



FROM INSIGHT TO INFLUENCE

A Needs-Based Segmentation of Low Income and Vulnerable Customers

Final Report

Prepared for ENWL

Prepared by Impact Research

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Project No. 1282

All projects are carried out in compliance with the ISO 20252 international standard for market, opinion and social research and GDPR.

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Glossary

Terminology	Definition
DNO	Distribution Network Operator (Electricity)
GDN	Gas Distribution Network (Operator)
LCT	Low carbon technology
LIV	Low income / vulnerable
SEG	Socio-economic grade
PSR	Priority Service Register
Lenses	Output from Part One of the research: different circumstances from which to view customers that could make them at risk of being vulnerable
Circumstances	Individual factors, including demographic profile, health status and life situations that could define them as 'vulnerable'
Segments	Output from Part Two of the project, groups of people defined by particular characteristics and attitudes

1 Introduction

1.1 Background

Ofgem has set out that no one should be left behind in the pursuit of net-zero and innovation in the energy sector. The current cost-of-living crisis and problems in energy supply, combined with the need for Distribution Network Operators (DNOs) to plan effectively for long-term investment, emphasise the importance of developing policies that meet the needs of all customers.

However, the report from the RIIO-ED2 Challenge Group (8 Feb 2022) highlights the concern that the needs of Low Income and Vulnerable (LIV) customers are not generally well understood by DNOs and not in a joined-up way. In their report, the Challenge Group “did not see DNOs consistently and compellingly set out their rationale for different activities” designed to support vulnerable customers. They observed a wide variation in the way DNOs identified the goals and their proposed methods of meeting those goals.

The challenge begins with how DNOs identify LIV customers and understand their needs. LIV customers are typically classified in one-dimensional ways (age, disability, income, etc) and applied inconsistently across regions. This simplification and inconsistency could mean that the needs of LIV customers are under-represented in investment initiatives and ultimately cause them to fall behind in terms of their access to suitable services and the benefits of new technology. In addition to these limitations, the views of LIV customers are often represented to DNOs through the filter of interest groups (e.g., Age Concern, RNIB, MIND, etc) and not directly from the customers themselves. Those agencies seeking to represent LIV customers do not necessarily have a full understanding of the energy needs of LIV customers or of the (sometimes limited) role that DNOs can play in providing for those needs.

There is consequently a strong need for an objective appraisal of how best to classify LIV customers and identify their energy needs.

1.2 Project Overview

On this basis, original research was conducted by Impact Research Ltd, through Ofgem’s NIA funding scheme. The work was sponsored and guided by Electricity North West (ENWL), with support from Energy Systems Catapult (ESC).

The customer engagement was conducted at a nationwide level, ensuring representation of all energy supply regions. DNOs were the main focus, but GDNs were also represented, allowing potential application of learnings to the Gas sector too.

1.2.1 Research programme

Part 1

Development of a common ‘lens’ or group of ‘lenses’ through which DNOs and Ofgem should view the needs of LIV customers and assess the solutions developed to meet those needs. This first part of the research programme pursued the following:

- Establishment of a working group comprised of representatives from ENWL, Energy Systems Catapult (ESC) and Impact Research
- Compilation of an industry-wide report that established the different ‘lenses’ through which to view the range of LIV customers, their different needs and the existing and planned initiatives designed to meet them (*How LIV customers are currently defined*¹)
- Creation of a ‘best practice’ guide that drew together learnings from the above report, common procedures for classifying LIV customers and their needs, a systematic way to establish realistic goals that DNOs pursue and practical, objective measures of success (*Best practice in engaging LIV consumers*²)

¹ <https://www.enwl.co.uk/globalassets/innovation/enwl032-liv-segmentation/how-liv-customers-are-currently-defined.pdf>

² <https://www.enwl.co.uk/globalassets/innovation/enwl032-liv-segmentation/best-practice-in-engaging-liv-consumers.pdf>

