

State of Sustainability Report 2024

Key research findings

Presentation to Greenhouse Alliances

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The State of Sustainability Report provides insights on community attitudes and actions

Survey topics 2024



Climate change

Attitudes, level of concern

Victorians' lived experience



Sustainable living and circular economy

Understanding of circular economy

Attitudes & behaviours



Housing & energy use

Thermal quality

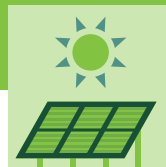
Energy efficiency of appliances



Gas usage, electricity

Willingness to switch

Barriers & beliefs



Renewable energy

Household use

Social licence for infrastructure



Awareness of government programs and expectations

Energy upgrades

Solar rebates

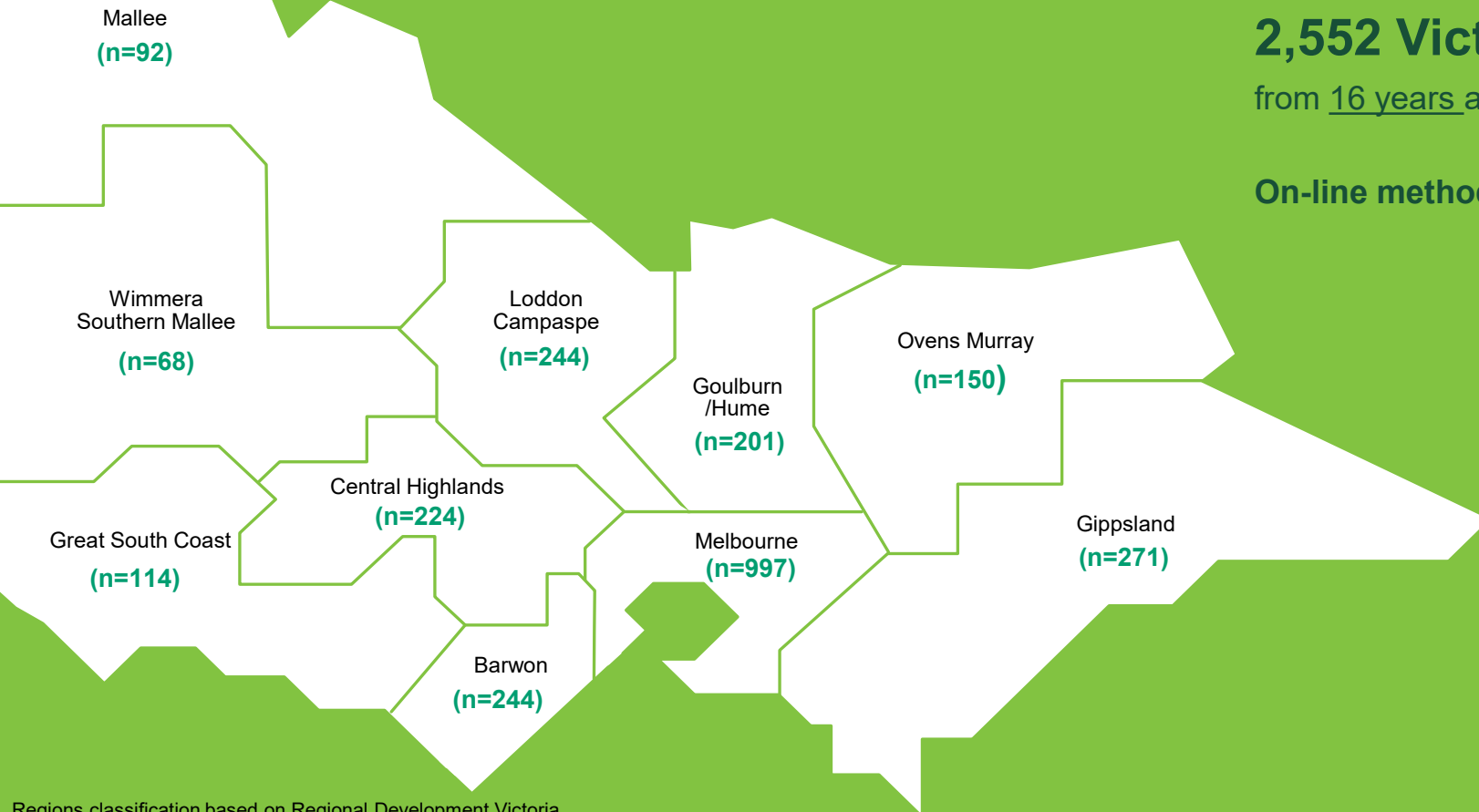


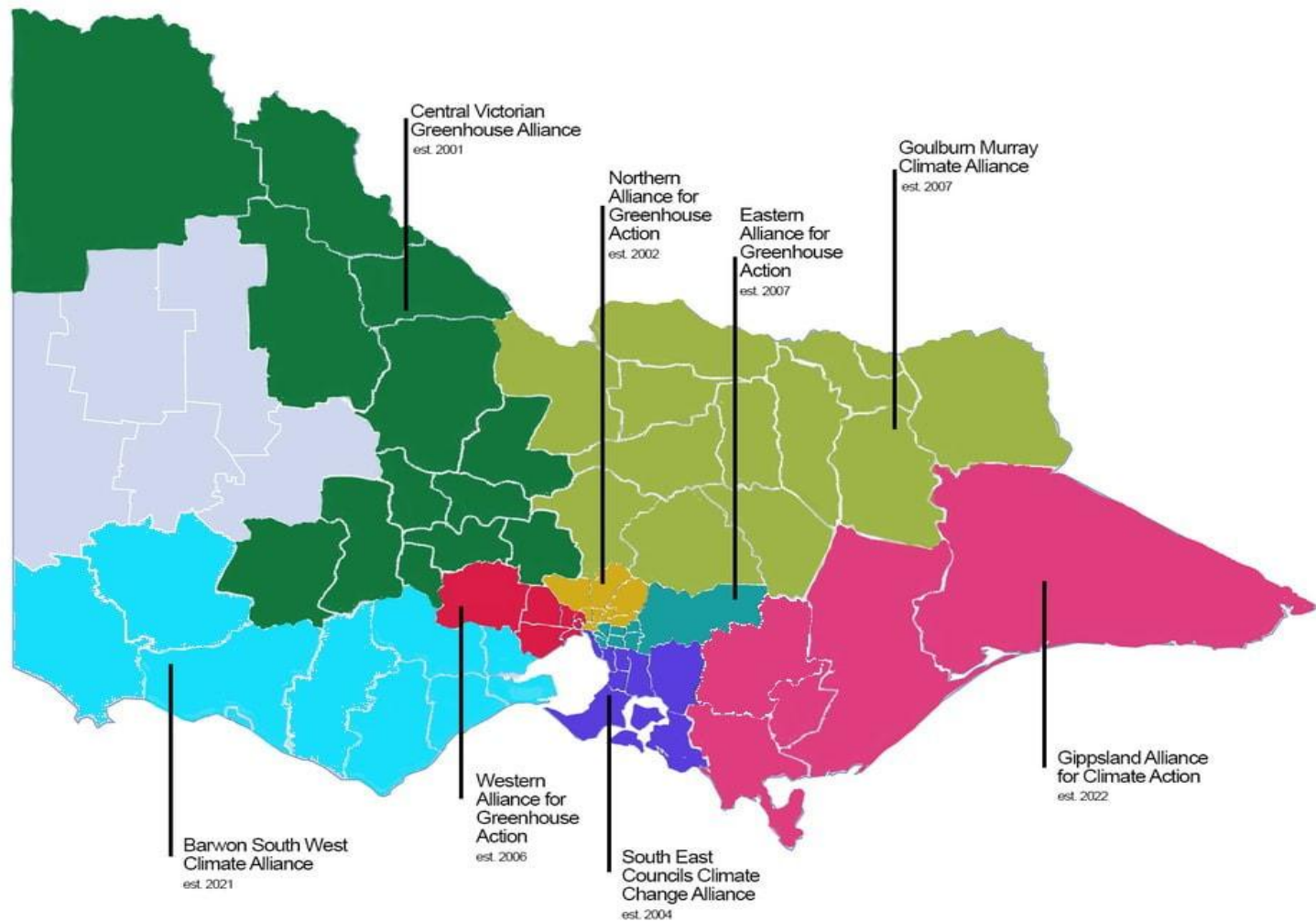
Respondent demographics

Age; Sex; Location; Education level; Own-home/renters; Employment; income, etc.

Representative sample
A state-wide sample of
2,552 Victorians
from 16 years and over

On-line methodology





Summary of insights



67%

Victorians are concerned about climate change – partly driven by lived experience of climate impacts



80%

Victorians would prefer to buy products that can be serviced and repaired to stay in working order for longer



60%

support the shift of households from gas to electricity, especially younger people, but renters face more barriers



72%

households could benefit with more energy efficient appliances for hot water, heating



35%

Victorian households use renewable energy, and regional households are leading the take-up of solar panels

Climate change

- Climate change concern remains high in comparison to other issues
- Support for climate action underpins social licence for the renewable energy transition

Almost one-quarter of Victorians rank climate change in the top three priority issues

23%

Victorians

ranked climate change in the top three issues of importance

26% in 2023

8%

Victorians

ranked climate change as the top priority issue

11% in 2023

*I used to say “no other issue matters if there is no planet to live on” but the **cost-of-living crisis** is now so dire, it has **taken some of my climate alarm away.** (16-24 yrs)*



1 cost of living



2 Housing cost



3 Healthcare



4 Roads & transport



5 Climate change



6 The job market/employment



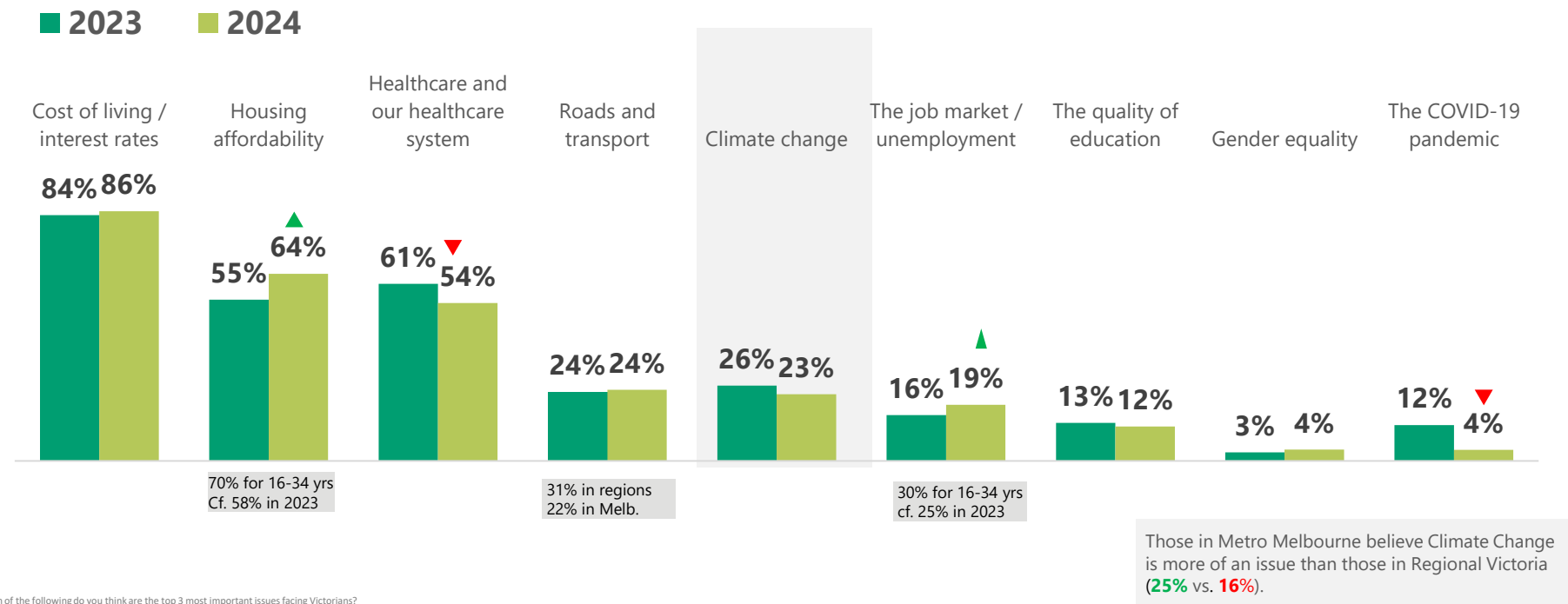
7 Education

Numbers 4 and 5 rank very closely: 23% and 24%

Climate change is seen as higher priority than employment and education

PRIORITY ISSUES FOR VICTORIANS

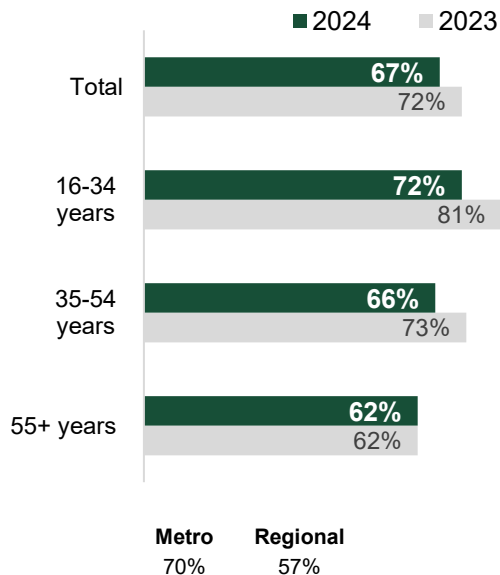
Here's the extra slide so you can see what else came up in "priorities" responses



