

Appendix 2.4: Sagacity Research Future demand for natural gas

Access Arrangement Information

ACT and Queanbeyan-Palerang gas network 2026–31

Submission to the Australian Energy Regulator

DEMAND FOR NATURAL GAS

UNDERSTANDING FUTURE DEMAND

evoenergy

REPORT

April 2024

Commercial in confidence



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BACKGROUND & OBJECTIVES

Background

In 2020, research was undertaken to quantify the future demand for natural gas, to support Evoenergy's 2021 – 2026 Gas Access Arrangements proposal to the AER, which included an estimate of the future reduction in natural gas usage.

Following a period of significant change in the ACT with regards to natural gas, this research provides an update on the future demand to support Evoenergy's 2026-2031 Gas Access Arrangements proposal to the AER.



Gas five year plan

Home > About Us > About our network > Gas five year plan

Every five years, we prepare a detailed plan about how we will operate, maintain, and invest in our gas network (ACT and Queanbeyan-Palerang) to meet the future needs of consumers. This gas access arrangement five-year plan is submitted to the Australian Energy Regulator (AER) for consideration and approval to determine how costs associated with the gas network are passed onto consumers.

Our current AER approved 2021–2026 five-year plan is for the period from 1 July 2021 to 30 June 2026 and is available on the [AER's website](#).

Planning for 2026–2031

Australia's energy sector is entering a period of enormous change, and the ACT is leading the way. The ACT Government has set a target of net zero emissions by 2045. This includes a clear direction for the [transition away from gas toward electricity](#) over the next 20 years to 2045. While the NSW Government has not prevented new gas connections, it has set a target of net zero emissions by 2050.

Business and Research objectives

Quantify the future demand for natural gas, and the degree of uncertainty resulting from net zero carbon targets and climate change strategies.

- Understand current desire for gas and stated future intentions.
- Provide a time continuum that details the future uncertainty and demand for gas.
- Determine the impact of potential rebates for switching to electric appliances.
- Assess how the future demand for gas has changed since 2020.

HEADLINES

Headlines

01

Future uncertainty for gas could increase by 9% in the next year, and up to 32% in 5 years time. This shows an acceleration from 2020 when the 5 year forecast was 18%.

02

There has been a strong shift in preference towards electricity, even for traditionally popular gas appliances, with more customers now stating a preference for electric over gas cooktops.

03

With preferences shifting to electric, remaining gas appliances are getting older, bringing forward one of the key moments of truth – the need for replacements.

04

Awareness of rebates to switch to electric appliances is much higher than in 2020, and in the case of switching gas heating, attractive for many. The majority however will still wait until their current appliance needs replacing.

Future uncertainty for gas could increase by 9% in the next year, and up to 32% in 5 years time

- The degree of uncertainty for natural gas, is defined as the proportion of customers likely to change existing gas appliances over to electric.



Adjusted based on those who intend to install new gas appliances.



Next year

1-2 years

3-5 yrs

APPROACH & METHODOLOGY

What we did

ONLINE SURVEYS

A total of 1,783 ten minute survey were conducted with Evoenergy customers (1,695 in the ACT and 88 in NSW).

APPROACH

25,000 customers were invited to participate by email from Evoenergy. The 7.1% response rate without a reminder is exceptional.

This compares to a response rate of 6.3% in 2020, with 1,886 surveys from 30,000 customers



TARGET

While all customers were allowed to complete the survey, our target was home owners (not renters), of whom 1,675 completed the survey.

PROFILE

Sample profile was weighted to match ABS statistics based on home ownership and age.

Final sample profile

- The final weighted profile of the sample used for analysis is presented below.
- Being homeowners, the age profile is older than the overall state profile, where 33% are aged 18-34.

Age (%)	2020	2024
18-34	19	16
35-44	15	21
45-54	17	18
55+	41	42
Prefer not to say	9	3

Gender (%)	2020	2024
Male	57	58
Female	39	40
Prefer not to say	4	2

Household Income p.a. (%)	2020	2024
<\$49,999	6	
\$50-\$74,999	10	
\$75-\$99,999	11	
\$100-\$149,999	19	
\$150,000+	34	
Less than \$18,201		1
\$18,201 – \$45,000		5
\$45,001 – \$120,000		23
\$120,001 – \$180,000		21
\$180,001 - \$250,000		20
\$250,001 - \$350,000		9
\$350,001 or more		4
Prefer not to say	20	16

DETAILED RESULTS



Overview

In determining the level of uncertainty for gas, we have focused on three key moments of truth



Appliance Replacements

What age are appliances, when are replacements anticipated, and what are the preferences?



Home Renovations

When are renovations anticipated, will they involve purchasing new appliances, and what are the preferences?

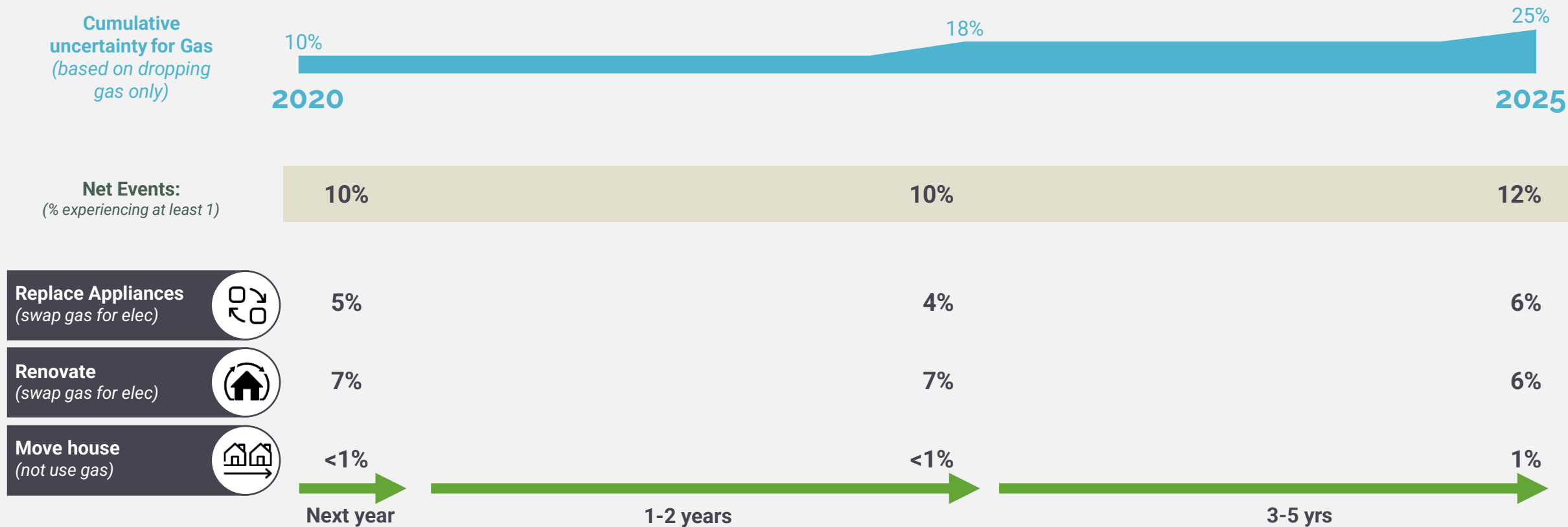


Home Moves

When is a home move (with the ACT / Queanbeyan-Palerang region in NSW) anticipated, and would they use gas if present in their new home?

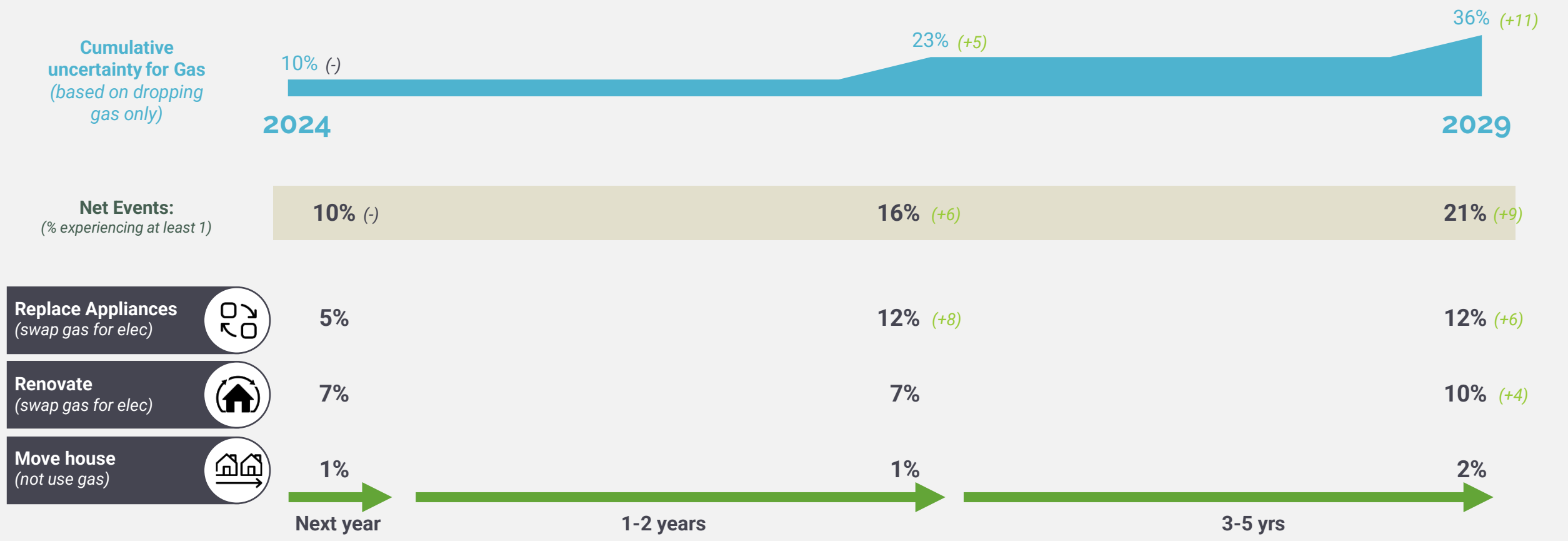
In 2020, we saw that future uncertainty for gas could increase by up to 25% by 2025

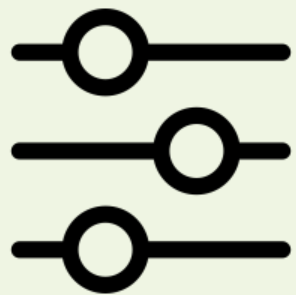
- While we have not spoken to those who have fully electrified, amongst those still using gas, the prevalence of gas home heating has declined by 11% (see later slides).



