport emissions and eroding local repair skills, while our onshore reuse at Sunbury Resource Recovery Facility cuts CO2 and leverages existing capacity.

NTCRS offers no such reuse data, risking off-shore export of functional goods. Modernising schemes like the NTCRS to prioritise reuse and repair, as our model demonstrates, better aligns with Recommendation 9.2’s circularity targets.

Challenges and Government Role

Retired and self-funded, MiA is stretched for time and resources. Demand is strong, nearly all returned items selling, with Hume staff informally tracking our marked goods, but supply does need coordination (Information Request 9.1). Qualitative sales data would help, shop staff are stretched, too but in time we’ll recommend Hume Council collect it.

About the Author

Mend It, Australia (MiA) advances repair and reuse nationwide, publicly tracking the repair movement since 2011 and working pro bono as resource recovery advocates, repairers, and networkers for the circular economy, also since 2011.

MiA created and manages the Australian Repair Groups Map on the Clean Up Australia and Griffith University websites.

Conclusion

We thank the Productivity Commission for this opportunity, MiA expected fixes, but reuse reigns with over 550 e-waste items (70% functional), 34 kgs textiles (mostly resale-ready), 1,870 kgs CO2 saved. Hume City Council’s support, staff encouragement, sorter training, powers MiA’s efforts.

The Commission seeks scale; Hume’s model delivers. Fund reuse, integrate our data, and Australia can turn dumped and discarded resources into wealth, from local effort to national scale.