

LOW CARBON TECHNOLOGY TRACKER RESULTS WAVE 6

Prepared for NGN

DATE: 05/12/2024

IMPACT

FROM INSIGHT TO INFLUENCE

OUR STUDY



LOW CARBON TECHNOLOGY TRACKER

We have conducted 6 waves of our LCT tracker, aimed at understanding perceptions of low carbon technology.

It runs twice a year, in Spring and Autumn, tracking how these perceptions change over time.

The following slides give an overview of some of the results from the most recent wave, with fieldwork taking place in October 2024.

Previous fieldwork dates:

Wave 1 (Spring 2022 - May)

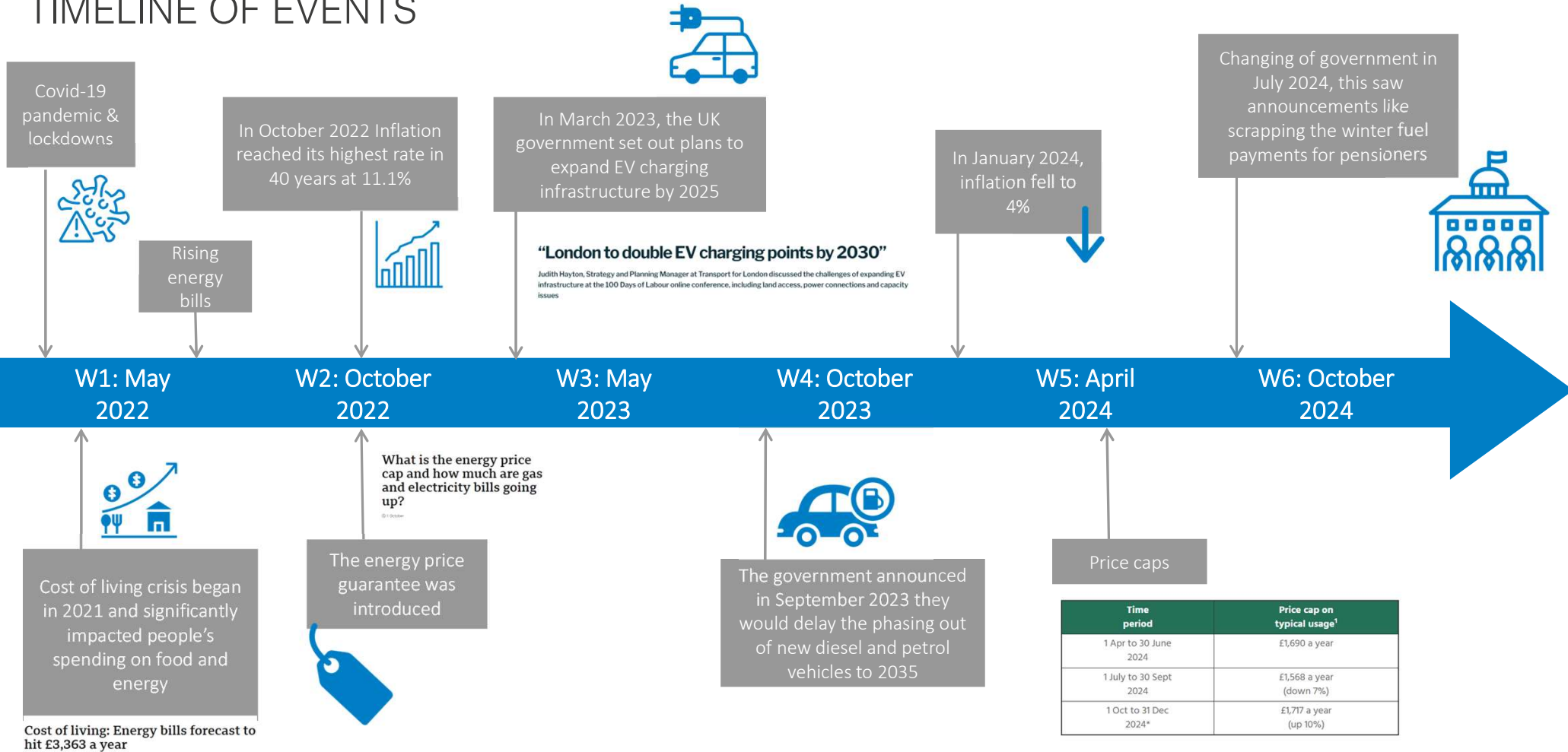
Wave 2 (Autumn 2022 – October)

Wave 3 (Spring 2023 - May)

Wave 4 (Autumn 2023 - October)

Wave 5 (Spring 2024 – April)

TIMELINE OF EVENTS



Cost of living: Energy bills forecast to hit £3,363 a year

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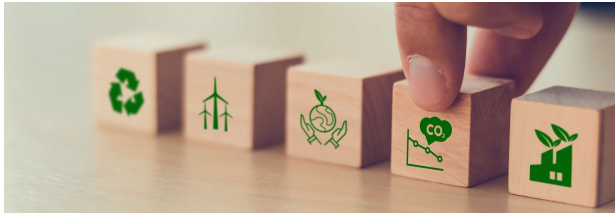
EXECUTIVE SUMMARY

IMPACT

FROM INSIGHT TO INFLUENCE

EXECUTIVE SUMMARY (1)

Perceptions around Net Zero



Just over a quarter of GB consumers **feel highly empowered to take action** toward achieving Net Zero, with slightly lower confidence observed in the NGN sample.

GB consumers view **LCT Providers, Net Zero/LCT charities, and EV Manufacturers as the most influential** contributors to the UK's Net Zero goals.

However, two in five believe that Gas Distribution Networks (GDNs) are not doing enough and call for **greater transparency regarding their progress and initiatives, particularly in the adoption of renewable energy solutions.**

Current heating situation

The majority of households have **mains gas boilers for heating and report general satisfaction** with their reliability. However, satisfaction with running costs is lower.

For those who have reduced their heating usage, **saving money is the primary motivator.** This highlights the growing challenge of balancing comfort with affordability in the current economic climate.

This emphasises the importance of addressing **energy efficiency and affordability as part of the transition to more sustainable heating solutions.**



The future of heating



Around half of consumers currently have/ are open to adopting energy-saving measures like LED bulbs, draught proofing, and heating controls. However, more expensive options such as solar panels are less appealing.

When choosing a heating system, consumers prioritise it as being **economical to run, reliable, low maintenance and upfront costs.**

Most are aware of the planned phase-out of gas boilers. Many would consider a heat pump if required to replace their heating system. However, a proportion would still opt for a gas boiler if it remained available, **showing ongoing hesitations around transitioning to newer technologies.**

EXECUTIVE SUMMARY (2)

Perceptions of heat pumps and hydrogen boilers

Interest in heat pumps and hydrogen boilers is driven by climate concerns and them becoming more readily available. While awareness of hydrogen boilers is relatively high, **many need to be made aware of installation requirements for heat pumps.**

Consumers want clear information on these technologies' **total costs, long-term savings, and grants.** Cost concerns deter interest in heat pumps, while **safety is the main barrier for hydrogen boilers.**

Energy suppliers are the top source of information for both technologies, with consumers also consulting price comparison sites for heat pumps and government resources for hydrogen boilers.



Financing Low Carbon Technology



One third of consumers are willing to invest in low-carbon upgrades within the next 2–3 years.

Spending on low-carbon improvements varies. Some are willing to spend up to £5,000, though a fifth remain uncertain about their budget.

Around half plan to **self-finance** these improvements, while **a third would seek grants.**

Awareness of funding schemes is low but improving, with only a small number having applied.

NGN sample deep dive

Three-fifths of NGN consumers are waiting for government financial incentives before replacing their gas boiler, while half are unconcerned about the 2035 ban, **expecting more affordable options to become available.**

Opinions on local versus national decision-making, personal versus expert involvement, and the role of tenants in heating system decisions are divided.

In shared buildings, NGN consumers believe **landlords and housing associations should manage heating supply decisions**, including gas disconnections, with an emphasis on affordability of **running costs, installation costs, and safety.**

Despite this, most NGN consumers feel **they should have the final say in the type of heating used in their homes**, highlighting the importance of personal choice in energy transitions.

EXECUTIVE SUMMARY (3)

Electric vehicle deep dive

Most have access to transport, primarily through ownership of a working vehicle, with half having just one vehicle per household.

Petrol vehicles remain the most commonly owned and considered, reflecting their familiarity and availability. **Electric vehicles (EVs) are the second most considered**, just ahead of fully hybrid vehicles, signalling a growing interest in low-emission alternatives.

Over a third of respondents expressed interest in EVs, driven by their **environmental benefits, lower running costs, and the convenience of home charging**.

However, two-thirds remain hesitant, citing high **upfront costs, limited mileage range, and concerns over battery performance over time as major barriers**. These barriers must be overcome to encourage increased consideration and adoption of electric vehicles.



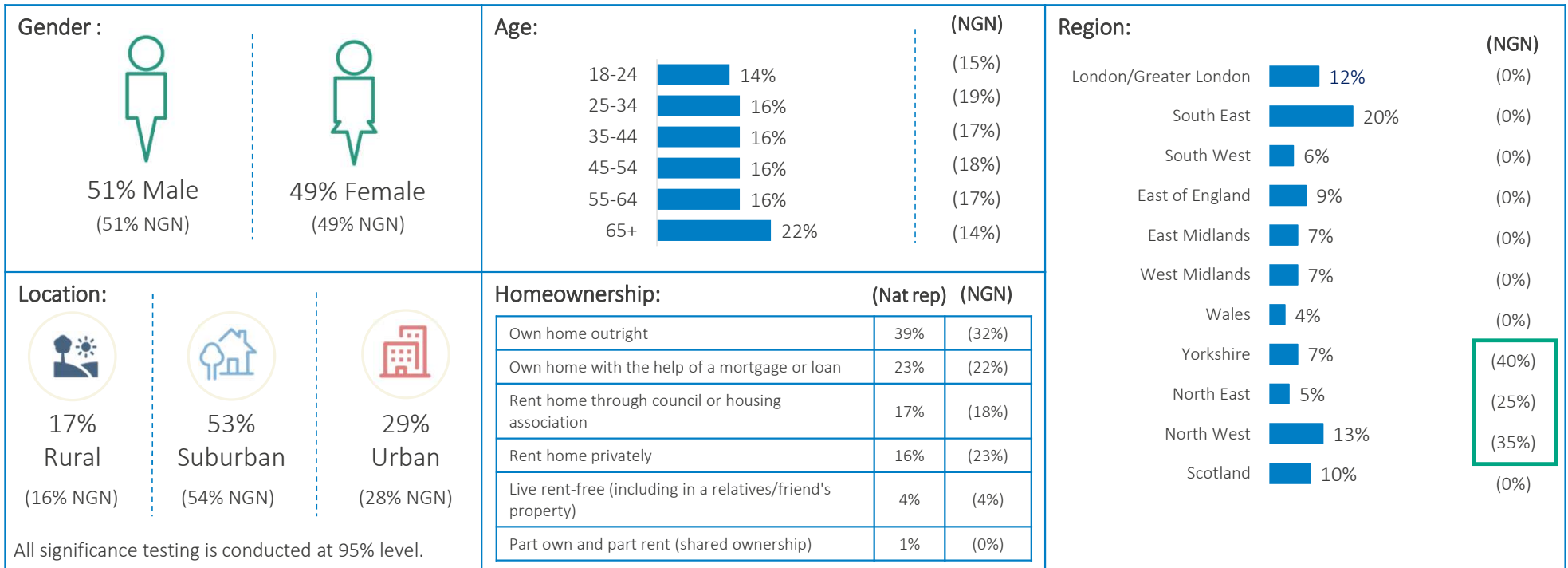
SAMPLE BREAKDOWN

IMPACT

FROM INSIGHT TO INFLUENCE

KEY DEMOGRAPHICS – SAMPLE GB NAT REP & NGN (UNWEIGHTED)

This wave of the LCT tracker represents 1,005 citizens from across the GB and 1,006 from NGN. The data is nationally representative for GB sample and representative for the NGN sample.



S2. Please record your age below. S1. Please record your gender below? S3. Please can you confirm where you live? S4. How would you describe the location where you live? S5. Do you (or your household) rent or own your home?
 Nat rep numbers (% NGN sample)
 NGN unweighted %

WEIGHTING – NGN SAMPLE (WAVE 6)

The Nat Rep data is unweighted as the sample is representative of the UK.
 The NGN boost data has been weighted to ensure it is representative of the NGN region, according to the following profiles: age, gender and social economic grade.



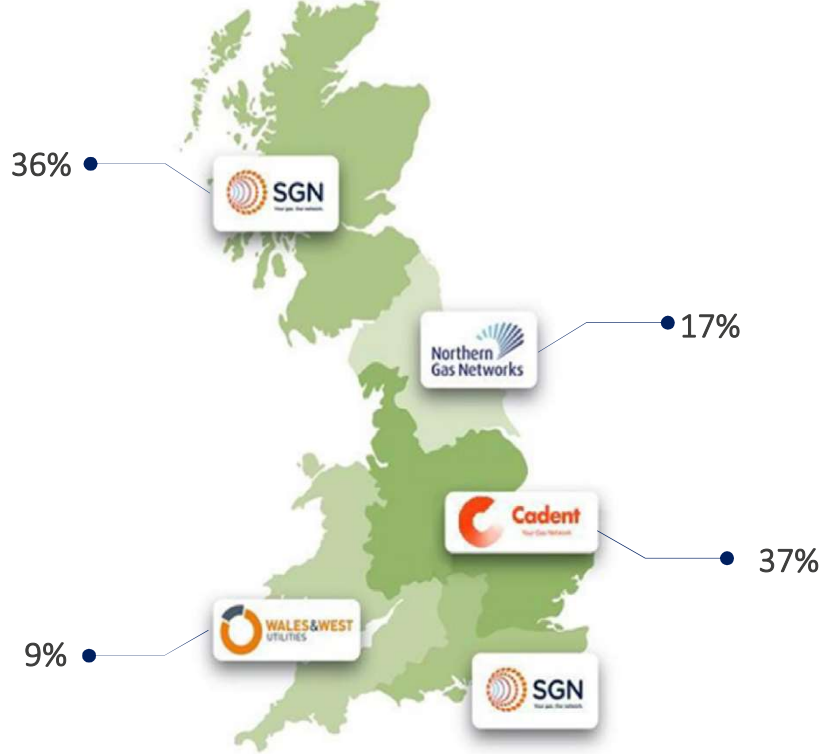
| NGN Boost | Female 18-24 | Female 25-34 | Female 35-44 | Female 45-54 | Female 55-64 | Female 65+ |
|-----------------|--------------|--------------|--------------|--------------|--------------|------------|
| Unweighted base | 85 | 97 | 85 | 86 | 81 | 55 |
| Weighted base | 66 | 78 | 75 | 80 | 82 | 122 |

| NGN Boost | Male 18-24 | Male 25-34 | Male 35-44 | Male 45-54 | Male 55-64 | Male 65+ |
|-----------------|------------|------------|------------|------------|------------|----------|
| Unweighted base | 61 | 97 | 90 | 95 | 90 | 82 |
| Weighted base | 66 | 78 | 75 | 80 | 82 | 122 |

| NGN Boost | AB | C1 | C2 | DE |
|-----------------|-----|-----|-----|-----|
| Unweighted base | 258 | 271 | 181 | 296 |
| Weighted base | 182 | 294 | 225 | 305 |

- Unweighted bases are shown throughout
- Significance
 - All significance testing is conducted at 95% level

PARTICIPANTS WERE ALL FROM MAINLAND GB DNOs & GDNs (OCT-24 W6)

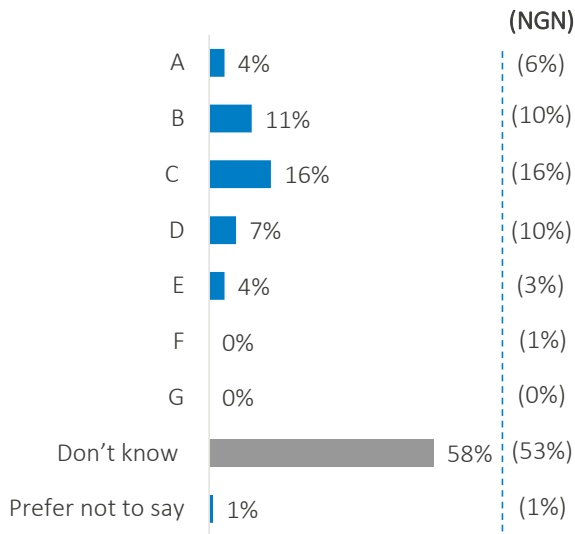


S3a. Which distribution company is responsible for maintaining the electricity network (this is the company that distributes your electricity, not the supplier you pay bills to) where you live? This map may help if you are unsure. If you are still unsure.
S3b. Which distribution company is responsible for maintaining the gas network (this is the company that distributes your gas, not the supplier you pay bills to) where you live? This map may help if you are unsure. Base: Total sample W6 Nat Rep (1005)

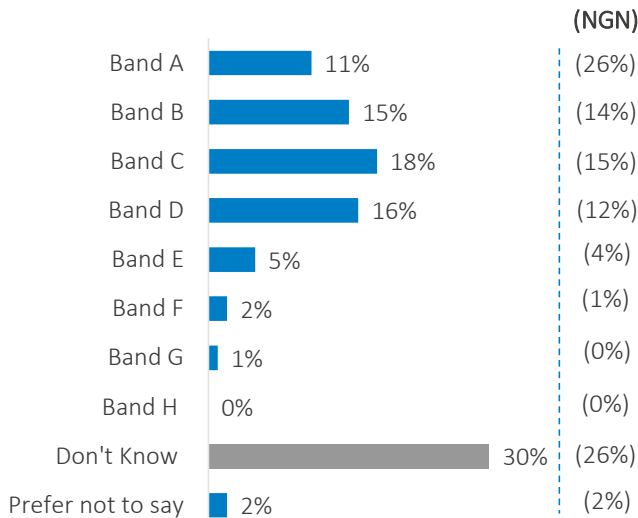
UNDERSTANDING THEIR HOME - GB NAT REP (& NGN)








The most common EPC certificate of households across GB overall, and within the NGN region was C, however a large number of survey participants were unsure what their certificate was.

What is the Energy Performance Certificate (EPC) rating of your home?



What is the council tax band for your property?

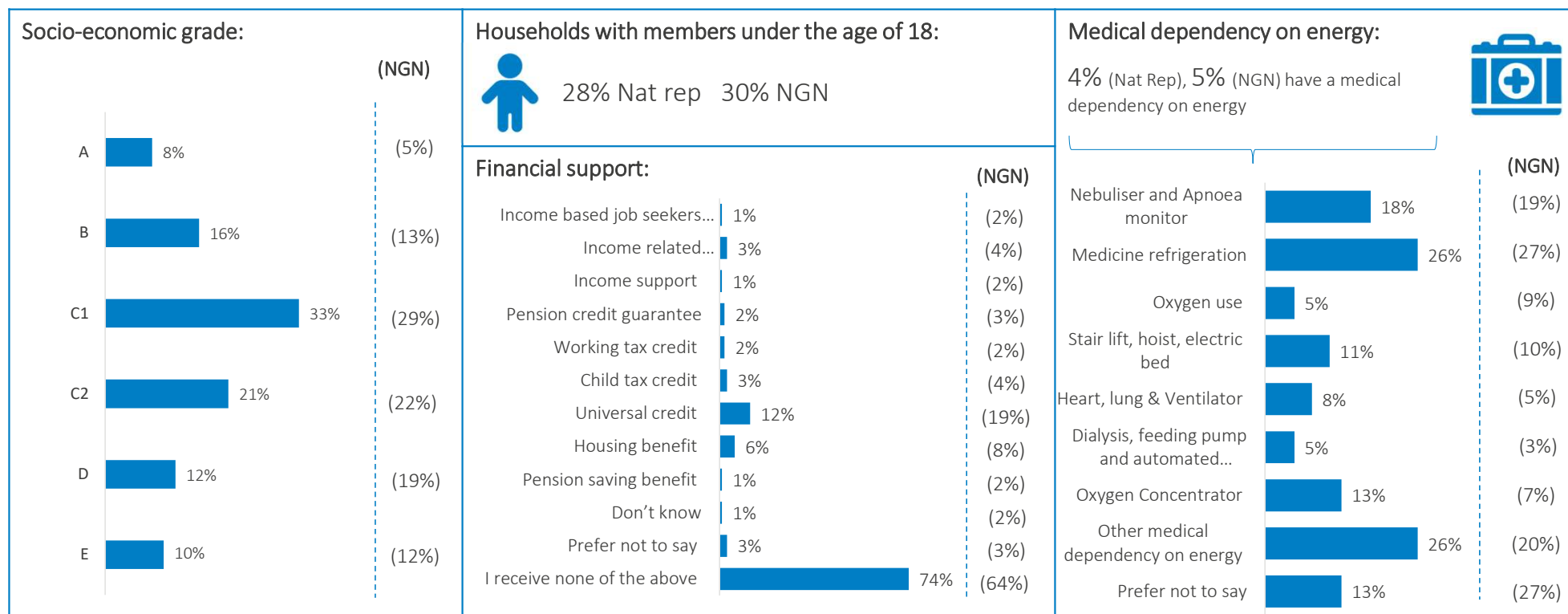


| What type of property do you currently live in? | Nat rep | NGN |
|--|---------|-------|
| Detached house  | 17% | (15%) |
| Semi-detached house  | 31% | (35%) |
| Terraced house  | 22% | (28%) |
| Flat/ apartment  | 22% | (15%) |
| Bungalow  | 7% | (5%) |
| Mobile home  | 1% | (1%) |
| Student halls of residence  | 1% | (0%) |

DNO2. What is the Energy Performance Certificate (EPC) rating of your home? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) DNO4. What is the council tax band for your property? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) P4_W6. What type of property do you currently live in? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

VULNERABILITY - GB NAT REP (& NGN)

Most consumers surveyed do not receive financial support.



S9a. Which of the following categories best describes the employment status of the highest income earner in your household. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) P2_W6. How many children under the age of 18 live in your household, for at least half of the year? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) DNO3. Do you currently receive any of the following benefits? Please select all that apply. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) S10. You answered earlier that you have a medical dependency on energy, can you please tell us what it relates to? (Please tick all boxes that apply). Base: Nat Rep sample W6 (38), NGN sample W6 (50)

VULNERABILITY - GB NAT REP (& NGN)

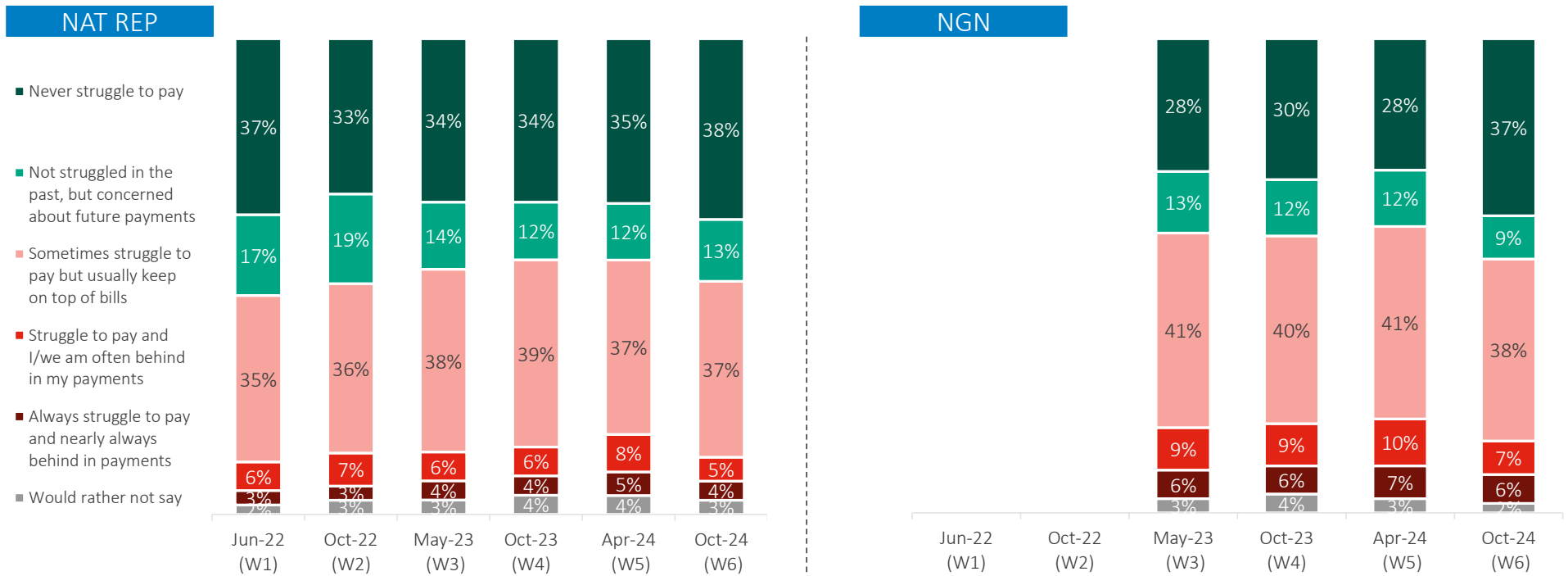
| | You (Nat rep) | You (NGN) | Someone in your household (Nat rep) | Someone in your household (NGN) |
|--|---------------|-----------|-------------------------------------|---------------------------------|
| Blind, partially sighted or difficulty with reading or writing | 1% | 2% | 2% | 2% |
| Deaf or hearing impaired | 4% | 4% | 3% | 3% |
| Poor mobility | 6% | 11% | 5% | 8% |
| Restricted hand movements | 2% | 4% | 1% | 3% |
| Unable to answer the door | 1% | 3% | 2% | 2% |
| Chronic/ serious physical illness | 5% | 9% | 4% | 5% |
| Poor sense of smell/taste | 2% | 2% | 2% | 2% |
| Speech difficulties | 2% | 2% | 2% | 3% |
| Dementia or other cognitive impairment | 1% | 1% | 1% | 2% |
| A specific learning difficulty | 4% | 7% | 4% | 7% |
| Mental health challenges ((e.g., depression, schizophrenia, or anxiety disorder) | 14% | 17% | 5% | 8% |
| Addiction (drug, alcohol etc.) | 2% | 3% | 1% | 2% |
| Recent hospital stay | 2% | 3% | 2% | 2% |
| Current pregnancy/pregnancy within past year | 1% | 2% | 1% | 1% |
| Temporary life changes (such as divorce, loss of employment) | 2% | 3% | 1% | 2% |
| Caring for someone else in the household | 4% | 8% | 3% | 4% |
| Essential medical equipment | 2% | 3% | 2% | 3% |
| Need to keep medicine refrigerated | 2% | 4% | 2% | 4% |
| English as a second language | 2% | 3% | 2% | 3% |
| Refugee/asylum seeker | 1% | 1% | 1% | 1% |
| None of the above | 68% | 60% | 77% | 70% |

S8. There are a wide range of factors that could mean anyone might need extra help or support from their electricity or gas company during a supply interruption (e.g., a power cut). Do you feel that any of the following factors apply to you or anyone in your household now that might mean you need extra support or help during a supply interruption?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006) Prefer not to say (3% for you Nat rep, 3% you NGN, 3% Someone in your household Nat rep, 4% Someone in your household NGN)

PAYING ENERGY BILLS

Just under half of GB sample struggle to pay their bills to some degree.
 6% of the NGN sample say they always struggle to pay and nearly always behind on payments.