Now in 2024, the forecast sees the future uncertainty for gas increasing by up 36% in the next five years

- The has primarily come from more customers looking to replace gas appliances with electric ones.

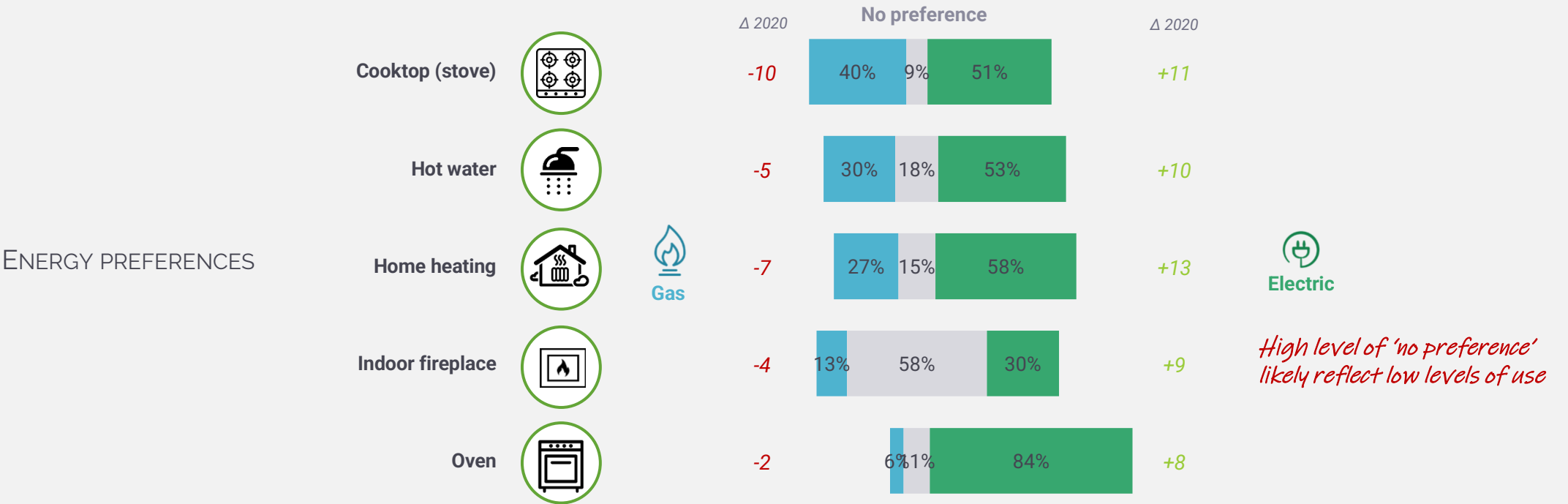




Energy Preferences

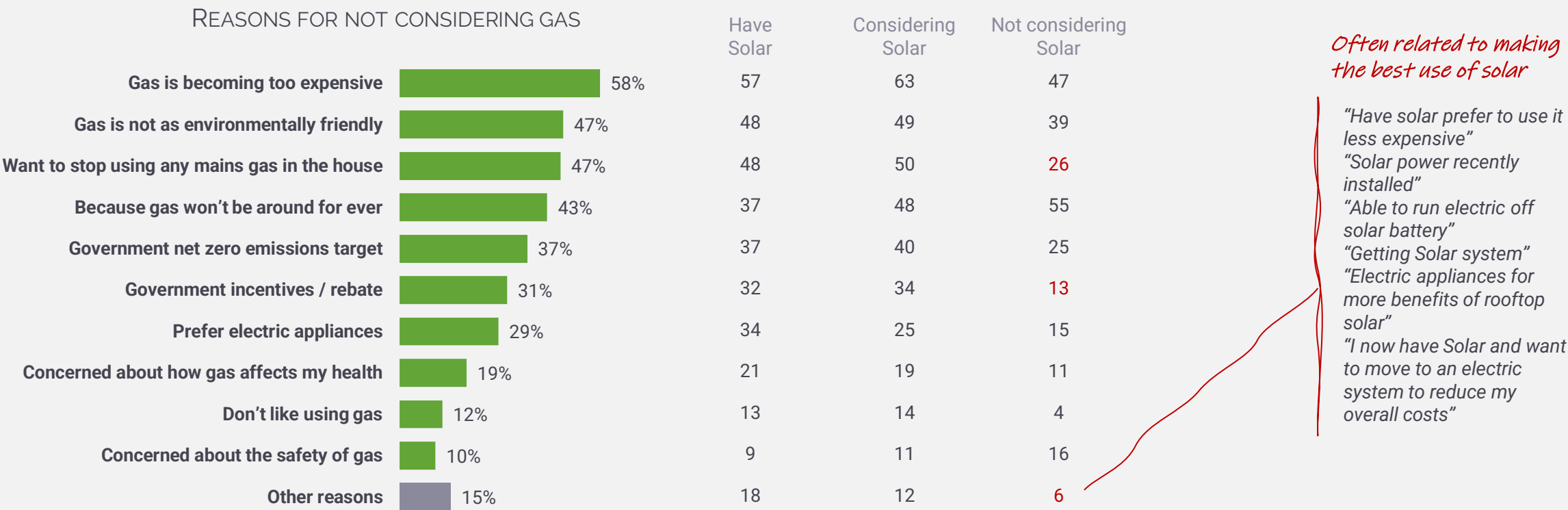
There is a shift in preference towards electricity, even for traditionally popular gas appliances

- More customers now state a preference for electric over gas cooktops.



Reasons for moving away from gas cover; price, environment, sustainability and Government targets

- Almost half express a desire to fully electrify their home.
- Amongst those wanting to stop using mains gas altogether, the environment was a stronger driver (64%), followed by price (59%).

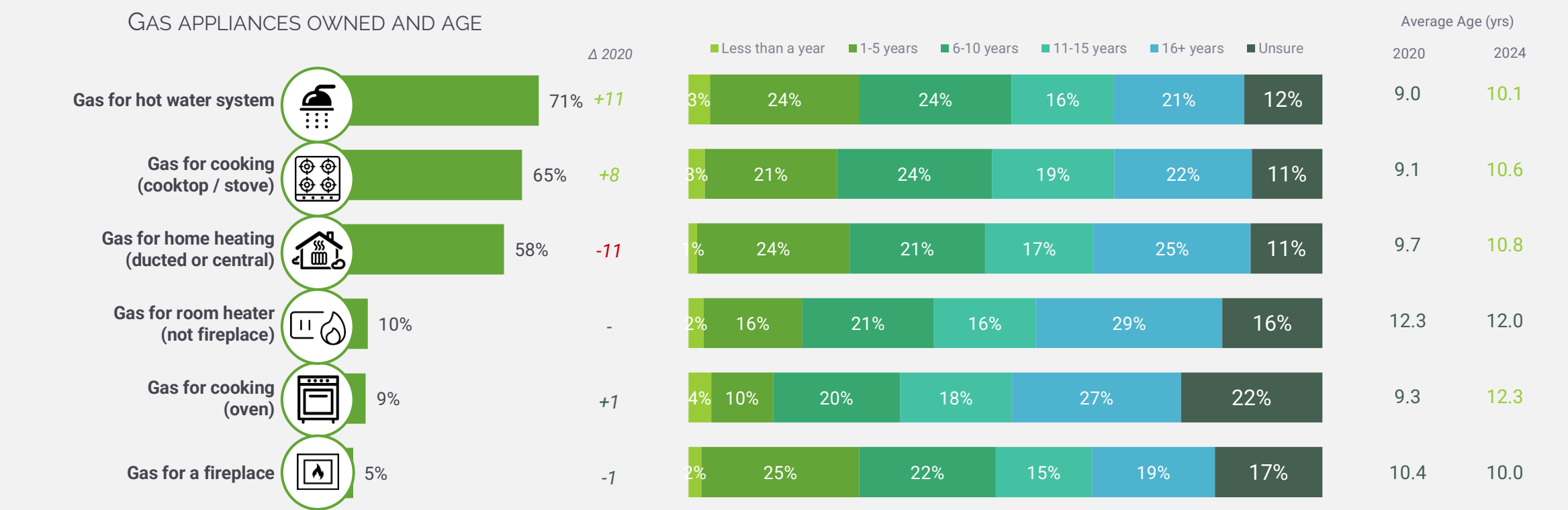




Replacements

Gas home heating appliances would appear to have been the most popular to switch over to electric

- With fewer customers using gas home heating, a greater proportion of those left using gas have gas hot water or cooktops.
- The gas appliances being used are becoming older, and so likely to need replacing sooner, bring forward the key moment of truth.

