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INTRODUCTION

The road to a circular economy is laid out before us with more community engagement, industry collaboration and government support than we have ever seen. An efficient and robust recycling system is central to building a circular economy in Australia as it provides the local volume to drive investment in sorting and processing infrastructure, and the recycled content for use in manufacturing. To make the most of this amazing resource it's vital that we understand how consumers are feeling about their role as recyclers, and what we can do to improve how they do it.

Cleanaway's Recycling Behaviours Report helps us to do just that, and the results are extremely heartening.

The Report is based on a survey conducted in December 2020 of 1,000 participants across all states of Australia, including a mix of age demographics as well as metro and regional locations. It shows there's great enthusiasm and support for our recycling system with Australians almost unanimously agreed on its importance. However, the Report also shows there's more work to be done. Despite household and business recycling services having been around for decades, consumers still struggle with some of the basics of recycling.

Our research suggests as much as 35% of valuable material is falling out of the loop and going to landfill due to inaccurate recycling practices. Education about small behavioural changes and simple, consistent rules could make all the difference to this figure and move us closer to closing the loop on recycling.

Cleanaway knows through our work with customers and residents across Australia that education is key to improving sustainable practices in the community. We offer a range of programs to engage consumers and teach better recycling habits. One of these services is our e-learning platform Greenius (cleanaway.com.au/greenius) that takes users on a recycling journey through gamification, videos, animations and quizzes, and can be easily accessed via mobile devices or desktops. Greenius has been developed specifically to make recycling easy for households and everyday consumers and to rebuild trust in Australia's recycling system.



Programs such as Greenius will enable us to help bridge the gap between how Australians currently recycle and how they need to recycle, and ultimately achieve our vision for a sustainable future.

About Cleanaway

Cleanaway Waste Management is Australia's leading total waste and recycling management, industrial and environmental services company. We have supported Australian businesses for over 50 years, delivering solutions that offer extraordinary benefits not only for our customers, but also for our communities. Because we see all waste as a resource, managing Australia's waste needs isn't a matter of asking "where does it go now?", but "what can it be next?" Our experience and expertise in the industry means we're always finding better, smarter and cleaner ways to make a sustainable future possible.

About the Clean Energy Finance Corporation

The CEFC has worked with Cleanaway since 2017, supporting its efforts to reduce the amount of waste going to landfill. The CEFC has a unique role to increase investment in Australia's transition to lower emissions. With the backing of the Australian Government, it invests to lead the market, operating with commercial rigour to address some of Australia's toughest emissions challenges – in agriculture, energy generation and storage, infrastructure, property, transport and waste. The CEFC backs Australia's cleantech entrepreneurs through the Clean Energy Innovation Fund, and invests in the development of Australia's hydrogen potential through the Advancing Hydrogen Fund. With \$10 billion to invest on behalf of the Australian Government, the CEFC works to deliver a positive return for taxpayers across our portfolio.



Nine in ten Australians say that recycling is important, but small errors in practice dilute our good intentions.

Our Recycling Behaviours Report found that 89% of Australians believe recycling is important, 74% rate themselves as good or very good recyclers, and nearly all are participating in some form of sustainable behaviour in their everyday lives. Despite this positive attitude, other results from this research suggest that misconceptions and lack of knowledge around recycling may be compromising Australians' efforts.

Misconceptions were observed at all stages of the recycling process: 47% of Australians believe that soft plastics can go into recycling; 39% don't trust that their recycling will be properly recycled; 37% are unaware that kerbside recycling is sorted in Australia; 26% don't know that food containers need to be rinsed before going into recycling; and 15% think that you can just put everything in the recycling bin and it will get sorted out at the recycling facility. Cumulatively, these and other misunderstandings of how recycling works in Australia, and confusion about what materials can and cannot be recycled, are likely to contribute to low-level, and lowquality, participation in Australia's recycling programs.

"We get a bit confused about what can and can't go into the different recycling bins."

"There's a lot of information out there and it can be hard to find the right information to make sure we're doing the right thing."

Nellie and Scott Riley

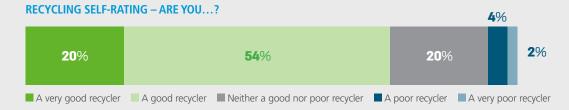
Providing more accessible and easy to understand information about recycling will be crucial to ensuring that Australians are enthusiastic and effective recyclers going forward. Our survey found that many Australians feel such resources are lacking: 32% of Australians say that it's hard to find clear instructions about how to recycle, and 29% find recycling confusing. Those who do not rate themselves highly as recyclers say that clearer information and understanding around recycling would be key factors in encouraging them to recycle more. Among parents trying to teach their children about recycling and sustainability, 25% don't find it easy, and 17% say they do not have easily accessible tools to teach their kids. With children's views on recycling and sustainability largely mirroring those of their parents, accurate information provision is critical not only for this generation, but also for the next.