Part 2

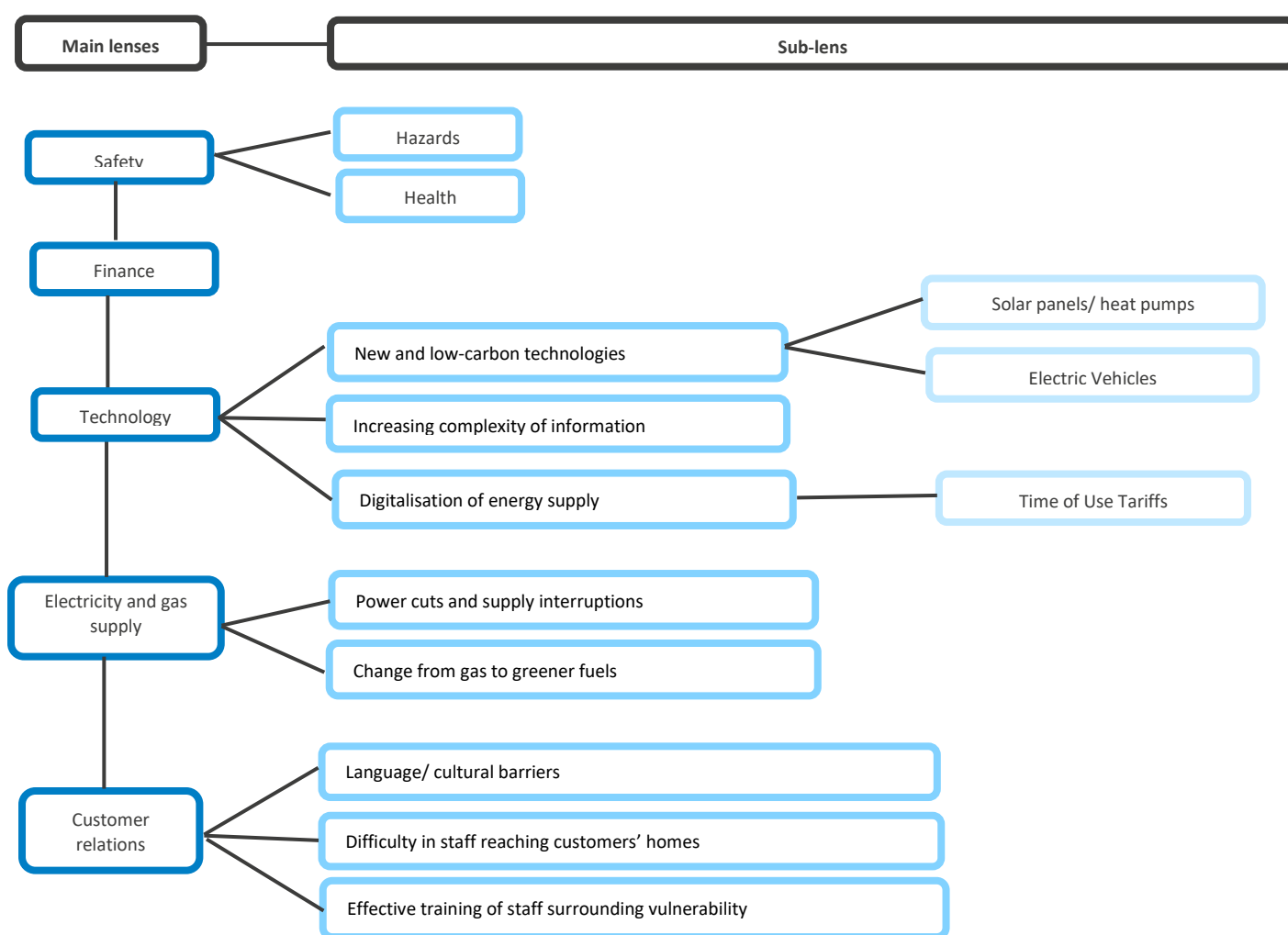
Nationally representative customer engagement with LIV customers. Full details of the method and process for recruiting customers is given in the Customer Engagement Plan (*Customer Engagement Plan and Data Protection Statement*³), as is summarised below:

- Qualitative research to gain depth of understanding (*Qualitative findings summary*⁴),
 - 10 online focus groups with customers in vulnerable circumstances across GB
 - 50 In-depth telephone interviews with customers in vulnerable circumstances, or customers that are unable to participate in online focus groups
- Explorative quantitative research with energy customers across GB (*this report*):
 - 20-minute online survey with at least 1,000 energy users, nationally representative across DNO regions
 - 25-minute telephone/face-to-face survey with 100 nationally representative customers in vulnerable circumstances, or customers that are unable to participate in online panel surveys

Although it was beyond the scope of this current research, we considered from the outset that there was likely to be a case for a subsequent, separate piece of work comprising large-scale quantitative research to validate the findings.

1.2.2 Key points from 'How LIV customers are currently defined'

The key finding from the initial lenses report was that five overall lenses were developed, some with further sub-lenses lying underneath them. These were developed drawing from research previously conducted by DNOs and GDNs, along with organisations such as Ofgem and Citizens Advice. These were then discussed and approved during a workshop held with ENWL, Impact and ESC. The full report covers these in more detail, but the below image summarises the key groups.



³ <https://www.enwl.co.uk/globalassets/innovation/enwl032-liv-segmentation/customer-engagement-plan-and-data-protection-statement.pdf>

⁴ <https://www.enwl.co.uk/globalassets/innovation/enwl032-liv-segmentation/qualitative-findings-summary.pdf>

1.2.3 Key points from 'Best practice in engaging LIV consumers'

The best practice guide to engagement is built on the findings from the initial lenses report and classified typical circumstances that might make a customer vulnerable, into which lens, or lenses, most applicable to them. The key circumstances included were:

- Age
- Physical impairment
- Mental impairment
- Low income
- Residence barriers
- Technical barriers
- Poor access to information

The key implications for the research laid out in the report, were as follows.