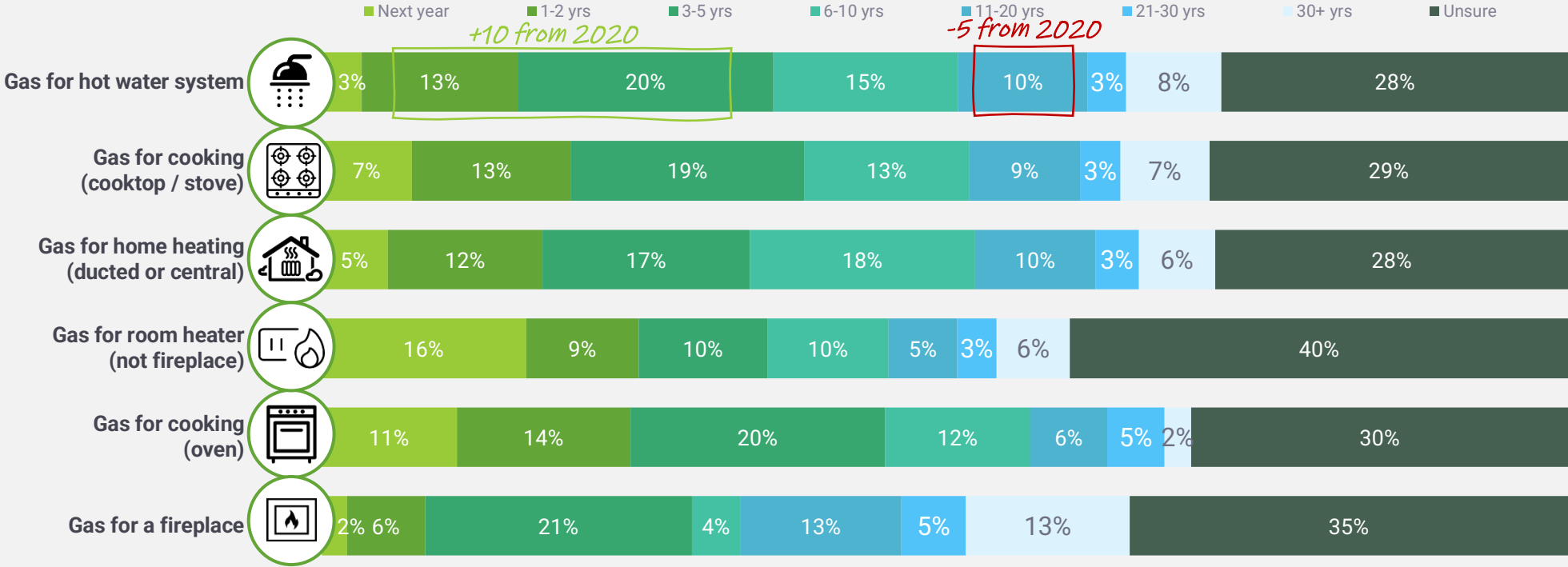


Q2.0: Do you have any of the following gas appliances? Q2.2: To the best of your knowledge, how old are each of the gas appliances you have?
Base: All customers with gas 2020/2024 (n=1,568 / n=1,647); heating system (n=1,098 / 1,045); hot water system (n=920 / 1,159); cooktop (n=873 / 1,016); Room heater (n=175 / 183); oven (n=120 / 140); fireplace (n=99 / 109)
red / green text indicates statistical differences (95%)

Gas hot water systems appear set to follow home heating systems as the next popular appliance to be switched

- More customers are now intending to replace their hot water systems in the next 1-5 years, rather than 11-20.

WHEN INTEND TO REPLACE

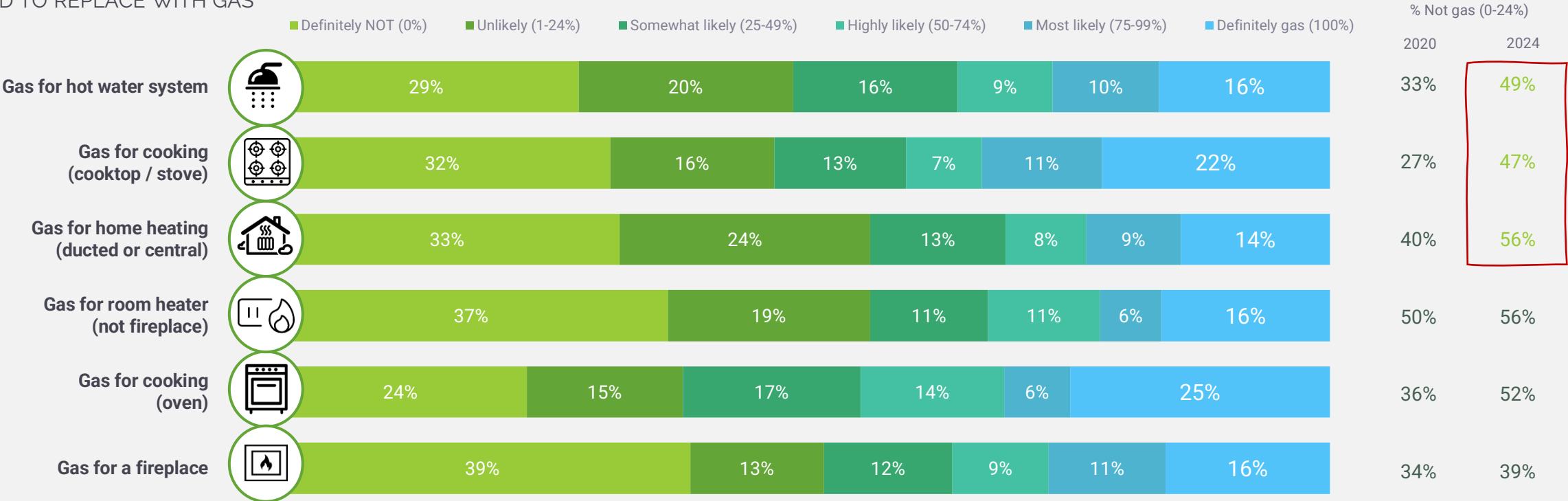


Q2.3: When do you think you would be most likely to replace each of these gas appliances?
Base: All customers appliances: heating system (n=1,098 / 1,045); hot water system (n=920 / 1,159); cooktop (n=873 / 1,016); Room heater (n=175 / 183); oven (n=120 / 140); fireplace (n=99 / 109)
red / green text indicates statistical differences (95%)

A higher proportion now state that they are unlikely to choose a gas for all the major appliances

- This includes gas cooktops, where almost half now state they would be unlikely to choose a gas appliance, with a third stating 'definitely not'.
- Even amongst those who express a preference for gas cooktops, 17% are unlikely to replace with gas.

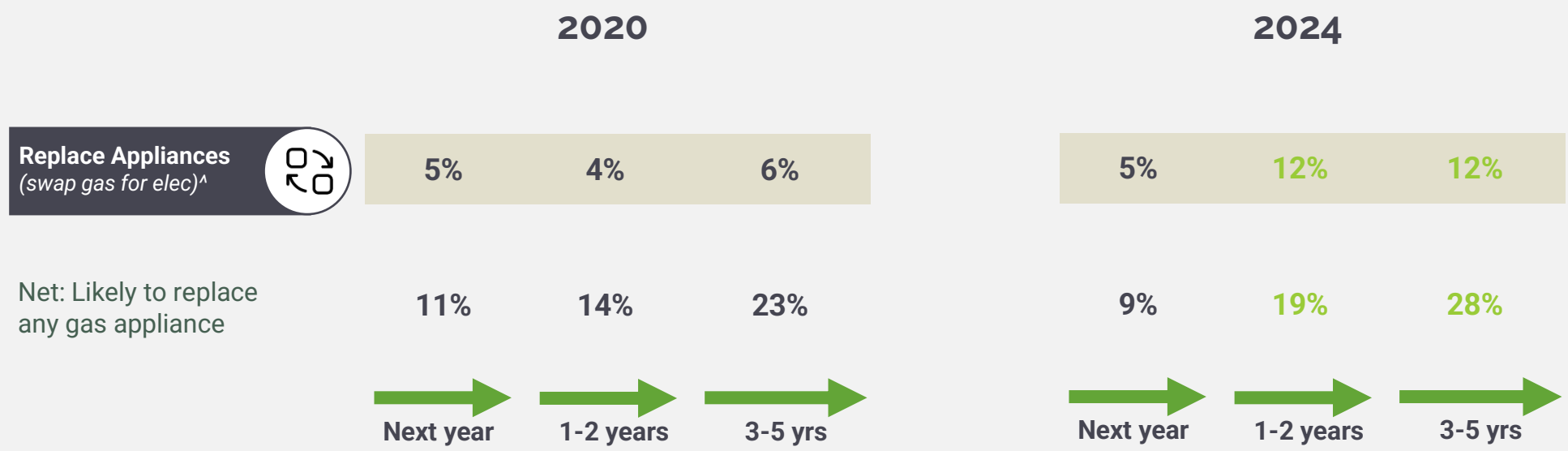
LIKELIHOOD TO REPLACE WITH GAS



Q2.4: When you need to replace each of these gas appliances, how likely would you be to replace it with another gas appliance?
Base: All customers with appliances: heating system (n=1,098 / 1,045); hot water system (n=920 / 1,159); cooktop (n=873 / 1,016); Room heater (n=175 / 183); oven (n=120 / 140); fireplace (n=99 / 109)
red / green text indicates statistical differences (95%)

What does all this mean for the future uncertainty of gas?