Paying Energy bills:



S7: Finally, we would like to understand a little more about how your household's financial situation is affected by your energy bills. Which of the following statements best describes your situation? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 NGN did not buy into wave 1 and 2.

DEEP DIVE INTO
PERCEPTIONS AROUND
NET ZERO

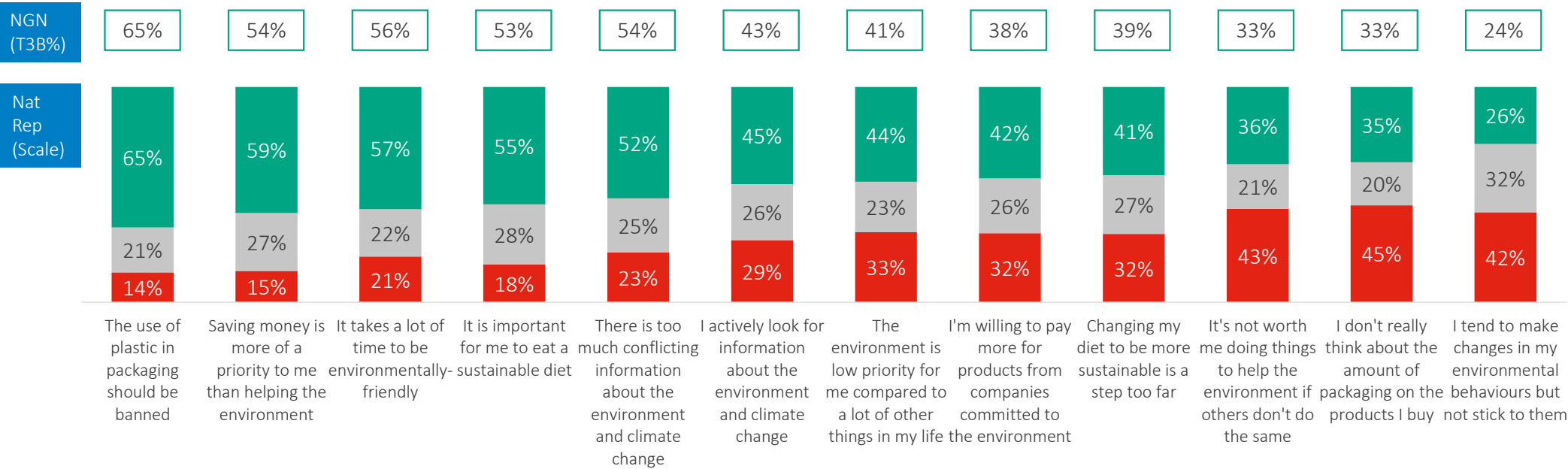
IMPACT

FROM INSIGHT TO INFLUENCE

ENVIRONMENTAL ATTITUDES

Saving money is key for people, any cost saving benefits of being sustainable should be communicated clearly. Over half feel there is too much conflicting information about the environment and climate change, and that it takes a lot of time to be sustainable.

Agreement with different statements about sustainability:

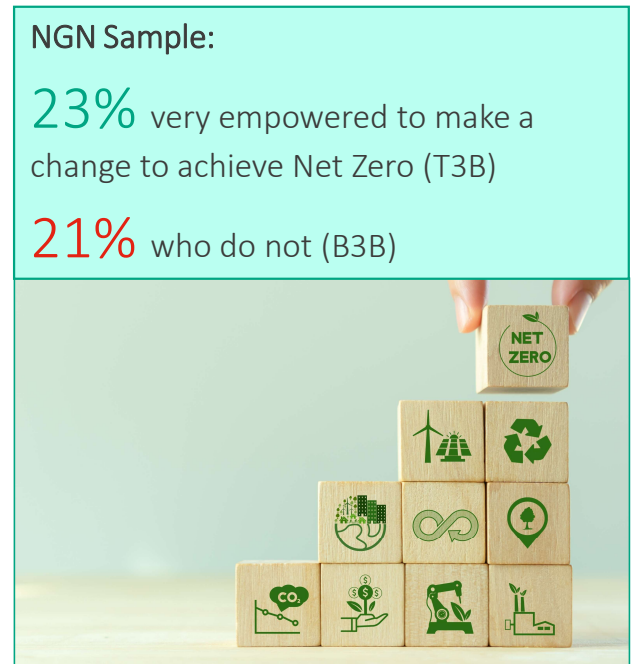
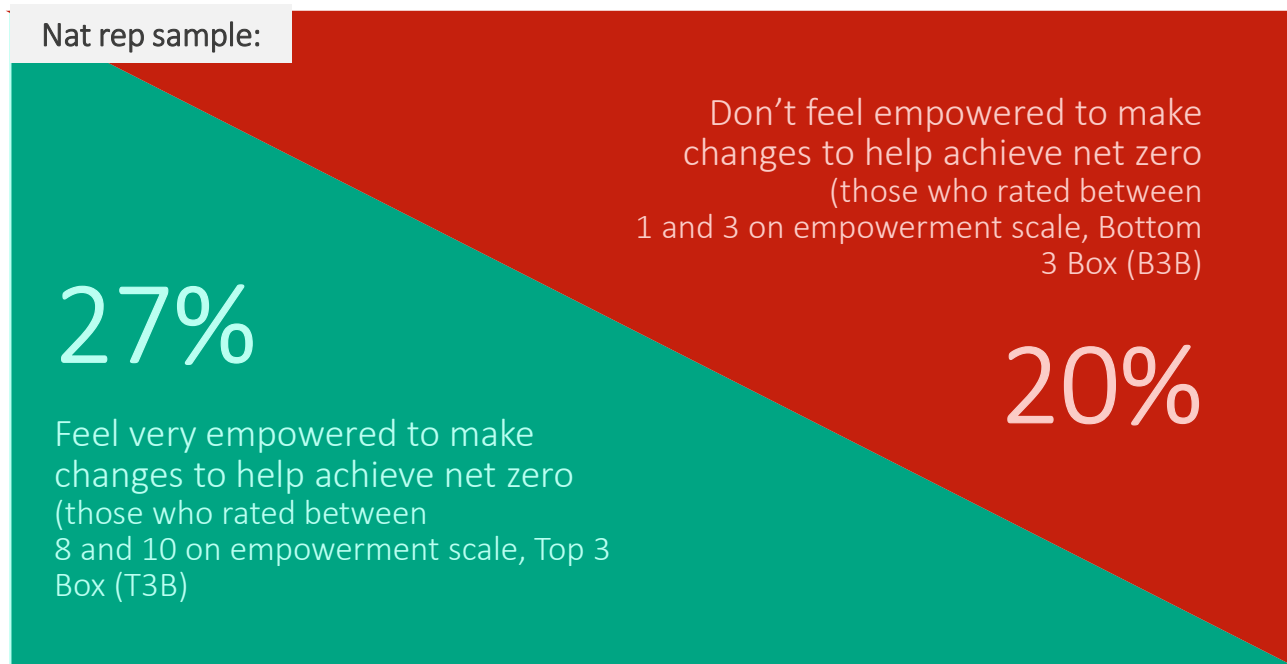


GQ1r: To what extent do you agree or disagree with the following statements?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

■ Disagree ■ Neither or slightly agree or disagree ■ Agree

EMPOWERED TO MAKE A CHANGE TO ACHIEVE NET ZERO

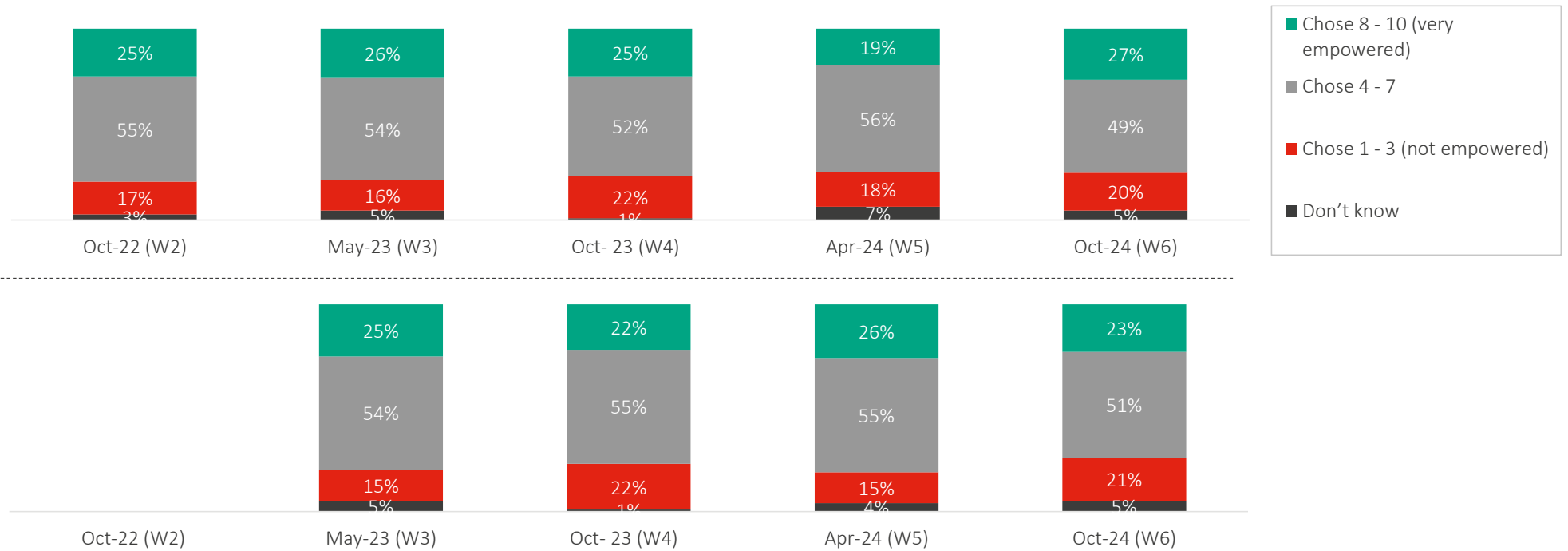
Just over a quarter (27%) of the GB sample feel very empowered to make changes to achieve Net Zero; a figure that drops to 23% for the NGN sample.



EMPOWERED TO MAKE CHANGES TO HELP ACHIEVE NET ZERO

Empowerment levels for net zero have remained largely consistent across all the waves for the NGN sample. Scores amongst the GB sample have recovered from the dip in wave 5.

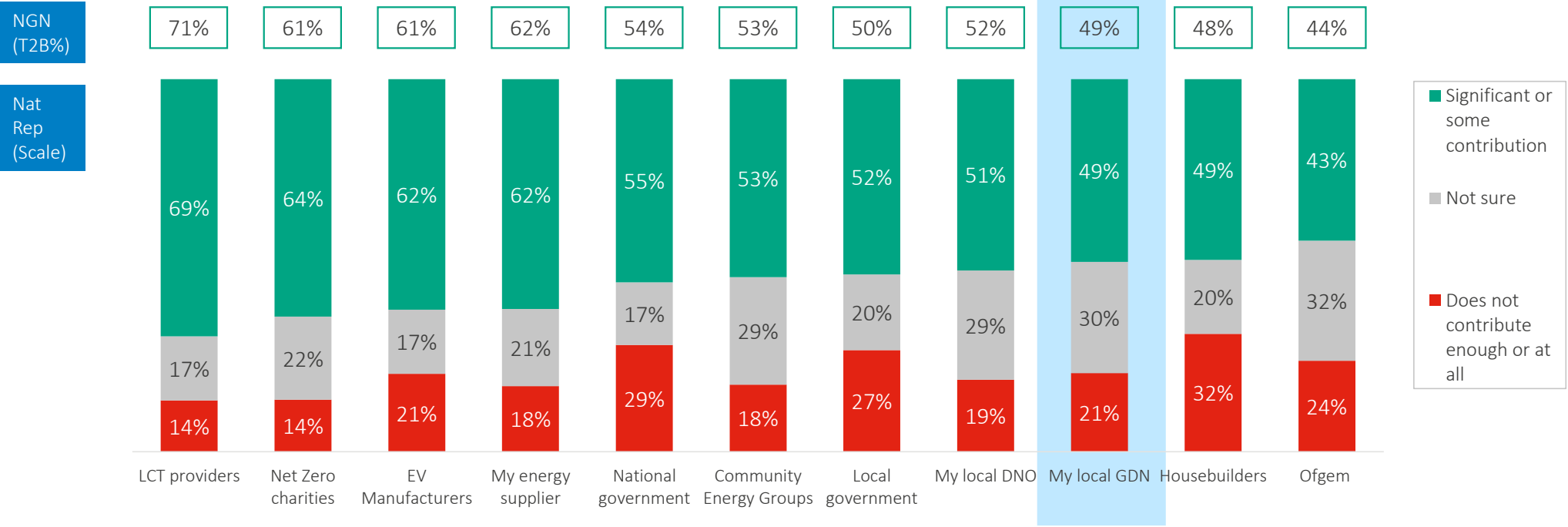
To what extent do you personally feel empowered to make changes to help achieve net zero?



L33. To what extent do you personally feel empowered to make changes to help achieve net zero?. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 NGN did not buy into wave 1 and 2.

CONTRIBUTION TO HELPING ACHIEVE NET ZERO

GB consumers believe that LCT Providers, Net Zero/LCT charities, and EV Manufacturers/Dealerships contribute the most to helping the UK reach Net Zero. About half feel that GDNs contribute.



L3. To what extent do each of the following contribute, if at all, to helping the UK reach net zero?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

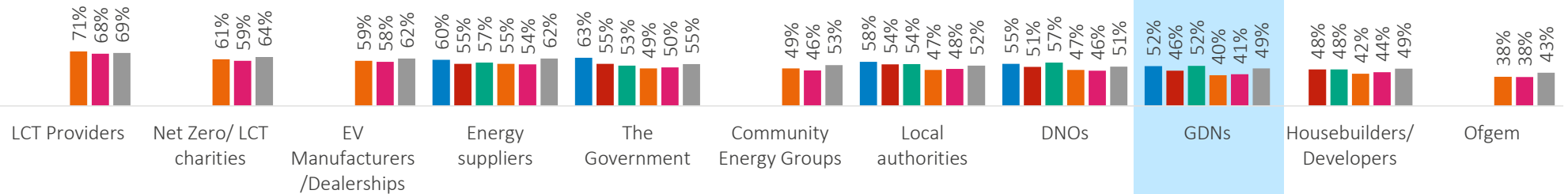
CONTRIBUTION TO HELPING ACHIEVE NET ZERO – TRACKED

GB consumers believe that LCT Providers, Net Zero/LCT charities, and EV Manufacturers/Dealerships contribute the most to helping the UK reach Net Zero. This has remained consistent across all waves.

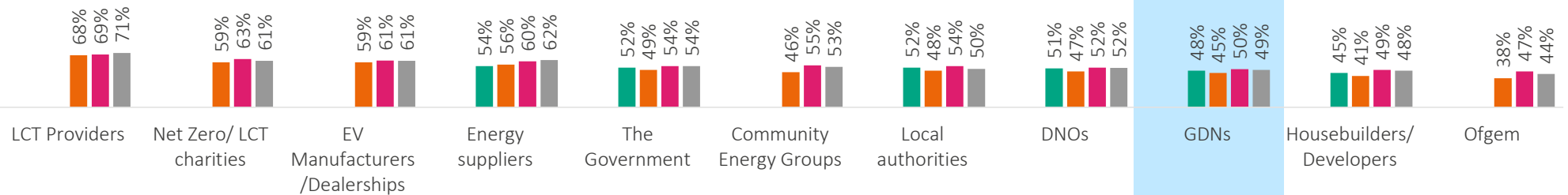
Contribution (significantly + make some contribution):

■ Jun-22 (W1) ■ Oct-22 (W2) ■ May-23 (W3) ■ Oct-23 (W4) ■ Apr-24 (W5) ■ Oct-24 (W6)

NAT REP



NGN



L3. To what extent do each of the following contribute, if at all, to helping the UK reach net zero?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 Those without data were not asked in previous waves.
 NGN did not buy into wave 1 and 2.

WHAT THEY SHOULD DO TO HELP THE UK REACH NET ZERO...

GDNs

21% think GDNs don't contribute

KEY THEMES:

- Transition away from fossil fuels, to renewable energy
- Be more transparent about their actions towards net zero targets
- Increase affordability
- Invest in renewable energy solutions

"They want profit not net zero so it's not in their best interests. I'd like them to switch to renewables."

"Reduce the use of fossil fuels and invest in further resources to elongate the usage of renewable energy."

"Reduce the price of gas, it's extortionate. Commit to finding cleaner ways to produce gas."

GOVERNMENT

29% think the Government don't contribute

KEY THEMES:

- Be proactive
- Act more in relation to climate change and take accountability
- Provide a greater focus to environmental policies
- Encourage more people to use renewable energy and provide incentives for these actions
- Invest in renewable energy

"Be less talk and more action. Small scale subsidies on things like heat pumps are not enough."

"Invest more in renewable energies and take climate change seriously."

ENERGY SUPPLIERS

18% think Energy Suppliers don't contribute

KEY THEMES:

- Invest more in green technologies and transition away from using fossil fuels
- Provide support to customers when transitioning to greener alternatives
- Have a long-term focus for achieving net zero
- Lower energy bills and provide energy-saving tips

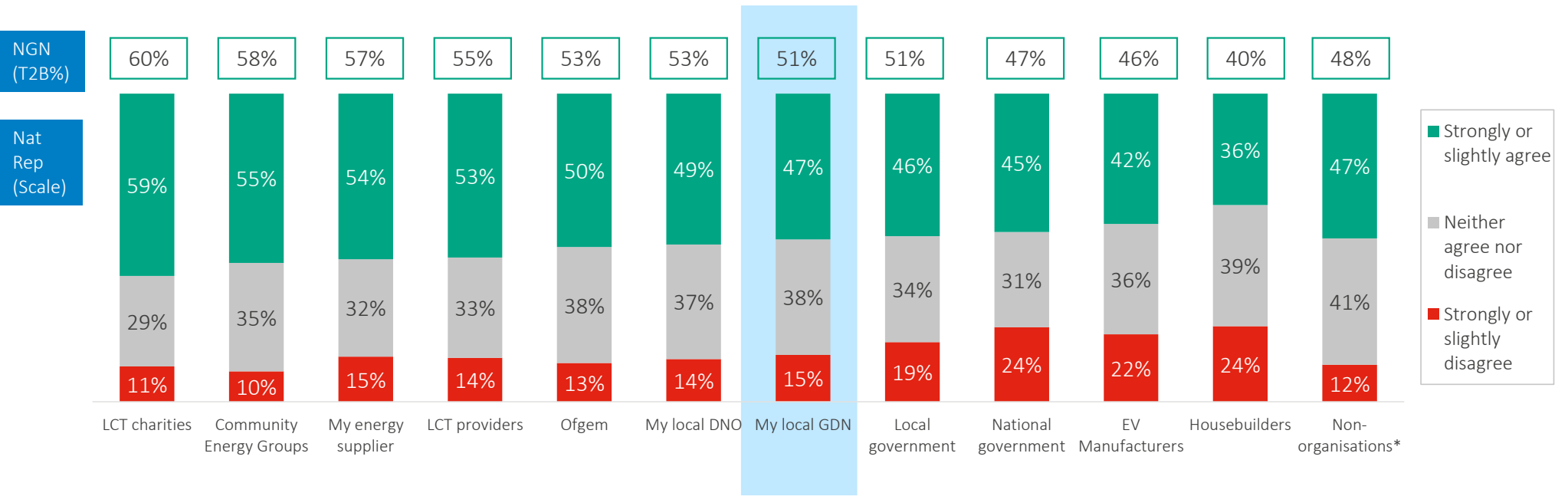
"Be more mindful about being net zero and putting in more effort to do so."

"All energy suppliers should be encouraging greener tariffs and investing in renewable technologies."

"Invest in newer technologies so that the burden of old-fashioned fuels is reduced. They need to produce more using naturally sustained methods."

TRUST IN THE INFORMATION ORGANISATIONS PROVIDE

Trust in the information that organisations provide is varied, with Net Zero/LCT charities, Community Energy Groups, energy providers and LCT providers being the most trusted sources, and Housebuilders/ developers and Electric vehicle manufactures/ dealerships being the least trusted sources.



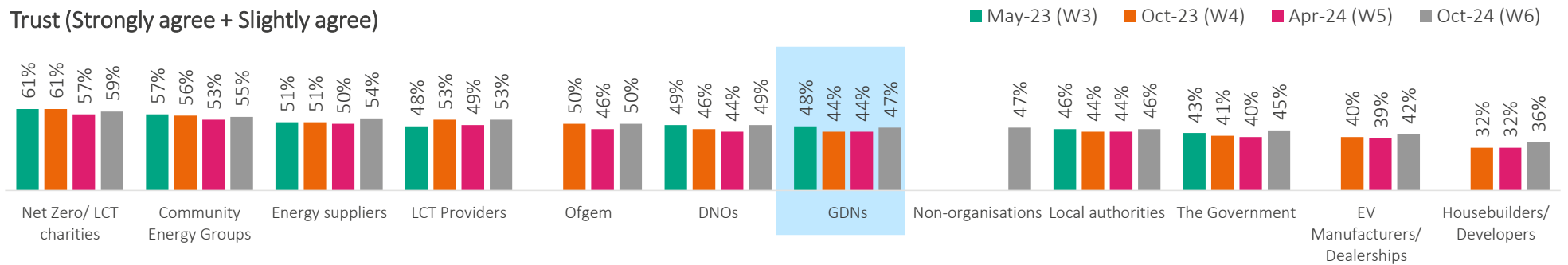
L3a. For each of the following types of organisations please indicate your level of agreement to the statement 'I trust this organisation to provide impartial advice on different aspects regarding your energy supply and usage'
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 *Specifically family and friends

TRUST IN THE INFORMATION ORGANISATIONS PROVIDE – TRACKED

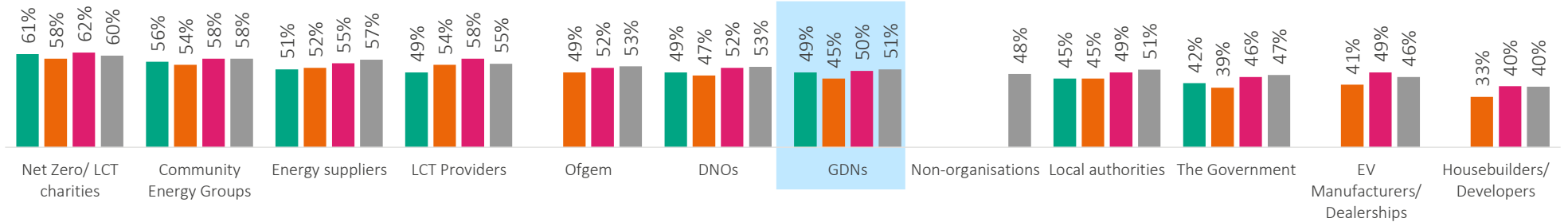
Across each wave, trust for specific organisations has remained fairly consistent.

NAT REP

Trust (Strongly agree + Slightly agree)



NGN



L3a. For each of the following types of organisations please indicate your level of agreement to the statement 'I trust this organisation to provide impartial advice on different aspects regarding your energy supply and usage'
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 Those without data were not asked in previous waves.