1. **Organising the research by the lens will be more practical than by respondent type**
2. Those **vulnerabilities which are affected by multiple lenses could be considered the primary focus of the research** and should be reflected within the sample for each lens.
3. The sample for **some lenses should be supplemented with those vulnerable groups which are particularly affected by that lens** only.
4. The transient nature of vulnerability makes it important to **ensure recency in the experience of the vulnerability** amongst research participants and to **explore the impact and experience of different levels of vulnerability** (e.g., mild and/or short-lived through to severe and/or permanent)

1.2.4 Key points from 'Qualitative findings summary'

The qualitative research then took the findings from the lenses report and best practice guide and set out to understand the needs of the customers within each lens, and what specifically a DNO or GDN could do to help.

While the findings did differ across the different lenses, the majority of suggestions given for what help could be provided by a DNO or GDN fitted into the category of financial support or providing information to customers.

Regarding finance, there is a need for collaboration, both with local and national governments, but also with other organisations such as tenants' and landlords' associations. The role of the network operator was not necessarily seen as the one that needed to provide the support directly, more so that they could open doors to these organisations and highlight the areas that are most in need of investment.

On the subject of information, there was a clear role for the DNO or GDN identified to become a trusted source of information. This information should be made available to customers in a format that is easily accessible, and include how to keep costs down, how to reduce hazards in the home, eligibility for the PSR and the pros and cons of LCTs.

The final area of support a DNO/GDN can give revolves around having an individual relationship with their customers, to ensure they are given the support they need day-to-day and during a power cut.

1.2.5 The Quantitative research

This report delivers the segmentation analysis that was carried out on the survey of 1,141 energy users conducted in June 2023. The survey was built using the findings from the previous stages of the research, laid out above. It lasted approximately 15 minutes and was conducted among 1,041 customers online and 100 face-to-face.

The survey was split into three parts, firstly demographics, were designed to understand the make-up of the sample, ensure we were speaking to a diverse group of customers, and understand which vulnerability group, if any, each customer fitted into. The second section sought to understand whether or not a customer had faced supply issues in the past, and how it had affected them. The final section then asked which actions a DNO or GDN could take, would be most useful to each customer and their household. The actions were developed from the qualitative findings, specific to each lens identified in the initial report. Customers were asked to rank the potential actions in order of importance for each lens, asked why they selected it and who should be most responsible for implementing it.

2 The seven vulnerability segments

2.1 Introduction

Suitable statistical techniques were used to explore patterns in data from the main quantitative phase of research and the results are reported in the Appendices. From this process, seven broad segments of the total GB population were identified, defined primarily in terms of measures relating to the nature and degree of their vulnerability. Understanding the key differences between the segments is a crucial part of understanding how DNOs can best target their activities to best meet the needs of each segment.

Figure 2.1 introduces the segments, showing the relative size of each and accompanied by a label that aims to broadly summarise the nature of each segment. Key characteristics are summarised in Figure 2.2. **Error! Reference source not found.**