- As gas appliances become older, the need to replace them draws closer.
- Coupled with a greater propensity to switch away from gas, this sees a significant lowering in the future demand for gas.



[^] Likelihood of choosing gas <25%

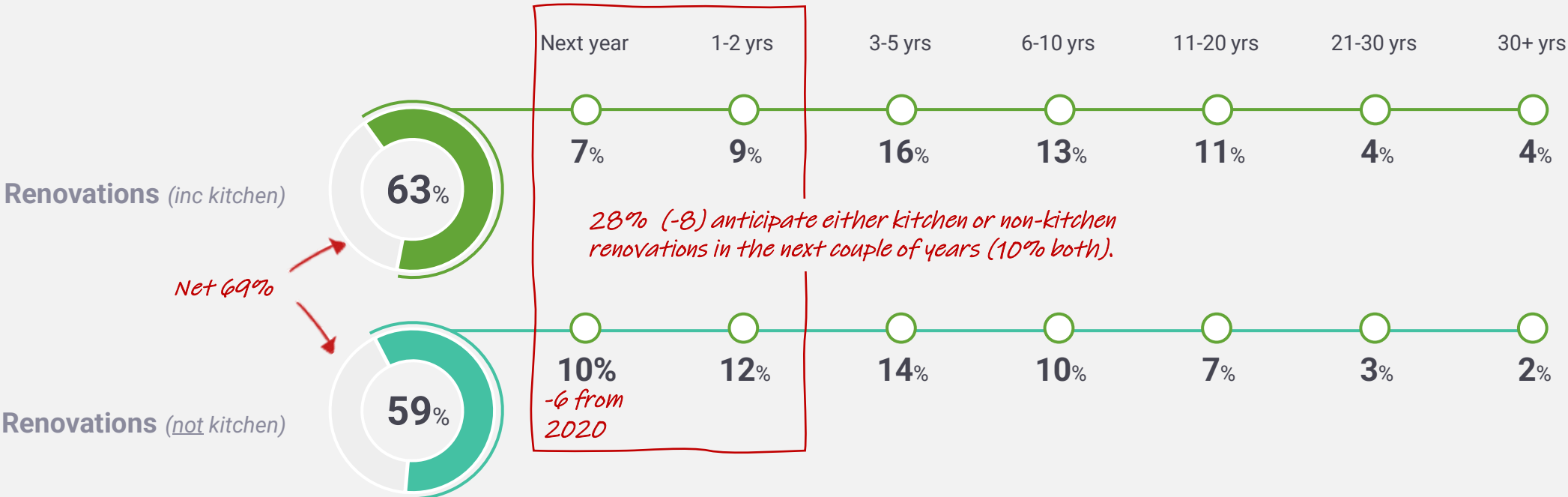


Renovations

While the desire for kitchen renovations remains similar, renovating outside the kitchen appears to have been pushed back

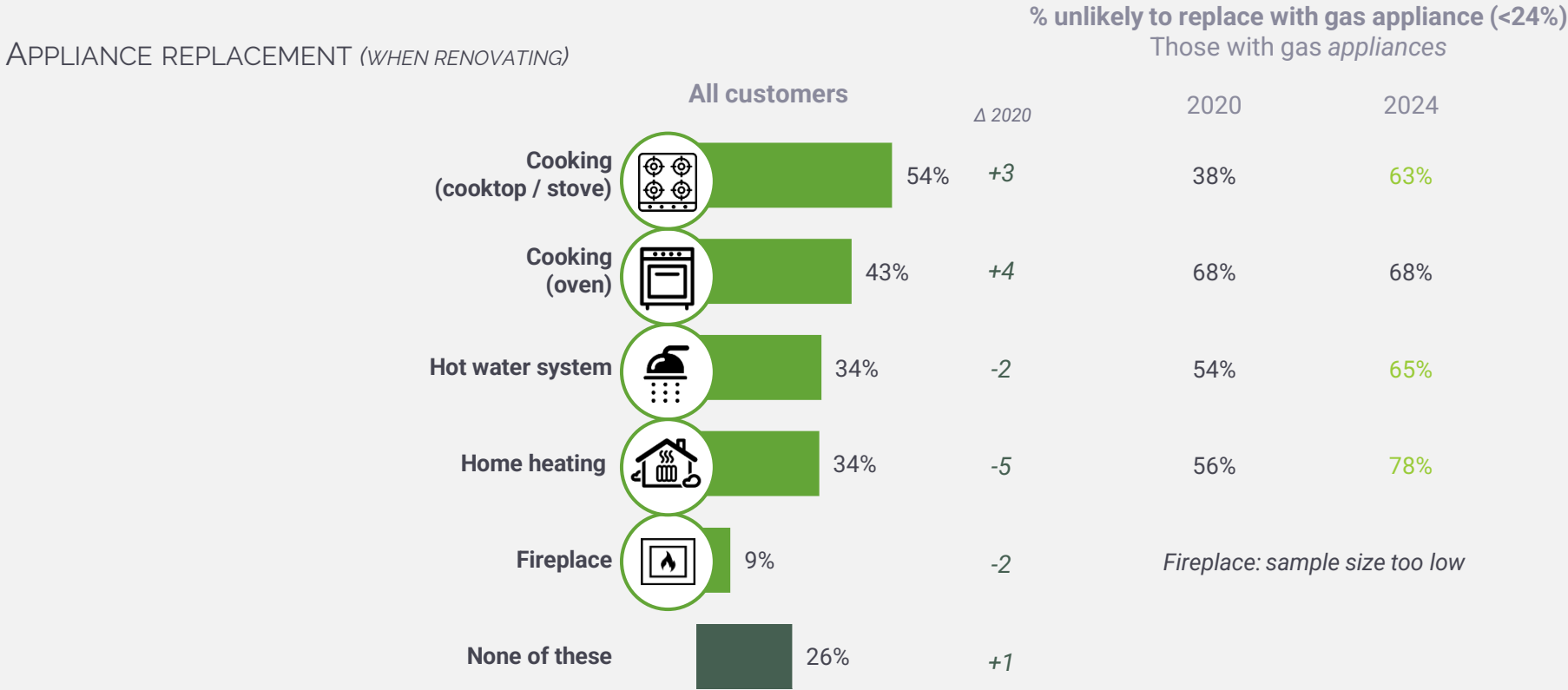
- These are the critical moments of truth when appliances are likely to get replaced.

ANTICIPATED RENOVATIONS



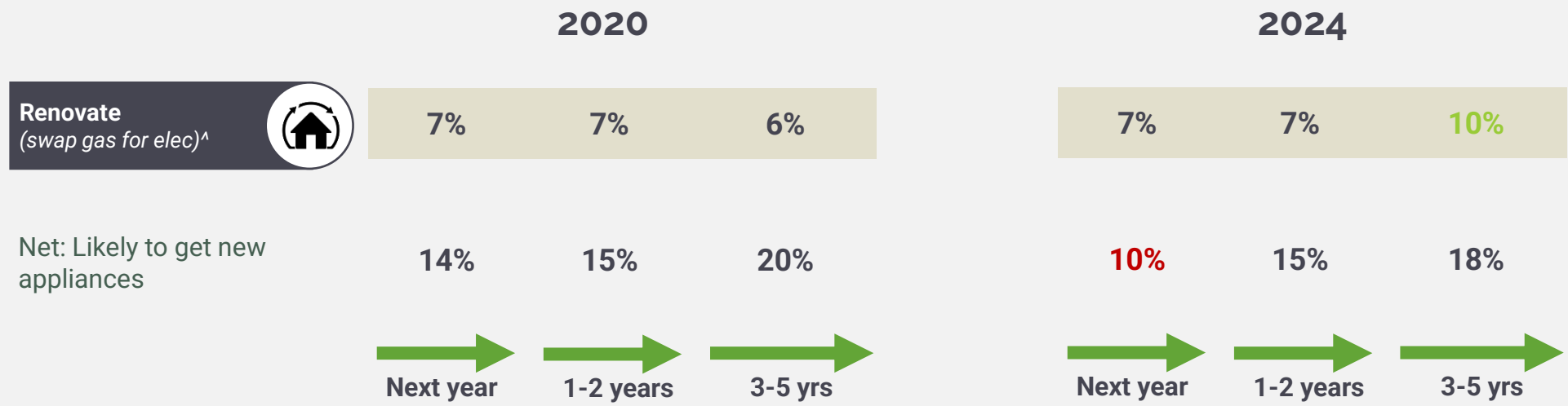
Customers are increasingly less likely to choose gas when replacing appliances during renovations

- This includes the cooktops, which are now as likely as ovens to be switched over to electric.



What does all this mean for the future uncertainty of gas?

- With fewer homes looking to renovate in the next couple of years, there is less impact on the immediate future demand for gas, despite growing preference for electric.
- The impact on future demand for gas is felt later, after 3 years.