SUBGROUP DIFFERENCES – VULNERABILITY GROUPS

Contribution to achieving Net Zero (T2B%):

Nat Rep

Those who are **fuel-poor**, scored the following **sig lower** :

- National government (39%) vs (total sample 55%)
- Local government (36%) vs (total sample 52%)
- My energy supplier (48%) vs (total sample 62%)

Those who **need extra support** scored the following **sig lower**:

- National government (47%) vs (total sample 55%)

NGN

Those who are **fuel-poor**, scored the following **sig lower**:

- Net zero/low carbon technology charities (52%) vs (NGN sample overall 63%)

Those who are **75+** scored the following **sig lower**:

- Net zero/low carbon technology charities (35%) vs (NGN sample overall 63%)
- Community energy groups (29%) vs (NGN sample overall 55%)

Trust in the information organisations provide (T2B%):

Nat rep

Those who are **75+**, had **sig higher** trust in the following:

- Energy supplier (77%) vs (total sample 54%)
- Ofgem (73%) vs (total sample 50%)
- Local government (68%) vs (total sample 46%)

NGN

Those who are **fuel-poor**, had **sig lower** trust in the following:

- Net zero/ low carbon technology charities (50%) vs (NGN sample overall 62%)
- Ofgem (43%) vs (NGN sample overall 54%)
- National government (38%) vs (NGN sample overall 49%)

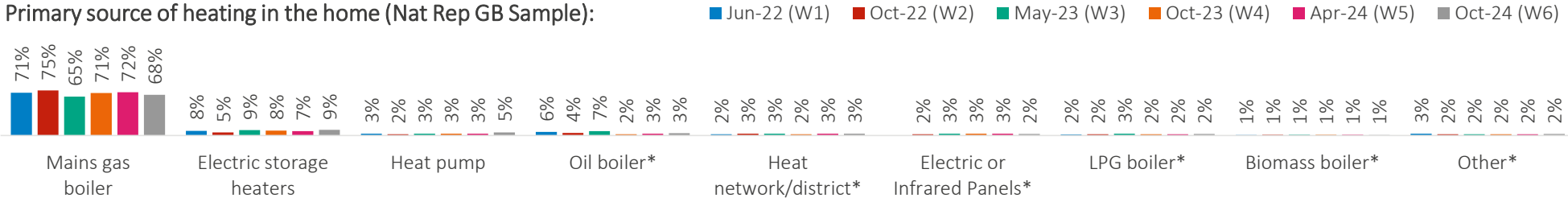
CURRENT HEATING
SITUATION

IMPACT

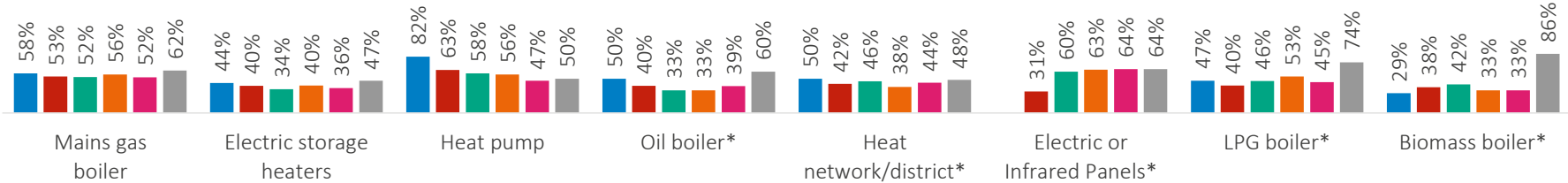
FROM INSIGHT TO INFLUENCE

HEATING IN THE HOME (NAT REP)

The majority of GB consumers use a mains gas boiler to heat their homes. Whilst base sizes are low, there is indicative evidence that those using electrical or infrared panels have high satisfaction with their heating, along with those who have LPG boilers and Biomass boilers.



Satisfaction with current heating system (rated 8-10 satisfaction on the scale) (Nat Rep GB Sample):

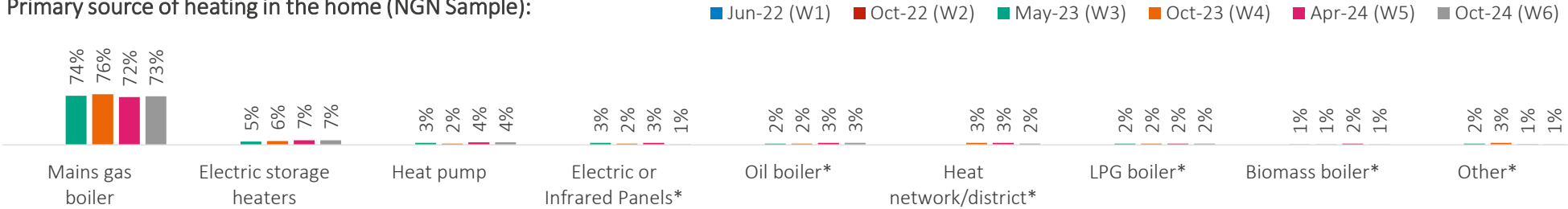


L6. What is the primary source of heating used in your home? Total sample W5 Nat Rep (1001). L10. How satisfied or dissatisfied are you with your current heating system? Please give a score on the scale below, where 1 is very dissatisfied and 10 is very satisfied.
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 *Low base size warning

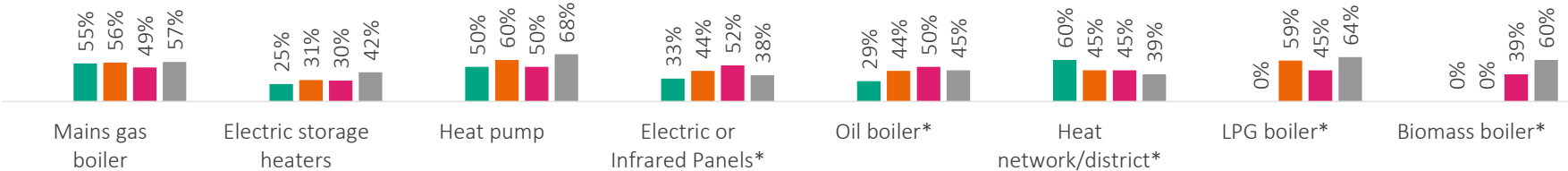
HEATING IN THE HOME (NGN)

The majority of NGN consumers use a mains gas boiler to heat their homes. The findings are indicative but suggest those using heat pumps are the most satisfied with their heating system (as they were in wave 5).

Primary source of heating in the home (NGN Sample):



Satisfaction with current heating system (rated 8-10 satisfaction on the scale) (NGN Sample):



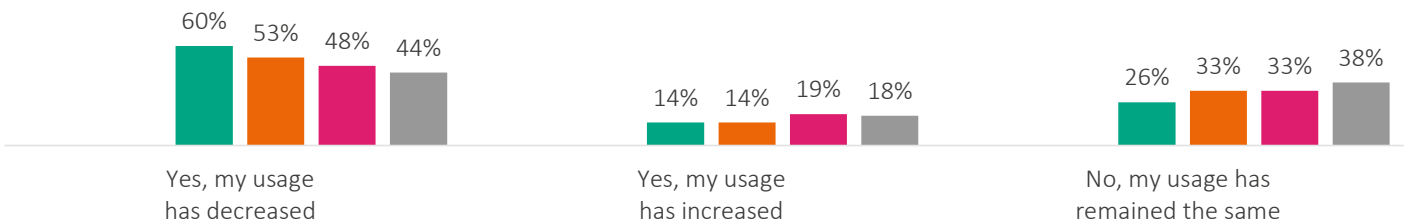
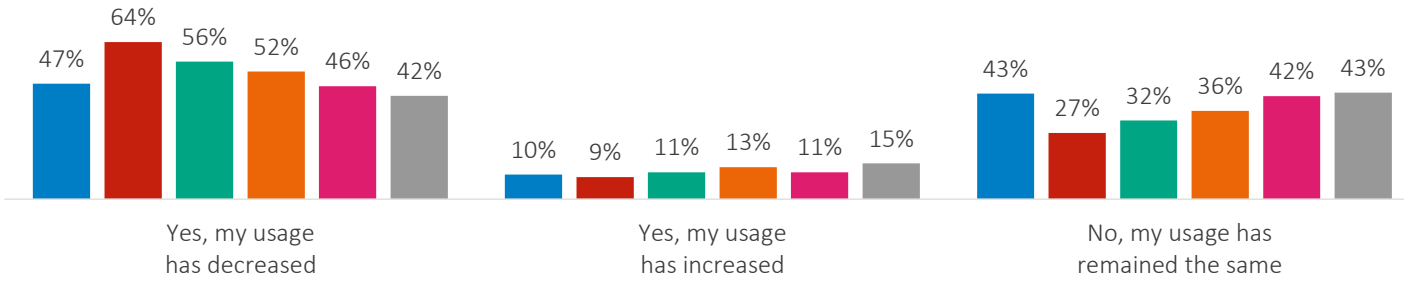
L6. What is the primary source of heating used in your home? Total sample W5 Nat Rep (1001). L10. How satisfied or dissatisfied are you with your current heating system? Please give a score on the scale below, where 1 is very dissatisfied and 10 is very satisfied.
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 NGN did not buy into wave 1 and 2.
 *Low base size warning

HEATING HABITS

For both GB and NGN, since October 2022 there has been a steady increase in people saying their heating usage has remained the same.

Have your heating habits changed recently?

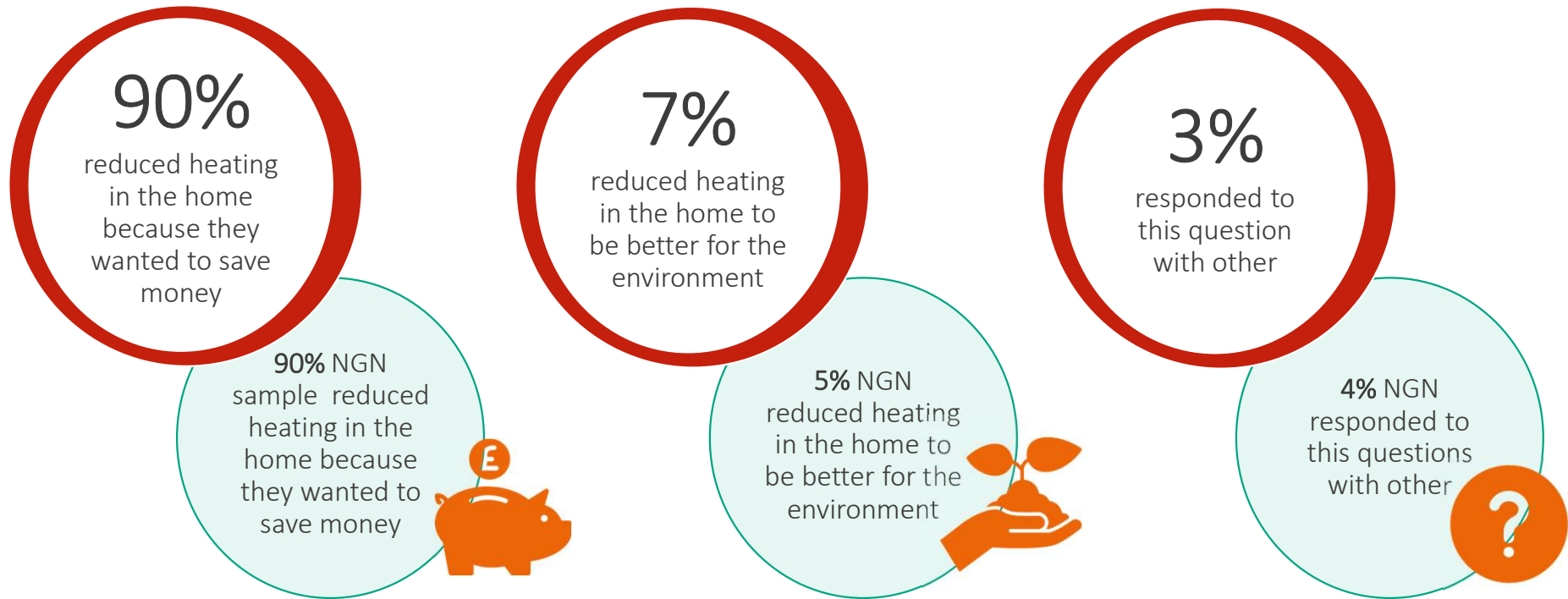
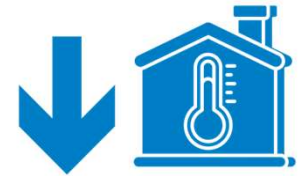
■ Jun-22 (W1) ■ Oct-22 (W2) ■ May-23 (W3) ■ Oct-23 (W4) ■ Apr-24 (W5) ■ Oct-24 (W6)



L24: Have your heating habits changed recently? Please compare your usage with previous years, when outside temperatures would have been similar.
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 NGN have not brought in to wave 1 and 2.

WHY HAVE THEY REDUCED HEATING IN THE HOME?

Most respondents in the Nat Rep and NGN samples stated that they reduced their heating in the home to save money.

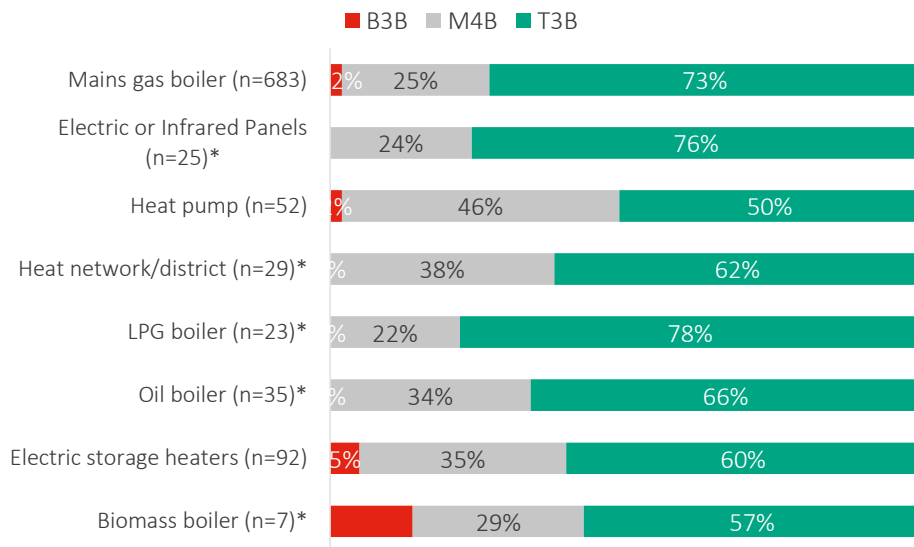


L24a: You said you have reduced the amount of heating you use in the home, What is the main reason for this? Not sure: 1% (Nat rep), 1% (NGN). Base: Nat Rep sample W6 (423), NGN sample W6 (421)

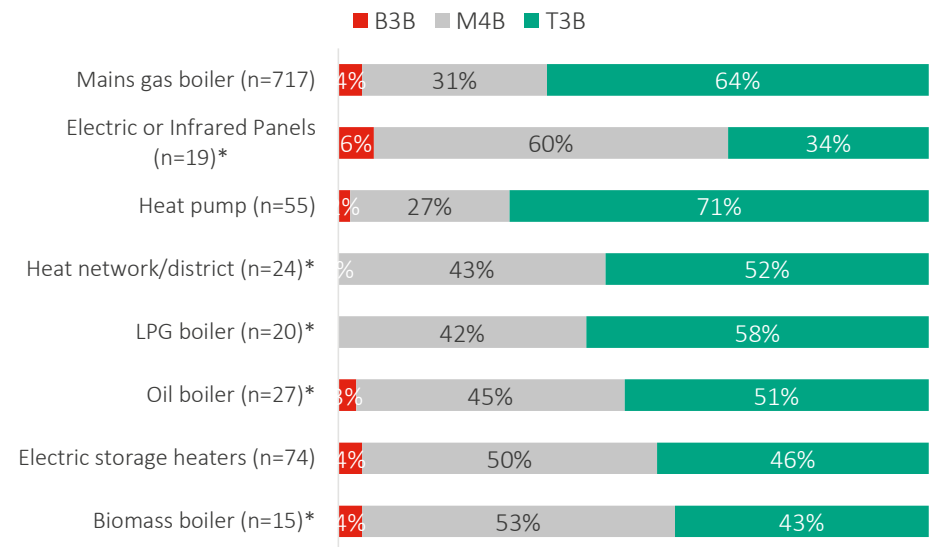
SATISFACTION WITH RELIABILITY OF CURRENT HEATING SOURCE

For GB overall, consumers are fairly satisfied with the reliability of their heat system, with mains gas boilers, electric or infrared panels, and LPG boilers scoring the highest in this area.

Satisfaction with reliability: Nat Rep GB (W6 – Oct-24):



Satisfaction with reliability: NGN (W6 – Oct-24):

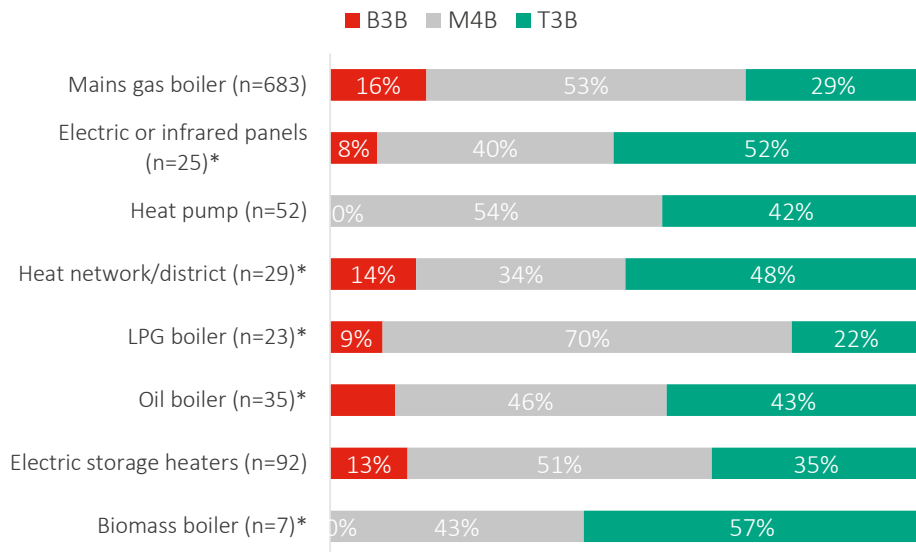


L10a How satisfied or dissatisfied are you with the reliability of your current heating system? Please give a score on the scale below, where 1 is very dissatisfied and 10 is very satisfied. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 T3B = Very satisfied scores, 8-10. M4B= Scores 4-7. B3B= Unsatisfied scores, 1-3.

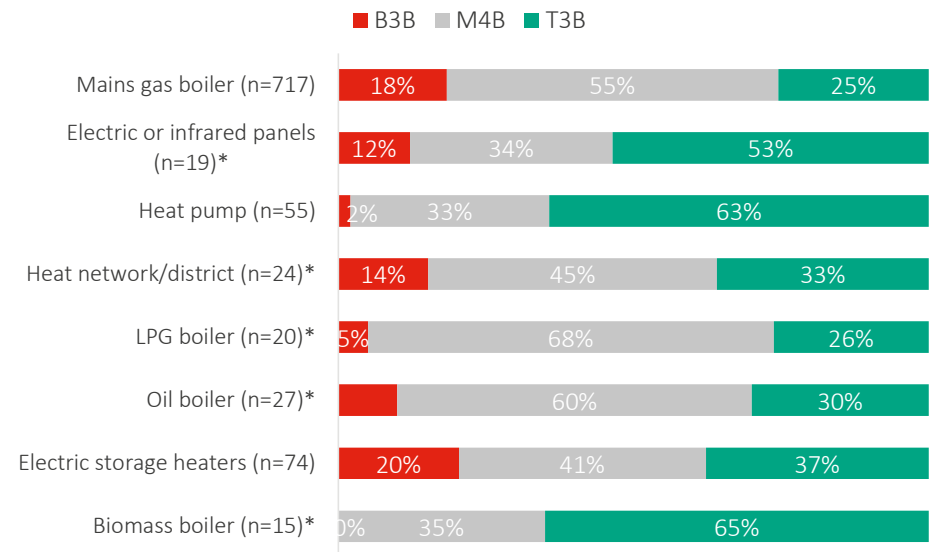
SATISFACTION WITH RUNNING COST OF CURRENT HEATING SOURCE

Customers were generally less satisfied with the cost of their current heating system, compared to the reliability.

Satisfaction with running cost: Nat Rep GB (W6 – Oct-24):



Satisfaction with running cost: NGN (W6 – Oct-24):



L10b How satisfied or dissatisfied are you with the cost to run your current heating system? Please give a score on the scale below, where 1 is very dissatisfied and 10 is very satisfied. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 T3B = Very satisfied scores, 8-10. M4B= Scores 4-7. B3B= Unsatisfied scores, 1-3.

SUBGROUP DIFFERENCES – VULNERABILITY GROUPS

Primary source of heating in the home:

Nat Rep

Those who are **65+**, scored the following **sig higher**:

- Mains gas boiler (79%) vs (total sample 68%)

NGN

Those who are **65+**, scored the following **sig higher**:

- Mains gas boiler (80%) vs (NGN sample overall 71%)

Heating habits:

Nat Rep

- A **sig lower** amount of those who are **fuel poor** kept their heating usage the same (28%) vs (total sample 43%)
- A **sig higher** amount of those who are **fuel poor** have decreased their heating usage (52%) vs (total sample 42%)
- A **sig higher** amount of those who **have someone in their household needing extra support** have increased their heating usage (21%) vs (total sample 15%)
- A **sig lower** amount of those **65+** have increased their heating usage (8%) vs (total sample 15%)

NGN

- A **sig lower** amount of those **65+** have increased their heating usage (10%) vs (NGN sample overall 19%)

THE FUTURE OF HEATING

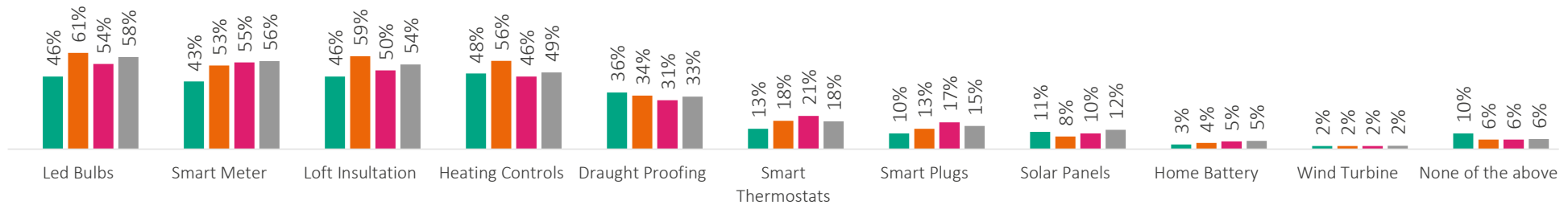
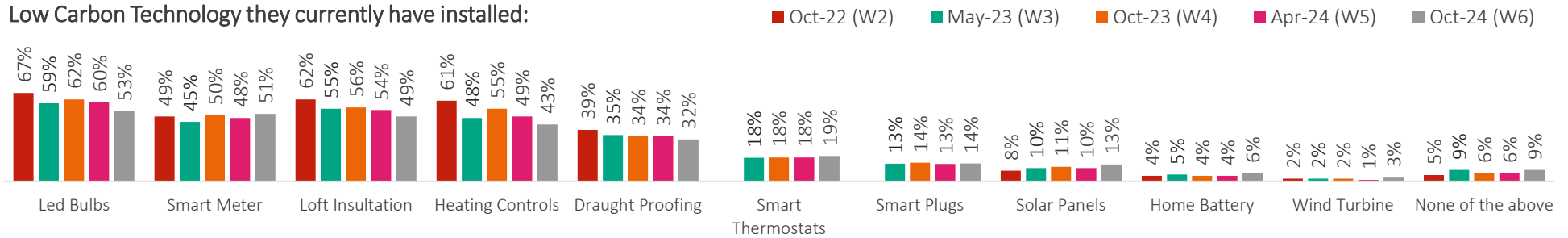
IMPACT

FROM INSIGHT TO INFLUENCE

CURRENT OWNERSHIP OF ENERGY EFFICIENCY MEASURES

LED bulbs are most common with over half having them in their homes currently. NGN consumers were more likely to have LED bulbs, smart meters, loft insulation and heating controls in their homes.

Low Carbon Technology they currently have installed:



Those without data were not asked in previous waves.

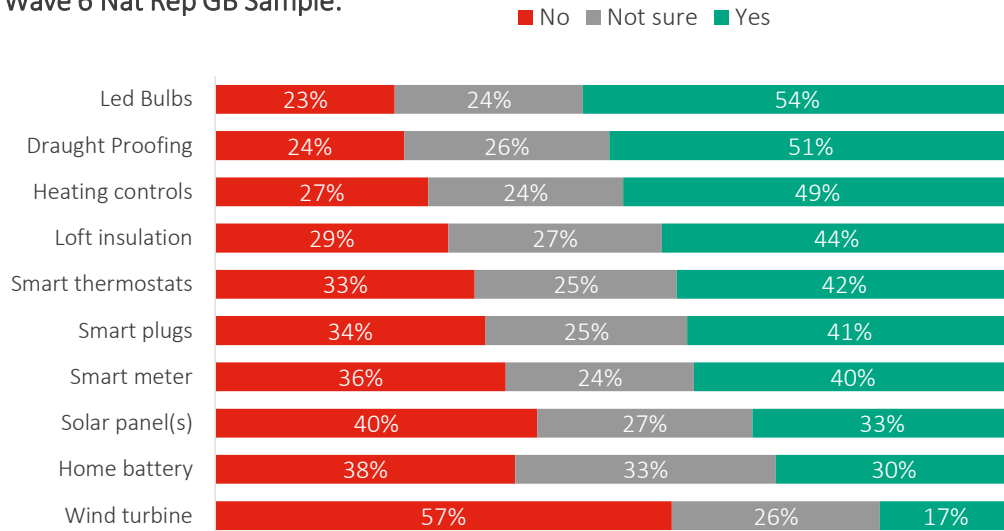
L29. Which of the following energy efficiency measures do you currently have installed in your home?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 NGN did not buy into wave 2.

CONSIDERATION OF LOW CARBON TECHNOLOGY

Around half of consumers would consider LED bulbs, draught proofing and heating controls, whereas more costly items such as solar panels, home battery and wind turbines are less appealing.