Figure 2.1 The Seven Vulnerability Segments

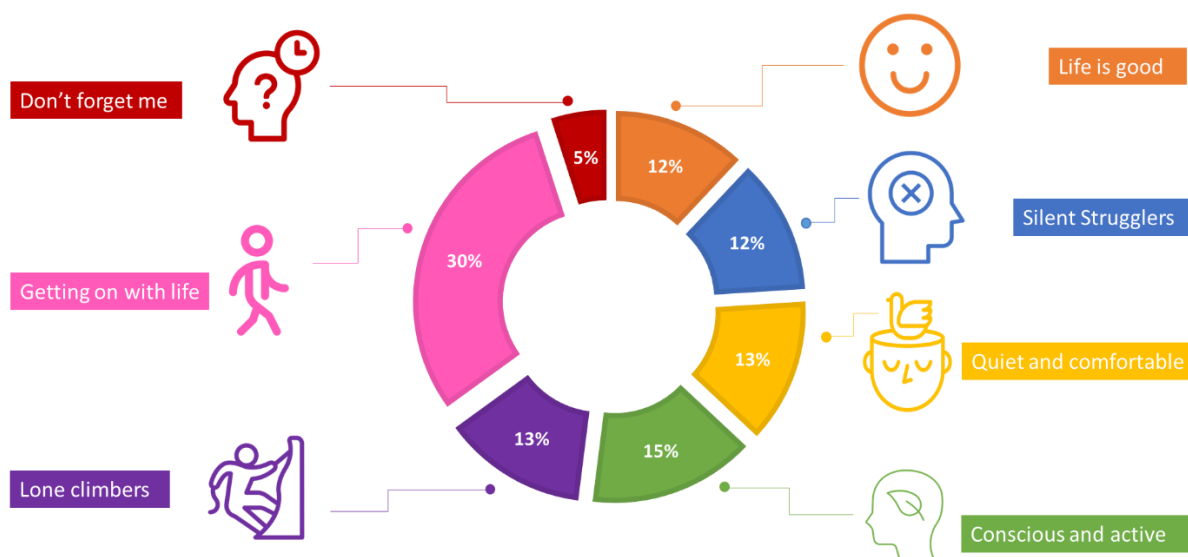


Figure 2.2 Segment Summary Profiles

	Life is good	Silent strugglers	Quiet and comfortable	Conscious and active	Lone climbers	Getting on with life	Don't forget me
Proportion	12%	12%	13%	15%	13%	30%	5%
Demographics	Typically white, older affluent and male	Typically female, younger/middle aged with low incomes	Typically older, white British retirees	Typically affluent, younger males in senior management	Typically males with lower incomes, high % of ethnic minorities	Typically suburban and middle-aged	Typically low income, single mothers
Situational items	Most own their own homes, cars and don't struggle with power cuts.	Most are struggling to pay bills and are taking steps to save money on energy bills such as skipping meals.	Most own their home outright and have energy-saving technology installed but are likely to have chronic health conditions. They don't struggle to pay bills, however are living off of pensions of <£20K.	Most have chronic health conditions but have contacted their GDNs regarding energy-saving technologies. Don't struggle to pay bills.	Most rent and sometimes struggle with energy bills.	Most have good health and own their own homes and never struggle to pay their bills.	Most rent and struggle to pay bills and have skipped meals as a means of reducing energy costs.
Attitudes	Confident about what to do in a power cut.	Worry about bills. Need more information on how to reduce their energy consumption.	Confident about what to do in a power cut.	Worry about the safety of their appliances. Want to do more to improve their carbon footprint and worry about missing out on LCTs	Are not confident in what to do in a major power cut/interruption.	Less confident in what to do in a major power cut/interruption but generally less concerned about environmental or financial issues.	Worry a lot about paying bills and believe the government should do more to help people in financial difficulties.

It is important to note that these segments cover all Energy distribution customers (ie the total GB population), the intention being that the study should allow all definitions of vulnerability to be considered, regardless of severity or how they matched up to current definitions of vulnerability. As will be seen, over half the population are assigned to groups that have very low levels of vulnerability, but nevertheless have areas of need that can be addressed by DNOs.

In the following sections, we offer 'pen portraits' of each segment. There are three key sections pen portraits focus on:

- Demographic differences
- Situational differences
- Attitudinal differences, specifically on the 5 lenses

Pen portraits primarily represent statistically significant differences from the rest of the population which highlights how the segment differs from the other segments. It should be noted that if a segment is 'more likely to be male', this does not suggest there are no females in the segment, but rather that there is a significant over-indexing of males in the segment. For this reason, one segment may have ethnicity highlighted, because it differs strongly from the overall population in this respect, while another might emphasise employment profile, for the same reason that it is a significantly different characteristic while ethnicity is not. Therefore, where a characteristic is not highlighted for a particular segment, the reader should assume that it does not differ greatly from the total GB population.

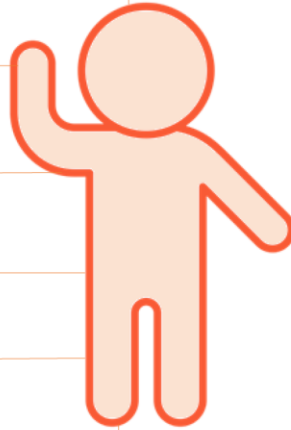
Further information comparing measures such as power cuts experienced across the segments is given in the appendices.