[^] Likelihood of choosing gas <25%

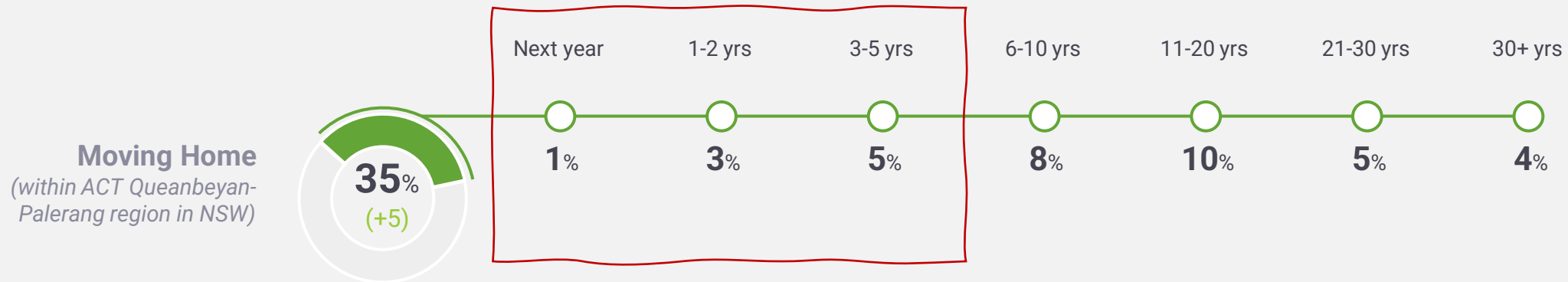


Moving Home

More customers are looking to move, although typically not for 6 years or more

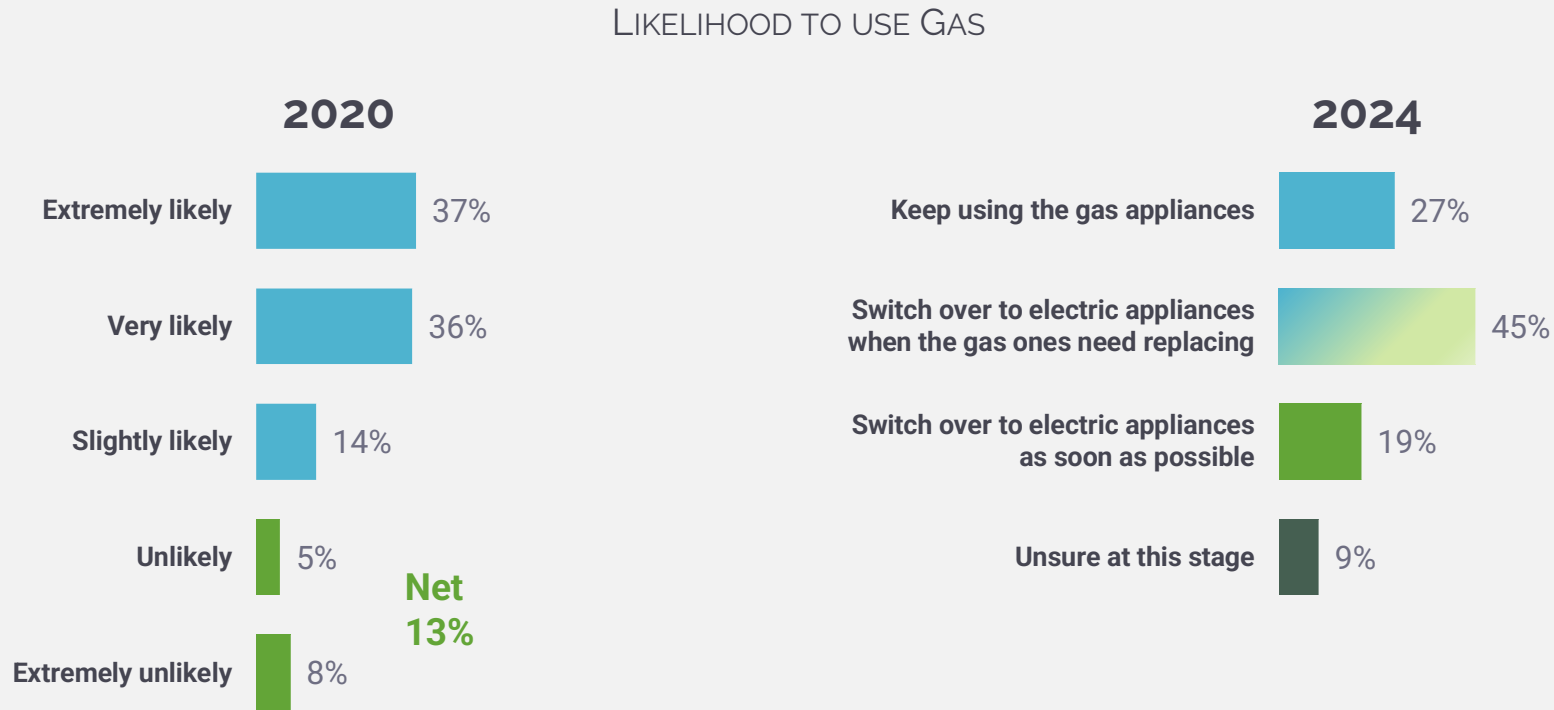
- Although almost 1 in 10 are considering a move in the next 5 years.
- Preferences for gas were split, with 28% preferring a house connected to gas, 40% preferring no connection and 32% with no preference.

ANTICIPATED HOME MOVE



Customers moving home appear less inclined to use any gas appliances in their new home

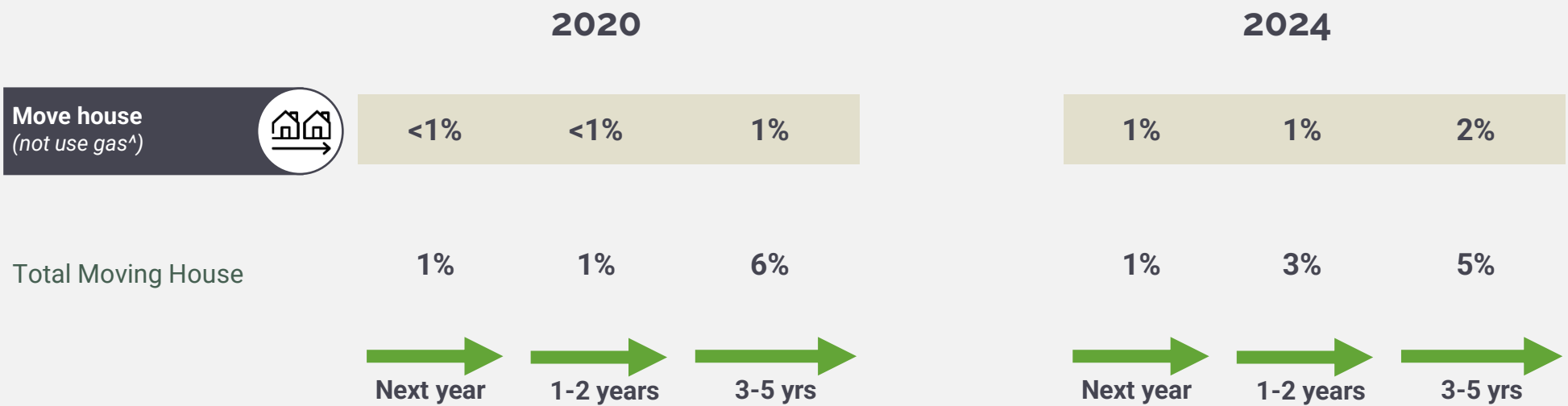
- 19% state they would switch over to electric as soon as possible, compared to 13% who previously said they would be unlikely to use any gas appliances.



Q4.3 (2020): If the home you moved into had gas for either heating, hot water, or cooking purposes, how likely would you be to use gas appliances?
Q4.3 (2024): If the home you moved into had gas for either heating, hot water, or cooking purposes, would you be most likely to...?
Base: All customers moving home 2020/2024 (n=388 / 440)

What does all this mean for the future uncertainty of gas?

- Due to a low prevalence, home moves continue to have little impact on the future demand for gas.



[^] 2020 'unlikely to use gas', 2024 'switch to elec as soon as possible'