Consideration of LCT in the next 5 years:

Wave 6 Nat Rep GB Sample:



NGN W6 'yes'

62%
56%
59%
49%
48%
47%
46%
42%
35%
17%

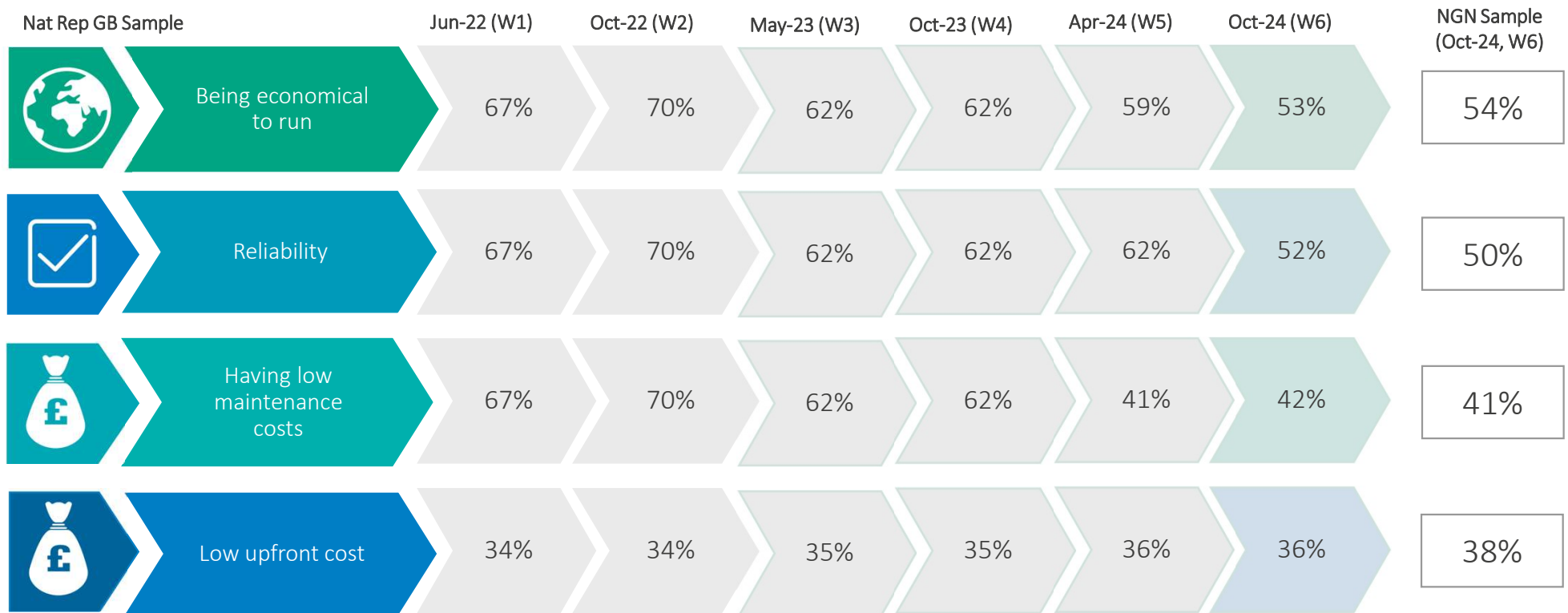
Nat rep GB sample % 'Yes':

| | W1 Jun-22 | W2 Oct-22 | W3 May-23 | W4 Oct-23 | W5 Apr-24 | W6 Oct-24 |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Led Bulbs | Not asked | 63% | 59% | 65% | 60% | 54% |
| Draught Proofing | Not asked | 59% | 52% | 55% | 57% | 51% |
| Heating controls | Not asked | 53% | 49% | 55% | 53% | 49% |
| Loft insulation | 66% | 49% | 45% | 49% | 50% | 44% |
| Smart thermostats | Not asked | Not asked | Not asked | 49% | 55% | 42% |
| Smart plugs | Not asked | Not asked | Not asked | 46% | 53% | 41% |
| Smart meter | Not asked | 44% | 41% | 41% | 50% | 40% |
| Solar panel(s) | 47% | 40% | 39% | 37% | 39% | 33% |
| Home battery | 30% | 34% | 34% | 32% | 34% | 30% |
| Wind turbine | 20% | 16% | 19% | 15% | 18% | 17% |

L26. Would you consider installing any of the following low carbon technologies in/around your home in the next 5 years? Base: Do not own 'X' Nat Rep (470-977) NGN (450-981)
Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

PRIORITIES WHEN SELECTING A HEATING SYSTEM (TOP 4 PRIORITIES)

The most important features for consumers when choosing a heating system are being economical to run, reliability, low maintenance costs and low upfront costs.

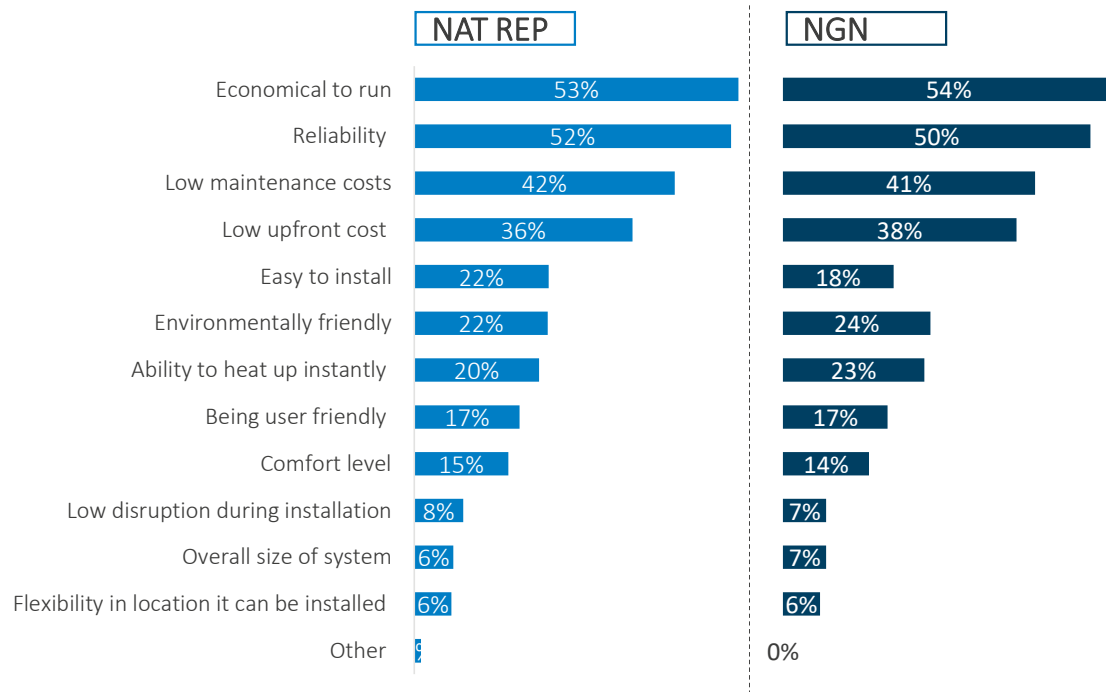


B1. Thinking generally, what are the key things you look for when choosing a heating system for your home? Please select your three most important features of a heating system.
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

PRIORITIES WHEN SELECTING A HEATING SYSTEM

Priorities for selecting a heating system were largely similar between Nat rep and NGN.

What are the key things you look for when choosing a heating system for your home?



How this has tracked:

Natrep GB sample:

In comparison to wave 5 (Apr 2024), there has been the following notable change:

- Economical to run (↓ 7 points)

NGN sample:

In comparison to wave 5 (Apr 2024), there has been the following notable change:

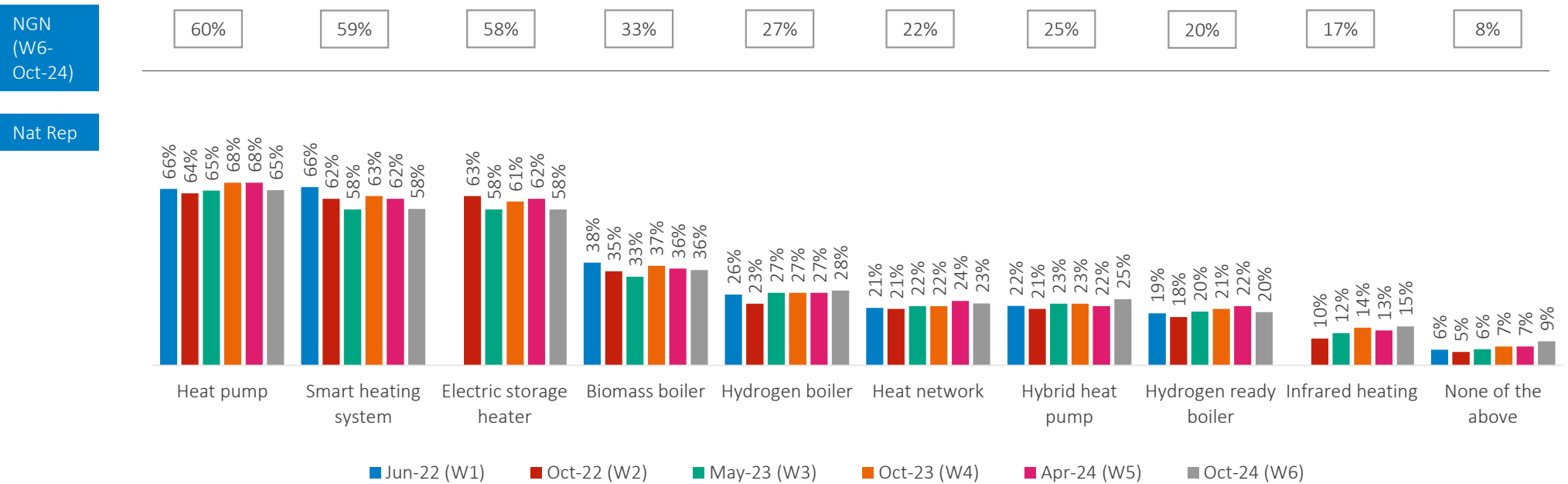
- Easy to install (↓ 5 points)

B1. Thinking generally, what are the key things you look for when choosing a heating system for your home? Please select your three most important features of a heating system. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

AWARENESS OF LOW CARBON HEATING TECHNOLOGIES

Awareness of low carbon heating technologies has consistently been highest for heat pumps, smart heating, and electric storage heating.

Respondents' awareness of low carbon heating technologies prior to the survey:



L5: There are lots of ways you can reduce carbon emissions from your home, such as how you choose to heat your home. Before this survey, which of the following low carbon heating technologies, if any, had you heard of? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

STIMULUS SHOWN TO RESPONDENTS

NEW RULES AND REGULATIONS

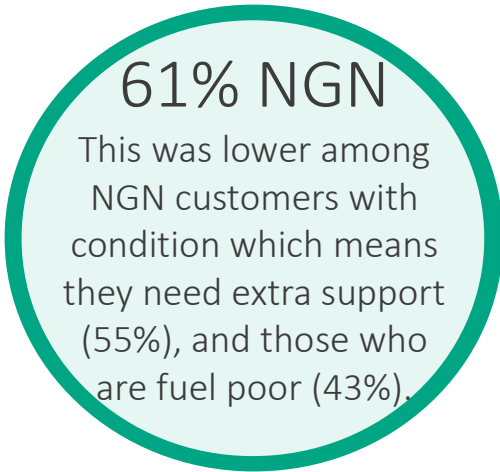
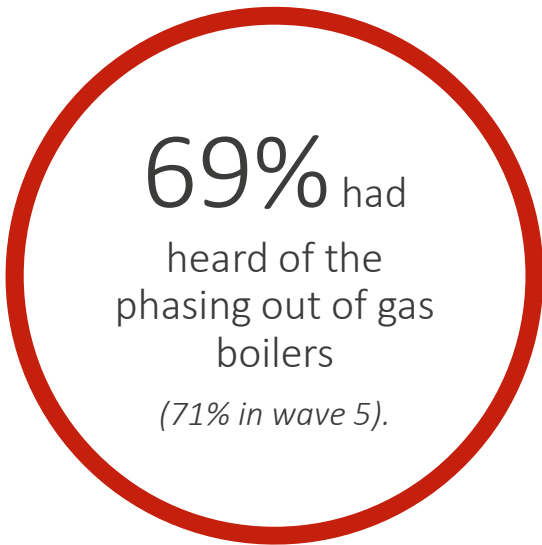
Fossil fuel gas boilers and other fossil fuels are major barriers to achieving Net Zero goals. Therefore the Government are putting in steps to phase them out.

- Under the Future Homes Standard, new homes will only be allowed to install energy-efficient, low-carbon heating systems.
 - All new build homes, built after 2025 will have a more energy-efficient heating system (not a gas boiler).
- For existing homes, the government is aiming for a significant reduction in the installation of new fossil-fuelled gas boilers by **2035**, encouraging the transition to low-carbon alternatives.
- Homes built to the Future Homes Standard are expected to produce **75-80%** fewer carbon emissions compared to homes built under current regulations.



PHASING OUT OF GAS BOILERS

Prior to the survey, most GB consumers had heard about the phasing out of gas boilers.

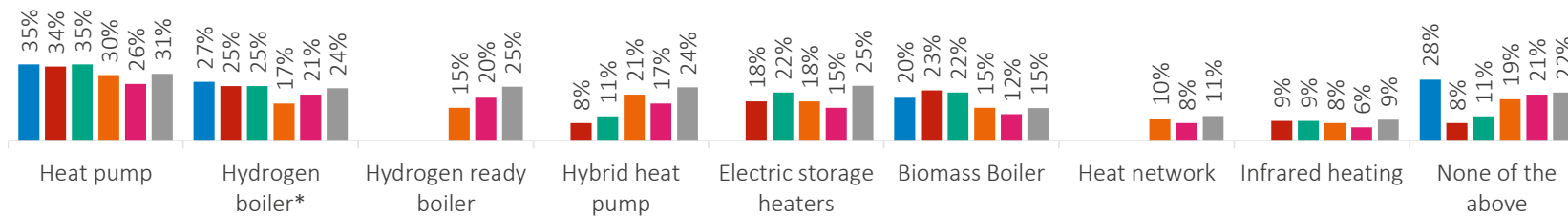


C1: Have you heard about the phasing out of gas boilers and other fossil fuels in homes?
Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

HEATING SYSTEM REPLACEMENT CONSIDERATIONS

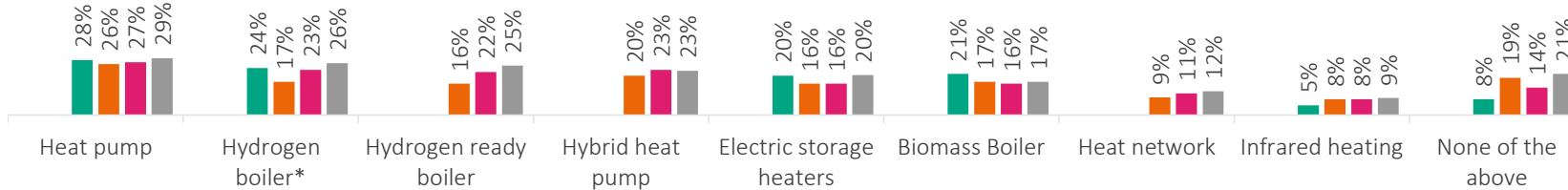
If needing to replace their current heating system over the next 1-2 years, consumers would be most likely to consider replacing it with a heat pump or a hydrogen boiler.

Consideration if current heating system stops working: ■ Jun-22 (W1) ■ Oct-22 (W2) ■ May-23 (W3) ■ Oct-23 (W4) ■ Apr-24 (W5) ■ Oct-24 (W6)



Amongst those who selected none of the above, what they would consider instead

82% would replace with a gas boiler
18% other type of heating system



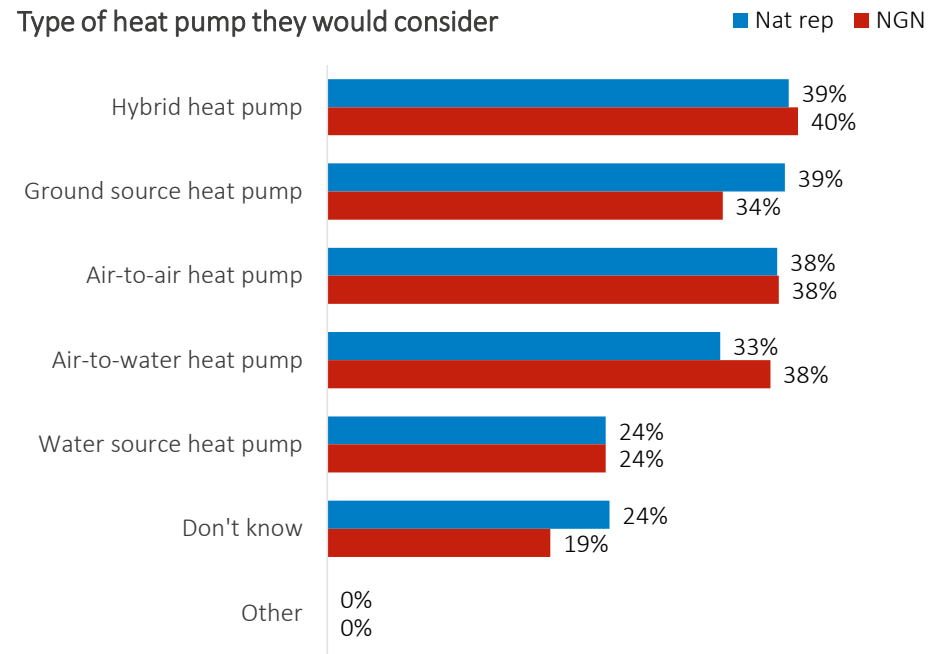
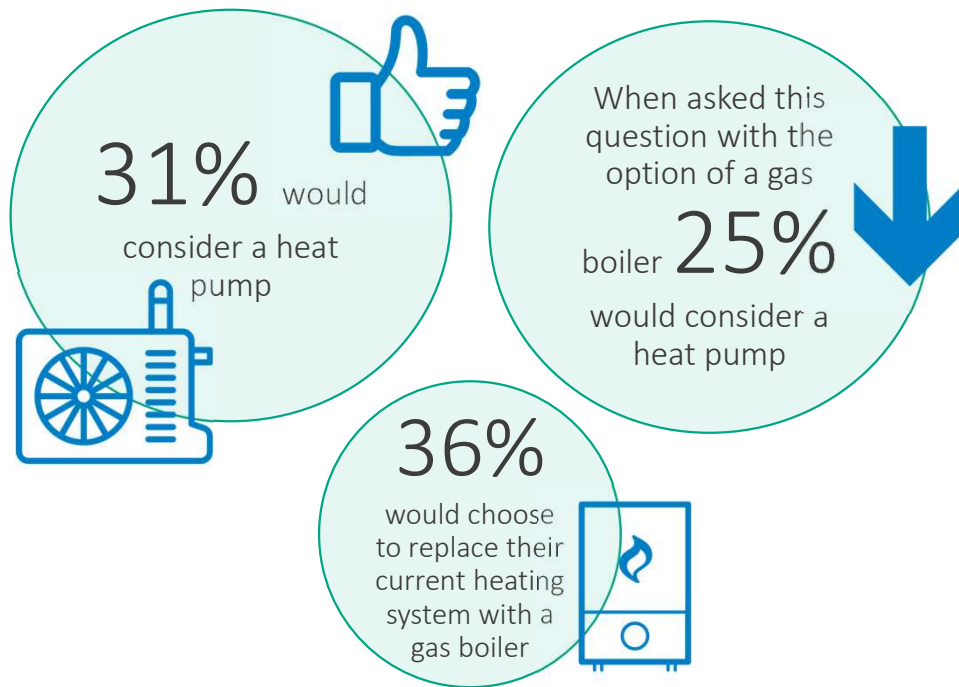
86% would replace with a gas boiler
14% other type of heating system

* Participants were asked to answer as if hydrogen boilers were available and ready to use.

L11a. If your current heating system was to stop working and needed to be replaced within the next 1-2 years, which of the following would you consider buying? Base: Nat Rep sample W6 (780), NGN sample W6 (823)
NGN did not buy into wave 1 and 2.
L11d. You mentioned if your heating system was to stop working in the next 1-2 years you would replace it with none of the options provided. What would you consider instead? Base: Nat Rep sample W6 (225), NGN sample W6 (183)

HEAT PUMP CONSIDERATION

Heat pump consideration would decrease when offered the option of a gas boiler. Consumers are generally most interested in a non-water source heat pump.



L11a. If your current heating system was to stop working and needed to be replaced within the next 1-2 years, which of the following would you consider buying? Base: Nat Rep sample W6 (780), NGN sample W6 (823). L11C. And what type of heat pump would you consider? Select all that apply. Base: Nat Rep sample W6 (308), NGN sample W6 (302). L11B. You mentioned if your heating system was to stop working in the next 1-2 years you would replace it. If a gas boiler was also an option, which of the following would you consider? Please select all that apply. Base: Nat Rep sample W6 (19), NGN sample W6 (9)

SUBGROUP DIFFERENCES – VULNERABILITY GROUPS

Current ownership of energy efficient measures:

Nat Rep

Those who are **fuel poor** had **sig lower** ownership of the following:

- Loft insulation (34%) vs (total sample 49%)
- Heating controls (27%) vs (total sample 43%)

Those who are **fuel poor** were also **sig higher** to have no ownership of the listed energy efficient measures (16%, vs total sample 9%)

NGN

Those who are **75+** had **sig higher** ownership of the following:

- Led Bulbs (81%) vs (NGN sample overall 55%)
- Loft insulation (84%) vs (NGN sample overall 50%)
- Heating controls (74%) vs (NGN sample overall 46%)
- Draft proofing (55%) vs (NGN sample overall 30%)
- Smart meter (71%) vs (NGN sample overall 55%)
- Similar patterns emerged for this subgroups within the Nat rep sample.

Those who are **fuel poor** had **sig lower** ownership of the following:

- LED bulbs (38%) vs (NGN sample overall 55%)
- Heating controls (34%) vs (NGN sample overall 46%)
- Loft insulation (42%) vs (NGN sample overall 50%)

Priorities when selecting a heating system

NGN

Those who are **75+** ranked the following priorities **sig higher**:

- Economical to run (71%) vs NGN sample overall (51%) – A Similar patterns emerged for this subgroup within the Nat rep sample.
- Reliability (74%) vs NGN sample overall (49%)

SUBGROUP DIFFERENCES – VULNERABILITY GROUPS

Consideration of low carbon technology

NGN

Those who are **75+** had **sig lower** consideration for the following:

- Smart thermostats (31%) vs NGN sample overall (51%)
- Smart plugs (28%) vs NGN sample overall (49%)
- Smart meter (22%) vs NGN sample overall (47%)
- Solar panel (11%) vs NGN sample overall (45%)
- Home battery (13%) vs NGN sample overall (38%)
- Wind turbine (0%) vs NGN sample overall (19%)
- Similar patterns also emerged for this subgroup within the Nat rep sample.

Those who **themselves need extra support** had **sig higher** consideration for the following:

- Smart meter (57%) vs NGN sample overall (47%)

Those with **someone in their household who needs extra support** had **sig higher** consideration for the following:

- Solar panel (54%) vs NGN sample overall (45%)
- Similar patterns also emerged for this subgroup within the Nat rep sample.

Awareness of low carbon heating technologies

Nat Rep

Those who are **fuel poor** had **sig lower** awareness of the following low carbon technologies:

- Heat pumps (43%) vs total sample (65%)
- Smart heating systems (50%) vs total sample overall (58%)
- Electric storage heaters (40%) vs total sample overall (58%)
- Hydrogen boilers (16%) vs total sample overall (28%)

Those who are **fuel poor** **responded sig higher** with none of the above (17%) vs total sample (9%)

NGN

Those **75+** had **sig higher** awareness of the following low carbon technologies:

- Heat pump (71%) vs (NGN sample overall 58%)
- Electric storage heaters (87%) vs (NGN sample overall 55%)
- Similar patterns also emerged for this subgroup within the Nat rep sample.

PERCEPTIONS AROUND
HEAT PUMPS

IMPACT

FROM INSIGHT TO INFLUENCE

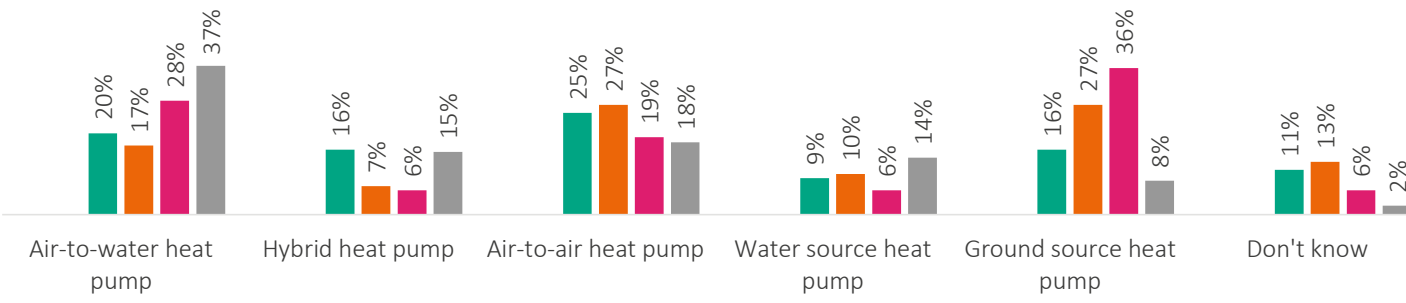
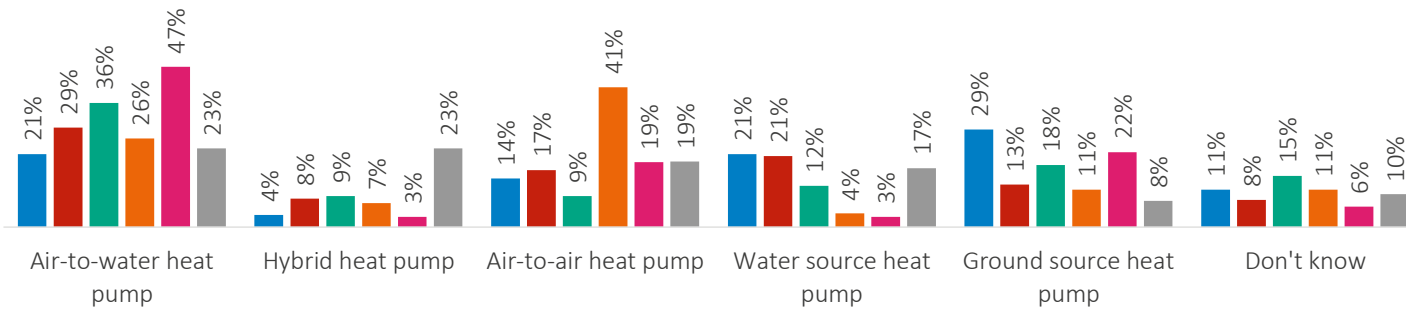
*Low base size warning

HEAT PUMP USED IN HOME

While base sizes are small and indicative, air-to-water, hybrid and air-to-air are the most common types of heat pumps used.