67% of Victorians are concerned about climate change

Concern about climate change

(fairly or very concerned)



Say that their concern has increased over the last year

Consistent across age

35%

Victorians

Similar to 2023



Reasons for increasing concern:



Catastrophic climate events



More evidence about the impacts



Changing weather patterns



More media coverage



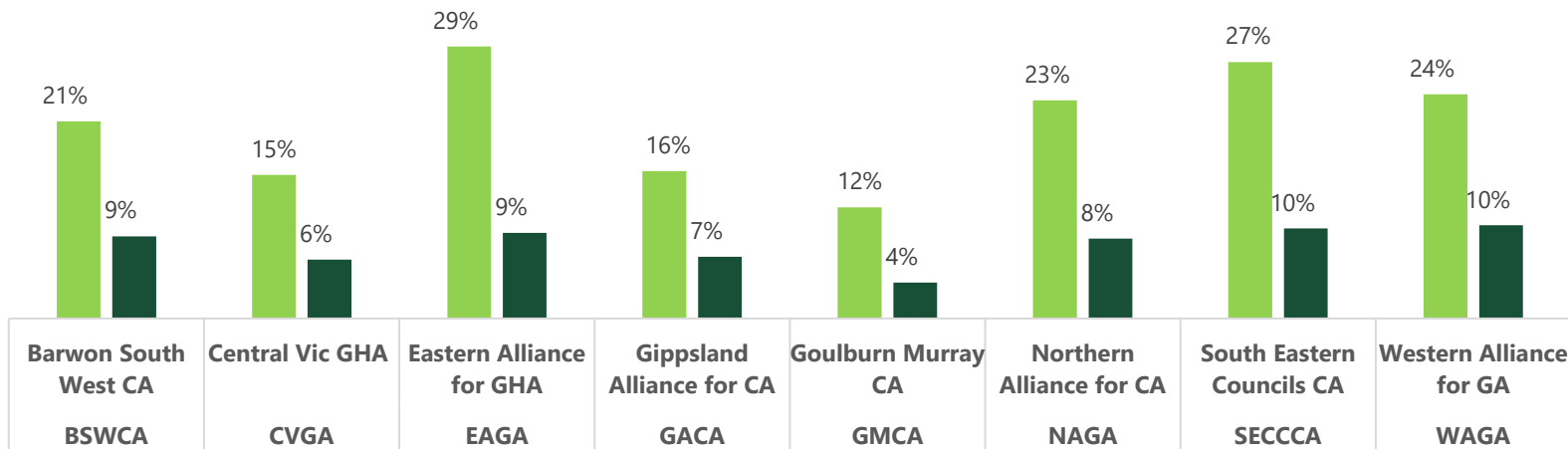
Lack of government action

Australia is making no effort to reach net zero carbon emissions - it's talked about a lot but I haven't seen any changes

Climate change priority and concern

Metro GH Alliances more concerned and give climate a higher priority

- Climate change ranked in top 3
- Climate change ranked 1



Very/fairly concerned	60%	57%	67%	57%	59%	72%	72%	69%
Feel more concerned in last year	33%	31%	38%	27%	28%	38%	36%	35%

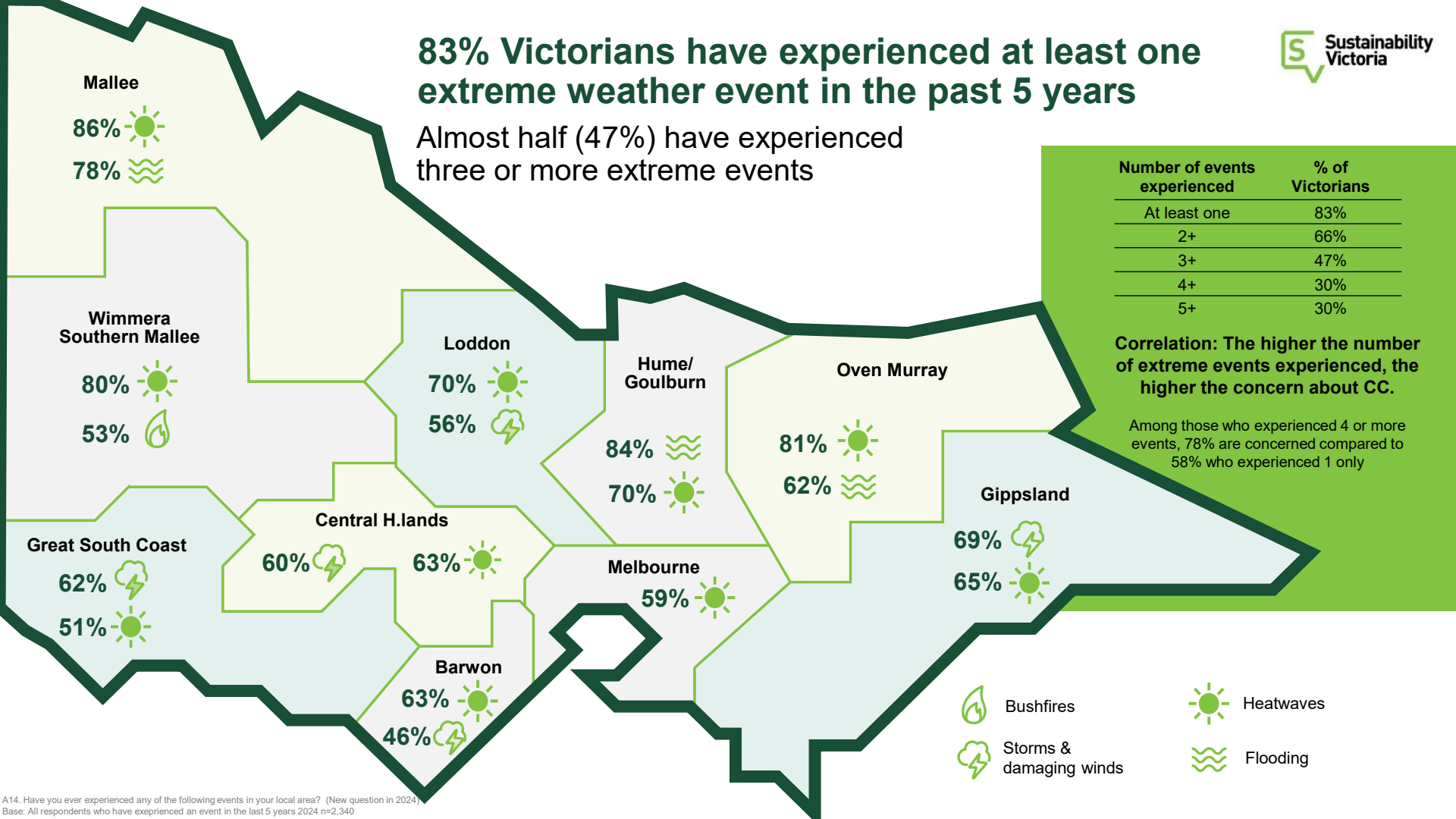
83% Victorians have experienced at least one extreme weather event in the past 5 years

Almost half (47%) have experienced three or more extreme events

Number of events experienced	% of Victorians
At least one	83%
2+	66%
3+	47%
4+	30%
5+	30%

Correlation: The higher the number of extreme events experienced, the higher the concern about CC.

Among those who experienced 4 or more events, 78% are concerned compared to 58% who experienced 1 only



Climate change – lived experienced, by GH Alliances

Goulburn Murray worst hit, followed by Gippsland then central Vic

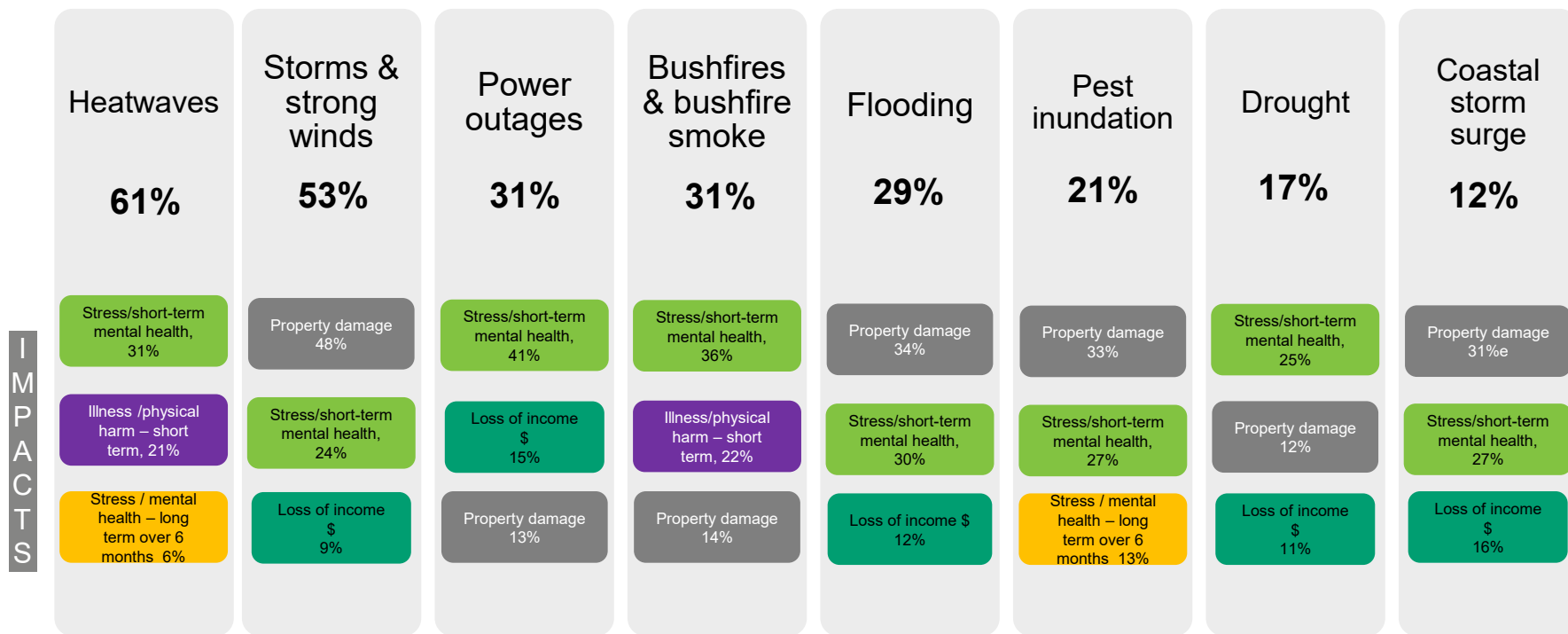
	BSWCA Barwon South West Climate Alliance	CVGA Central Vic GH	EAGA Eastern Alliance for GHA	GACA Gippsland Alliance for Climate Action	GMCA Goulburn Murray Climate Alliance	NAGA Northern Alliance for Climate Action	SECCCA South Eastern Councils Climate Alliance	WAGA Western Alliance for Greenhouse Action
Heatwaves - temperatures over 35 degrees that last 3 days or more	61%	65%	61%	62%	73% ↑	54% ↓	61%	65%
Storms and strong winds (severe enough to damage houses or infrastructure)	51%	55%	56%	67% ↑	68% ↑	44% ↓	58%	46%
Bushfire / Bushfire smoke at hazardous levels	30%	41% ↑	25% ↓	59% ↑	51% ↑	28%	27%	26%
Power outages lasting more than 24 hours	23% ↓	29%	48% ↑	58% ↑	50% ↑	17% ↓	31%	19% ↓
Flooding (river, coastal or flash flooding)	34%	44% ↑	21% ↓	55% ↑	76% ↑	19% ↓	19% ↓	25%
Pest inundation	23%	28% ↑	9% ↓	21%	46% ↑	22%	16%	19%
Drought	17%	27% ↑	10% ↓	26% ↑	37% ↑	12% ↓	13%	15%
Coastal storm surge/flooding	19% ↑	10%	8%	21% ↑	26% ↑	12%	9%	11%

Column n 333 494 263 243 378 298 258 172

How are Victorians impacted by extreme climate-driven events?

If you'd like impacts for each extreme event, by Alliance, let me know

Mental health impacts are associated with all events, while property damage and loss of income associated with most.