2.2 Segment 1: Life is Good

Segment 1: Life is good – Characteristics

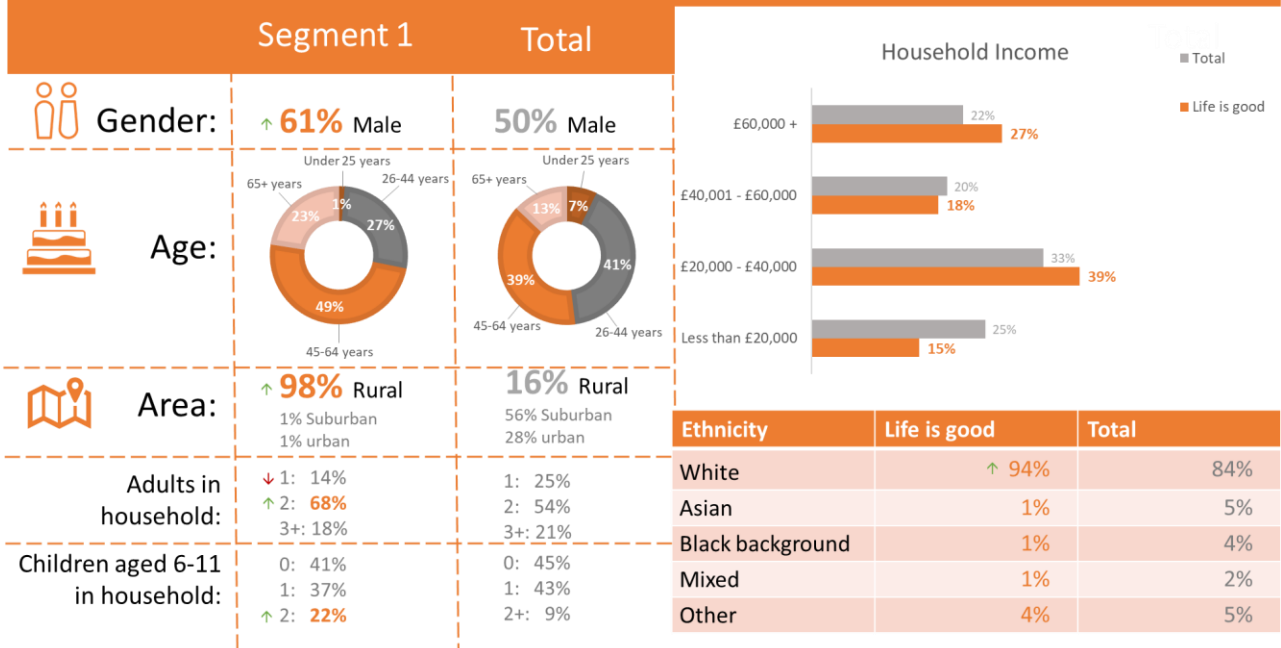


- Typically white, older affluent and male
- Living as a couple, possibly with children
- Living in rural countryside areas
- Own a car and have no reliance on public transport
- Own their own home
- Usually have off-street parking

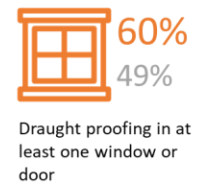
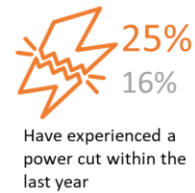
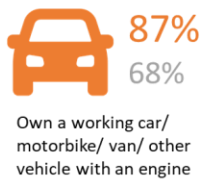
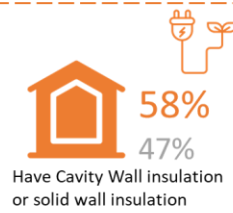
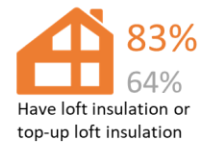
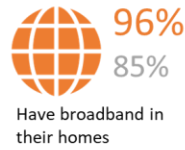


- Unlikely to be affected by the energy crisis and don't struggle to pay their bills.
- Confident with what to do in an emergency or a power cut.
- No immediate concerns, worries or hardships.
- A larger proportion than average have energy-saving measures installed in their house.
- Less likely than average to consider that they need to reduce their carbon footprint.