Type of heat pump used

■ Jun-22 (W1) ■ Oct-22 (W2) ■ May-23 (W3) ■ Oct-23 (W4) ■ Apr-24 (W5) ■ Oct-24 (W6)



Selected other (Nat rep): W1: 0%, W2: 4%, W3: 0%, W4: 0%, W5: 0%, W6: 0%

L7. What type of heat pump is used in your home? Base: Nat Rep sample W6 (52), NGN sample W6 (55). NGN did not buy into wave 1 and 2.



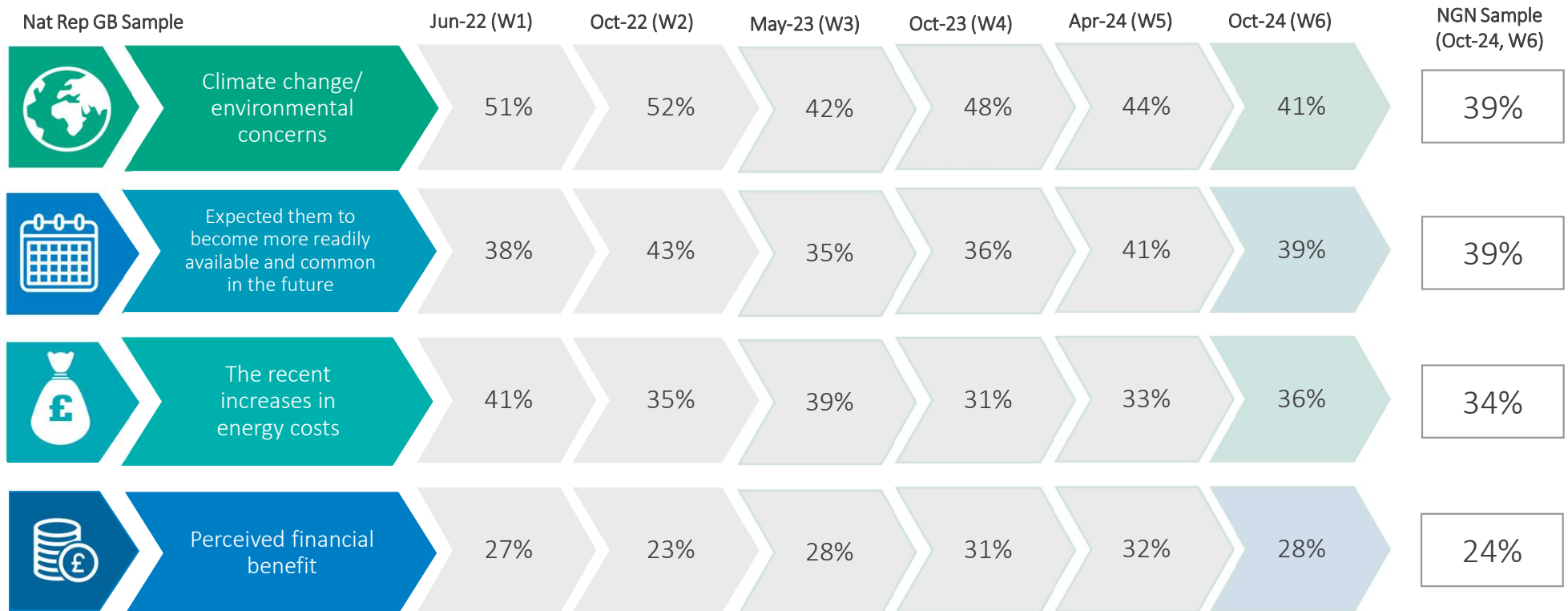
NAT REP

NGN

Impa

WHY THEY WOULD CONSIDER A HEAT PUMP (TOP 4 REASONS)

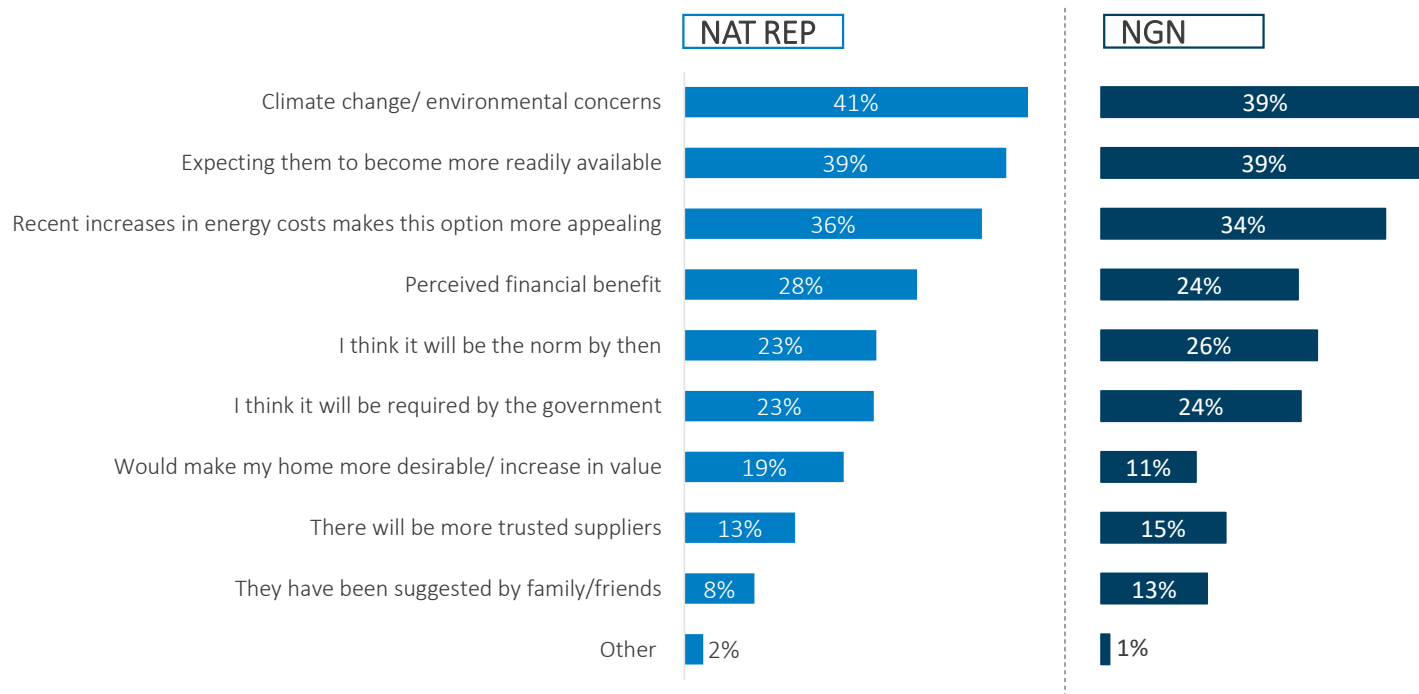
The most mentioned reasons for being interested in heat pumps are due to climate change concerns and the expectation of them becoming more readily available in the future. Despite being the top reason, climate change/environmental concerns has continued to trend downwards since the Spring 2022.



L14. You said you would consider getting a heat pump, why is this? Base: Nat Rep sample W6 (308), NGN sample W6 (302)

WHY THEY WOULD CONSIDER A HEAT PUMP

Reasons why they would consider a heat pump were largely similar between Nat rep and NGN consumers, with climate change/ environmental concerns being the most popular.



How this has tracked:

Natrep GB sample:

In comparison to wave 5 (Apr 2024), there have been the following notable changes:

- Think it will be norm by then (↓ 9 points)
- Would make home more desirable (↑ 9 points)

NGN sample:

There have been no notable changes in comparison to wave 5 (Apr 2024).

L14. You said you would consider getting a heat pump, why is this? Please select up to three reasons from the list given below.
Base: Nat Rep sample W6 (308), NGN sample W6 (302)

AWARENESS OF REQUIREMENTS FOR HEAT PUMPS

Over half of those interested in getting a heat pump are *unaware* of the level of work that could be needed to install a heat pump.

For heat pumps to work effectively, insulation is even more critical than with gas boilers because heat pumps produce lower heat output. Ensuring your home is well-insulated—particularly in walls, ceilings, and floors—prevents heat loss and helps maintain a consistent indoor temperature. You'll also need to seal any gaps around windows and doors to avoid drafts.

Ground Source Heat Pump: This system requires outdoor work, usually in a garden, where pipes are buried either vertically in boreholes (up to 150 meters deep) or horizontally in trenches (1-2 meters deep). These pipes absorb heat from the ground to warm your home.

Air Source Heat Pump: This involves less disruption as it uses an external unit mounted outside your home and connects to your heating system, similar to a boiler.

Regardless of the type, radiators may need to be upgraded to larger sizes than those used for gas boilers to distribute the lower-temperature heat effectively.

Information shown to respondents in the survey



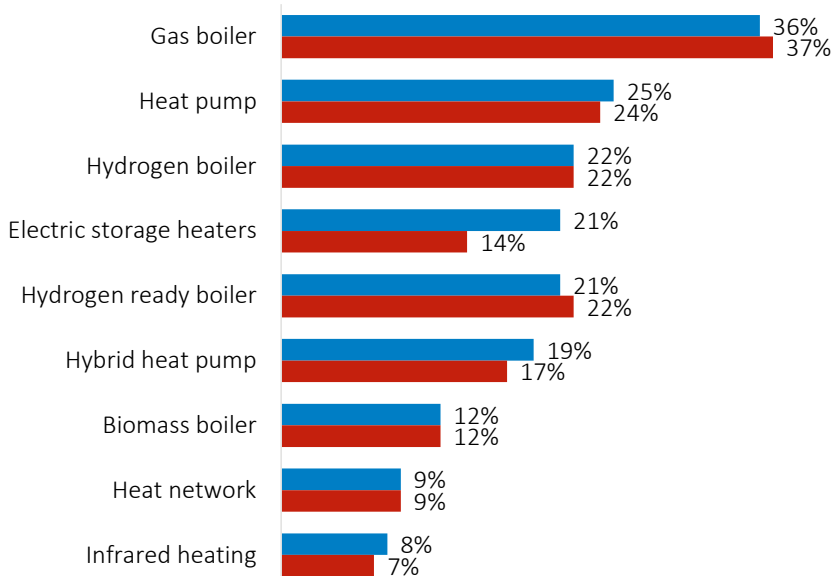
44% Aware (Nat Rep)

46% Aware (NGN)

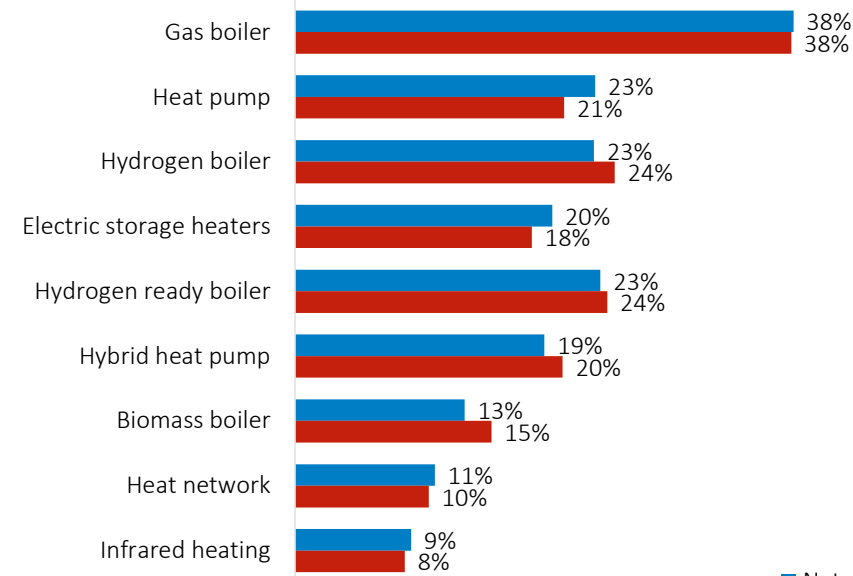
CHANGES IN HEATING SYSTEM CONSIDERATION AFTER READING ABOUT REQUIREMENTS

Heat pump consideration is relatively unaffected at the GB level, once shown the heat pump requirements stimulus.

Heating system participants would consider buying if their current heating system was to stop working **before** reading the requirements for heat pumps slide



Heating system participants would consider buying if their current heating system was to stop working **after** reading the requirements for heat pumps slide



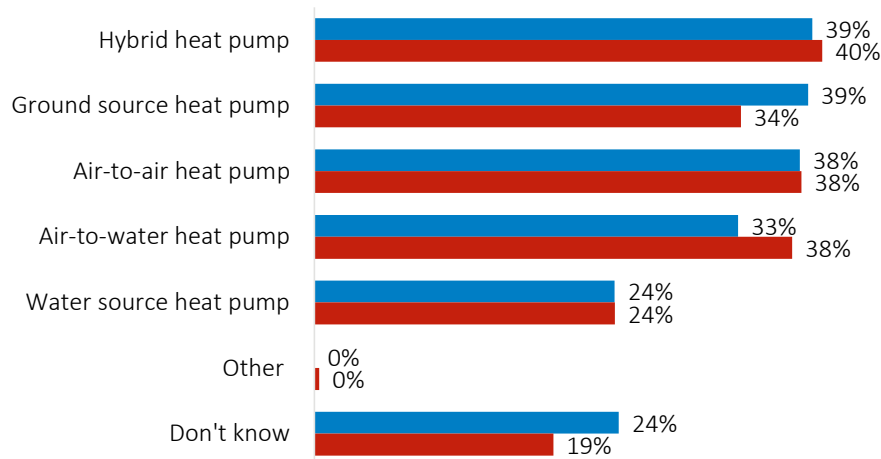
■ Nat rep ■ NGN

L11b. You mentioned if your heating system was to stop working in the next 1-2 years you would replace it. If a gas boiler was also an option, which of the following would you consider? Please select all that apply? Base: Nat Rep sample W6 (780), NGN sample W6 (823). L14c. Now after reading this information, if your current heating system was to stop working and needed to be replaced within the next 1-2 years, which of the following would you consider buying? Please select all that apply Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

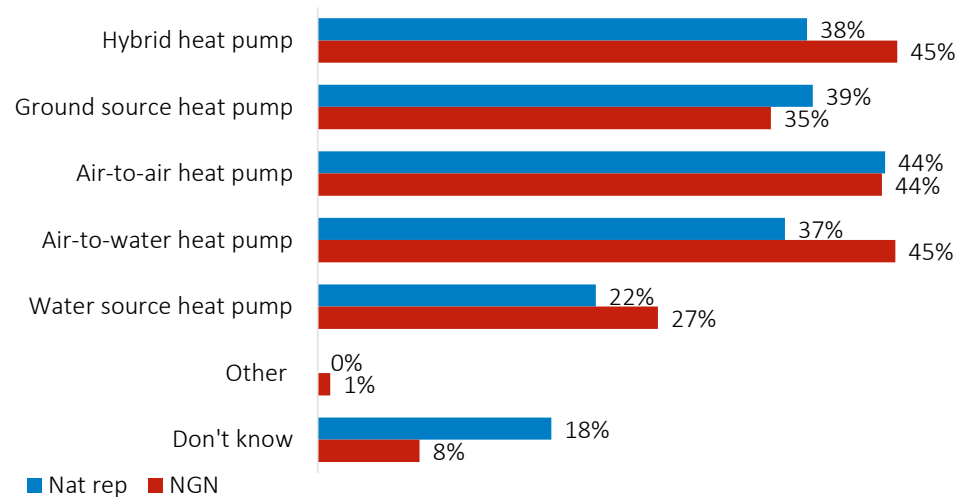
CHANGES IN HEAT PUMP CONSIDERATION AFTER READING ABOUT REQUIREMENTS

After reading the requirements for heat pumps slide, consideration of Air-to-air heat pumps and Air-to-water heat pumps increased.

Type of heat pump they would consider **before** reading the requirements for heat pumps slide



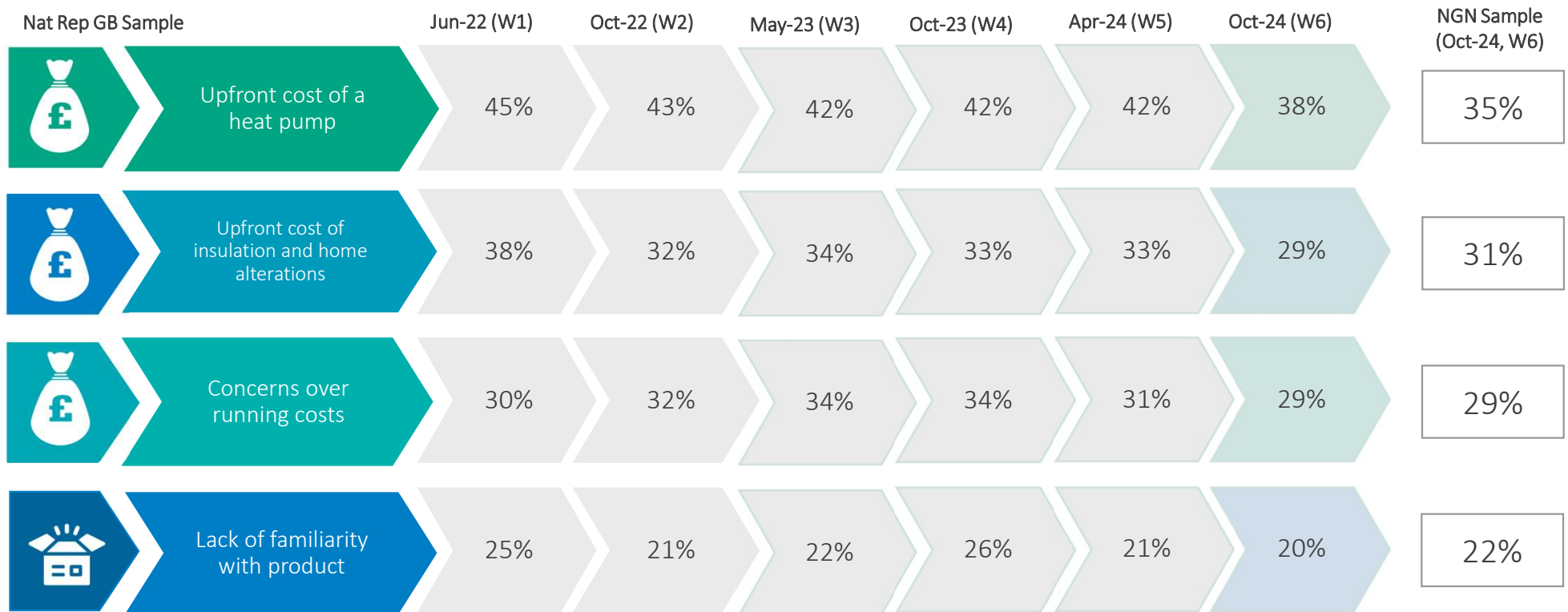
Type of heat pump they would consider **after** reading the requirements for heat pumps slide



L11C. And what type of heat pump would you consider? Select all that apply. Base: Nat Rep sample W6 (308), NGN sample W6 (302)
 L14D. And what type of heat pump would you consider? Select all that apply. Base: Nat Rep sample W6 (230), NGN sample W6 (218)

BARRIERS TO HEAT PUMPS (TOP 4 REASONS)

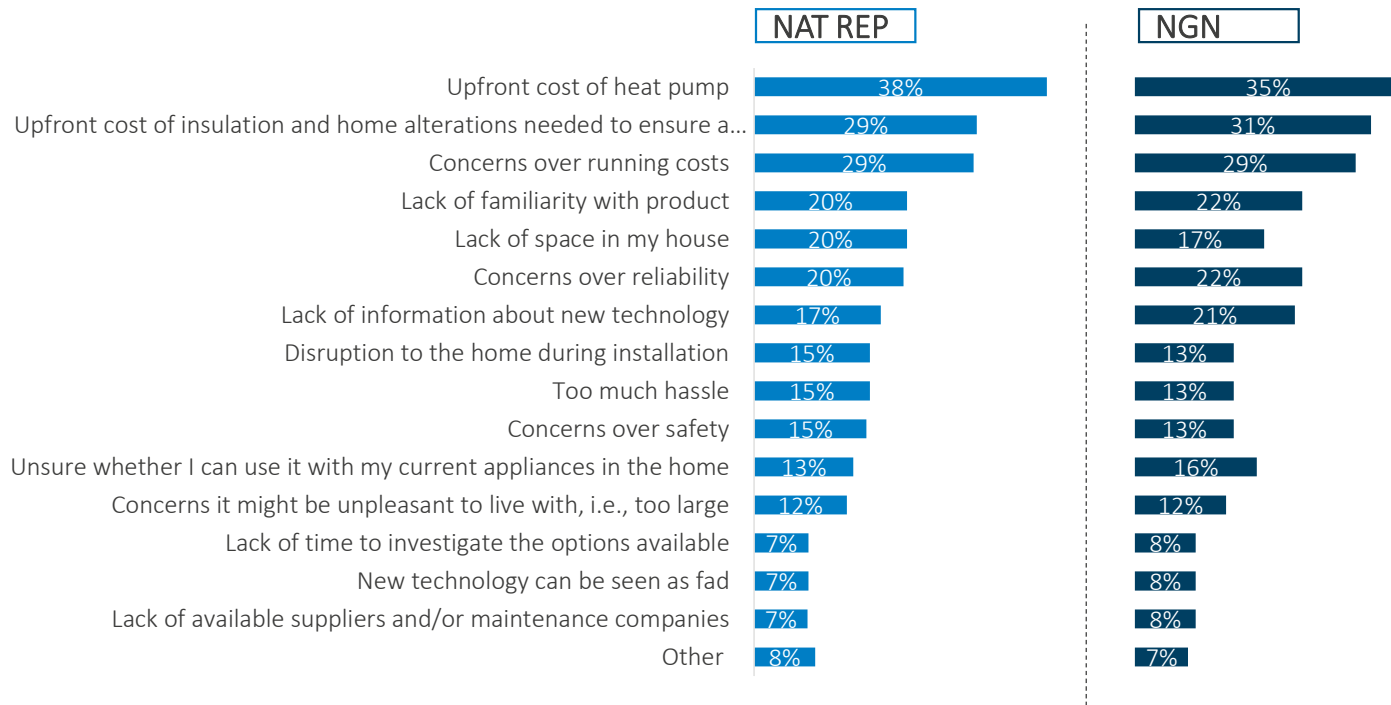
Those not interested in installing a heat pump are mostly concerned about costs e.g. upfront costs, running costs, insulation costs, as well as lack of familiarity with the product.



L16: You said you don't think you'll switch to using a heat pump to heat your home, why is this?
 Base: Nat Rep sample W6 (653), NGN sample W6 (667)

BARRIERS TO HEAT PUMPS

Barriers to heat pumps were largely similar for both Nat Rep GB consumers and NGN consumers, with upfront cost being the most popular barrier.



How this has tracked:

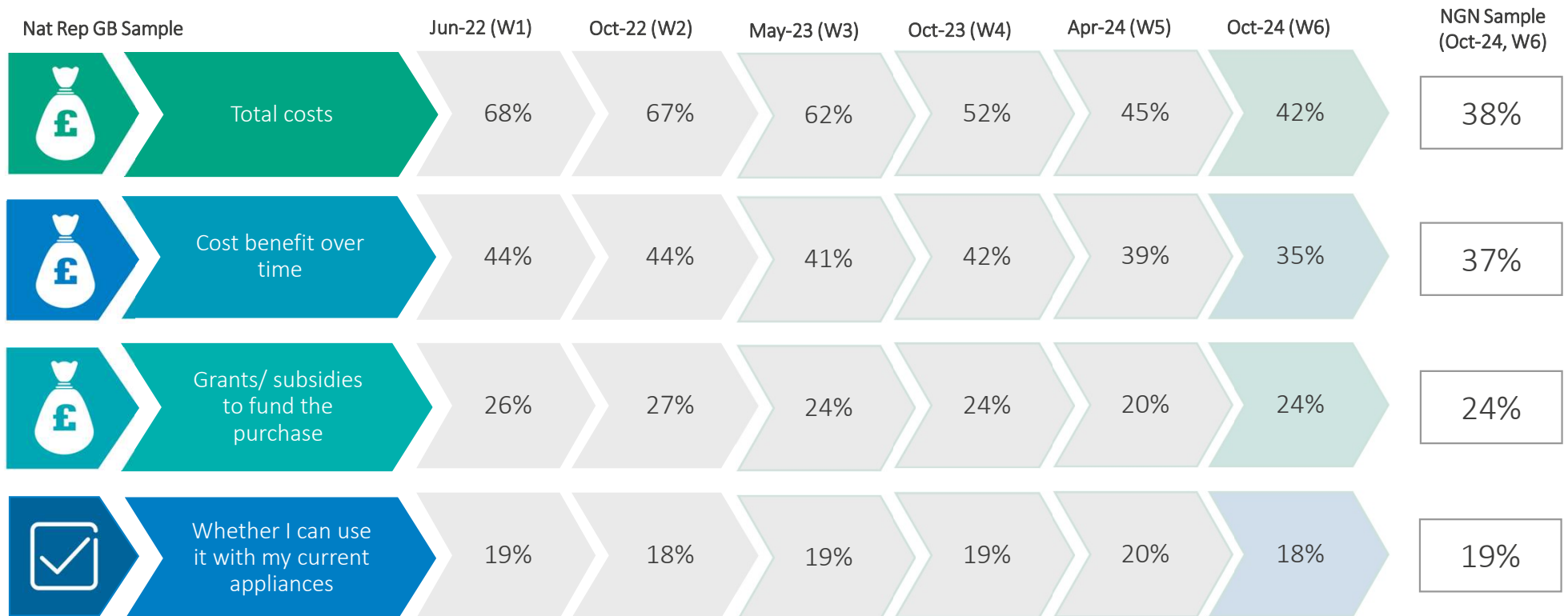
Natrep GB sample:
 There have been no notable changes in comparison to wave 5 (Apr 2024).