Sustainable living and the circular economy

- Positive attitude to living sustainably is consistently held across demographic groups and regions
- There is a readiness among Victorians to support circular businesses and products

Victorians have a consistently positive attitude that living sustainably is important



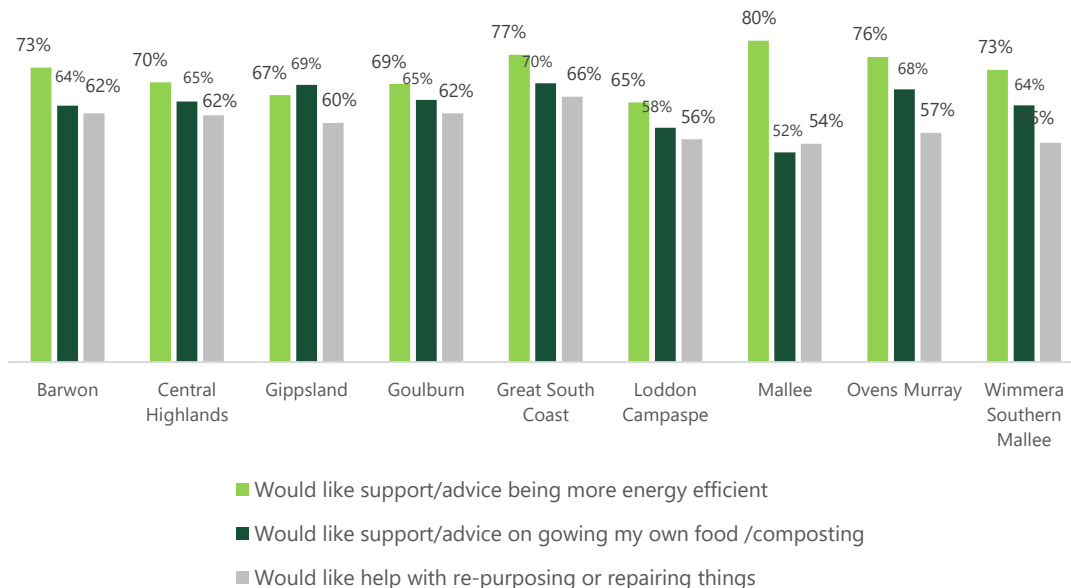
68%

believe that living sustainably is important and (70% in 2023)

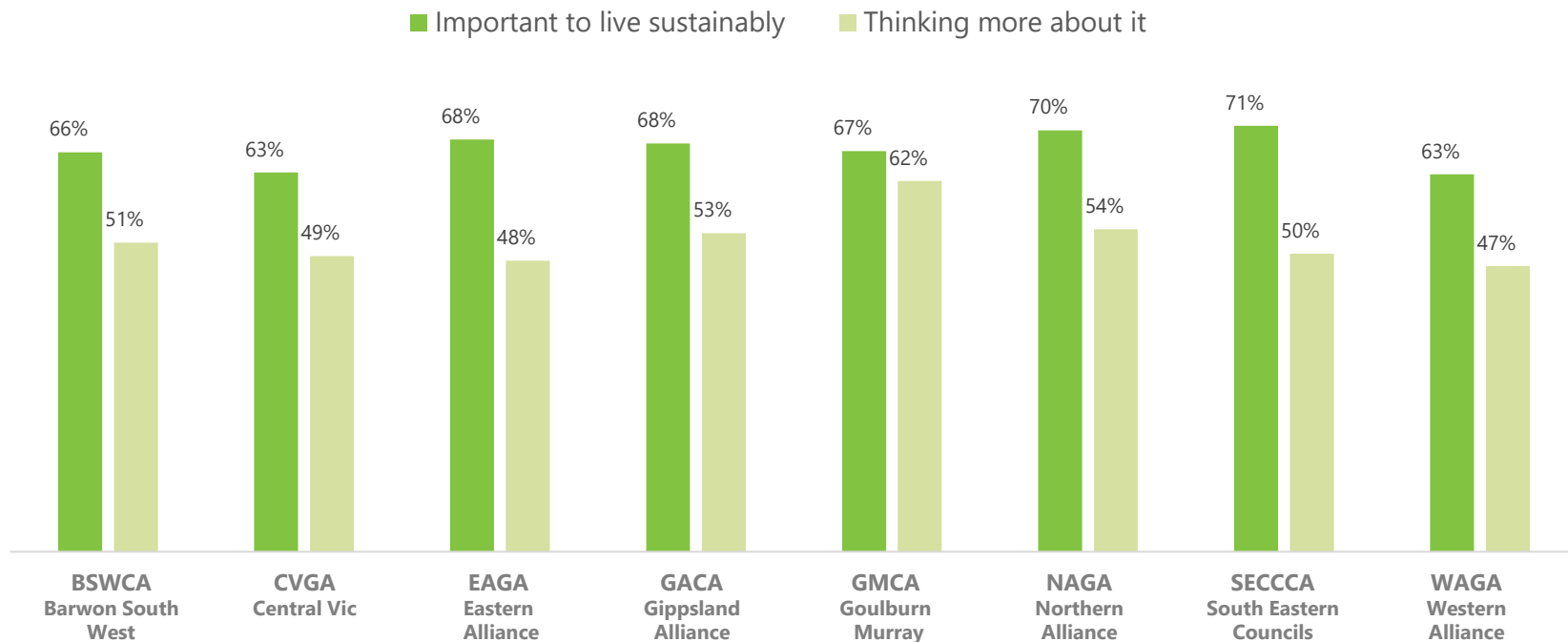
51%

are thinking more about how best to do this (56% on 2023)

Many Victorians want support advice on energy efficiency, growing own food and repairing

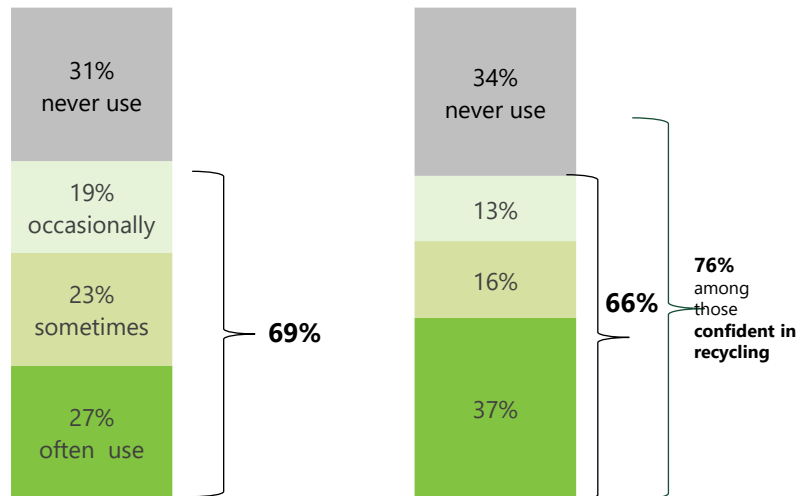


Most agree it is important to live sustainably and half or more are engaged on the issue, by GH Alliances



Most Victorians use government-initiated recycling programs

Battery /e-waste disposal and use of Container Deposit scheme



Return batteries / e-waste to collection point

❖ Higher among 55+ years

Return containers through the Container Deposit Scheme

❖ Higher in regional areas

More Victorians think about the environmental impacts when **throwing away** old items (55%) rather than when **buying them** (30%).

55%

Victorians

When I throw out old items/products, I think about what happens to the environment

30%

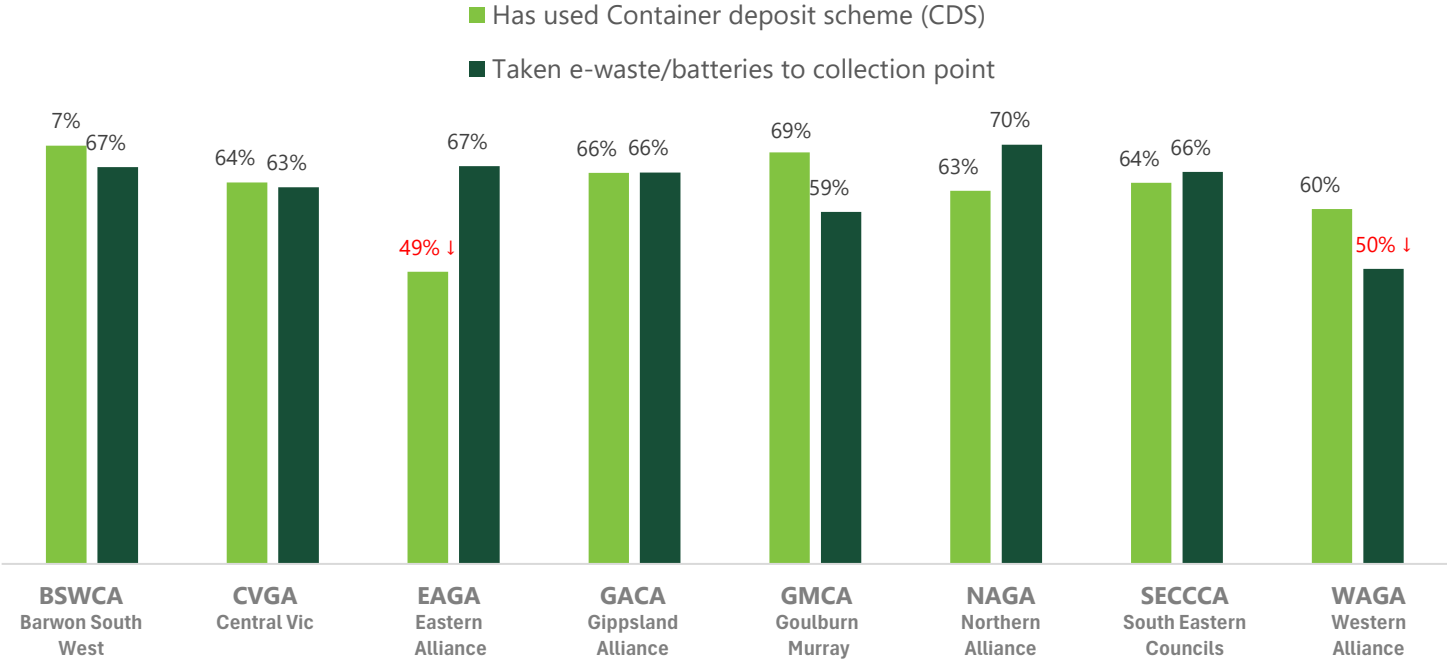
Victorians

When buying new products, I think about the resources that were used to make it

Increasing awareness of environmental impacts of waste at the time of purchase is worth further exploration.

Use of government-initiated recycling programs, by GH Alliance

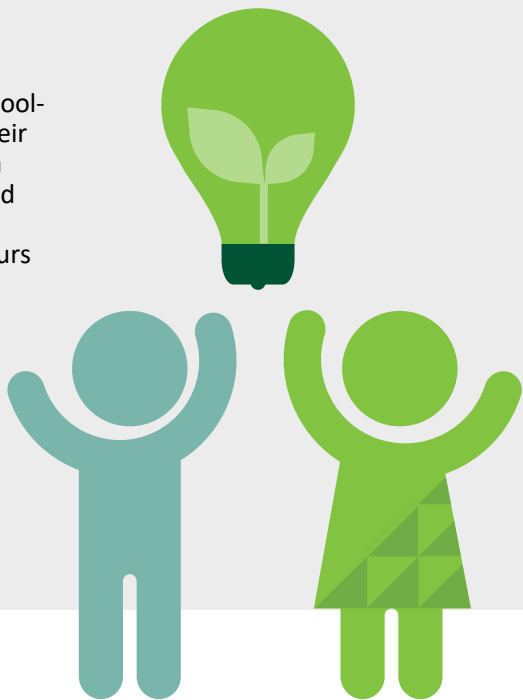
Eastern Alliance has lowest usage of CDS



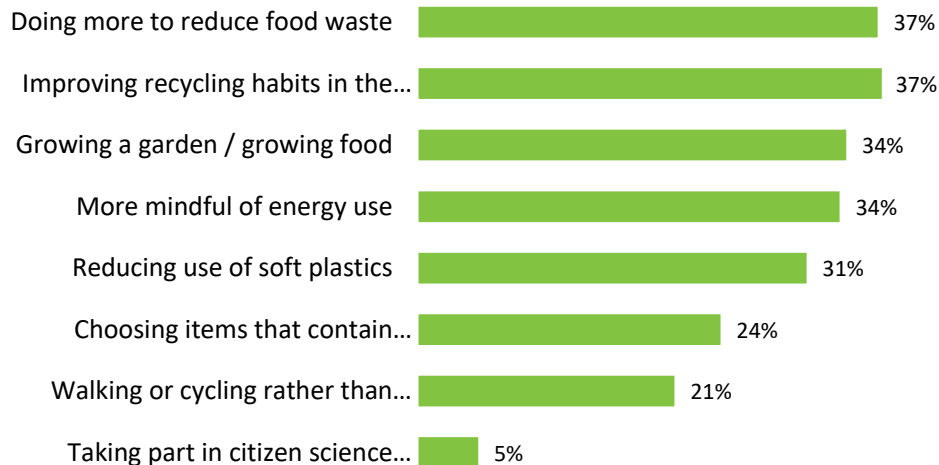
School kids are positively influencing sustainable behaviours in the home

70%

households with school-aged children say their child's learning from school has influenced the take-up of sustainable behaviours in the home



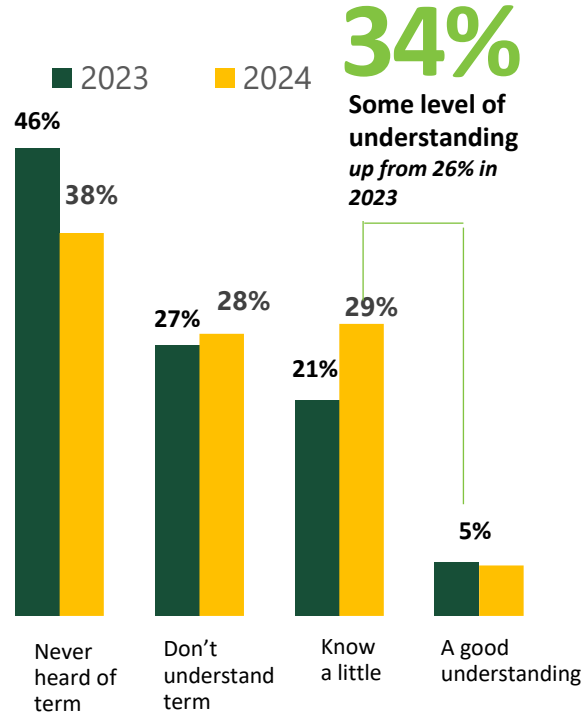
Behaviours in the home influenced by child's learnings from school