Segment 1: Life is good – Demographics



Segment 1: Life is good – Situational

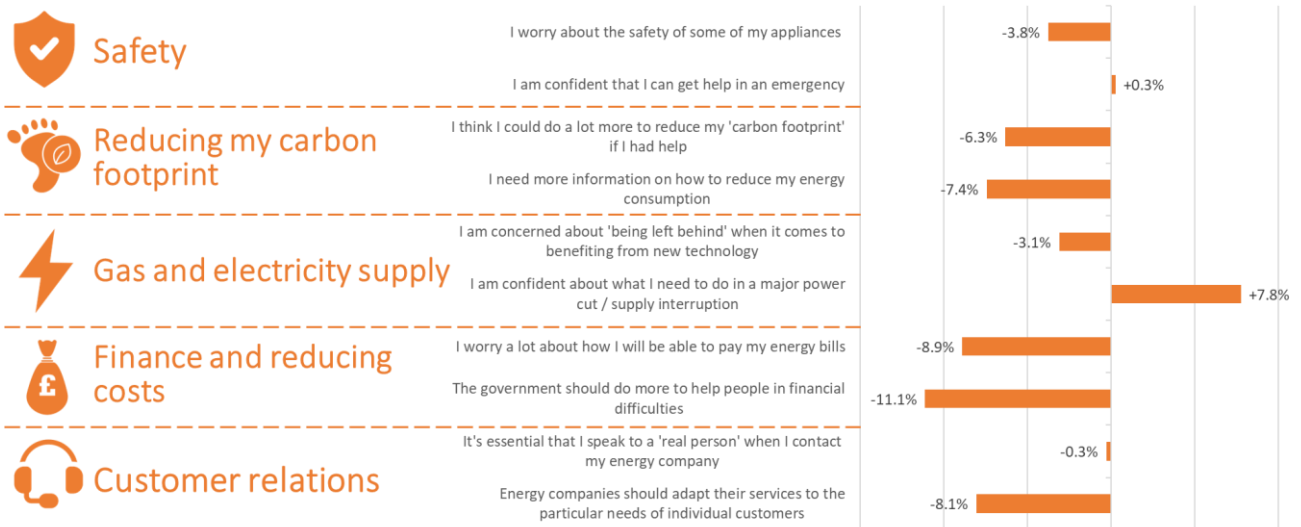


■ Total sample ■ Life is good

Segment 1: Life is good – Attitudes



This chart shows the difference in attitudinal scores for the 'Life is good' segment in comparison with the baseline of the total sample (%).

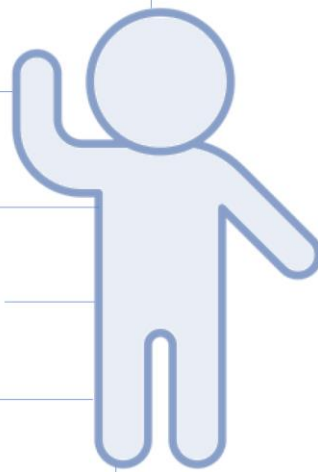


2.3 Segment 2: Silent Strugglers

Segment 2: Silent Strugglers – Characteristics

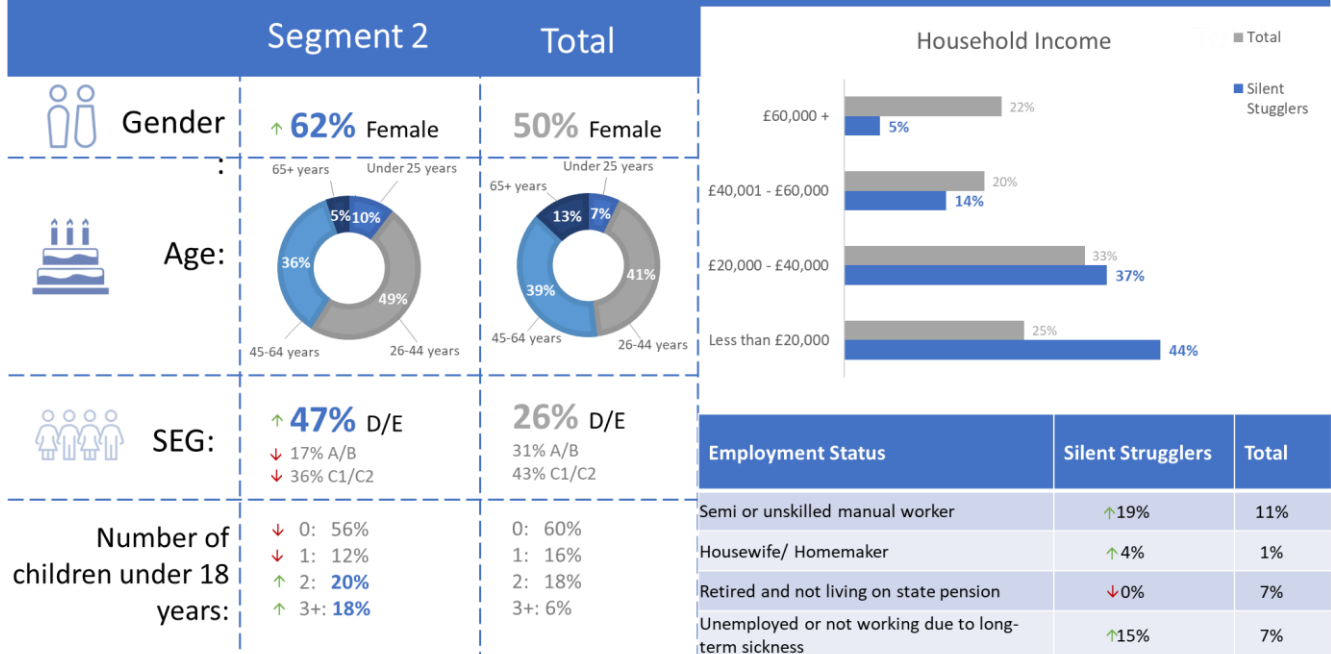


- Typically female and younger/middle aged
- In manual work and low-income earners
- Struggling financially and with their health
- May not have access to their own car and must rely on others
- Renting or likely to receive housing benefits
- Carers of children, illness and disability