NGN sample:
 In comparison to wave 5 (Apr 2024), there has been the following notable change:
 - Concerns over running cost (↓ 5 points)

L16. You said you don't think you'll switch to using a heat pump to heat your home, why is this?
 Base: Nat Rep sample W6 (653), NGN sample W6 (667)

HEAT PUMPS - INFORMATION (TOP 4)

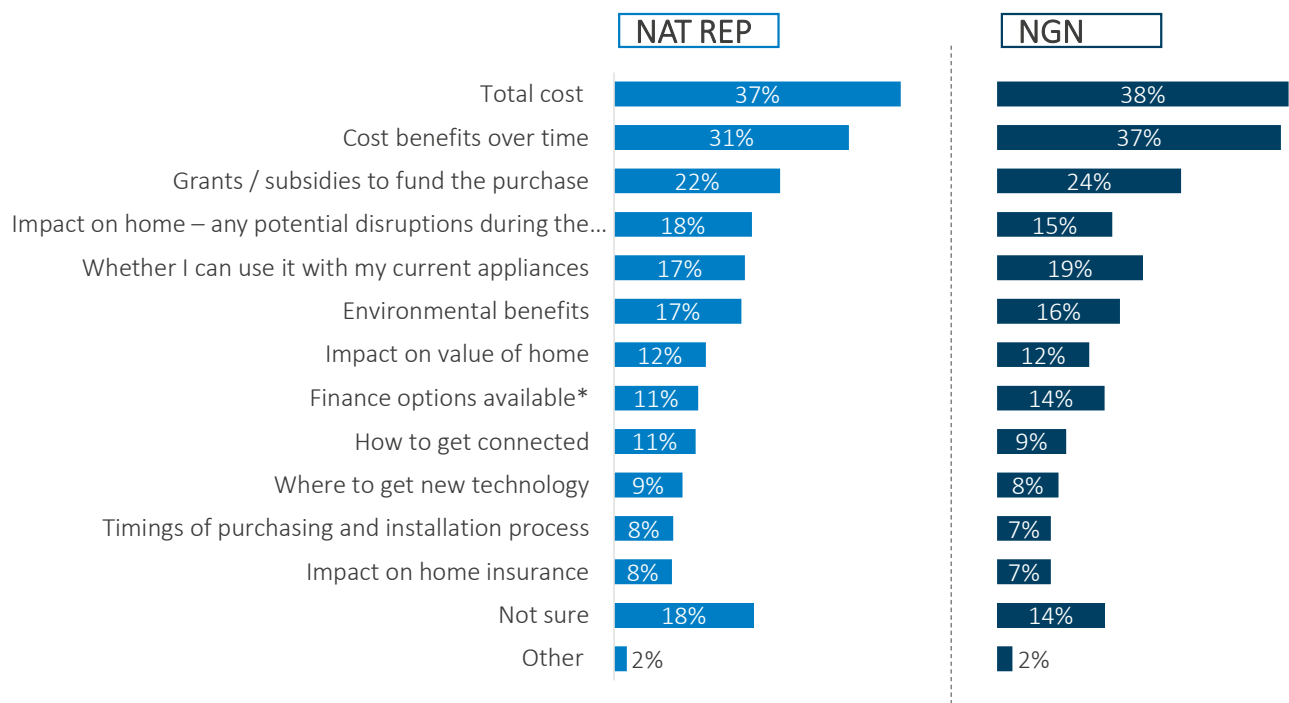
Consumers are most interested to learn about total costs, cost benefits over time, grants to fund the purchase and whether they can use them with their current appliances.



L22. If you were to receive information on low-carbon heating technologies, which of the following aspects would be the most important to you personally? Please select three options from below. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

HEAT PUMPS - INFORMATION THAT IS IMPORTANT (FULL LIST)

Information respondents wanted regarding heat pumps were largely similar for Nat Rep GB consumers and NGN consumers, with total cost being the most popular.



How this has tracked:

Natrep GB sample:
 There have been no notable changes in comparison to wave 5 (Apr 2024).

NGN sample:
 In comparison to wave 5 (Apr 2024), there have been the following notable changes:

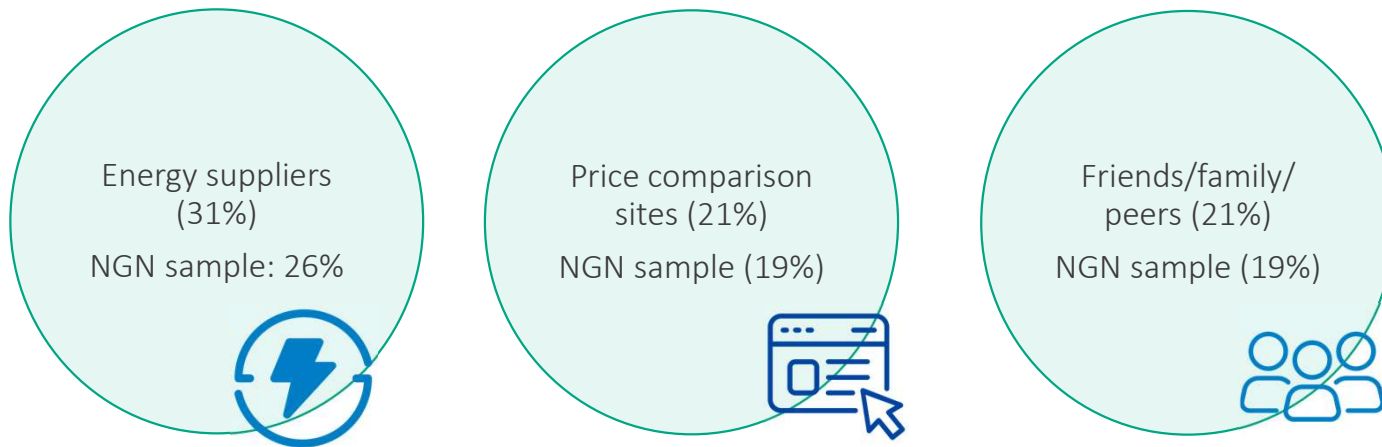
- Cost benefits over time (↓ 8 points)
- Total cost (↓ 6 points)
- Impact on home (↓ 5 points)

L22. If you were to receive information on low carbon heating technologies, which of the following aspects would be the most important to you personally? Please select three options from below. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

HEAT PUMPS – INFORMATION SOURCES

Consumers would most likely approach energy suppliers, price comparison sites and friends/family/peers for heat pump information.

Top 3 orgs to help them find info about heat pumps
 Nat rep GB/ NGN sample Oct-24 (W6):



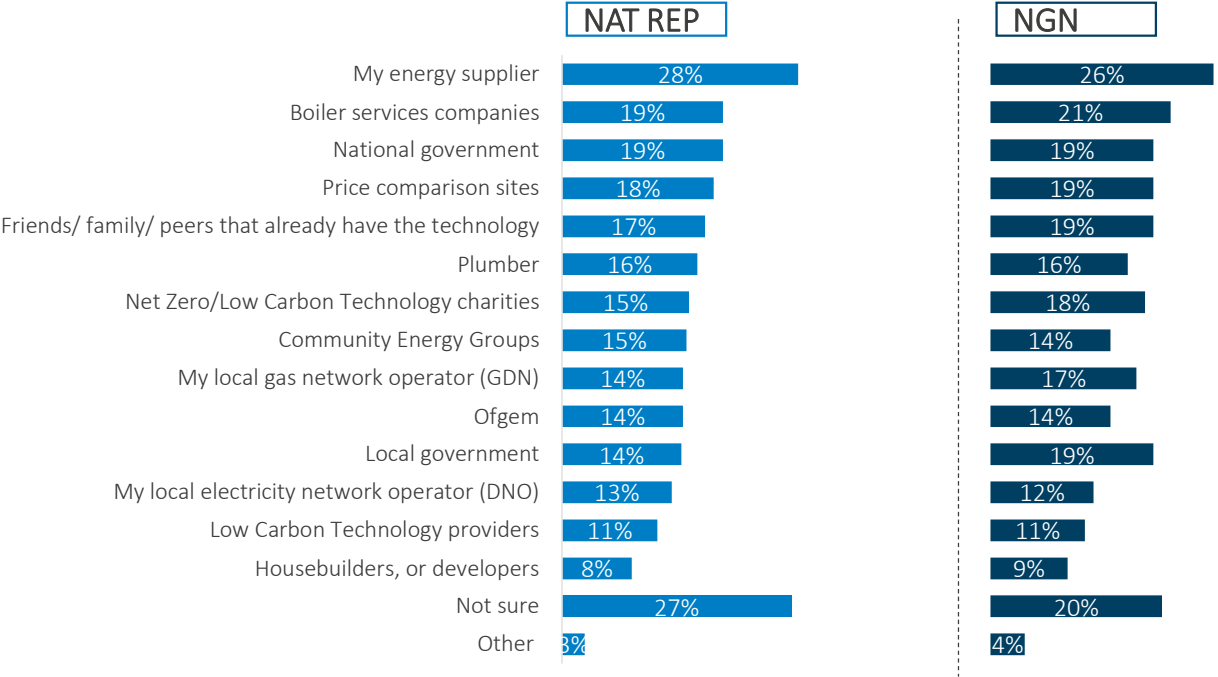
Not sure (25%) NGN sample (20%)



L21. If you were interested in finding out more about any of the low carbon heating alternatives mentioned in this questionnaire, which of the following organisations, if any, would you approach for information? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

ORGANISATIONS TO FIND INFORMATION OUT ABOUT HEAT PUMPS

Organisations where respondents wanted to find out information about heat pumps were generally similar for both Nat Rep GB consumers and NGN consumers, with energy supplier being the most popular.



How this has tracked:

Natrep GB sample:

There have been no notable changes in comparison to wave 5 (Apr 2024).

NGN sample:

There have been no notable changes in comparison to wave 5 (Apr 2024).

L21. If you were interested in finding out more about any of the low carbon heating alternatives mentioned in this questionnaire, which of the following organisations, if any, would you approach for information?
 Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

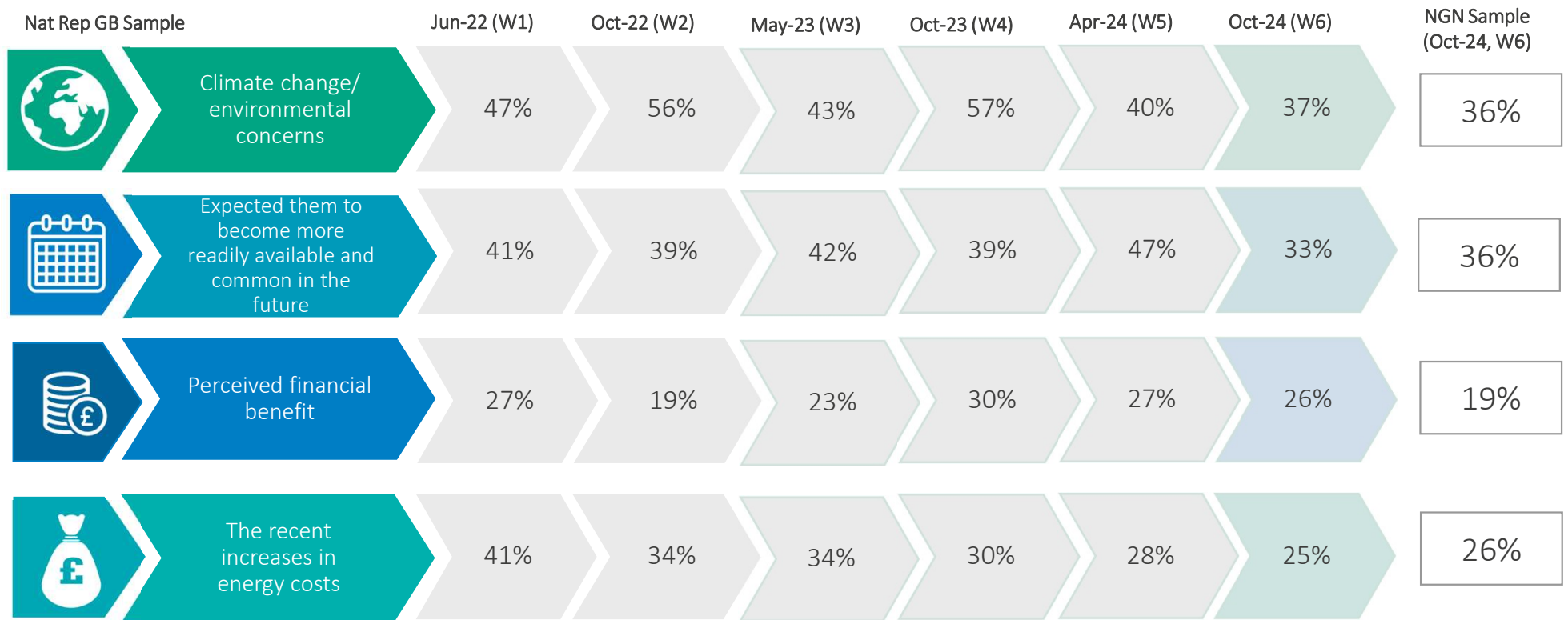
PERCEPTIONS AROUND
HYDROGEN

IMPACT

FROM INSIGHT TO INFLUENCE

WHY THEY WOULD CONSIDER A HYDROGEN BOILER (TOP 4 REASONS)

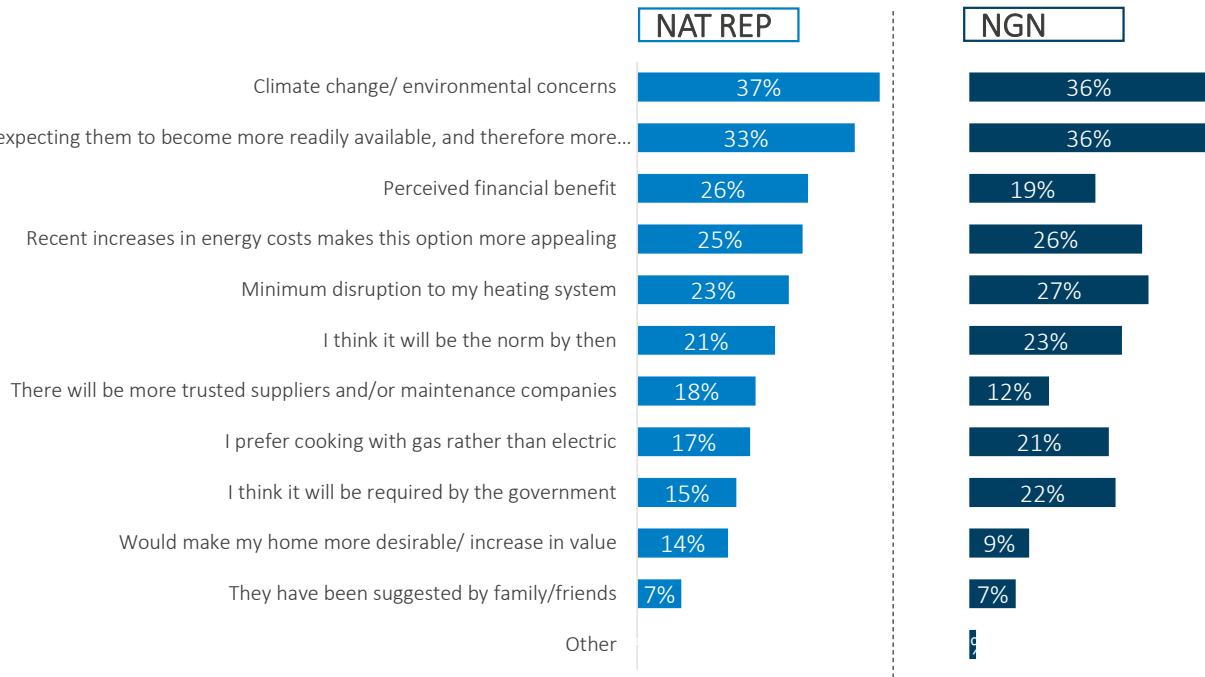
The most mentioned reasons for being interested in hydrogen boilers are due to climate change. Expecting them to become readily available has seen a big drop since April 2024 (wave 5).



L15. You said you would consider getting a hydrogen boiler, why is this? Base: Nat Rep sample W6 (241), NGN sample W6 (279)

WHY THEY WOULD CONSIDER A HYDROGEN BOILER

Reasons for considering a hydrogen boiler remain largely similar for both GB consumers and NGN consumers, with climate change/ environmental concerns being the most popular.



How this has tracked:

Natrep GB sample:

In comparison to wave 5 (Apr 2024), there have been the following notable changes:

- Expecting them to become more available (↓ 14 points)
- Think it will be the norm by then (↓ 10 points)

NGN sample:

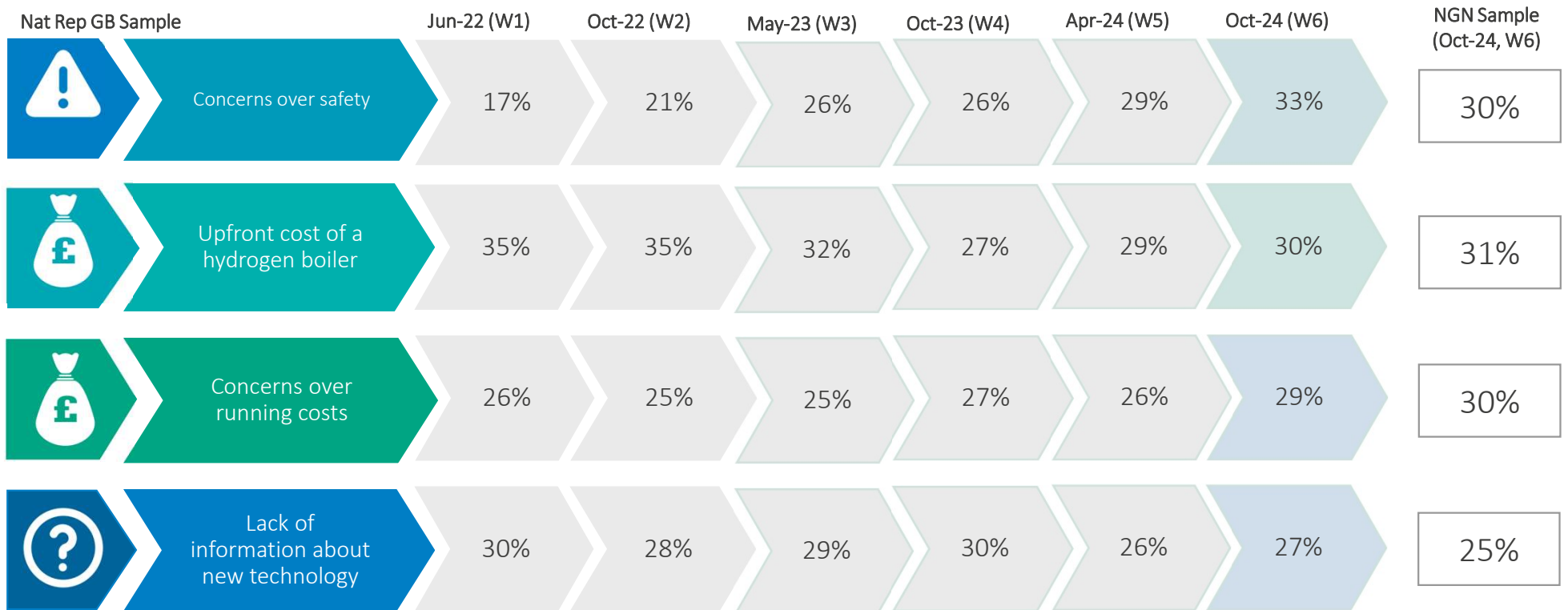
In comparison to wave 5 (Apr 2024), there have been the following notable changes:

- Perceived financial benefit (↓ 10 points)
- There will be more trusted suppliers and/or maintenance companies (↓ 8 points)
- Recent increases in energy costs (↓ 7 points)
- Would make my home more desirable (↓ 7 points)
- Climate change / environmental concerns (↓ 5 points)

L15. You said you would consider getting a hydrogen boiler, why is this? Please select up to three reasons from the list given below Base: Nat Rep sample W6 (241), NGN sample W6 (279)

BARRIERS TO HYDROGEN BOILERS (TOP 4 BARRIERS)

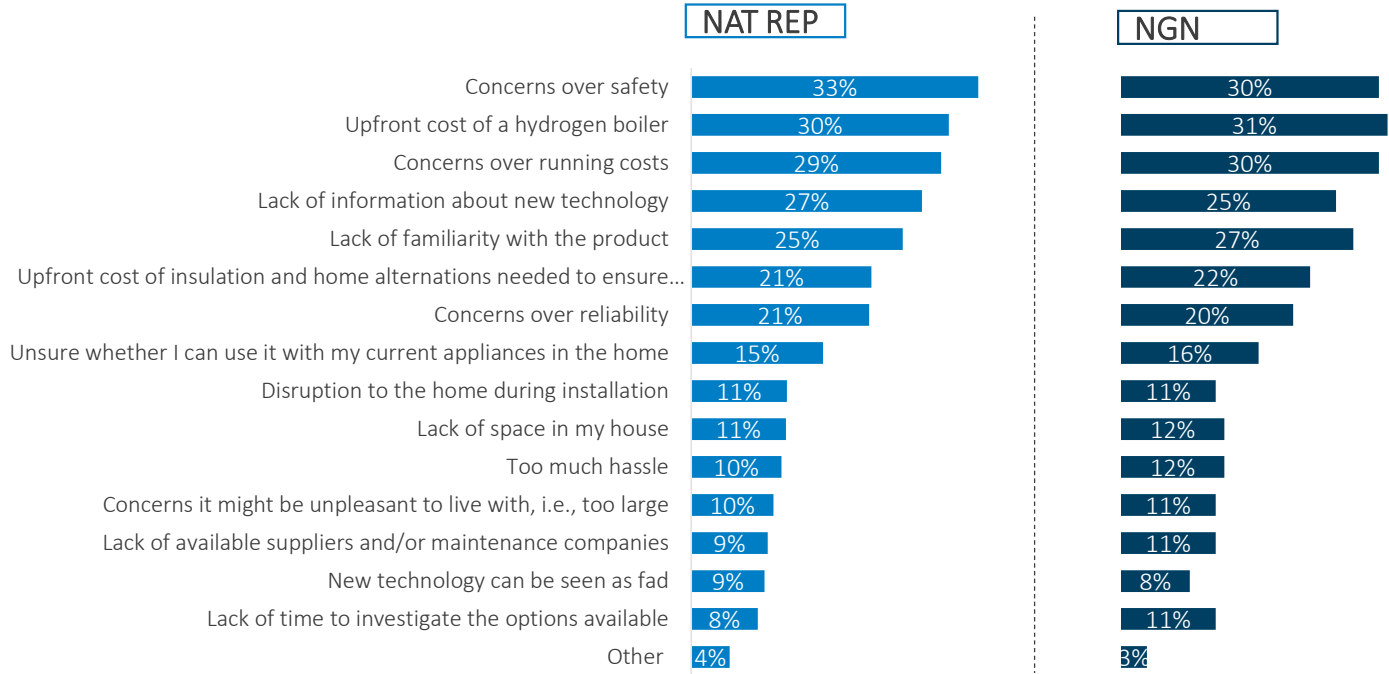
Those not interested in installing a hydrogen boiler are mostly concerned about safety, the upfront cost, running costs and lack of information.



L17: You said you don't think you'll switch to using a hydrogen boiler (assuming they are available to buy, and hydrogen gas is supplied to your house) to heat your home, why is this? Base: Nat Rep sample W6 (694), NGN sample W6 (675)

BARRIERS TO HYDROGEN BOILERS

Barriers to switching to a hydrogen boiler remain largely similar for both GB consumers and NGN consumers, with concerns over safety being the most popular.