Cleanaway would like to thank the Riley family for their participation, and for sharing the challenges they face (like many Australians) when it comes to implementing the correct recycling behaviour within their home.



RECYCLING BEHAVIOURS

Overall, three-quarters of Australians believe they are good or very good recyclers – but are they? Significant gaps in knowledge and understanding around sustainability and recycling, mean that Australians' best efforts are undermined in practice.



Room for improvement

Exploring the actions of Australians when they recycle, it is clear that there is room for improvement in the overall quality of our recycling approach:

Sorting and separation

Almost three-quarters (72%) of Australians mostly or always separate the components of their rubbish into the appropriate bin; however, only 63% adhere to this approach when it comes to separating hard and soft plastics for recycling. With 47% of Australians believing that soft plastics can go into their kerbside recycling bin, this points to a significant knowledge gap holding people back from effective recycling.

Cleanliness and contamination

While 83% of Australians say they empty their takeaway containers before recycling them, only 60% say that they rinse their recyclables before putting them in the collection bin. For some this is likely due to ignorance: a quarter (26%) of Australians don't know that food containers need to be rinsed before being put into recycling, and a third (34%) are unaware that food can contaminate good quality paper and cardboard in the same bin.



83%

of Australians empty out takeaway containers before putting them in the recycling bin most or every time



72%

of Australians separate the components of a single product to dispose of in the appropriate bin most or every time



63%

of Australians separate soft plastics and film from hard plastics before recycling most or every time



63%

of Australians take the lids off glass and plastic bottles before putting them in the recycling most or every time



60%

of Australians rinse recyclable containers before putting them in the recycling bin most or every time



56%

of Australians check for the Australasian Recycling Label to see where an item should be recycled before disposing of it most or every time



51%

of Australians check local recycling rules for items they're unsure about most or every time

SUSTAINABLE BEHAVIOURS

While Australians are highly supportive of recycling, their reported behaviours indicate that they are also embracing a bigger picture view of sustainability – specifically the practice of generating less waste in the first place.

86% are trying to minimise their consumption of single use plastics, backed up by 88% who use reusable shopping bags most of the time, and 60% who use a reusable coffee cup. The sustainable approach extends to fashion, with 79% of Australians prioritising buying pieces that will last and avoiding fast fashion.

SUSTAINABILITY IN GENERAL



86%

of Australians try to minimise their consumption of single use plastic



66%

of Australians pick up and dispose of litter that is not their own



60%

of Australians use a reusable coffee cup



47%

of Australians compost their food scraps



39%

of Australians grow their own vegetables



34%

of Australians use solar panels in their home

SUSTAINABILITY AND SHOPPING



88%

of Australians use reusable shopping bags most or every time



79%

of Australians limit fast fashion purchases and try to buy pieces that will last



55%

of Australians seek out brands that are sustainable



49%

of Australians take note of the recycling symbols on packaging most or every time



41%

of Australians seek out products with reusable or recyclable packaging most or every time



35%

of Australians choose an alternative product to reduce excess packaging most or every time

MOTIVATIONS FOR RECYCLING

Why do the good recyclers do it? And why don't others recycle more or better?

For those who consider themselves good recyclers, the desire to do the right thing for the world and for the future is a paramount motivation. In contrast, those who do not consider themselves to be good recyclers point to a lack of knowledge as a barrier, and say that being rewarded would motivate them to recycle more (suggested examples of incentives included a 'return and earn' system, or reductions on council rates for being good recyclers).

WHAT MOTIVATES GOOD RECYCLERS TO RECYCLE:



39%

The environment/ planet



17%

Minimising waste



11%

A better future for their children



70%

It's the right thing to do



70/

Being a responsible citizen



5%

To live in a cleaner environment

"I recycle to do better for the environment and to leave a better planet for our children. Reusing and recycling seems the right thing to do."

- 45-49 year old female, Melbourne





19%

Incentives



15%

Clear and consistent information



14%

Better understanding of how recycling can help



8%

If it was easier



8%

The environment



6%

More / bigger bins

"I'd be a better recycler if it was easier to know what does and doesn't go in recycling, aside from the recycling symbol."

- 18-24 year old female, Victoria

BARRIERS TO RECYCLING

Misconceptions and mistakes

Respondents expressed a number of views that point to a lack of understanding about how recycling works in Australia today. These are misconceptions that could make Australians feel less invested in recycling overall, and less inclined to put in the effort to recycle correctly.