34% of Victorians are familiar with the term circular economy (8% increase)



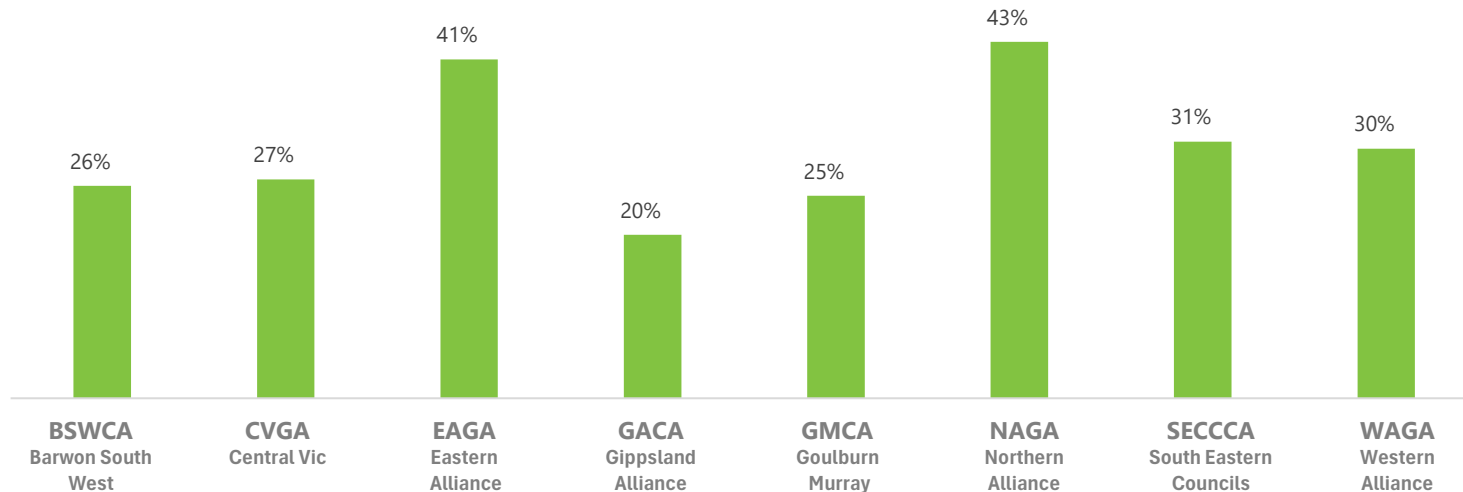
“CIRCULAR ECONOMY”



- Awareness higher among males, those in metro locations, those with a degree
- No differences across age groups
- 41% males aware v 27% females
- 37% aware in metro v 24% in the regions
- 46% among those with a degree were aware v 27% other

Awareness the term “circular economy” and have some idea of what it means, by Alliances

NAGA and EAGA have highest awareness (statistically significant)



Some 'circular' behaviours are well known, others need more support and education

Buying/selling second-hand is well embedded

67% buy and/or sell second-hand

Shop fronts used equally for clothes and other items

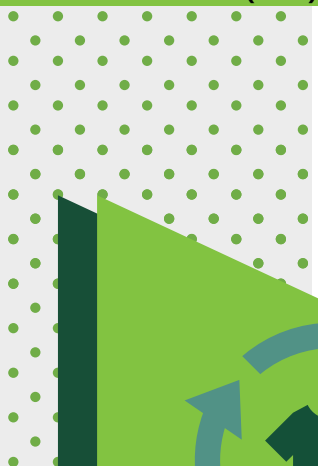
Online used more for other items (48%) than clothes (31%)

Goulburn Murray highest (79%)

26% buy repaired/ refurbished electronic devices, rather than buying new ones

34% among 16-34 yrs; 31% renters v 22% homeowners

Buying second-hand clothes means buying fewer new clothes (72%)



Repairing, servicing, leasing or hiring – a new norm is possible

29% (slightly **higher** than last year, 24%)

Used repair services

No sig diff across demos

15% (47% awareness of these companies, higher among younger people)

Used a company that offers take-back /stewardship program

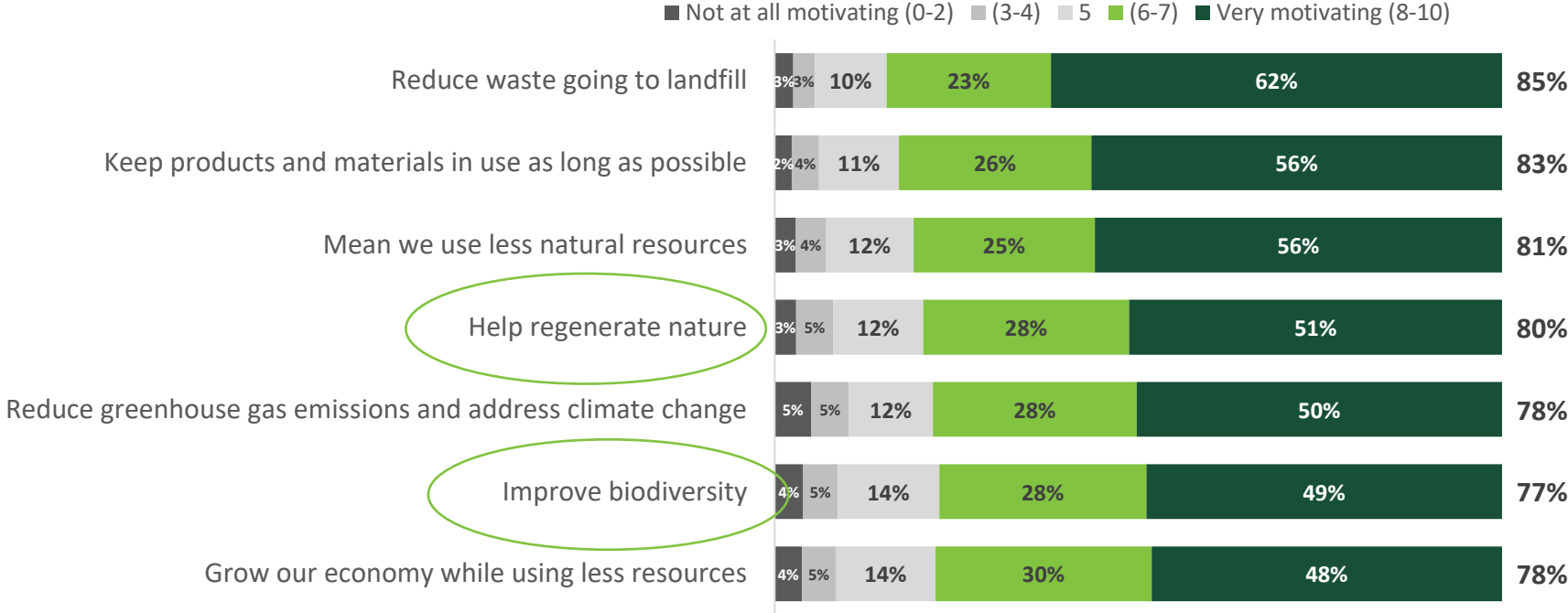
Approx

8% (similar to last year, 10%)

Used borrowing, leasing, or hiring services (e.g. tool libraries; car share; toy library other baby /children items etc.)

Use of tool library, sig higher in NAGA, 13%

Most Victorians are motivated by the potential benefits of a circular economy



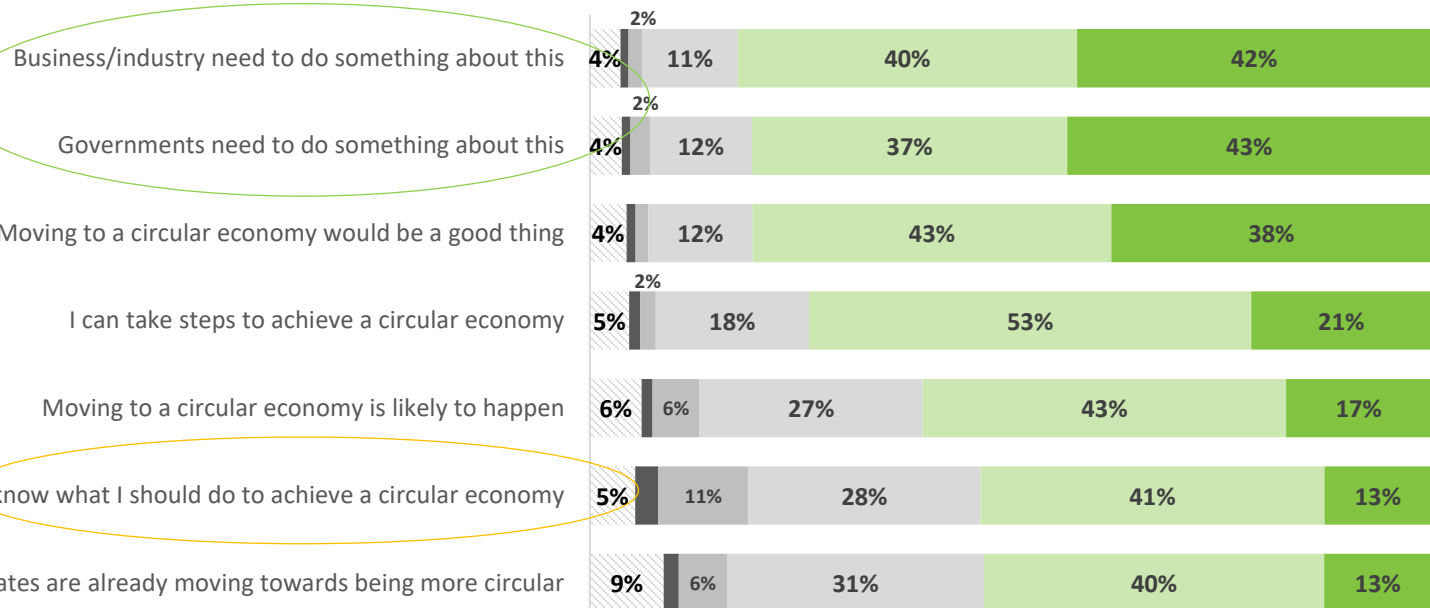
People are positive about a circular economy but see the government and business as key movers

Only around half know what they can do to achieve a circular economy

■ Strongly Disagree ■ Disagree ■ Neither Agree nor Disagree ■ Agree ■ Strongly Agree

NET: AGREE

TOTAL
THOSE
FAMILIAR
WITH CE



Housing and energy use

- 60% of householders' homes have good or moderate thermal quality
- Renters' homes have lower thermal quality and lower energy efficiency than home-owners
- 72% of households could achieve significant gains in the energy efficiency of appliances

Thermal quality of the home is critical to sustainable living

No sig changes from 2023



60%

Classified as good or moderate

13% Good

Has ALL of these:

- Insulation in roof/floor/walls
- Double glazing &/or window covers
- Draught proofing

47% Moderate

Has insulation in roof PLUS two or three of these:

- Double glazing &/or window covers
- Draught proofing
- Other insulation



40%

Classified as poor / very poor/extremely poor

10% Poor

Has ONE insulation type:

Insulation in roof or floor or walls

And one of these:

- Double glazing or window covers
- Draught proofing

19% Very poor

Has ONE ONLY of these:

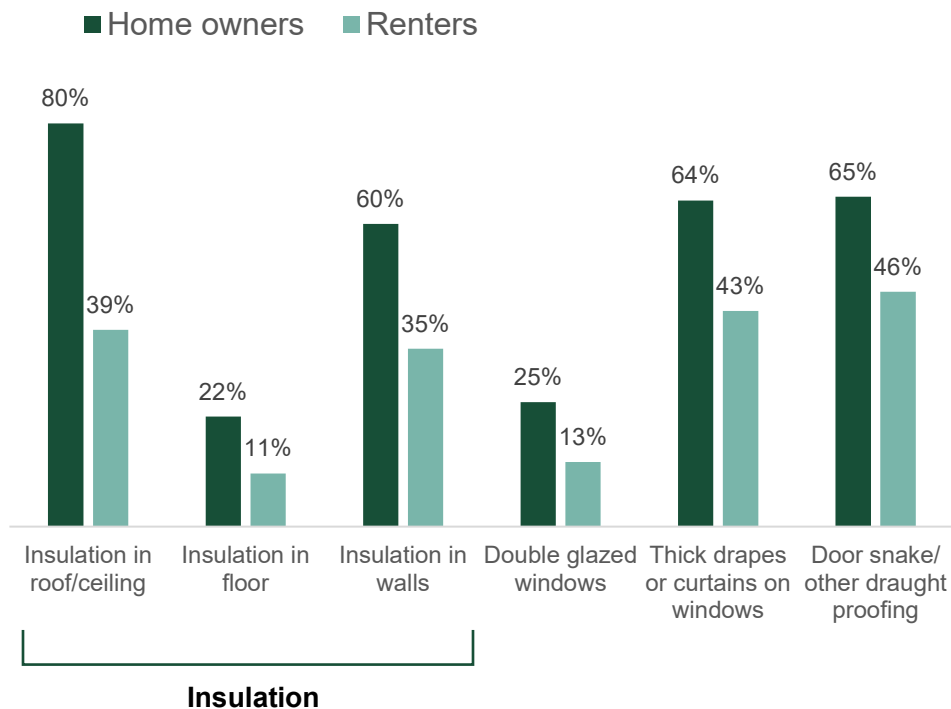
- Insulation in roof/floor/walls
- Double glazing %/or window covers
- Draught proofing