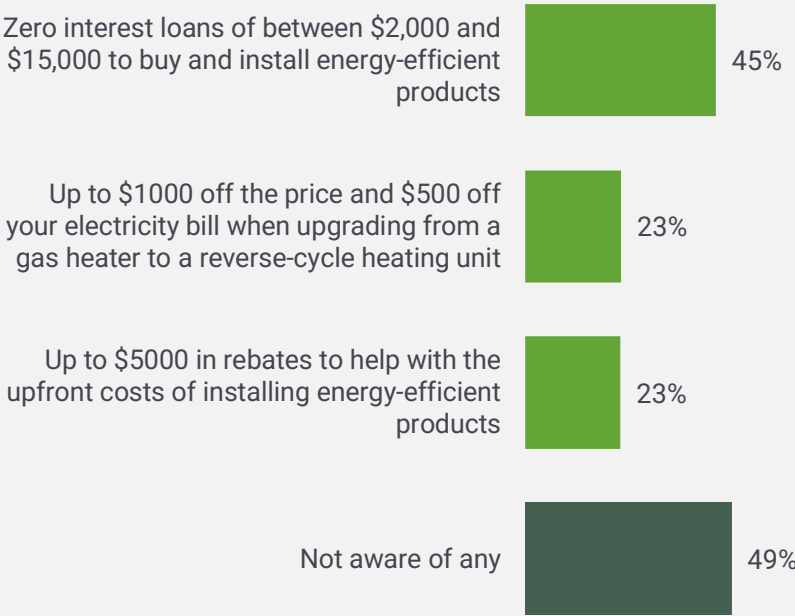


Impact of Rebates

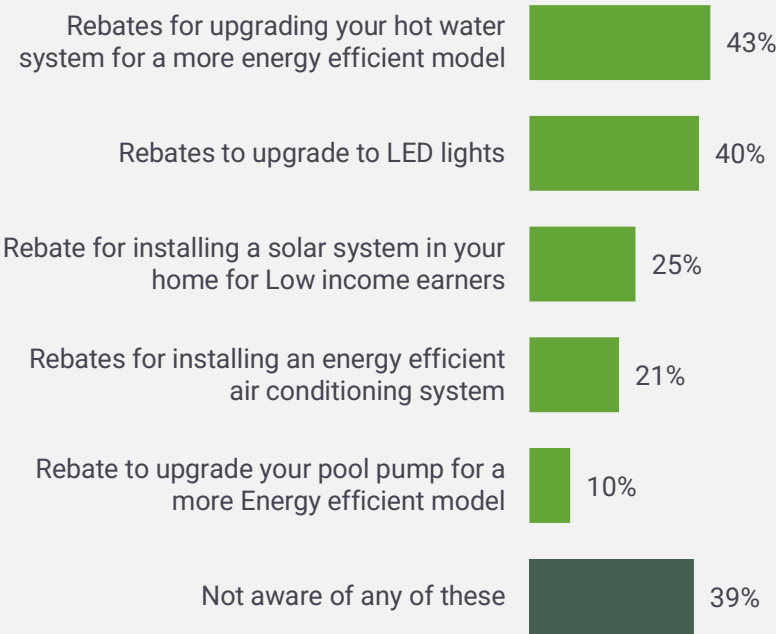
Growing awareness of rebates can be expected to further increase the future uncertainty of natural gas

- In 2020, almost two thirds (61%) were not aware of any of the rebates presented.

AWARENESS OF REBATES ACT

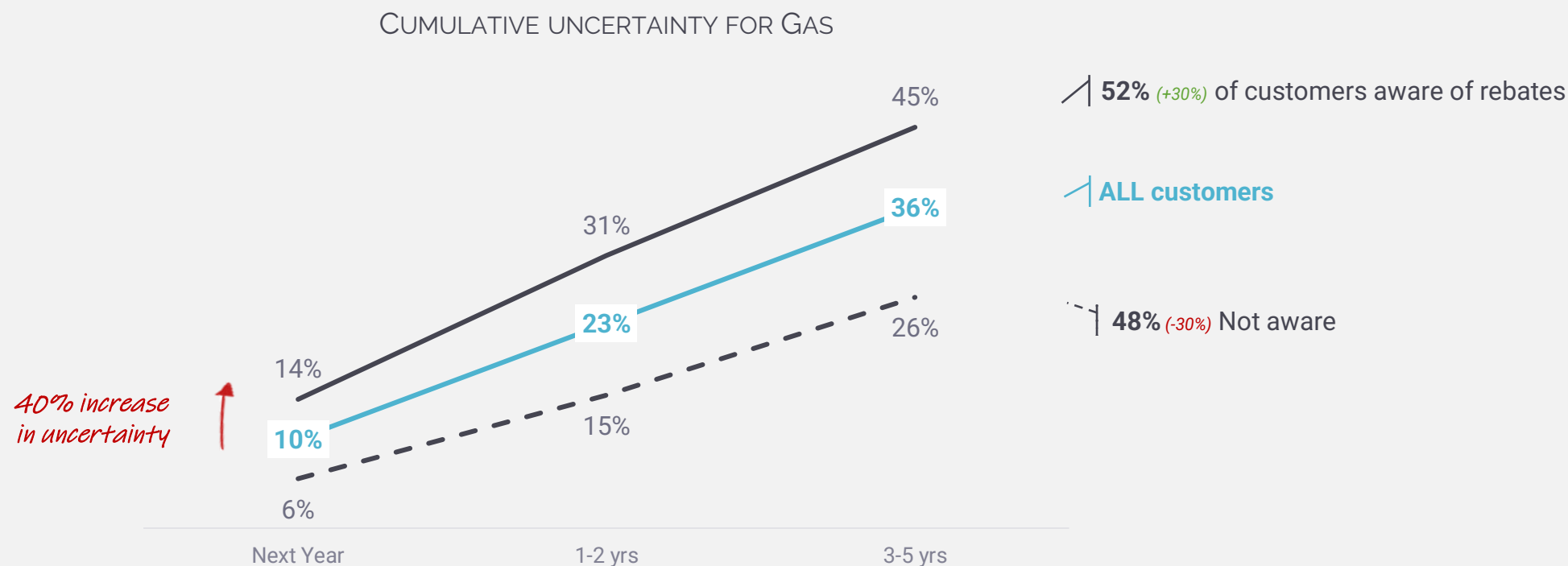


AWARENESS OF REBATES NSW



Uncertainty for gas is 40% higher in the next year amongst those who are aware of the rebate

- While this is lower than the 60% increase recorded in 2020, a greater proportion of customers are aware of rebates, thereby the impact will potentially be greater.

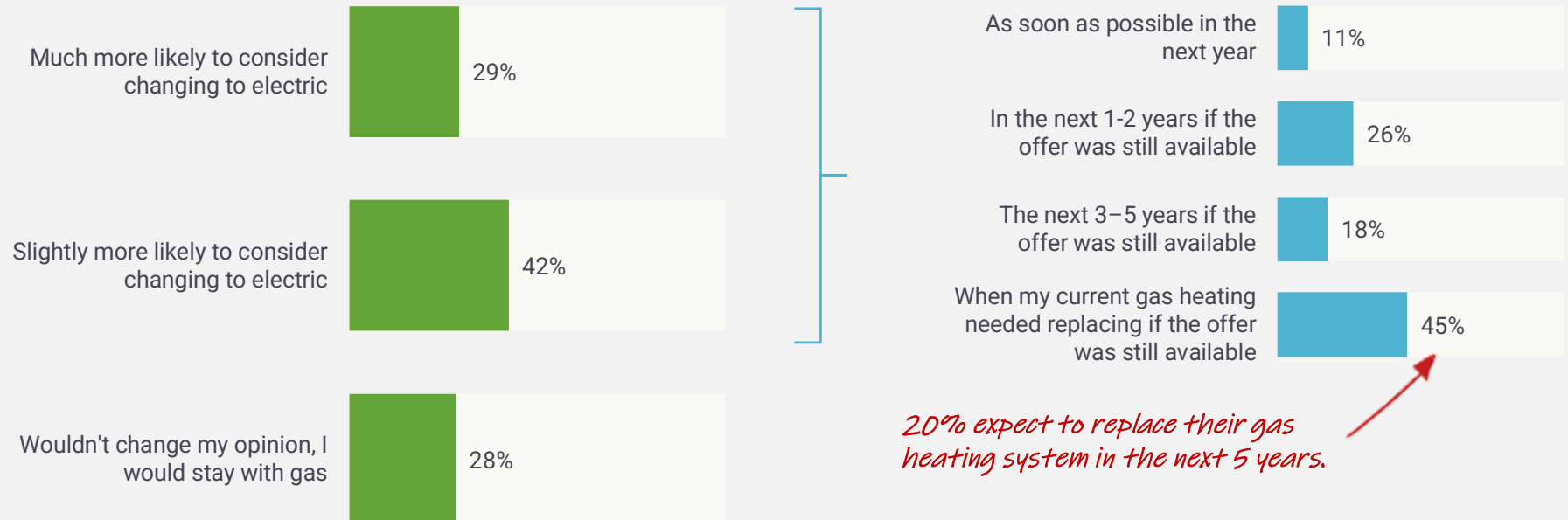


While the rebate to change to electric heating is attractive, most will still wait until the appliance needs replacing

- 1 in 5 (20%) of those who would wait until their heater needed replacing, expect this to be within the next 5 years.

REACTION TO GAS HEATING REBATE

Upgrade your inefficient heater and save \$1000 off the purchase price. PLUS \$500 credit on your ActewAGL electricity bill.

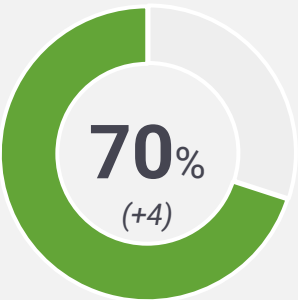


Customers are increasingly keen to electrify when changing gas heating over to electric

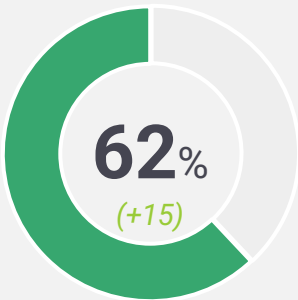
- This includes cooktops, with almost two thirds now stating they would swap cooktops over at the same time.