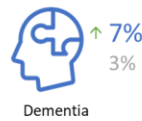
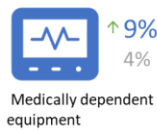
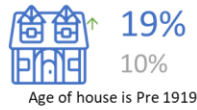
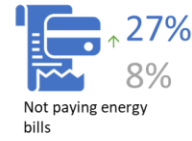
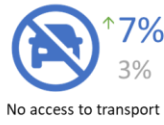


- Digital access may be low, as is their confidence in using the internet.
- Have low confidence about what to do in an emergency and say they want information and help.
- Are always struggling to pay bills and have to take action to reduce costs.
- They want information on saving energy and costs as they are very worried about these issues.
- Often there is a serious chronic health issue experienced by themselves and other household members.
- Likely to consider adoption of LCTs to be out of their reach

Segment 2: Silent Strugglers – Demographics



Segment 2: Silent Strugglers – Situational

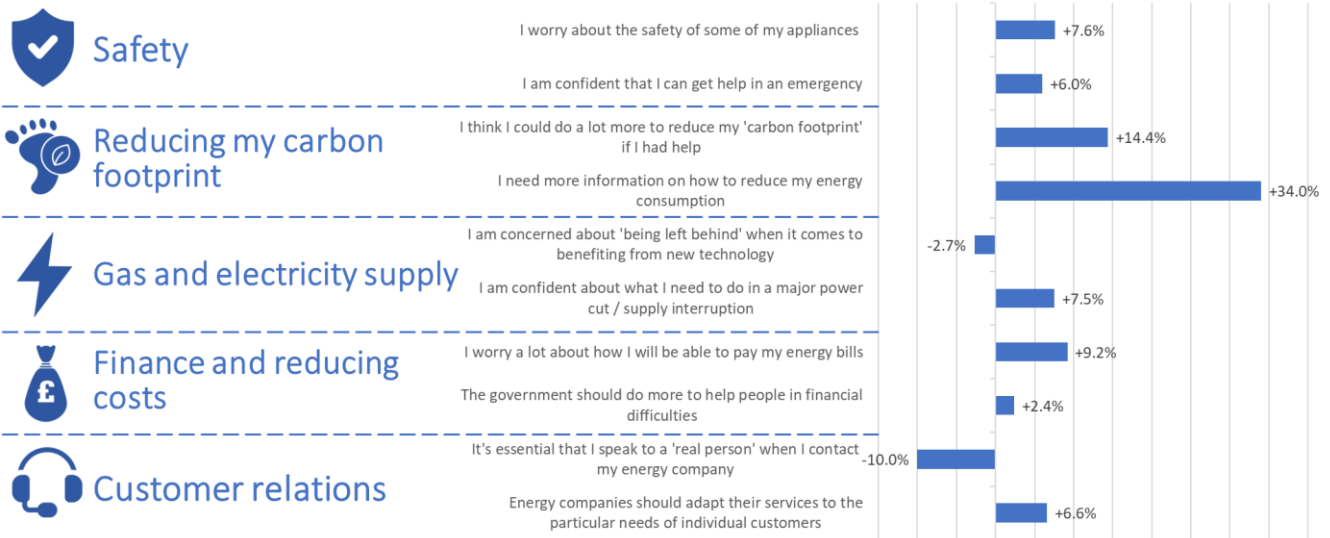


■ Total sample ■ Silent strugglers

Segment 2: Silent Strugglers – Attitudes

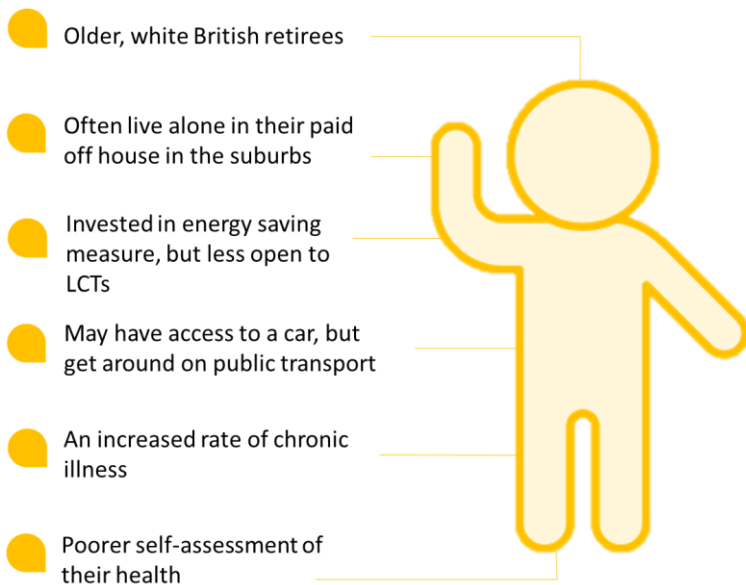


This chart shows the difference in attitudinal scores for the 'Silent Strugglers' segment in comparison with the baseline of the total sample (%).