How this has tracked:

Natrep GB sample:
 In comparison to wave 5 (Apr 2024), there have been the following notable changes:

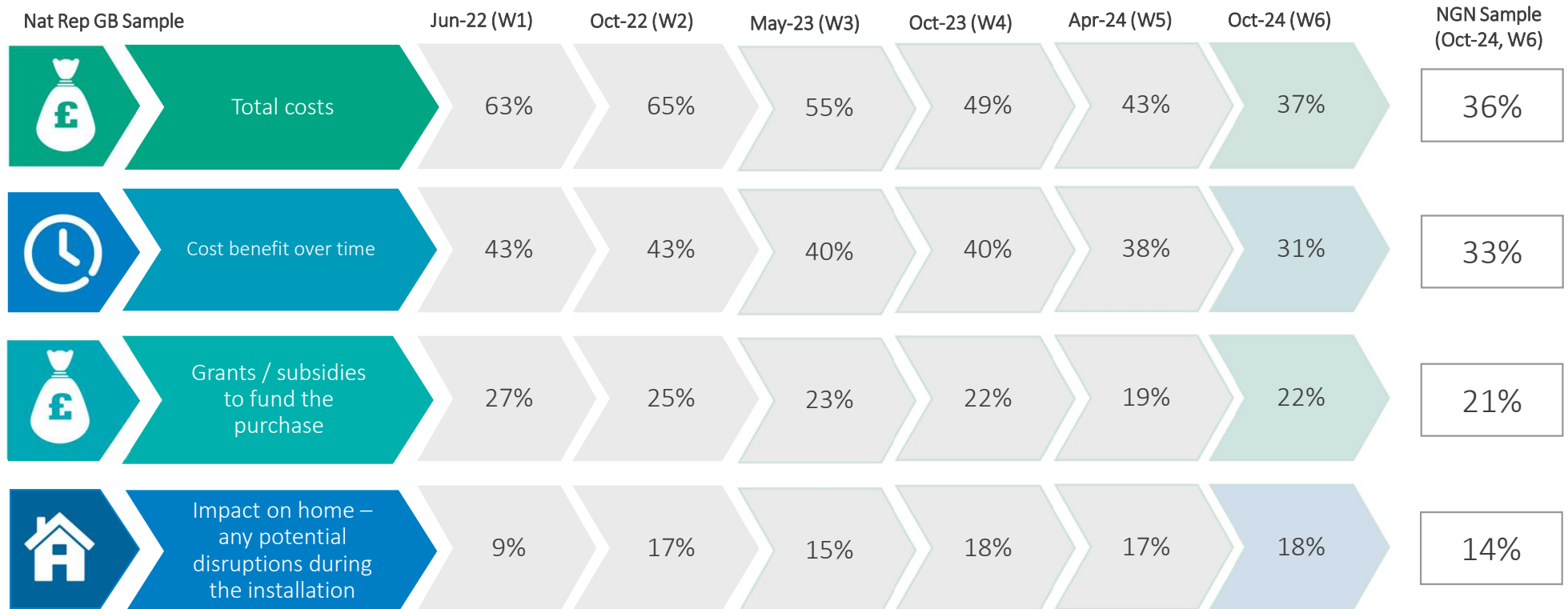
- Lack of familiarity with product (↓ 8 points)
- Concerns over safety (↑ 5 points)

NGN sample:
 There have been no notable changes in comparison to wave 5 (Apr 2024).

L17. You said you don't think you'll switch to using a hydrogen boiler to heat your home, why is this? Please rank your top 3 reasons. Base: Nat Rep sample W6 (694), NGN sample W6 (675)

HYDROGEN BOILERS - INFORMATION (TOP 4)

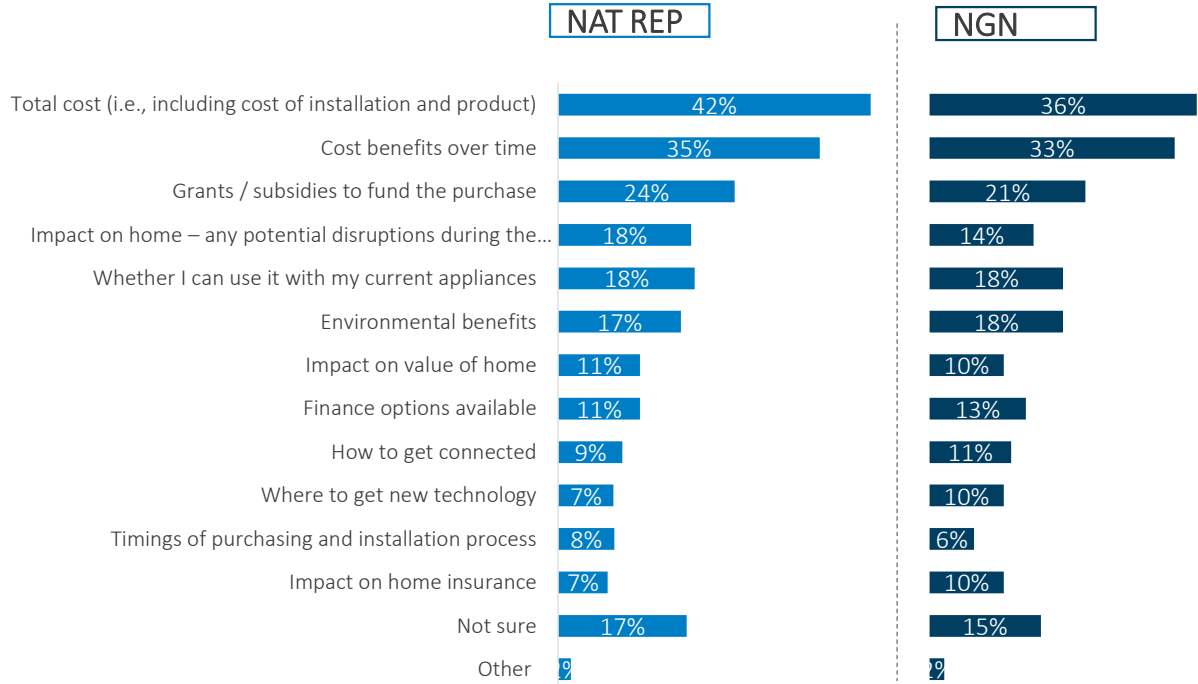
Consumers are most interested in learning about total costs, cost benefits over time, grants to fund the purchase, and impact on the home.



L22. If you were to receive information on low-carbon heating technologies, which of the following aspects would be the most important to you personally? Please select three options from below. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

HYDROGEN BOILERS - INFORMATION THAT IS IMPORTANT

Information respondents wanted regarding hydrogen boilers were largely similar for GB consumers and NGN consumers.



How this has tracked:

Natrep GB sample:
 In comparison to wave 5 (Apr 2024), there have been the following notable changes:

- Cost benefit over time (↓ 8 points)
- Total cost (↓ 6 points)

NGN sample:
 In comparison to wave 5 (Apr 2024), there have been the following notable changes:

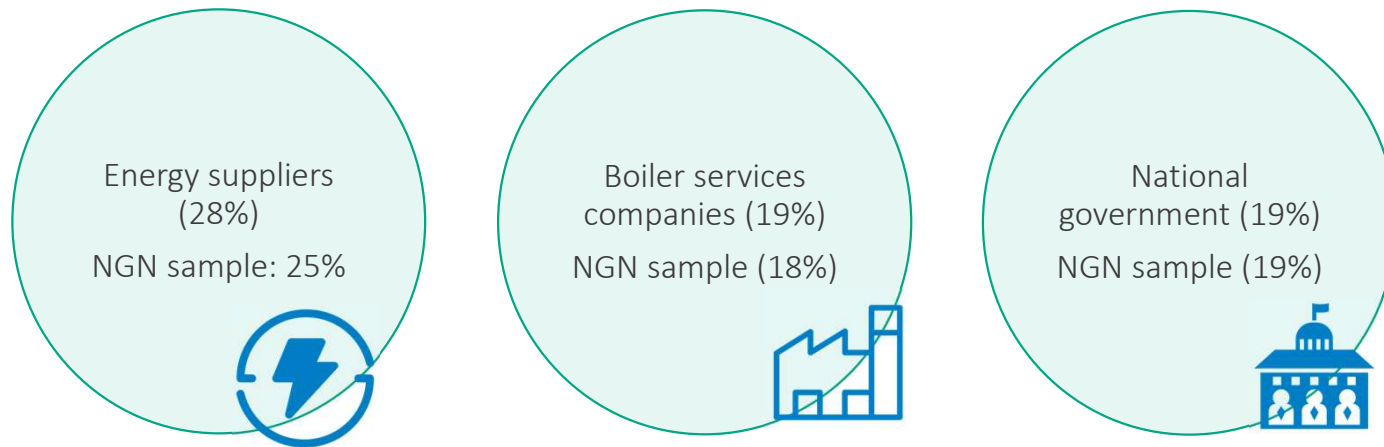
- Cost benefits over time (↓ 5 points)

L22. If you were to receive information on low carbon heating technologies, which of the following aspects would be the most important to you personally? Please select three options from below. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

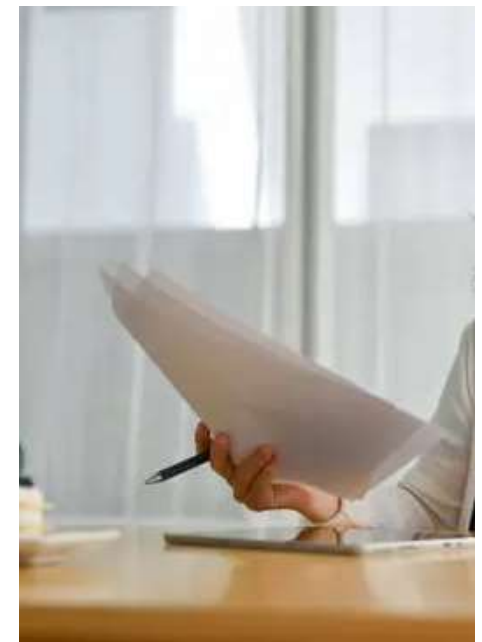
HYDROGEN BOILERS – INFORMATION SOURCES

Consumers would most likely approach energy suppliers, boiler services companies and the National government for hydrogen boiler information. Compared to the previous wave, interest in receiving information from national government increased, as previously price comparison sites were among the top 3 organisations.

Top 3 orgs to help them find info about hydrogen boilers
(Nat rep GB/ NGN sample Oct-24 (W6):



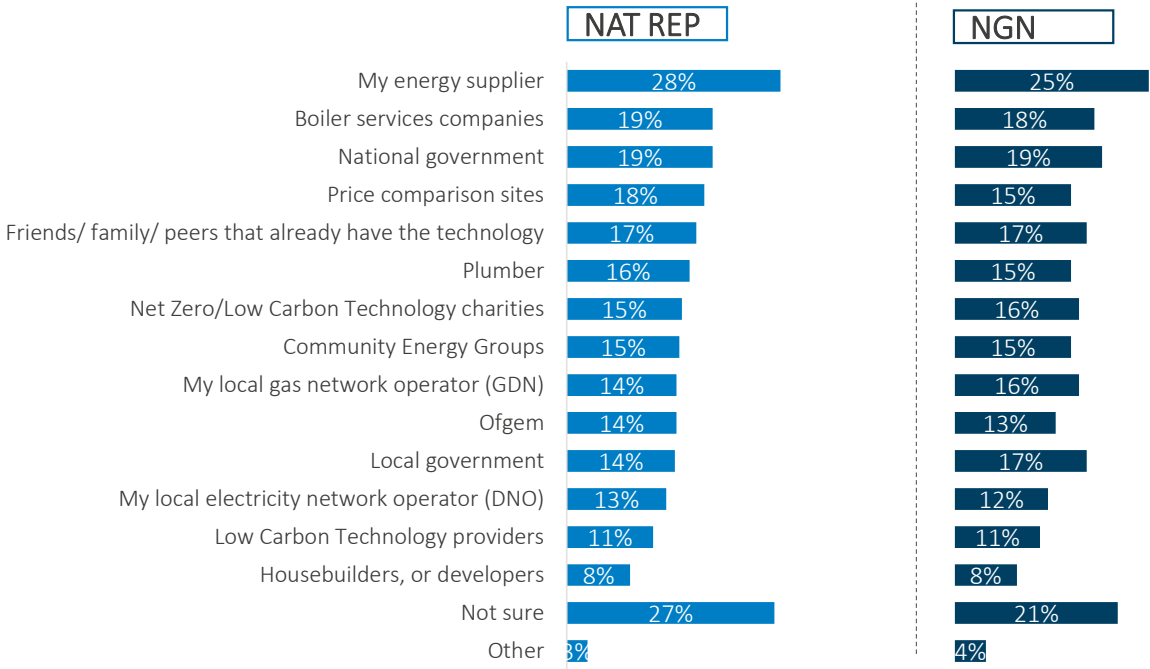
Not sure (27%) NGN sample (xx%)



L21. If you were interested in finding out more about any of the low carbon heating alternatives mentioned in this questionnaire, which of the following organisations, if any, would you approach for information? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

ORGANISATIONS TO FIND INFORMATION OUT ABOUT HYDROGEN BOILERS

Organisations where respondents wanted to find out information about hydrogen boilers were generally similar for both GB consumers and NGN consumers. Over a fifth of consumers were unsure which organisations they would approach for information.



How this has tracked:

Natrep GB sample:

In comparison to wave 5 (Apr 2024), there have been the following notable changes:

- Energy supplier (↑ 5 points)

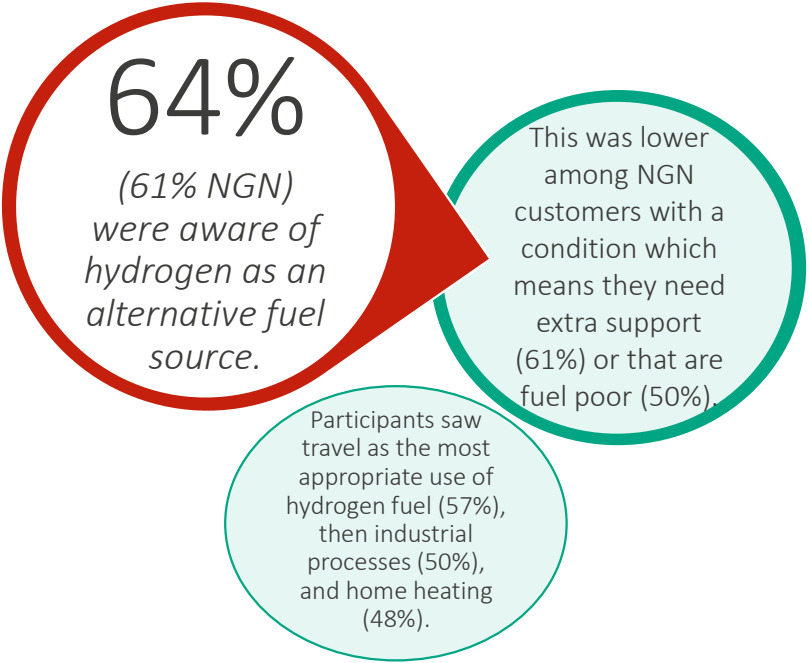
NGN sample:

There have been no notable changes in comparison to wave 5 (Apr 2024).

L21. If you were interested in finding out more about any of the low carbon heating alternatives mentioned in this questionnaire, which of the following organisations, if any, would you approach for information? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

HYDROGEN AWARENESS

Awareness of hydrogen boilers was relatively high. Most participants had heard of hydrogen boilers from traditional media.



Where customers have heard of hydrogen as an alternative fuel source:

| Oct-24 (W6) | Nat rep GB sample | NGN sample |
|--|-------------------|------------|
| Traditional media | 52% | 47% |
| Social media | 27% | 31% |
| Industry publications | 10% | 9% |
| Government | 15% | 14% |
| Academia | 8% | 11% |
| Gas Distribution Networks | 8% | 8% |
| Energy companies | 16% | 13% |
| Online forums or discussion groups | 14% | 13% |
| Blogs or online articles | 14% | 18% |
| Friends, family or colleagues | 21% | 24% |
| Environmental or sustainable organisations | 15% | 17% |
| Other | 7% | 8% |

GDN1: Were you aware of hydrogen being used as an alternative fuel source, before taking part in this questionnaire? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 GDN3. Which of the following applications of hydrogen do you feel are appropriate? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 GDN2. From where have you heard about hydrogen as an alternative fuel source? Base: Nat Rep sample W6 (643), NGN sample W6 (625)

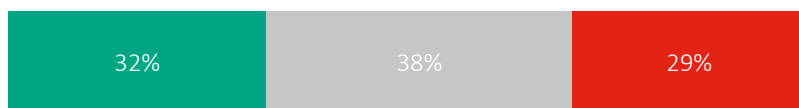
CONCERNS ABOUT HYDROGEN

Concern about using hydrogen as a fuel was relatively low, but where this was the case, safety measures, costs, and environmental benefits were highlighted.

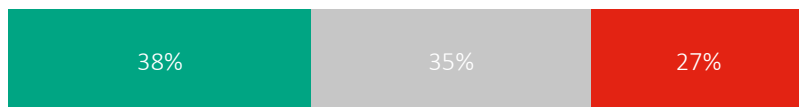
Concern about the use of hydrogen as a fuel Oct-24 (W6)

(Nat Rep GB sample):

■ Not concerned ■ Neither concerned nor not concerned ■ Concerned



(NGN sample):



Type of concern - Oct-24 (W6) Nat Rep GB (NGN):

- Safety – 78% (73%)
- Cost – 53% (52%)
- Environmental impact – 29% (32%)
- How well it works – 45% (37%)
- Needing to change or upgrade appliances in the home – 43% (40%)
- Reliability – 51% (46%)
- Whether it will be available in my area – 25% (26%)

Additional information requested:

| Oct-24 (W6) | Nat rep GB sample | NGN sample |
|--------------------------------|-------------------|------------|
| Safety measures | 73% | 70% |
| Cost comparison to natural gas | 68% | 65% |
| Environmental benefits | 51% | 50% |
| How hydrogen is produced | 48% | 43% |
| Home adaptations required | 52% | 50% |

GDN4: On a scale from 1 to 5, how concerned are you about the following aspects of using hydrogen as an alternative fuel? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006). GDN5. What concerns do you have about using hydrogen as an alternative fuel to natural gas? Base: Nat Rep sample W6 (296), NGN sample W6 (272). GDN6. What additional information would you like to know about hydrogen as a fuel source? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

FINANCING LOW CARBON
TECHNOLOGY

IMPACT

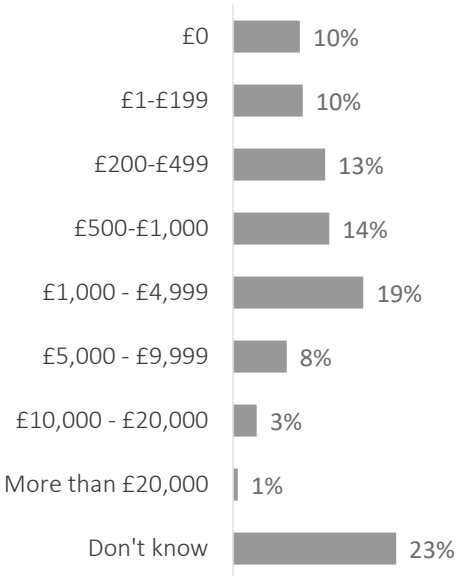
FROM INSIGHT TO INFLUENCE

INVESTMENT HOUSEHOLDS PREPARED TO MAKE ON LCT & ENERGY EFFICIENCY IMPROVEMENTS

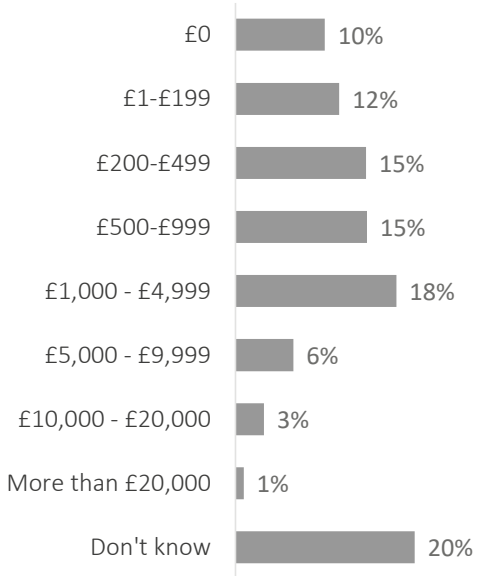
The most frequent responses were anywhere between £1,000-4,999; however, a fifth of the sample were unsure.

How much they would invest in energy-efficient improvements to the home:

NAT REP – Oct-24 (W6)



NGN – Oct-24 (W6)



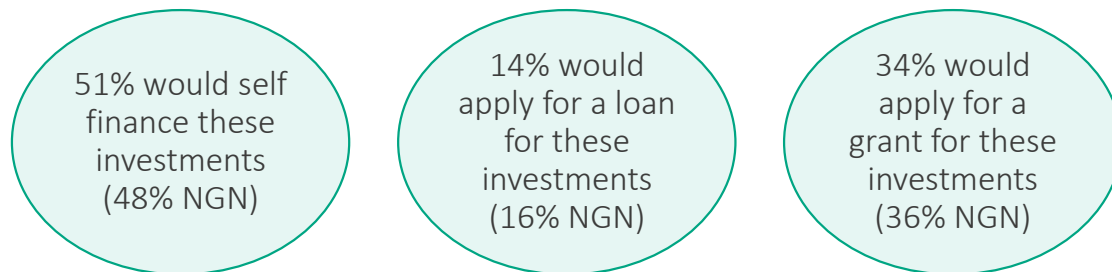
F1: If you were going to make any low-carbon or energy-efficiency improvements to your home, how much would you be willing to invest? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

WHEN THEY WOULD INSTALL AND HOW THEY WOULD FUND IT

Of those willing to invest in low carbon or energy efficiency improvements, almost two-thirds of GB consumers would do so over the next 3 years. Overall, around a half of respondents would self-finance these investments.

| Time frame in which respondents would be willing to invest in their home to make low carbon improvements | Nat Rep | NGN |
|--|---------|-------|
| In the next 6 months | 9% | (7%) |
| In the next 7-12 months | 22% | (21%) |
| In the next 2-3 years | 34% | (35%) |
| In the next 4-5 years | 13% | (15%) |
| In more than 5 years | 22% | (23%) |

How they would fund installation of LCT:



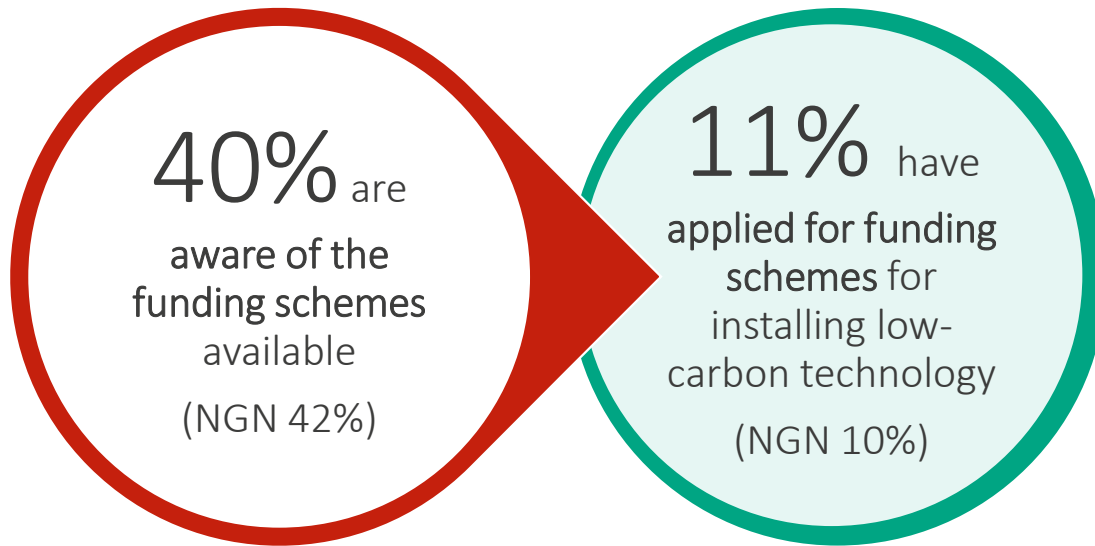
23% were not sure how they would fund installation of LCT (20% NGN)

F1B. And when are you willing to invest this money for low-carbon or energy-efficiency improvements to your home? Base: Nat Rep sample W6 (909), NGN sample W6 (927)

F2. How would you fund the installation of low-carbon technologies? If you would use a combination of more than one method, please select all that apply. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

FUNDING SCHEMES

Awareness of funding schemes is relatively low (however, is rising), and even fewer have applied.



- The most popular funding schemes included:
- **Generic government grants**
 - **ECO4** – A new 4-year scheme replacing ECO3 and is intended to run from 1 April 2022 to 31 March 2026 with the aim of improving the least energy efficient housing stock occupied by low income and vulnerable households.
 - **Boiler upgrade scheme** – Grants to partially cover the cost of replacing fossil fuel based heating systems with a heat pump or biomass boiler

W5 (April 2024) GB nat rep = 38%
 W4 (October 2023) GB nat rep = 34%
 W3 (May 2023) GB nat rep = 34%
 W2 (October 2022) GB nat rep = 30%
 W1 (May 2022) GB nat rep = 29%

W5 (April 2024) GB nat rep = 9%
 W4 (October 2023) GB nat rep = 7%
 W3 (May 2023) GB nat rep = 7%
 W2 (October 2022) GB nat rep = 12%
 W1 (May 2022) GB nat rep = 9%

L31: Are you aware of any funding schemes that are available for installing certain types of low carbon technology (such as those listed in the previous questions. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 L32: Please list the funding schemes you have heard of

DEEP DIVE INTO
ELECTRIC VEHICLES

IMPACT

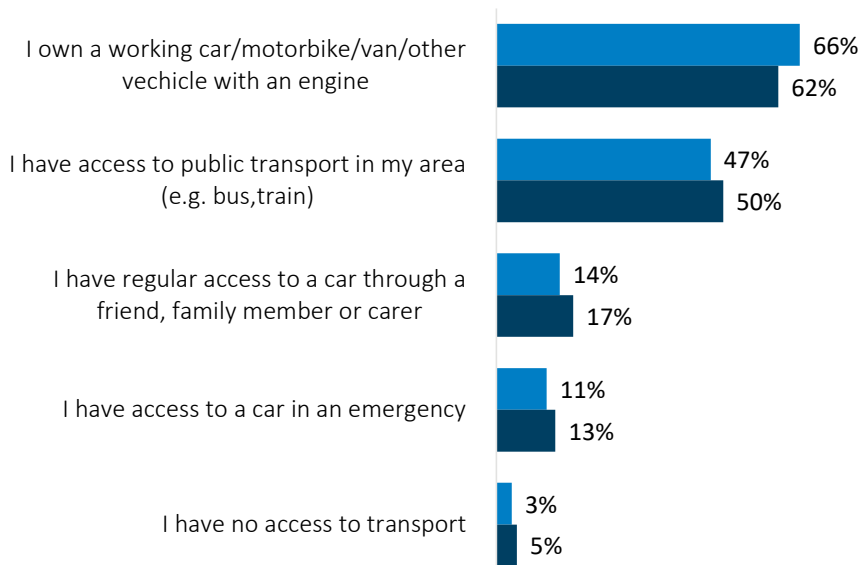
FROM INSIGHT TO INFLUENCE






ACCESS TO VEHICLES

Most respondents have access to transport, with the most frequent form of access being owning a working car/motorbike/van/other vehicle with an engine. Half of respondents have just 1 vehicle in their household.