REACTION TO CHANGING GAS HEATING

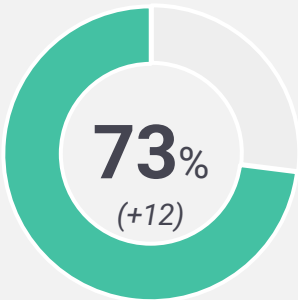
Would also change their Hot Water System to electric



Would also change their Cooktop / Stove to electric

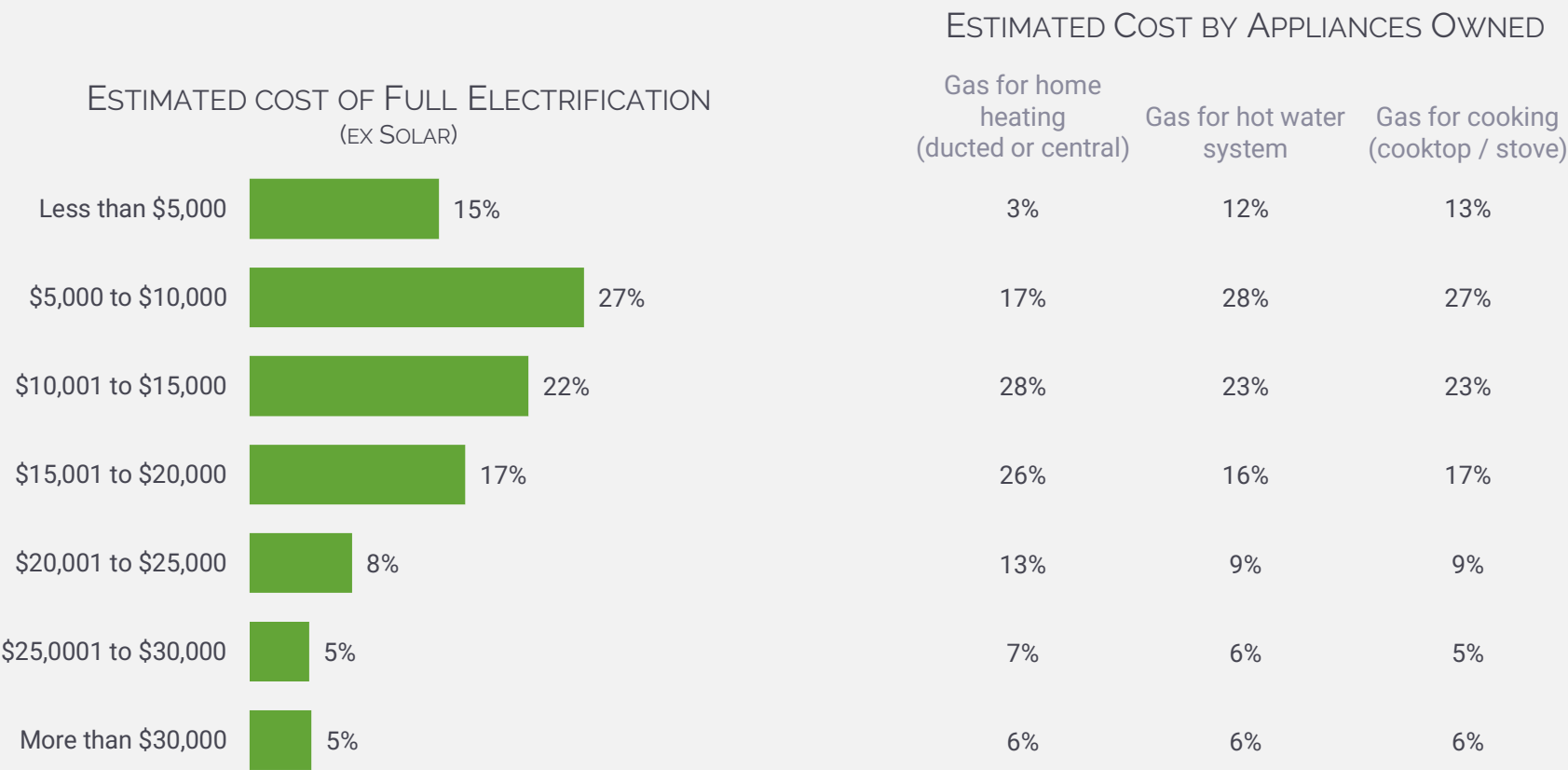


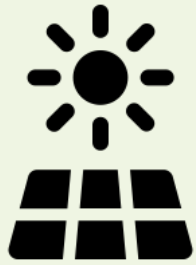
Would also change their oven to electric



The cost of full electrification will present a barrier for many, with estimated costs often exceeding \$10,000

- Those with gas heating tend to estimate the cost substantially higher.

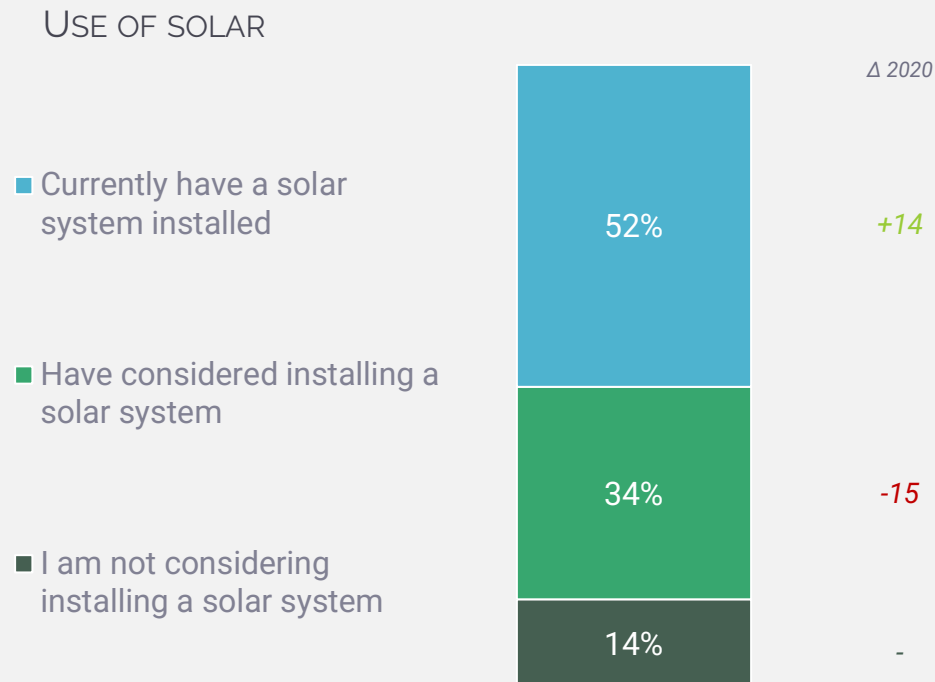




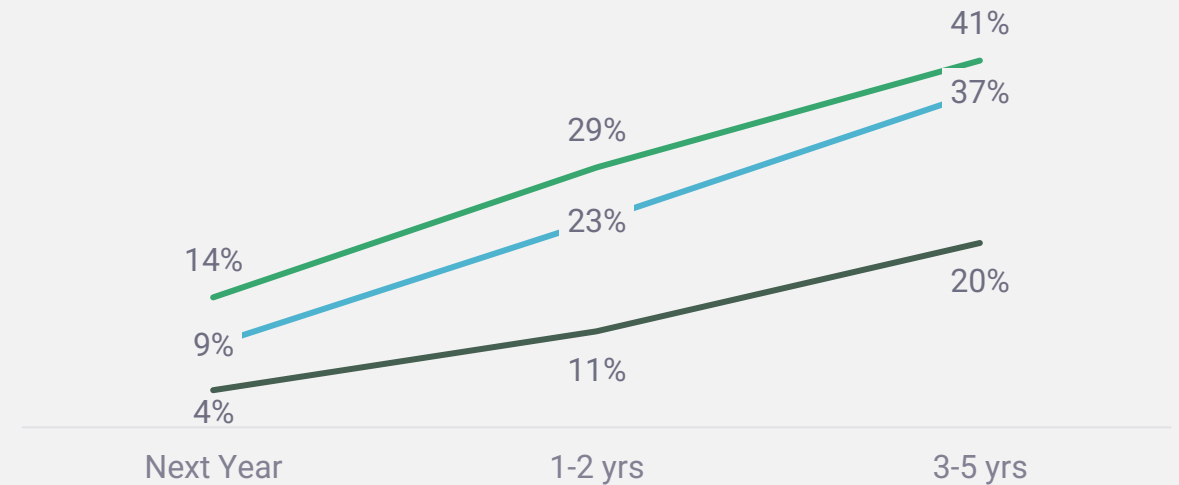
Impact of solar

Increasing take up of solar continues to impact the future uncertainty for gas

- This is particularly true amongst those considering solar, who possibly have a goal of electrification in mind.
- Amongst those not considering solar, there is a less positive reaction to the offer of \$15,000 interest free loan, with just 18% stating this would make them consider solar (down from 43% in 2020).

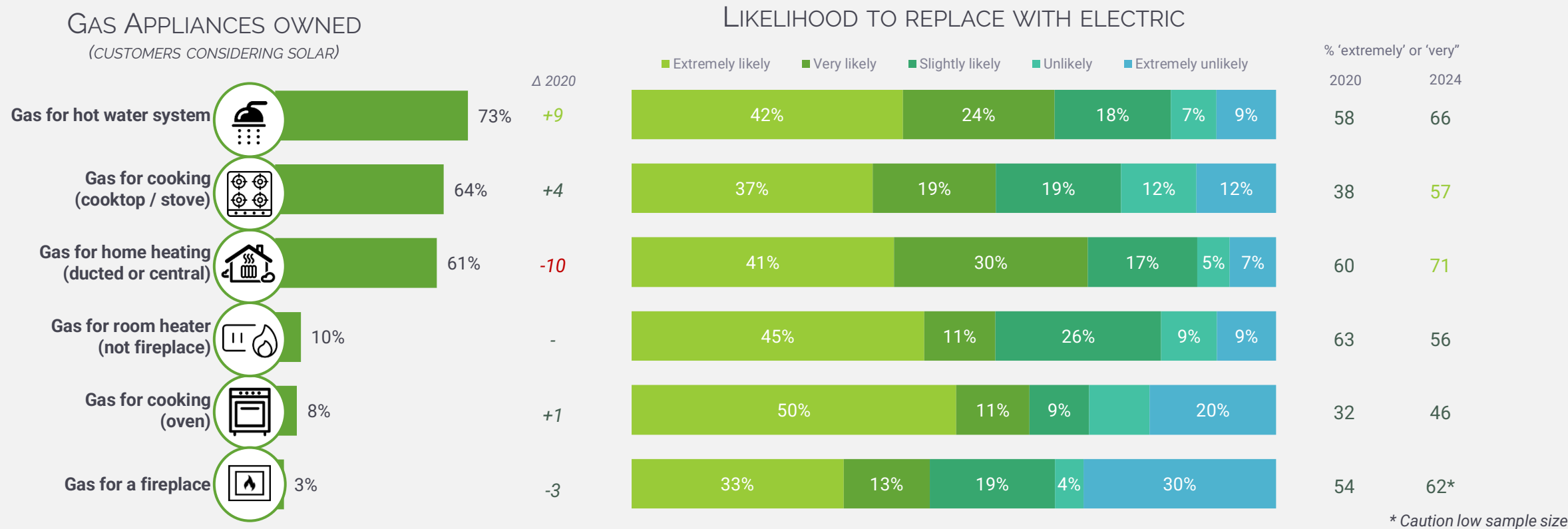


CUMULATIVE UNCERTAINTY FOR GAS



Those considering solar are increasingly likely to replace gas appliances with electric ones

- Intent to switch cooktops / stoves over to electric is also gaining ground.