37%

don't know that kerbside recycling is taken to a facility in Australia to be sorted and then recycled

- they think it happens offshore

23%

think it is the council's responsibility to sort through waste to ensure items are properly recycled

- not their responsibility

15%

think you can just put everything in the recycling bin and it will get sorted out at the recycling facility

so it doesn't matter if they don't sort properly

Information overload

It is important to acknowledge that 13% of Australians say they find it too much effort to recycle, and part of this is likely due to the amount of conflicting information that Australians are confronted with in relation to recycling instructions. 57% of Australians report that they turn to the internet to find out what they can recycle, and where. Given the volume of conflicting information available online, it is therefore unsurprising that 32% of Australians say that it is both hard to find clear information about how to recycle, and that they find recycling confusing.

"...different shires or councils have different rules for recycling. Our Shire is different because it has a FOGO bin... Other shires don't have a FOGO bin - they just tell you to put your food scraps in your greenlidded bin. Confusing!"

- 70+ year old female, Melbourne

Mistakes preparing and sorting recycling

Gaps in Australians' knowledge and understanding of the recycling process were further revealed during a sorting task. Respondents were given a set of waste items and asked to assign each item to the appropriate disposal method – kerbside recycling, specialised recycling, or landfill. The results of this test are shown in detail on the following page.

Simple plastic, paper, and cardboard items were consistently assigned to kerbside recycling by 70% or more of Australians. More concerning were the items that were inappropriately placed in kerbside recycling: soft plastic (by 36% of Australians), foodstained pizza boxes (37%), polystyrene and Styrofoam (24%), and broken crockery (22%).

A further point of concern based on the survey results is electronic waste. While 39% identified that a broken kettle should go to specialised recycling, an equivalent proportion (43%) assigned it to landfill.



BARRIERS TO RECYCLING cont.

Correct disposal of household waste is a complex task

Respondents were given a sorting task, asking them to indicate where they would dispose of a number of common household waste items (see table below).

Fewer than 2% of respondents assigned every item to the correct disposal method.

How would you sort the below items when cleaning up?	Landfill	Commingled recycling	Compost	Specialised recycling
Plastic bottles	8%	75%	4%	13%
Yoghurt containers	18%	74%	4%	4%
Pizza boxes without stains	15%	72%	9%	4%
Envelopes (with or without windows)	19%	70%	6%	4%
Old clothing	36%	13%	5%	46%
Batteries	20%	8%	2%	70%
Soft plastic food packaging	40%	36%	5%	18%
Broken kettle	43%	16%	1%	39%
Paint cans	18%	14%	2%	66%
Gas bottles	10%	10%	2%	78%
Pizza boxes with stains	45%	37%	15%	2%
Polystyrene and Styrofoam	59%	24%	3%	14%
Broken plates	63%	22%	3%	12%

■ Correct ■ Incorrect to a concerning extent

THE CIRCULAR ECONOMY

You don't need to know its name to be a part of it!

The behaviours Australians reported in relation to sustainability indicate that they understand the core concept of the circular economy: reduce, reuse, and recycle.

High percentages of our respondents are actively choosing sustainable options in their role as consumers. This is evident in the high proportions who report using reusable shopping bags and coffee cups, who avoid single use plastic, who make purchases with longevity in mind, and who actively seek out reusable and recycled packaging.

Despite their behaviours, however, only 15% of Australians are familiar with the term "circular economy". It appears that this phrase has not yet caught hold with the Australian public at large.

Gold star responses from respondents defining a circular economy:

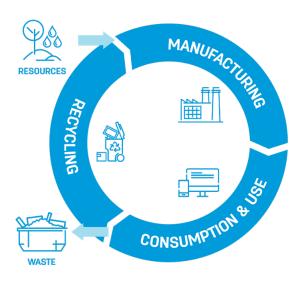
"It basically means a process to try to stop waste so resources are used for longer. So something at one stage which is no longer needed can be converted at another stage into another product which is then used."

– 55-59 year old female, Brisbane

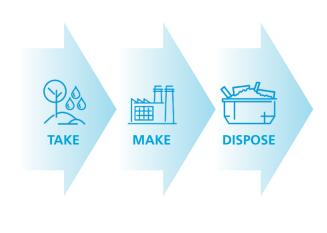
"The circular economy means reusing and recycling - industries are created through it - products are made - and it's sustainable both environmentally and economically."

- 40-44 year old male, Darwin

CIRCULAR ECONOMY



LINEAR ECONOMY



THE NEXT GENERATION

The next generation are taking on their parents' worldview... so it's crucial that parents are well-informed

Like their parents, the children surveyed in this project think recycling is important (77% say it was very important and 23% say that it was kind of important), and are largely motivated to recycle to support the environment. Knowledge and beliefs about recycling were also highly consistent between children and their parents. 94% of Australian parents say that they talk to their children about recycling, and 85% of children say they learn about recycling from their parents. As such, it is unsurprising that these children's opinions should so closely mirror those of their parents.

"I have to live in this world, and there's already too much rubbish."