11% Extremely poor

Has NONE of these features

Renters have lower uptake of thermal features in their homes

Thermal features in the home



In 2023

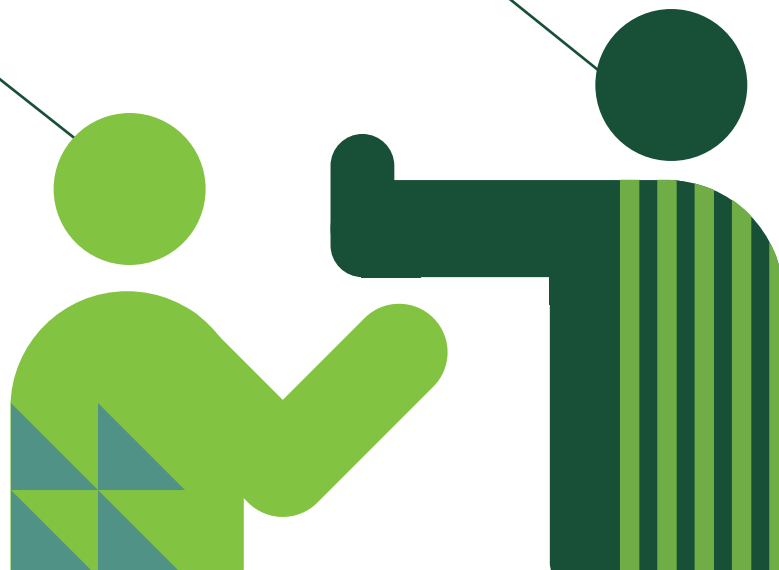
27%

of renters asked landlords for **changes to improve energy efficiency**

In 2023

55%

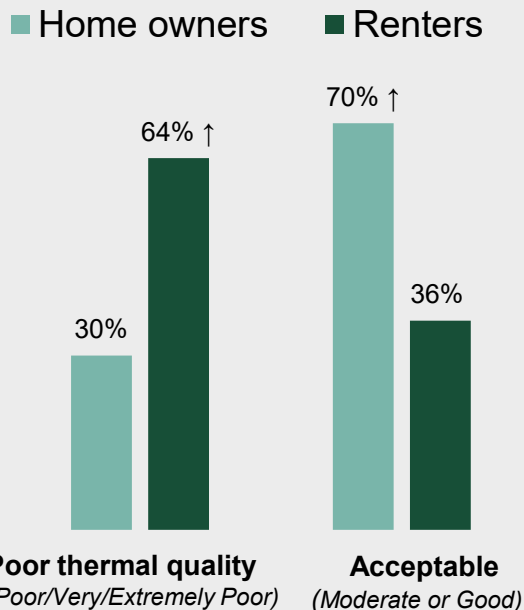
More than half of landlords said **no**



More renters leave their homes during extreme weather because it is too hot or too cold to stay



**Thermal quality
classification
across housing
status (%)**



Percentage of people having to leave their house due to it being too hot or too cold to stay

(similar to 2023)



11%

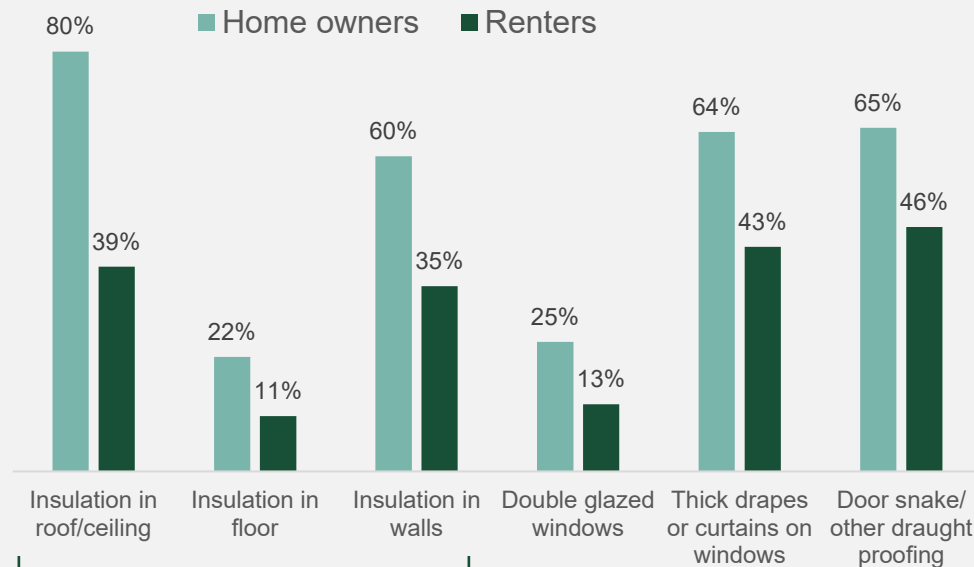
own home/mortgage
(12% in 2023)



28%
of renters
(same as last year)

Renters have lower uptake of thermal features in their homes

Thermal features in the home



Insulation

Renters more likely to have to leave their house due to it being too hot or too cold to stay

(similar to 2023)



11%

own home/mortgage
(12% in 2023)

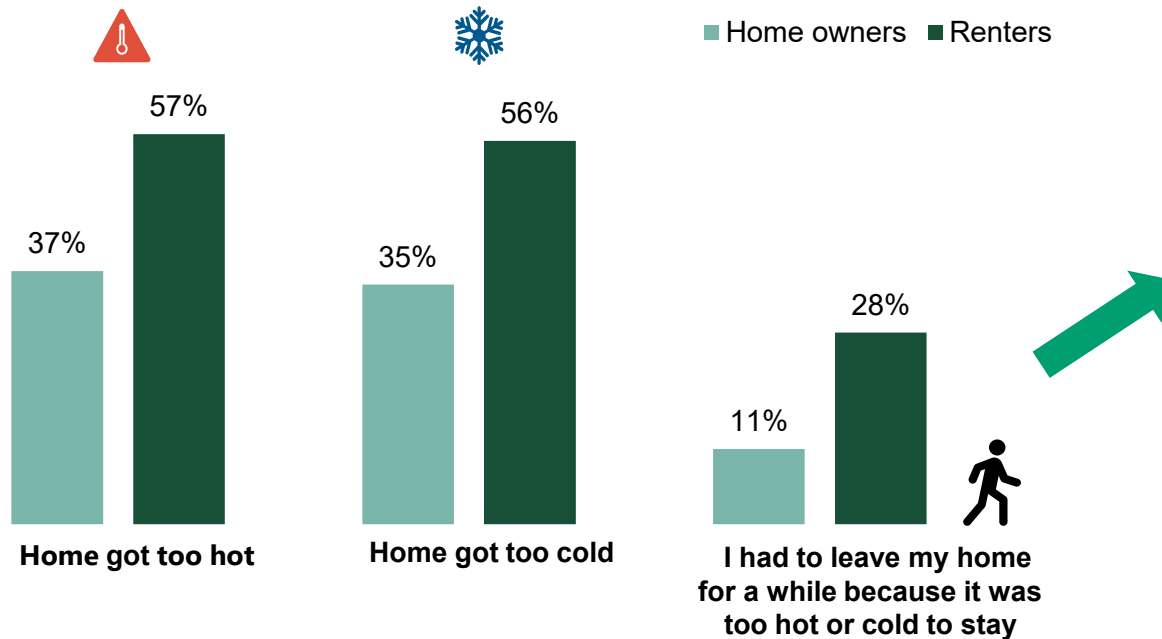


28%

of renters
(same as last year)

Renters' homes get hotter and colder than home-owners'

Reported thermal comfort, renters v home-owners



Where do people go?

- Shopping mall (46%)
- Friend/family's place (36%)
- Pool (20%)
- Cinema (15%)
- Library (15%)
- Community venue (4%)

Actions Victorians' take to prepare for hot weather



What are all the ways you prepare yourself, and your home, for hot weather?

Use air conditioning, fans and other appliances to keep cool

77%

Draw shades to prevent sunlight from entering windows

73%

Open up the house at night to cool it down

59%

Avoid cooking hot meals in the middle of the day

46%

Stay in the coolest room in the house

39%

Put a cool towel around my neck

12%

Energy efficiency of key appliances – heating, hot water and cooking

Two main systems use
most of the home's energy:
heating and **hot water**

60%

of average annual
energy costs*

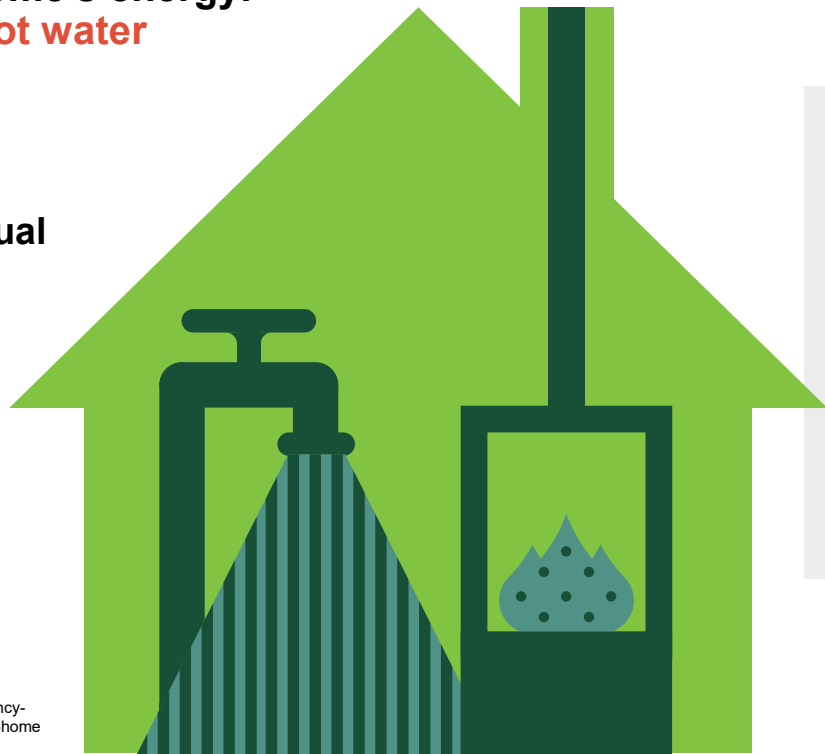
Heating

43% of average
annual energy costs*

Hot water system

17% of average
annual energy costs*

(*excluding supply charges)
www.sustainability.vic.gov.au/energy-efficiency-and-reducing-emissions/save-energy-in-the-home



Poor energy performance impacts:



The wider
economy



Less healthy
to live in



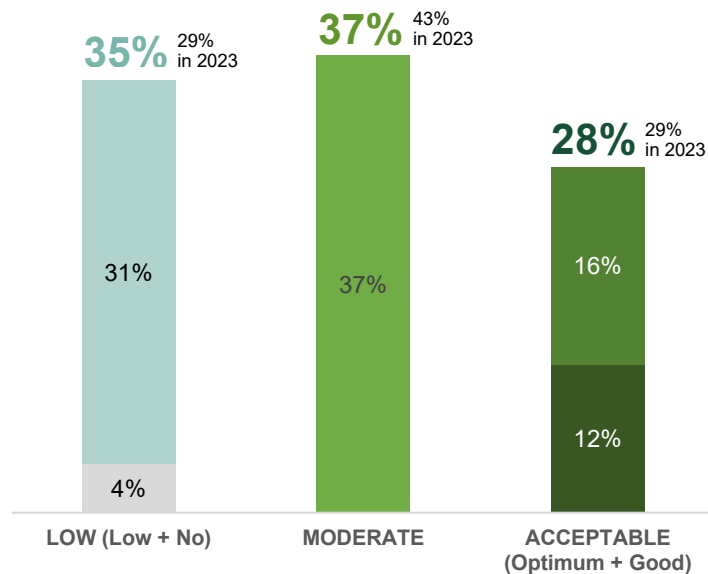
The energy
grid



Cost more to
heat and cool

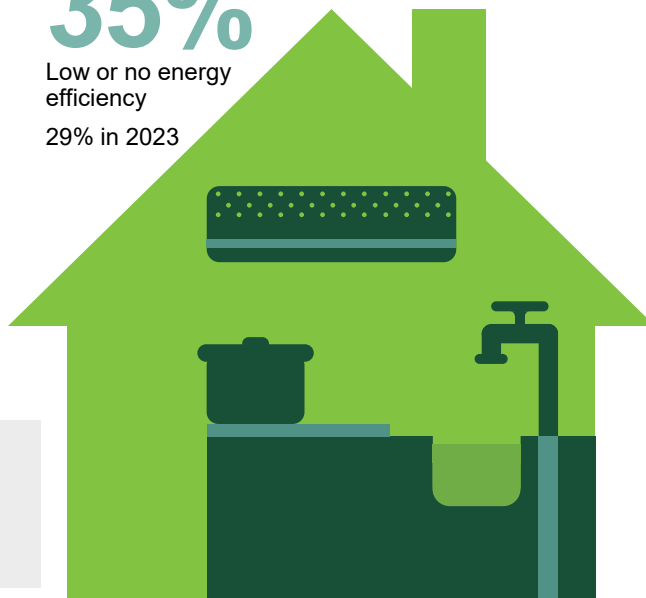
72% of households could achieve significant improvements to energy efficiency

The energy efficiency
levels of Victorian homes



35%

Low or no energy
efficiency
29% in 2023



Key appliances:

Only

28%

of homes have heating
and hot water rated as
energy efficient

72%

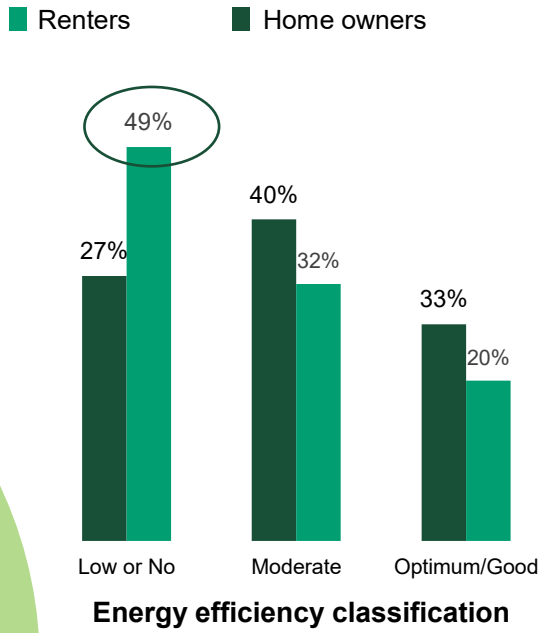
Of homes could make
significant improvements
to their energy efficiency

D10. For each of the following, please indicate if you already have this in your home, or if you plan to have this within the next two years ...
An energy efficient hot water heating system such as: a heat pump system; electric boosted solar; gas-boosted solar; or gas instantaneous water heat rated 5 stars or more
Energy-efficient reverse-cycle air conditioner for heating and cooling
An energy efficient induction cooktop

Renters have lower household energy efficiency than homeowners

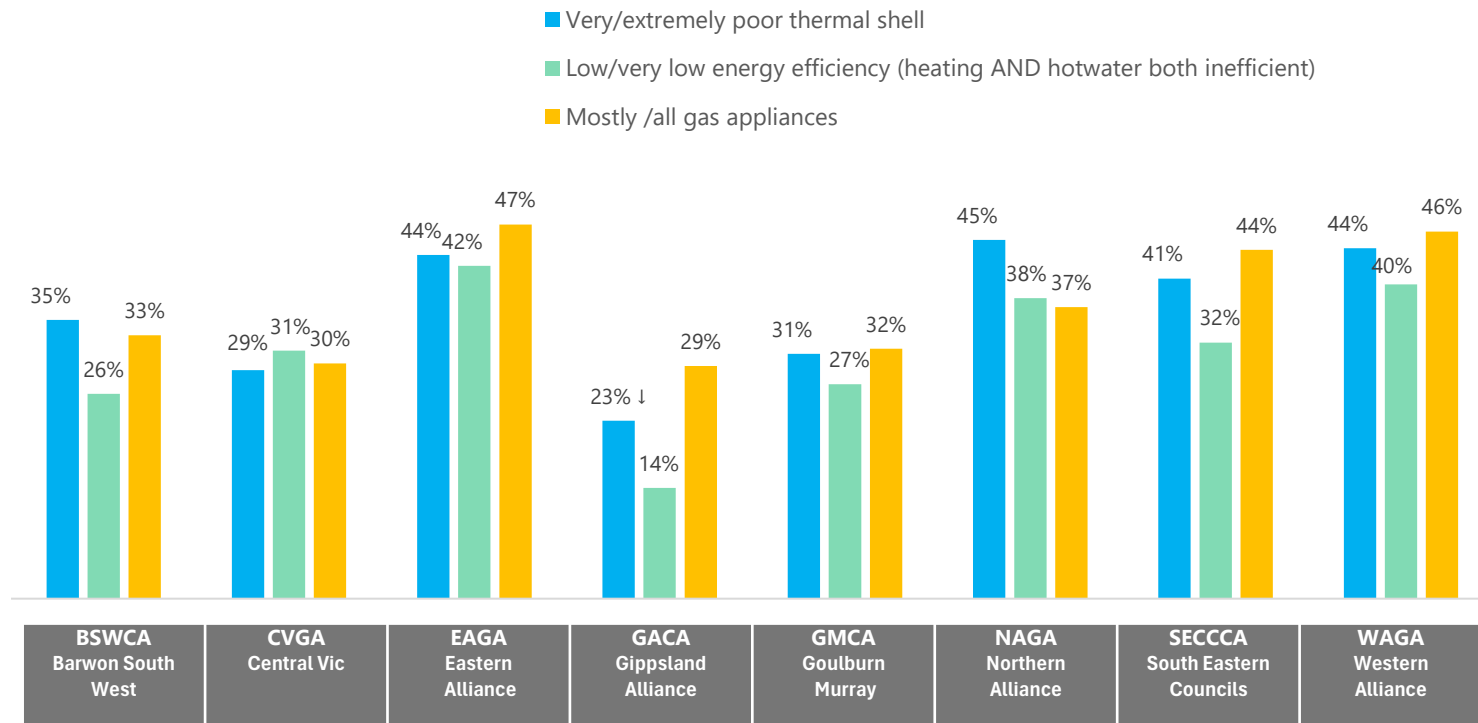
Energy efficiency appliances	Energy efficiency Heating	Energy efficiency water
Homeowners	58%	41%
Renters	42%	24%

Energy efficiency classification, by housing status



D10. For each of the following, please indicate if you already have this in your home, or if you plan to have this within the next two years ...
 An energy efficient hot water heating system such as: a heat pump system; electric boosted solar; gas-boosted solar; or gas instantaneous water heat rated 5 stars or more
 Energy-efficient reverse-cycle air conditioner for heating and cooling
 An energy efficient induction cooktop

Improvements needed in our homes, across GH Alliances



Gas and electricity use

- Most agree it's important for households to move away from gas to electricity
- There's a reluctance to disconnect from gas altogether
- Perceptions held by many that gas is more reliable, and cheaper

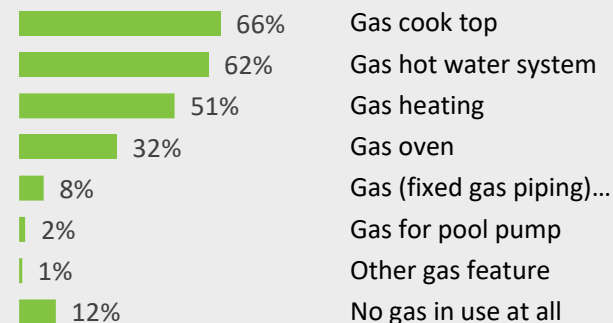
Victoria is the state with the highest gas usage – 88% of respondents use gas (same as 2023)

Most have more than one gas
appliance in use

40% All gas or mostly gas
(same as 2023)

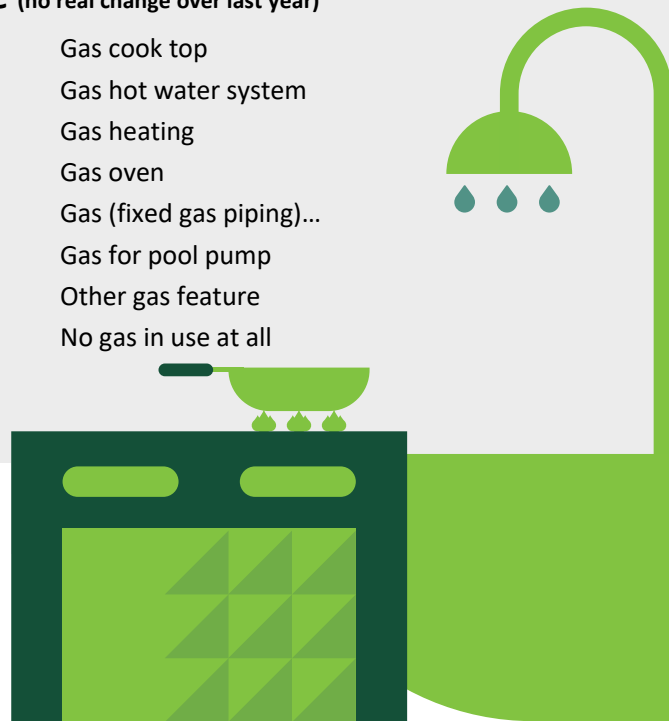
Category	Description	% of homes
All gas	All gas appliances	
	• Gas heating	
	• Gas hot water	
	• Gas cook top	
	• Gas oven	13%
Mostly gas	Heating AND hot water is gas	27%
Partly gas	Heating OR hot water is gas	34%
Low level gas	Only cooking is gas	13%
No gas in use	No gas appliances in use	12%

Appliances in use (no real change over last year)



- Gas use higher in Melb than regions
Each gas appliance is 5-10 perc.-points higher in Melbourne than in regional Vic
- Gippsland Alliance had lower incidence of all gas appliances.

D12. In your home, do you have any of the following gas appliances?
Gas cook top; Gas oven; Gas heating; Gas hot water system; Gas for pool pump
Gas (fixed gas piping) for BBQ; Other gas feature (please specify)
No gas at all in use
Bases: 2552



Gas appliances in the home, by GH Alliances

GACA (Gippsland) had lower incidence of all gas appliances

D12. Which gas appliances are in your home?

	BSWCA	CVGA	EAGA	GACA	GMCA	NAGA	SECCCA	WAGA
Gas cook top	65%	59%	67%	53% ↓	62%	68%	69%	74%
Gas oven	33%	32%	28%	19% ↓	30%	33%	34%	37%
Gas heating	50%	42% ↓	58%	36% ↓	43%	47%	56%	57%
Gas hot water system	59%	51% ↓	67%	49% ↓	55%	61%	66%	70%
Gas for pool pump	0%	2%	4%	0%	1%	3%	2%	2%
Gas (fixed gas piping) for BBQ	8%	9%	11%	7%	8%	7%	9%	4%
Other gas feature (please specify)	0%	1%	1%	2%	0%	0%	1%	0%
No gas in use at all	14%	21% ↑	9%	30% ↑	18% ↑	10%	10%	4% ↓
NET: ANY GAS APPLIANCE	86%	79% ↓	91%	70% ↓	82% ↓	90%	90%	96% ↑
Column n	333	494	263	243	378	298	258	172

Achieving emissions targets requires moving from fossil gas to renewable electricity



Attitudes are
positive,
conceptually

60%

agree it's important for
households to move
away from fossil fuels
like gas

Lower among 55+ years, 50%

Practicalities are less
straight-forward

Most

95%

gas users indicated they
would consider switching
one or two appliances

47%

say no to disconnecting
from gas completely

No significant change from 2023



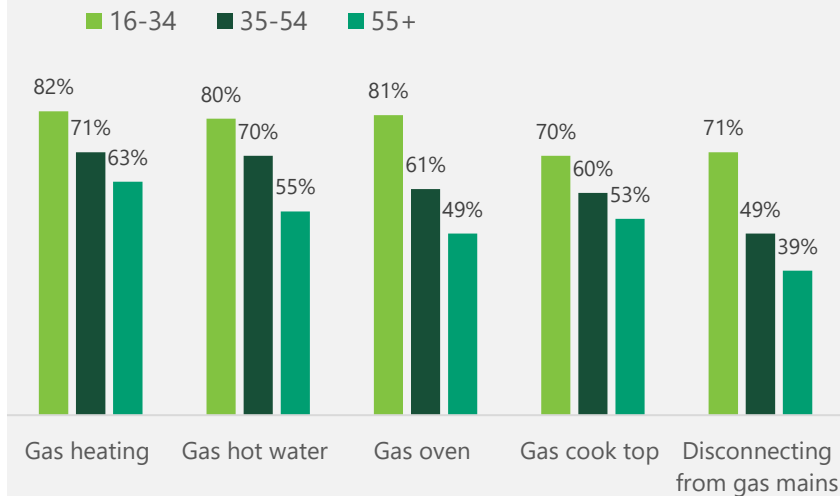
Willingness to switch away from gas, by appliance differs across age groups

Younger people more willing to consider changing from gas and over 55 years less willing.