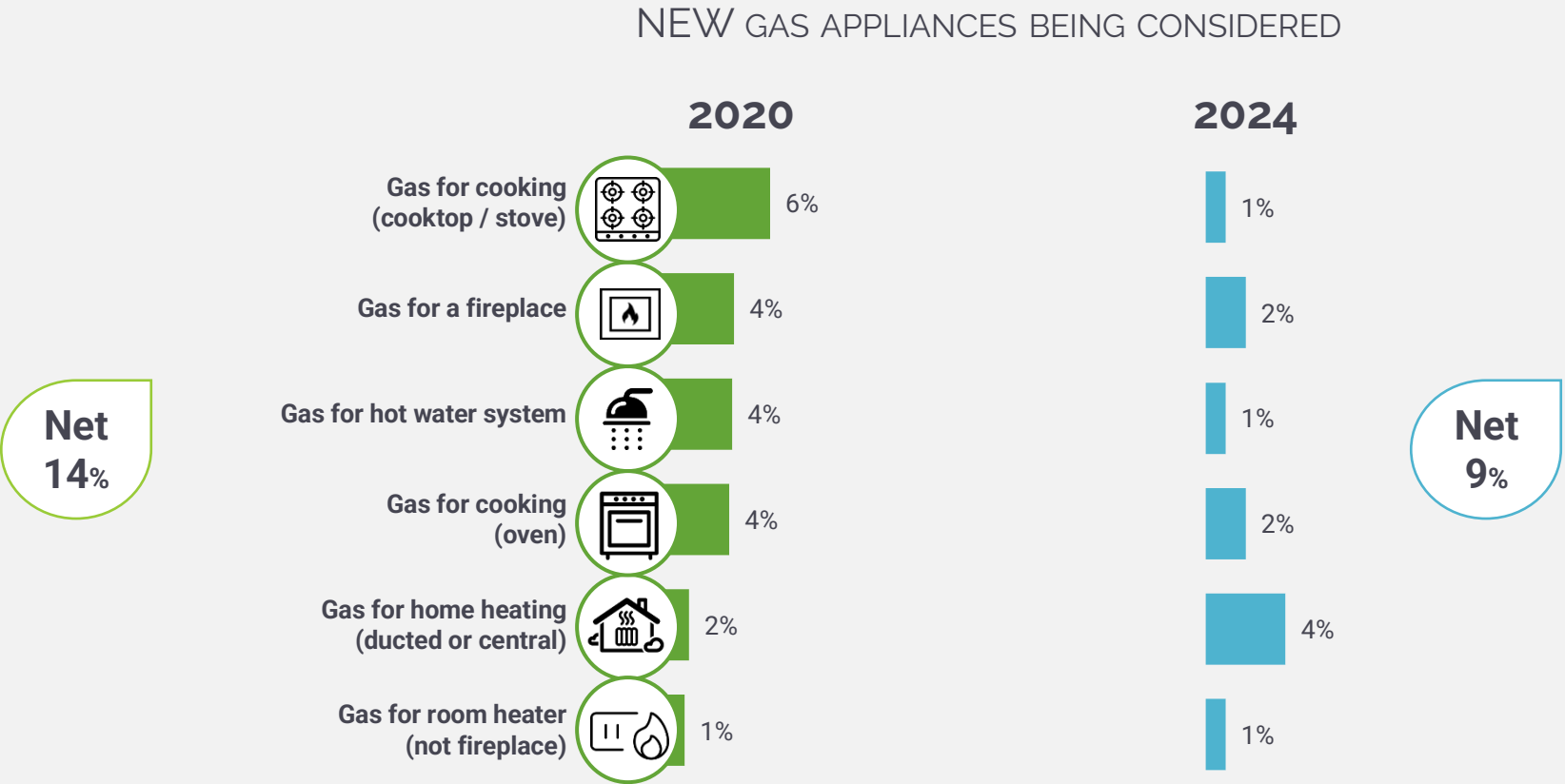
Q2.0: Do you have any of the following gas appliances? Q4.6: If you installed a solar system to your home, how likely would you be to replace the current gas appliances with electric ones?
Base: All customers considering solar 2020/2024 (n=773 / 509); heating system (n=557 / 349); hot water system (n=480 / 375); cooktop (n=447 / 302); Room heater (n=88 / 56); oven (n=58 / 42); fireplace (n=47 / 26) red / green text indicates statistical differences (95%)



Gas Take Up

Fewer customers are now considering gas appliances to replace electric ones

- Most of these replacements are not anticipated in the next 5 years, meaning that there is relatively little impact on the future uncertainty of gas.



Future uncertainty for gas could increase by 9% in the next year, and up to 32% in 5 years time

- The degree of uncertainty for natural gas, is defined as the proportion of customers likely to change existing gas appliances over to electric.



Adjusted based on those who intend to install new gas appliances.

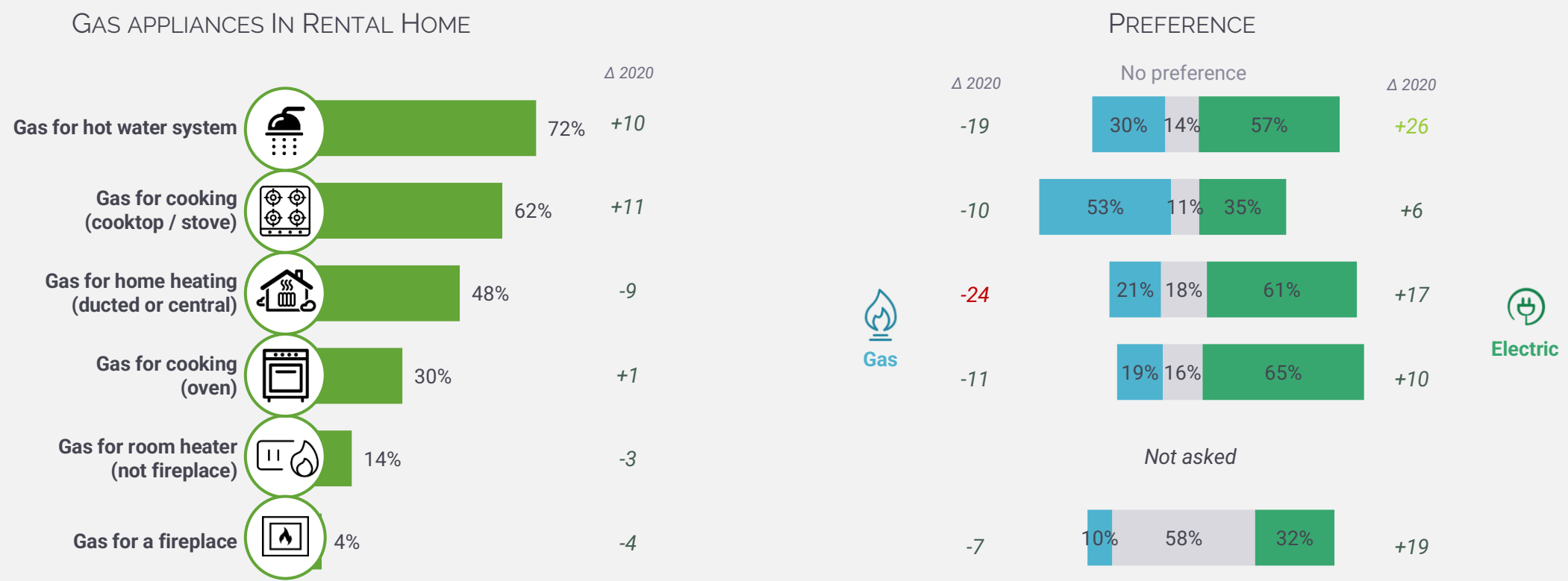




Renters

Similar trends have been seen amongst those renting, with a shift in preference towards electric

- There remains a stronger preference for gas cooktops however.
- As with homeowners, renters are split in their preferences for their next home, with 41% preferring a house connected to gas, 36% preferring no connection and 24% with no preference



Q6.0: Do you have any of the following gas appliances? Q6.0a: Is gas or electric your preference for each of the following
Q6.0b: When looking for a new home, what would your preference be in relation to the establishment of a gas connection?
Base: All customers renting 2020/2024 (n=92 / n=103) red / green text indicates statistical differences (95%)



Questions? Please get in touch



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