Type of access to vehicles:

■ Nat rep ■ NGN










| Number of vehicles in a household: | Nat rep | NGN |
|---|---------|-----|
| 0 vehicles | 20% | 24% |
|  1 vehicle | 55% | 53% |
|  2 vehicles | 20% | 18% |
|  3 vehicles | 4% | 4% |
|  4 vehicles | 1% | 1% |
|  5+ vehicles | 0% | 0% |

EV1A. Which of the following applies to you? Please select all that apply. Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)
 EV1B. How many vehicles are there in your household? EV1B. How many vehicles are there in your household? Base: Nat Rep sample W6 (1,005), NGN sample W6 (1,006)

TYPES OF VEHICLES – OWNERSHIP & CONSIDERATION

The most popular type of vehicle consumers already own and consider are petrol vehicles. Electric vehicles are the second most considered vehicle.

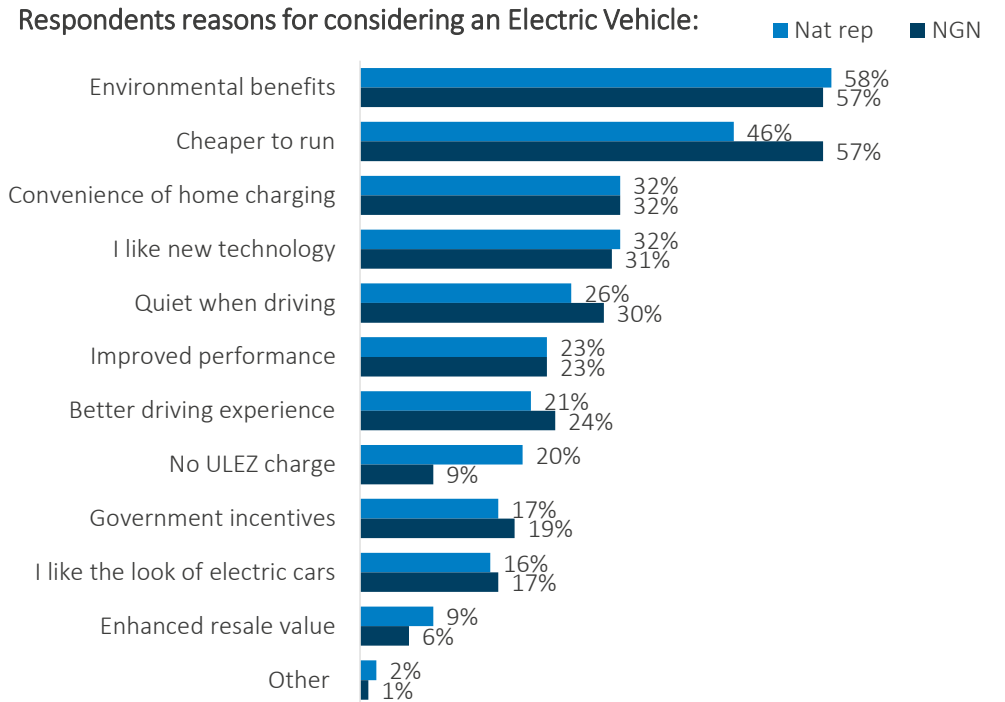
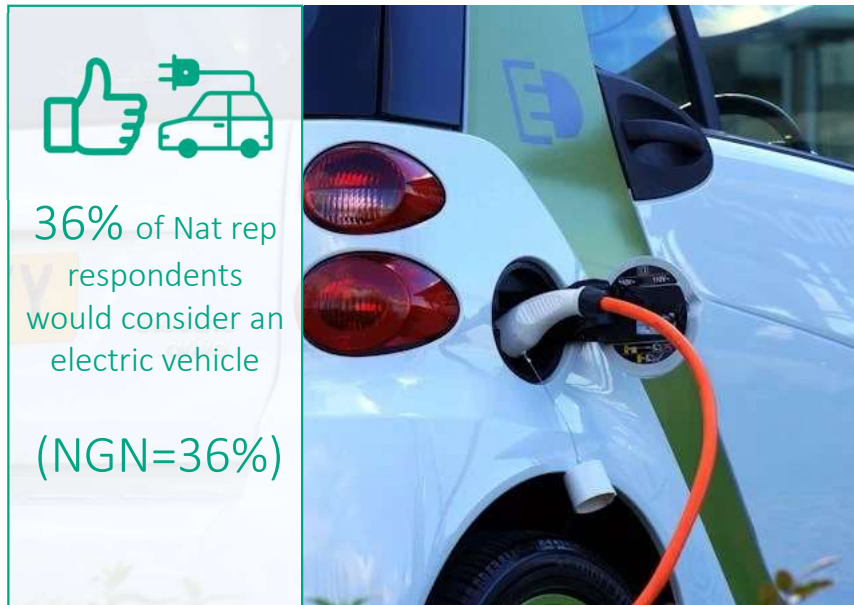
| | Types of vehicle (Nat rep) | Types of vehicle (NGN) | Type of vehicle (Nat rep) | Type of vehicle (NGN) |
|---|----------------------------|------------------------|---------------------------|-----------------------|
| | Already own | Already own | Would consider | Would consider |
|  Petrol | 66% | 60% | 52% | 48% |
|  Diesel | 25% | 32% | 22% | 25% |
|  Fully hybrid | 6% | 5% | 31% | 31% |
|  Mild hybrid | 4% | 3% | 20% | 19% |
|  Plug-in hybrid | 4% | 4% | 25% | 22% |
|  Electric vehicle | 8% | 10% | 36% | 36% |
|  Hydrogen vehicle | 0% | 1% | 11% | 10% |
| Other | 1% | 1% | 1% | 1% |

EV2. Which of the following types of vehicle do you own? Please hover over the words to see definition. *If you own multiple vehicle types, please select all the different vehicle types you own.* Base: Nat Rep sample W6 (807), NGN sample W6 (784)

EV3. And when you need to replace your vehicle or buy another one, which of the following types would you consider? *Please select all you would consider.* Base: Nat Rep sample W6 (801), NGN sample W6 (780)

REASONS FOR CONSIDERING AN ELECTRIC VEHICLE


Over a third of respondents would consider an electric vehicle, with the most popular motivations being environmental benefits, being cheaper to run and the convenience of home charging.




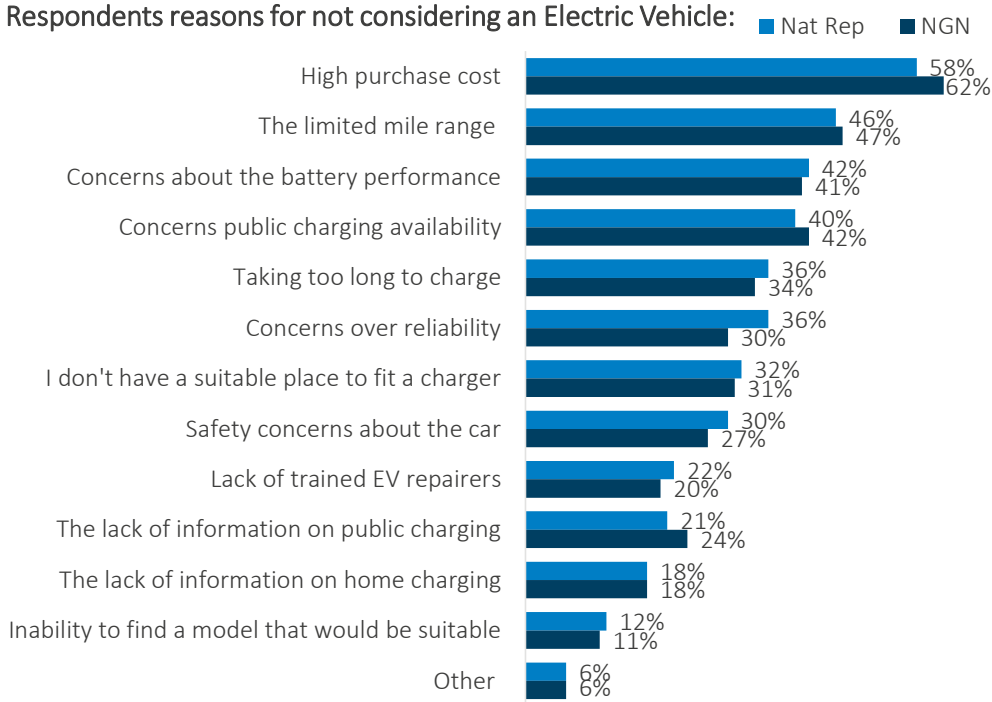
EV3. And when you need to replace your vehicle or buy another one, which of the following types would you consider? *Please select all you would consider.*
 Base: Nat Rep sample W6 (801), NGN sample W6 (780)
 EV5. You mentioned you would consider an electric vehicle, why is this? Please select all that apply Base: Nat Rep sample W6 (285), NGN sample W6 (309)

REASONS FOR NOT CONSIDERING AN ELECTRIC VEHICLE

Two thirds of respondents would not consider an electric vehicle, with their most popular reasons being high purchase cost, limited mile range, and concerns about the battery performance over time.



64% of Nat rep respondents would not consider an electric vehicle
(NGN=64%)

EV3. And when you need to replace your vehicle or buy another one, which of the following types would you consider? *Please select all you would consider.*
 Base: Nat Rep sample W6 (801), NGN sample W6 (780)
 EV6. You mentioned you would not consider an electric vehicle, why is this? Please select all that apply Base: Nat Rep sample W6 (516), NGN sample W6 (471)

SUBGROUP DIFFERENCES – VULNERABILITY GROUPS

Access to vehicles

NGN

Those who are **fuel poor** had **sig lower** access to the following:

- Their own working car/motorbike/van/other vehicle with an engine (44%) vs NGN sample overall (63%)
- Similar patterns emerged for this subgroup within the Nat rep sample.

Those who are **fuel poor** had **sig higher** number with no access to transport (10%) vs total (4%)

Those who **need extra support** had **sig lower** access to the following:

- Their own working car/motorbike/van/other vehicle with an engine (54%) vs NGN sample overall (63%)
- Similar patterns emerged for this subgroup within the Nat rep sample.

Type of vehicle ownership

Nat Rep

Those who are **75+** had **sig higher** ownership of the following types of vehicle:

- Petrol (83%) vs total sample (66%)

Those who are **fuel poor** had **sig higher** ownership of the following types of vehicle:

- Diesel (38%) vs total sample (25%)

Type of vehicle they would consider

Nat Rep

Those who are **75+** had **sig low** consideration of the following types of vehicle:

- Diesel (3%) vs total sample (22%)

Those who are **fuel poor** had **sig higher** consideration of the following types of vehicle:

- Diesel (36%) vs total sample (22%)

Reasons for considering an EV

Nat Rep

Those who are **fuel poor** placed the following reasons for considering an EV **sig higher**:

- Enhance resale value (22%) vs total sample (9%)

Reasons against considering an EV

NGN

Those who are **75+** placed the following reasons against considering an EV **sig higher**:

- High purchase cost (82%) vs NGN overall sample (59%)
- Concerns around the car taking too long to charge (77%) vs NGN sample overall (39%)
- Similar patterns emerged for this subgroup within the Nat rep sample.

NGN QUESTIONS

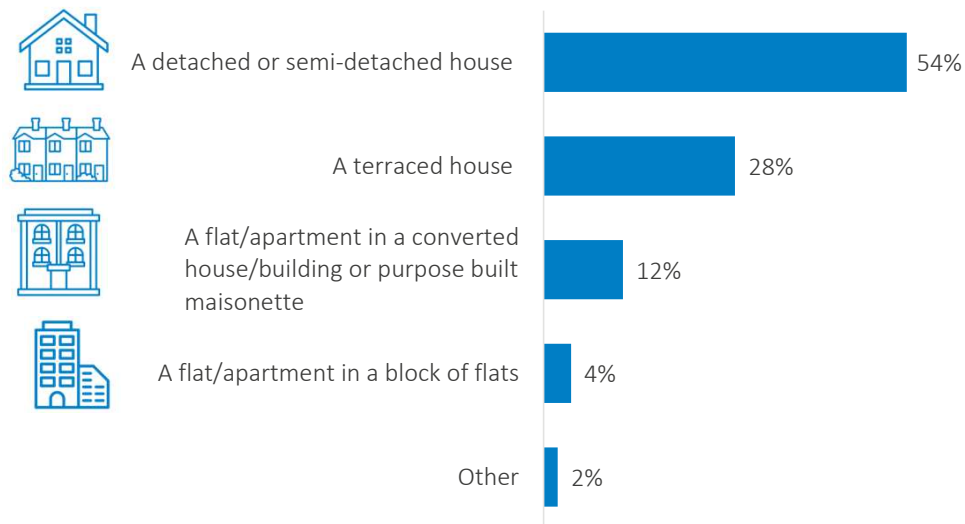
IMPACT

FROM INSIGHT TO INFLUENCE

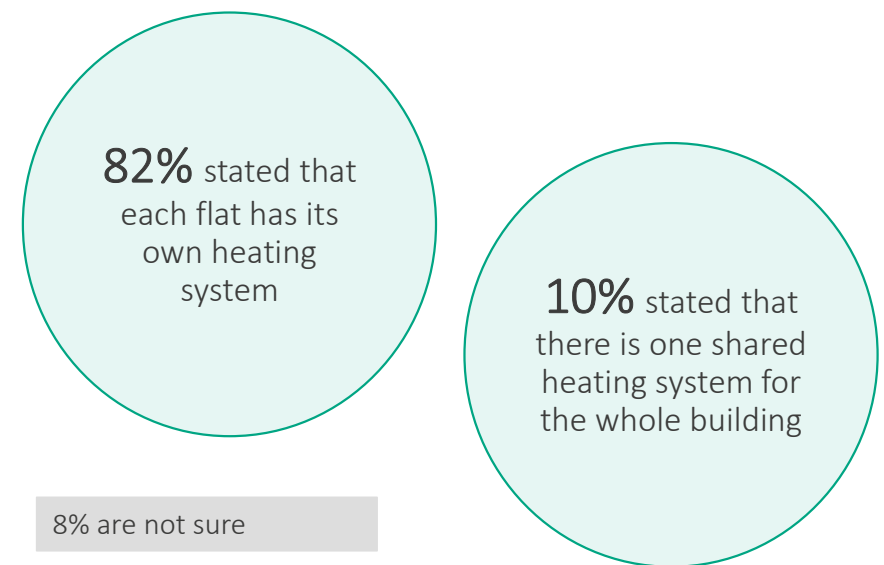
TYPE OF BUILDING

Over half of respondents live in a detached or semi-detached house. Of those living in a flat/ apartment the majority have their own heating system.

Which of the following best describes the type of building you live in?



Of those who live who live in a flat/apartment:



NGN19. Which of the following best describes the type of building you live in? Base: NGN sample W6 (1,006)

NGN20. In your building, does each flat have its own heating system / boiler, or is there one shared heating system / boiler for the whole building? Base: NGN sample W6 (154)

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PHASING OUT OF THE INSTALLATION OF NEW GAS BOILERS BY 2035

Three-fifths of NGN sample respondents are waiting to see if the government offers financial incentives before replacing their gas boiler.

Perceptions about the intended phasing out of installation of new gas boilers by 2035:

I'm waiting to see if the government offers financial incentives before making any decisions about replacing my gas boiler:



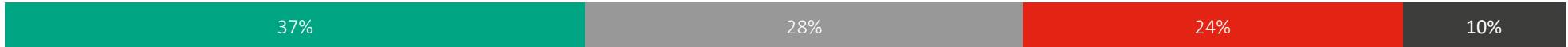
I'm not concerned about the 2035 ban, as I expect better and more affordable options will emerge closer to that time:



I plan to keep my gas boiler until it breaks down and can no longer be repaired, even if it means switching to a more expensive system later:



I would replace my gas boiler before 2035, even if its still working, to avoid, or at least delay, the high costs of switching to a heat pump:



I would rather invest now in a heat pump, or some other form of low carbon heating technology, to future-proof my home and reduce environmental impact:



■ Agree ■ Neither agree nor disagree ■ Disagree ■ Don't know

NGN21. To what extent, if at all, do you agree with each of the following statements about the intended phasing out of installation of new gas boilers by 2035?
Base: NGN sample W6 (717)

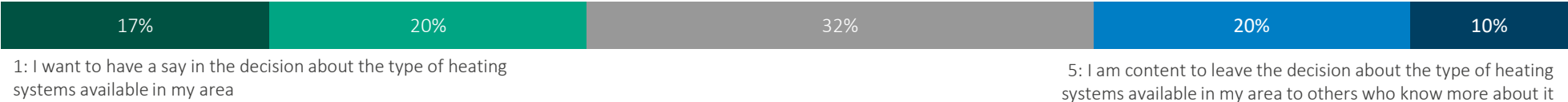
DECISIONS ON HEATING SYSTEMS

Viewpoints regarding local vs national decisions on heating systems, personal involvement vs expert involvement on heating decisions and involvement in decisions about heating system in property lived in are mixed.

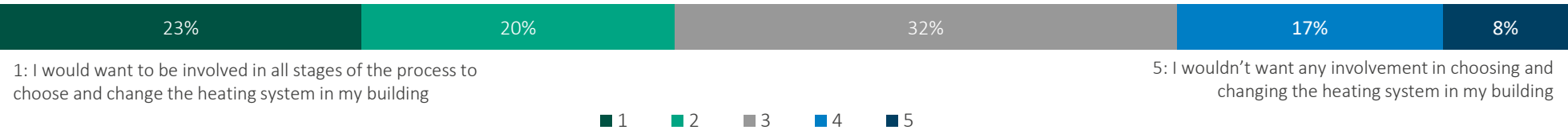
National vs local decision on heating systems



Personal involvement vs expert involvement on heating decisions



Involvement in decision about heating system in property lived in



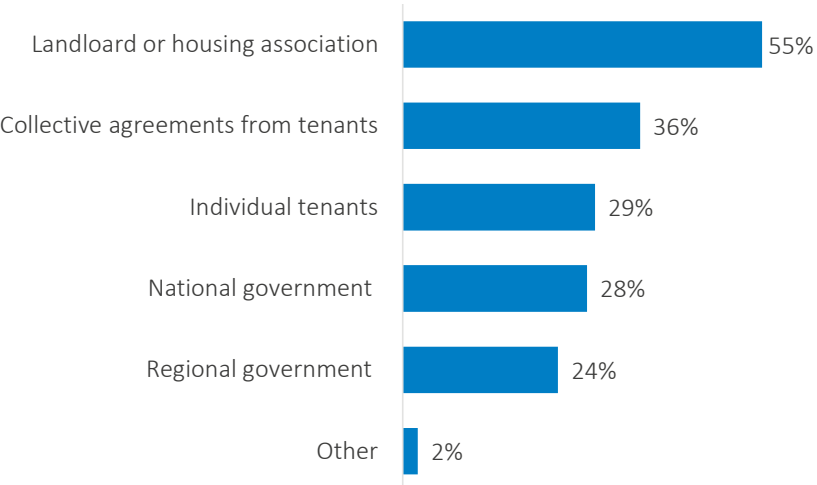
■ 1 ■ 2 ■ 3 ■ 4 ■ 5

NGN22. Still thinking about the future need to replace fossil fuelled / gas boilers with low carbon technology, we would now like you to consider how decisions should be made. You will be asked whether the final decision about the types of heating system in your area should be made at a local or a national level and on how much influence you feel you should have in the decision? In each case, please indicate your strength of opinion by dragging the slider to the left or right, towards the statement you most identify with. If you are unsure, or don't mind either way, please leave the slider in the middle. NGN22_r1. Local vs national decision on heating. NGN22_r2. Personal involvement vs expert involvement on heating decisions. Base: NGN sample W6 (1,006)
 NGN22_r3. Involvement in decision about heating system in property lived in. Base: NGN sample W6 (154)

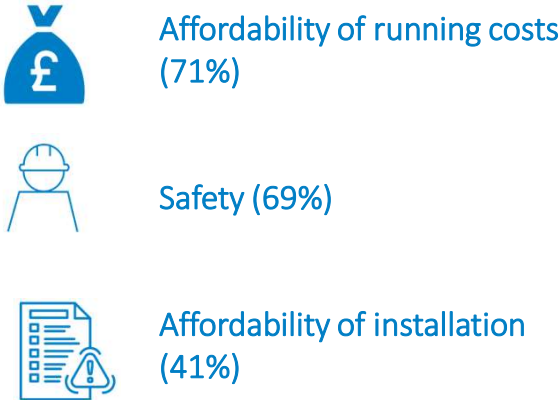
DECISIONS ABOUT HEATING IN THE HOME - FLAT

Respondents were most likely to say landlords and housing associations should hold responsibly for decisions regarding heating supply, including gas disconnections, in shared buildings. When making these decisions tenants want landlords to consider the affordability of running costs, safety and affordability of installation.

Responsibility for decisions made on disconnections from gas or alternative forms of traditional gas heating supply in a shared building:



Top 3 factors landlords/ housing associations should consider when making decisions about the type of heating system used in the building they rent out: Ranked in the top 3

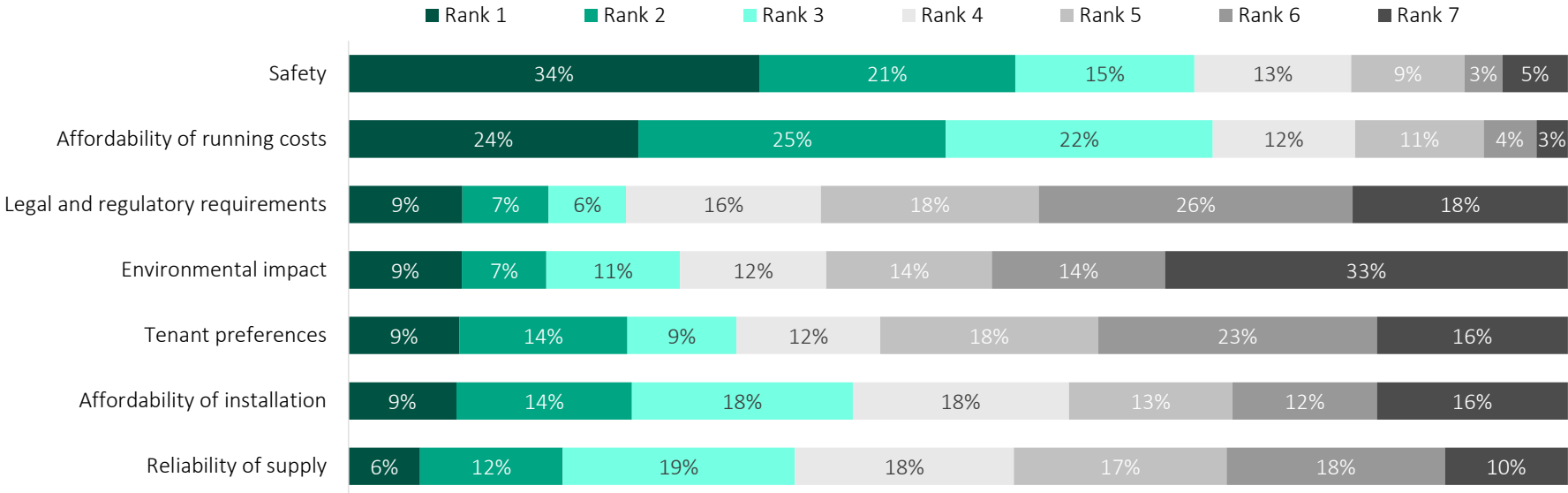


NGN23. Who should have responsibility for decisions made on disconnections from gas or alternative forms of traditional gas heating supply in a shared building? NGN24. Below are a range of factors that landlords/ housing associations might take into account when making decisions about the type of heating system used in the buildings they rent out. From your perspective, as a resident, please rank the factors from the most to the least important? Base: NGN sample W6 (154). NGN24B. Below is a list of factors that landlords/ housing associations might take into account when making decisions about the type of heating system used, is there anything else they should consider? Base: NGN sample W6 (154)

DECISIONS ABOUT HEATING IN THE HOME - FLAT

When making decisions about the type of heating, tenants want landlords to consider the affordability of running costs, safety and affordability of installation. The lowest ranked item was environmental impacts.

Factors landlords and housing associations should consider when making decisions about the type of heating system used in the building they rent out:



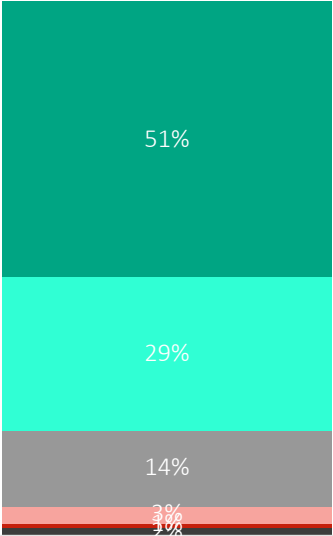
NGN24B. Below is a list of factors that landlords/ housing associations might take into account when making decisions about the type of heating system used, is there anything else they should consider? Base: NGN sample W6 (154)

DECISION OVER TYPE OF HEATING

Most NGN consumers believe they should be the one to make the final decision about the type of heating they have in their home.

To what extent, if at all, do you agree with the statement “I should be the one to make the final decision about the type of heating I have in my home.”

- Strongly agree
- Slightly agree
- Neither agree nor disagree
- Slightly disagree
- Strongly disagree
- Don't know



NGN25. To what extent, if at all, do you agree with the statement “I should be the one to make the final decision about the type of heating I have in my home.”
Base: NGN sample W6 (1,006)

THANK YOU

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