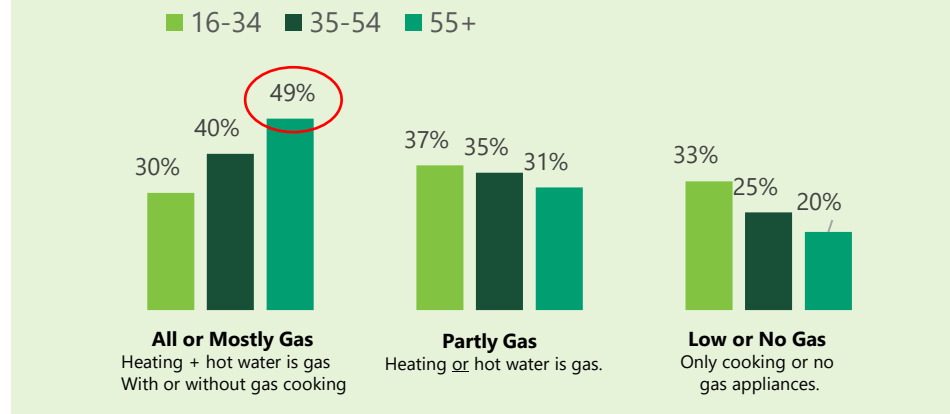


But the over 55's have more gas appliances. Over one-third are classified as mostly gas

Willing* to consider switching appliance from gas, by age



Scale of gas appliances in home



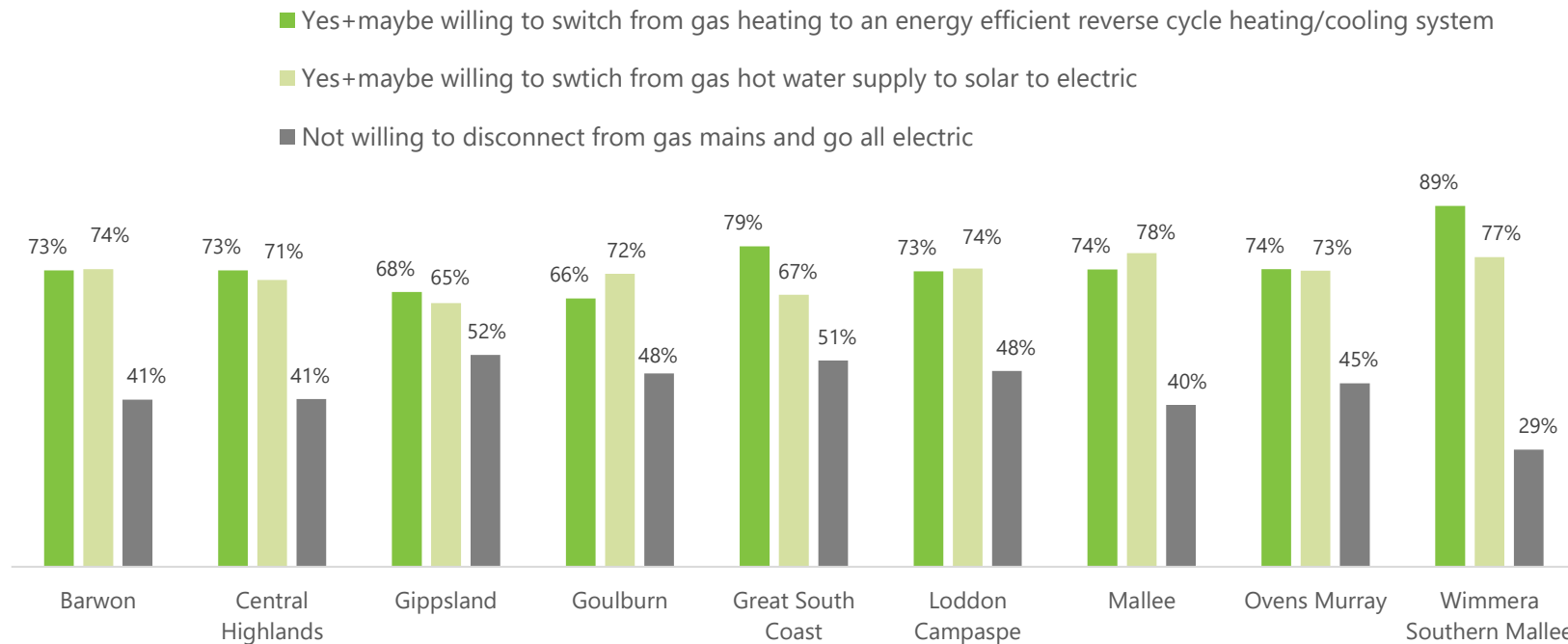
* "Yes" or "maybe" combined
Overall willingness to switch is similar to last year

No significant differences in willingness to switch, across GH Alliances

"No gas" was similar across age group between 12-14%.

Willingness to switch away from gas, by region

No statistically significant differences across the regions



Attitudes to switching away from gas, by region

How important or unimportant do you feel it is that households shift away from fossil fuels like gas and towards renewable electricity?

■ Important ■ Not important ■ Don't know / No opinion



Perceived barriers to switching from gas to renewable electricity

Key reasons given by respondents who did not want to switch away from gas

- Gas is cheaper
- Gas is more reliable
- Too expensive to upgrade
- Prefer cooking with gas
- Feel secure having both
- No choice – I'm renting
- More efficient – Heats up the home faster

Having **both gas and electricity** connected to my home gives me **peace of mind** that I will have an energy source for my needs.

(We're in) an old home, so it would be even **more expensive** to change over everything.

Cooking with **gas is instant** on and off or reduced heat at a touch **and safe** as you can see the flame.

Because **gas is reliable** and in the event of a power outage, I can still use gas to heat the home and cook.

Many Victorians are unsure of the benefits of electricity compared to gas

Half believe electricity is better for the environment and provides a healthier home, but fewer are convinced of the reliability and cost-effectiveness of electricity compared to gas

53% believe electricity is better for the environment in the long run
67% for 16-34 yrs

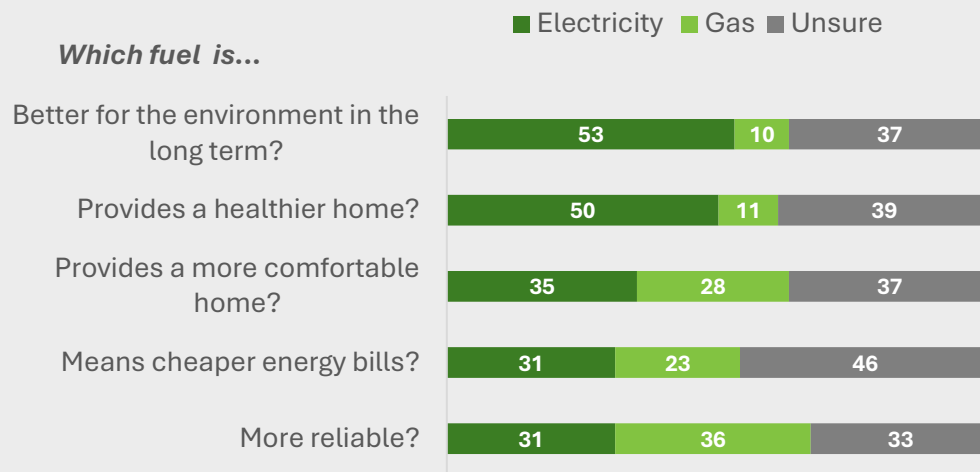
50% believe electricity provides a healthier home
62% for 16-34 yrs

36% believe **gas is more reliable**, compared to 31% for electricity

46% are not sure which is **cheaper**

No sig diff across GH Alliances except Goulburn Murray (GMCA) has higher percentage who say gas is more reliable, 52%

Beliefs about electricity compared to fossil gas



Awareness is relatively low that switching from gas to electricity will help tackle climate change

48%

Are aware that if households switch from gas to electric appliances it will ultimately help tackle climate change

Higher among those under 34 yrs, 57%

20%

Are not aware that switching from gas to electric appliances would help address climate change

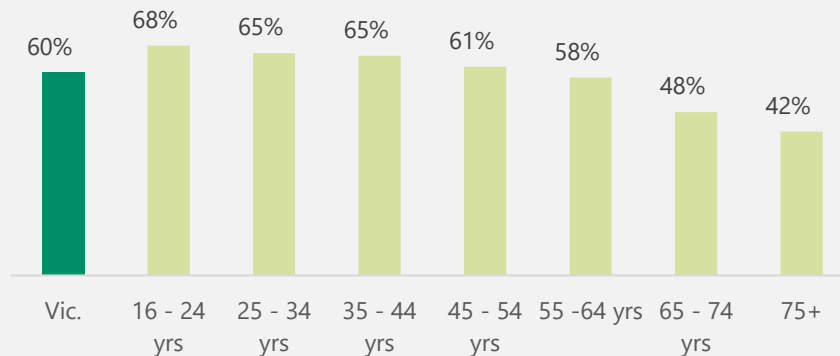
32%

Do not believe there is a need for households to go all-electric

Higher among aged 55+ years, 43%

Going all electric – younger people are more supportive of the transition from gas, but they are more likely to be renters and face more barriers

Important for households to move away from fossil fuels like gas, by age

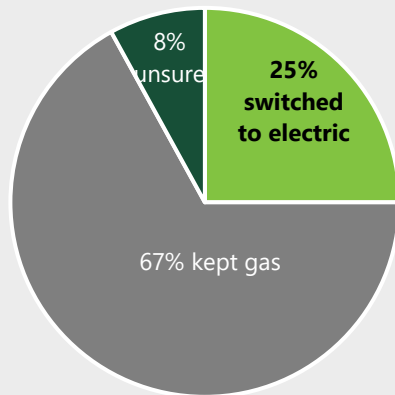


Householders actually replaced more gas heating than gas hot water over the past 2 years

People are sticking more to their gas hot water systems than to their gas heating, indicating a barrier for hot water

- 25% who replaced gas hot water went to electric (replacement may be urgent, and like-for-like easier and quicker)
- 52% who changed heating went to electric

Replacement behaviour - GAS HOT WATER
(n=106)



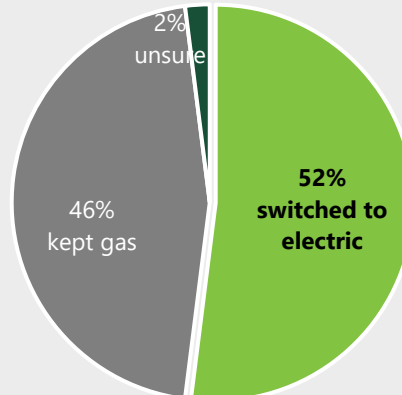
Over the last 2 years:

- 14% of Victorians replaced their **hot water system**;
- 8% replaced their **heating**
- 7% replaced both

Of those 64 people who replaced an **electric hot water system**:

- 84% kept electric
- 9% went to gas
- 7% went to something else

Replacement behaviour – GAS HEATING
(n=69)

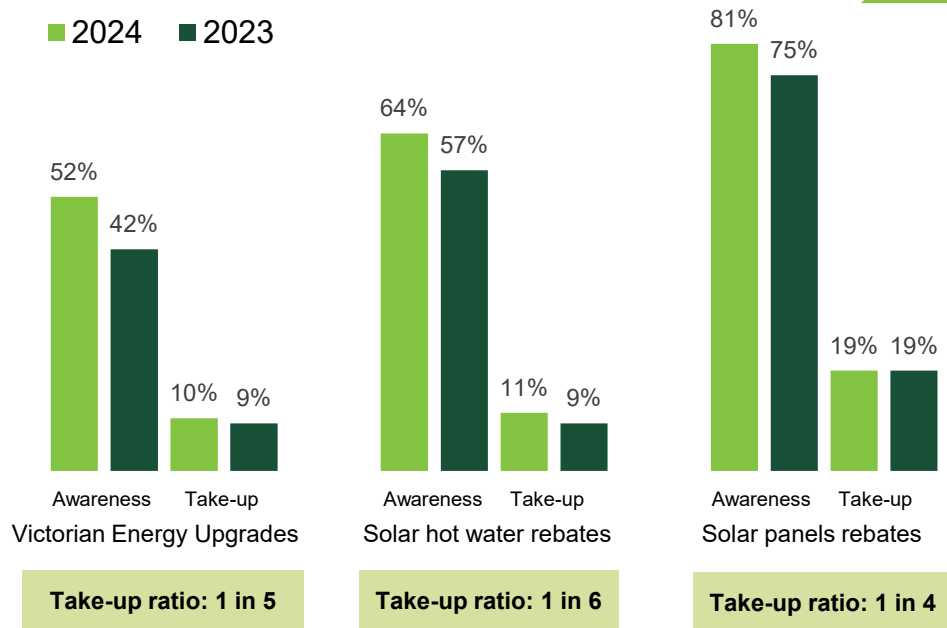


Of the 29 people who replaced **electric heating**:

- 70% kept electric
- 23% went to gas
- 7% went to something else

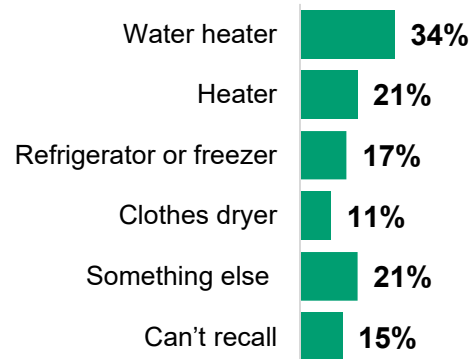
J11. Have you replaced or upgraded your heating and/or hot water system in the past 2 years?
J12A. Was the old heating/hot water appliance...? Gas, Electric, Something else, Not sure
J12B. And is the new heating/hot water appliance powered by...? Gas, Electric, Something else, Not sure

Awareness of Victorian energy programs has increased in 2024



Awareness higher among older people 55+ and home-owners across all programs

APPLIANCES REPLACED UNDER THE VEU PROGRAM



50%
FOUND IT EASY
TO REPLACE THEIR
APPLIANCE(S)
UNDER THE
PROGRAM

12%
said it was
difficult

K7. The state government has a range of programs helping Victorians switch to cleaner energy and more energy efficient appliances. Which of the following, if any, are you aware of, and have you used?

Victorian Energy Upgrades (VEU) program: (definition provided)

Solar hot water rebates: (definition provided)

*F2. The state government has a range of programs helping Victorians switch to cleaner energy including rebates for solar panels. The solar homes program offers rebates and/or interest free loans to install solar panels (PV) on your home. Before today were you aware of this program and have you used it?

Base: 2552

Awareness and up-take of Victorian energy programs by Alliance

	BSWCA	CVGA	EAGA	GACA	GMCA	NAGA	SECCCA	WAGA
VEU								
Aware of VEU	52%	51%	58%	49%	48%	55%	44%	54%
Have Used VUE	13%	14%	8%	13%	9%	11%	10%	10%
SAOLAR PANEL REBATE								
Aware of solar panel rebate	85%	81%	82%	84%	85%	79%	79%	82%
Have used solar panel rebate	24%	18%	16%	26%	19%	17%	21%	20%
HOT WATER REBATES								
Aware of hot water rebate	65%	67%	67%	68%	61%	66%	58%	61%
Have used hot water rebate	13%	15%	8%	10%	14%	10%	7%	12%

Renewable energy

- Most Victorians support renewable energy infrastructure in their local area
- The proportion of households with solar panels is higher in the regions

35% of Victorian households use renewable energy

29%

have solar panels
(no change from 2023, 31%)

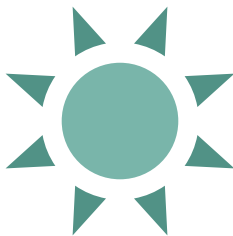
6%

who don't have solar panels but buy renewable energy from energy provider.