- 17 year old

"I see my parents recycle and I think it's something that we need to do, otherwise our beautiful country gets dirty."

- 12 year old

Where the kids lag behind is in their perceptions of their own recycling – while 60% say their parents are very good recyclers, only 43% say the same about themselves. However, they show an appetite for improvement, with 79% wanting to learn more about recycling and sustainability at school.

TOPICS THAT PARENTS DISCUSS WITH THEIR CHILDREN



94% recycling



94% saving water



89% saving energy



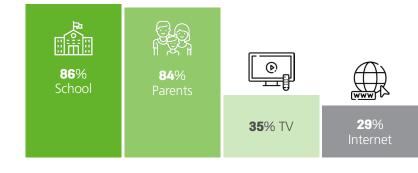
67% climate change

19% Friends

So, parents are active in talking about recycling and sustainability with their children – but how well are they teaching them? We have already discussed in this report the misconceptions and misunderstandings that many Australian adults hold about recycling – with children learning from and copying their parents, these are likely to be passed on.

Some parents seem aware of this, with 17% saying there are not easily accessible tools to teach children about recycling, and only 75% saying that teaching their kids about recycling is easy. Providing information that is simple to access and understand will be an essential ingredient in empowering Australian adults and children to be active and effective recyclers.

WHERE CHILDREN SAY THEY LEARN ABOUT RECYCLING



A key to improving recycling performance

Australians want a more sustainable future, but currently, only 25% of Aussies are separating waste correctly at every opportunity and almost 50% are still putting soft plastics into their kerbside recycling bins.

This report clearly illustrates that further education is needed - and that's where Greenius (cleanaway.com.au/greenius) comes in.

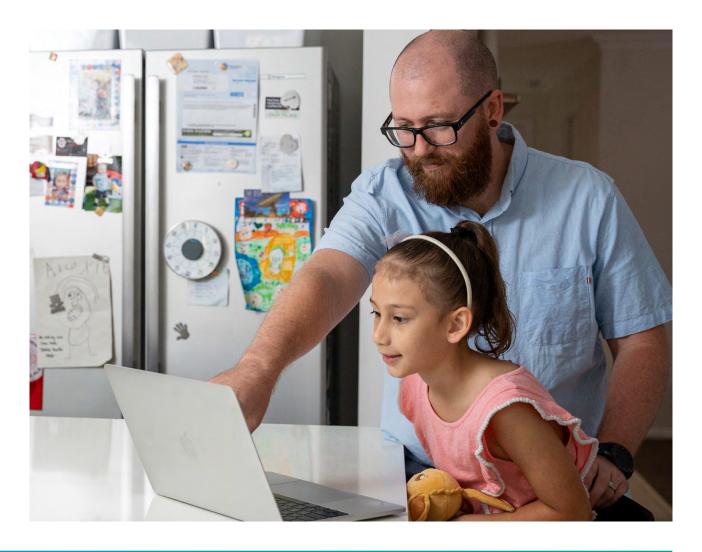
Developed by Cleanaway, Greenius is a free, online learning platform busting myths and addressing recycling challenges to help all Australians get it right.

The platform is suitable for almost anyone wanting to learn how to improve their recycling performance, and takes users on a recycling journey through gamification, videos, animations and quizzes.

Through educational modules and easy-to-implement tips, Greenius aims to motivate people to facilitate and accelerate the transition to a circular economy, demonstrating how the small actions and changes we make everyday can have lasting impacts for years to come.

Head to Greenius (<u>cleanaway.com.</u> <u>au/greenius</u>) and join us in educating Australians on correct recycling practices.

It's the small behavioural changes that will make all the difference.



METHODOLOGY

This report has been prepared with the assistance of Empirica Research who conducted an online survey with a sample of 1,000 Australians in November-December 2020. This included a sub-audience of 293 parents of children aged 8-18 years. These parents were asked to allow their children to complete a shorter survey once the parents had completed their own.

For questions relating to all 1,000 Australian respondents, data has been weighted to be representative of the Australian population with respect to gender and age.

For questions relating only to parents and children, data was unweighted.

Any external sources that have been used are referenced throughout.

1,000 AUSTRALIANS						
GENDER	Male	460	46%			
	Female	540	54%			
AGE	18-29	113	11%			
	30-39	257	26%			
	40-49	202	20%			
	50-59	154	15%			
	60-69	152	15%			
	70+	122	12%			
STATE/ TERRITORY	NSW	319	32%			
	VIC	264	26%			
	QLD	176	18%			
	WA	105	11%			
	SA	71	7%			
	TAS	32	3%			
	ACT	25	3%			
	NT	8	1%			

293 AUSTRALIAN CHILDREN						
AGE	8-10	89	30%			
	11-13	99	34%			
	14-16	74	25%			
	17-18	31	11%			



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