(8% of those with solar panels also bought renewable energy but they were not double counted.)

29%

SVP



More likely to have solar:

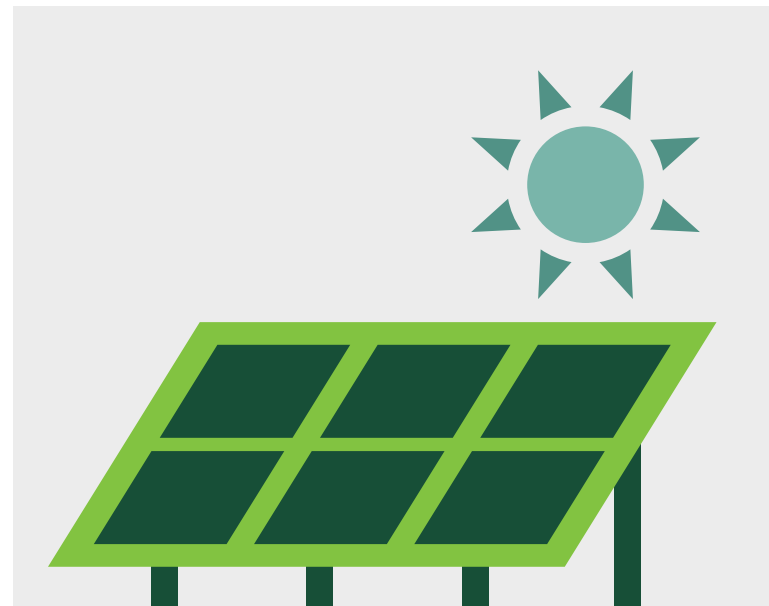
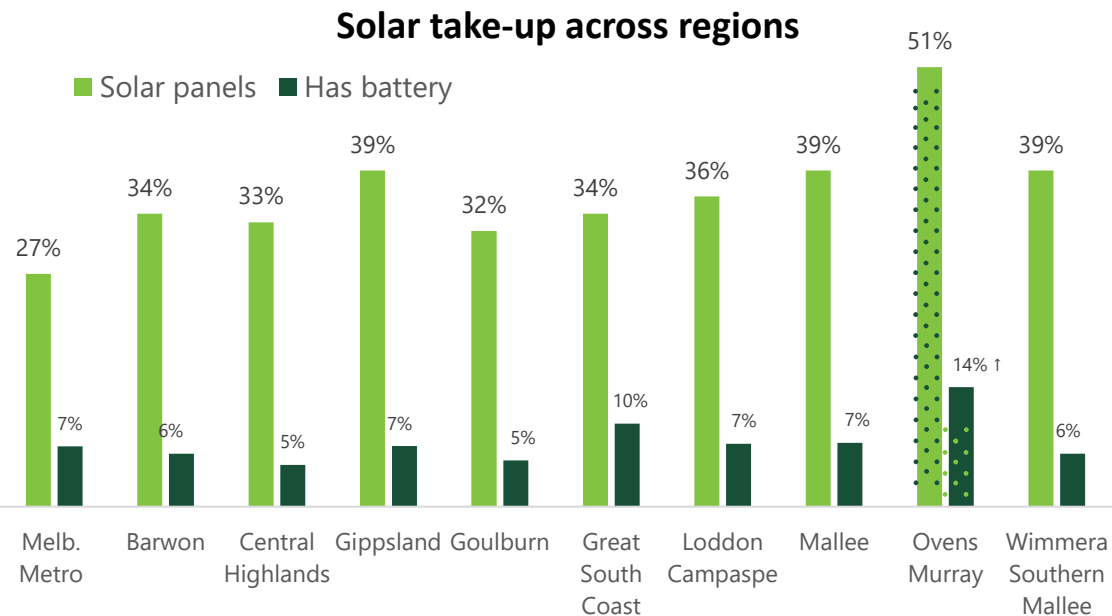
Over 55 years
34% v 23% 16-34 yrs

Homeowners
34% v 10% renters

Those in regions
37% v 27% Melb.

Oven Murray leads the way in solar panels

51% have solar panels and 14% of them have a battery

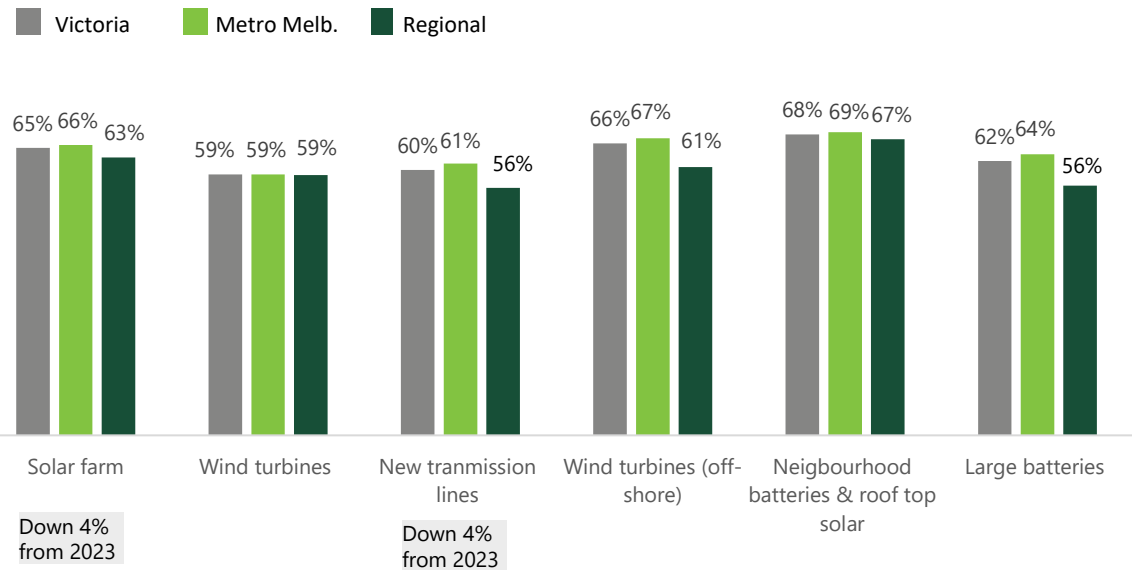


*calculation of figures based on % of survey respondents reporting renewable energy usage

Support for renewable energy is generally high, but has slightly declined

Solar farms (69% to 65%) and **new transmission lines** (64% to 60%) both had a small but statistically significant decline in state-wide support in the past year

Support renewable energy infrastructure in local area, by regions v Melb.



Beliefs that underpin social licence & support for renewable energy:

Similar to 2023

69%

It's cheaper to act on climate now than pay the price later

66%

Tackling climate change in Victoria creates new job and investment opportunities in clean energy

64%

67% 2023

Climate change requires urgent action now

61%

The move to renewable energy helps Vic. lower greenhouse emissions and stop climate change getting worse (53% for 55 yrs+)



Support for renewable energy in their local area, by GH Alliance



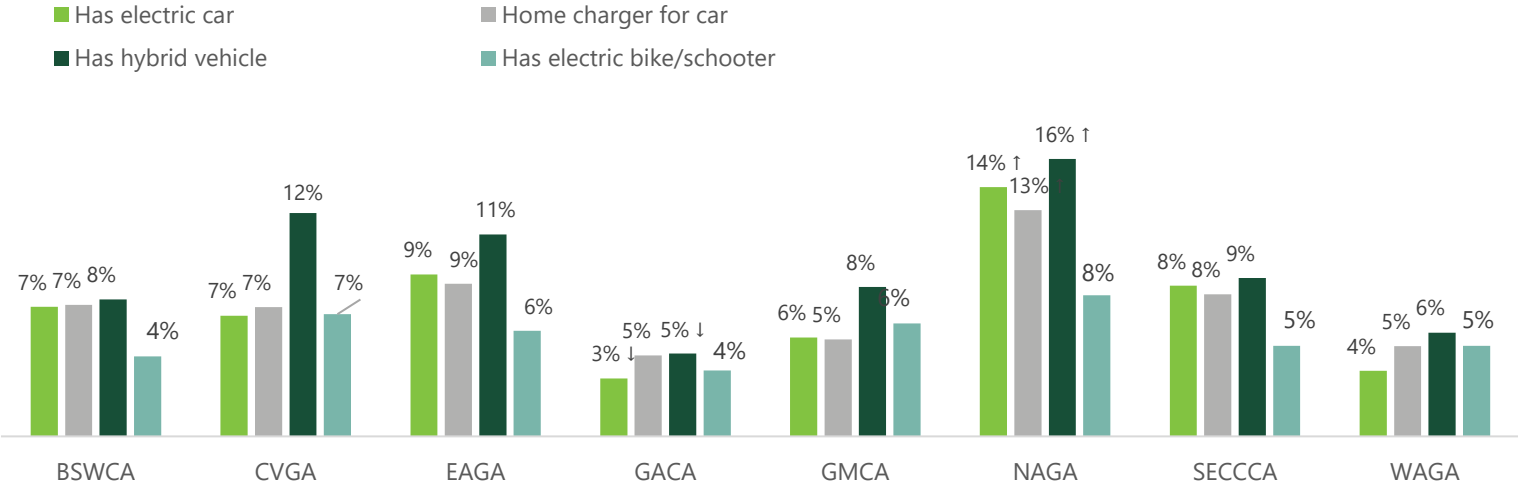
Support is mostly consistent across Alliances – only two differences are statistically significant:

- Gippsland has lower support for solar farms
- Central Vic has lower support for new transmission lines

	Barwon South West CA	Central Vic GHA	Eastern Alliance for GHA	Gippsland Alliance for CA	Goulburn Murray CA	Northern Alliance for CA	South Eastern Councils CA	Western Alliance for GA
Solar Farms	64%	63%	66%	54% ↓	61%	67%	69%	61%
Wind turbines	60%	58%	57%	56%	60%	62%	61%	55%
New transmission lines	57%	50% ↓	63%	52%	60%	65%	62%	56%
Large battery/batteries for energy storage	60%	57%	64%	54%	55%	67%	67%	55%
Neighbourhood batteries and rooftop solar	66%	64%	67%	62%	67%	74%	71%	60%

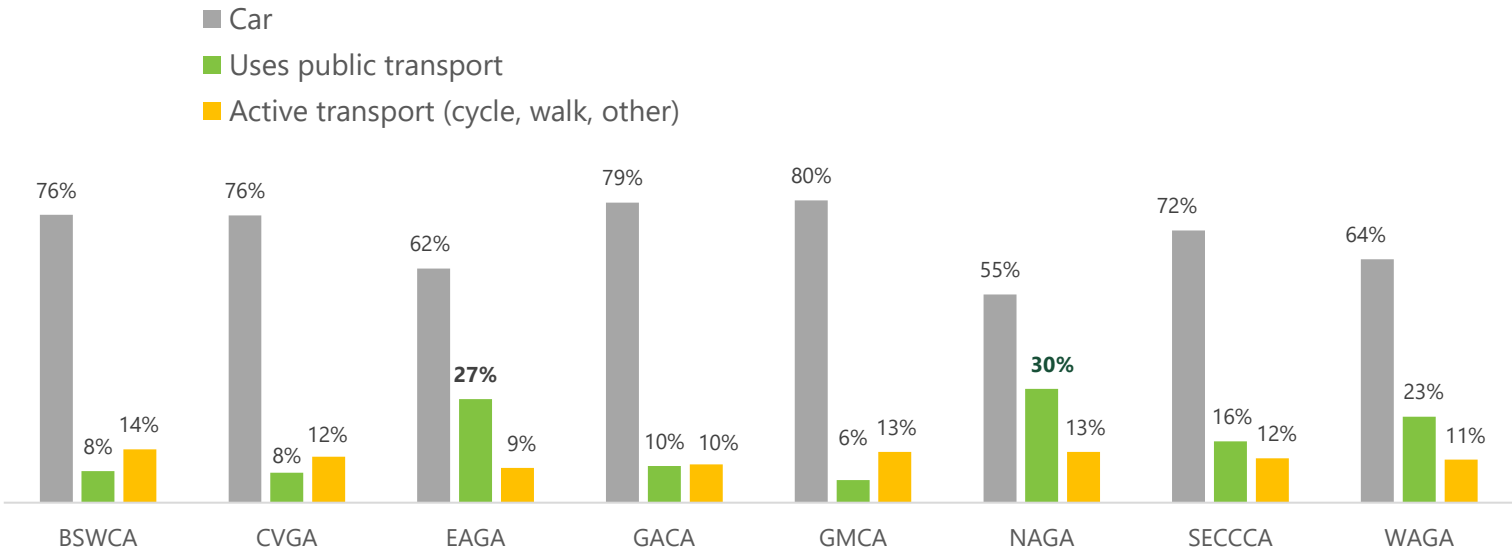
Electric and hybrid car ownership

Northern Alliance is ahead with electric cars and home charging systems



Usual mode of travel to work, study or other main activity

EAGA and NAGA highest use of public transport





Thank you



For further information contact

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Sustainability Victoria