2.4 Segment 3: Quiet and Comfortable

Segment 3: Quiet & Comfortable – Characteristics



➤ Are not struggling to pay bills but the majority are living off private and state pensions and earn less than £20K.

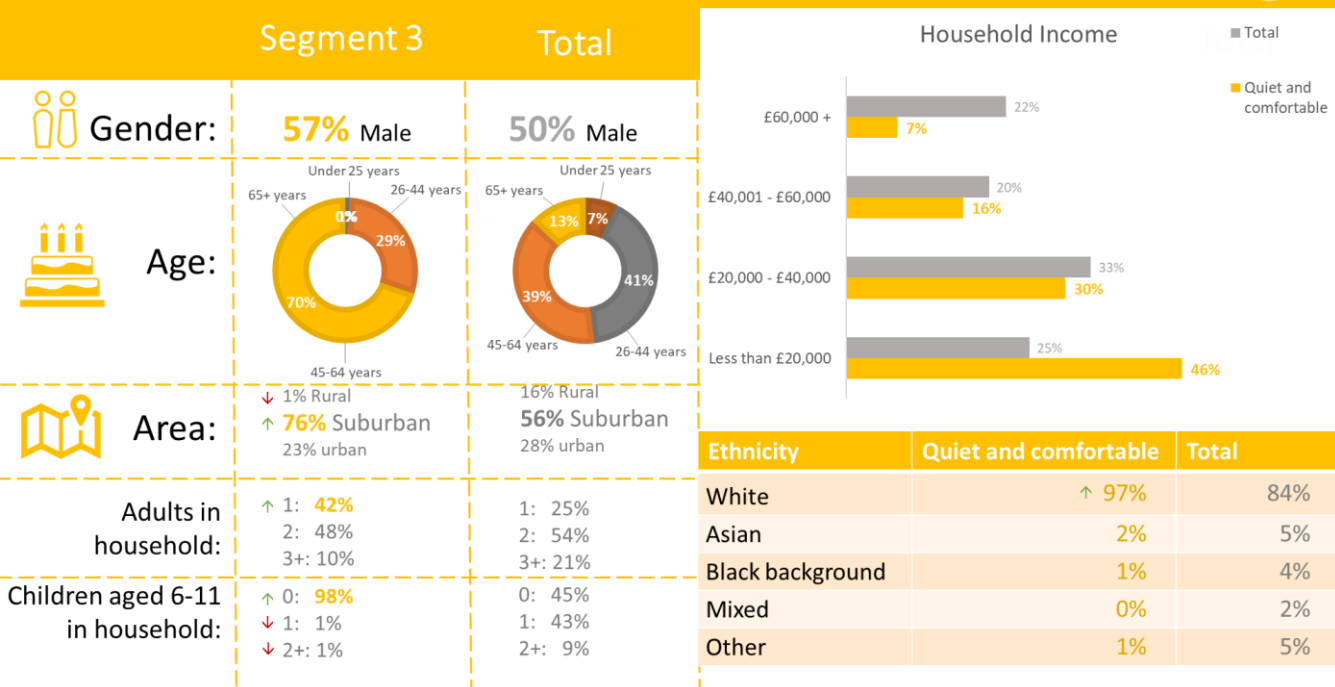
➤ Have a level of confidence in being able to get help when they need it – this is one of the 'least worried' segments.

➤ Unlikely to have complete confidence in the internet but certainly are competent.

➤ Tend to be practical when it comes to the environment.

➤ There is strong representation on the PSR.

Segment 3: Quiet and comfortable – Demographics



Segment 3: Quiet and comfortable – Situational



Energy saving technology installed in the home:



Have loft insulation or top-up loft insulation



Double glazing in at least one of their windows



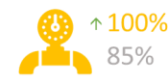
Draught proofing in at least one window or door



Own home outright



Poor/ fair General Health

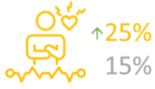


YES Connected to Gas



Have access to public transport

Chronic conditions:



Chronic/ serious illness



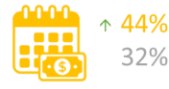
Physical impairment



Deaf or hard of hearing



Developmental condition

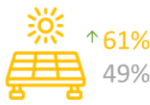


Ability to pay bills over past year **remained the same**



Never struggle to pay energy bills

Energy saving technology not considered:



Solar panels



Heat pump



Electric Vehicle Charging Point



Underfloor insulation



Yes - Presence on PSR register



Age of house: 1920-1979

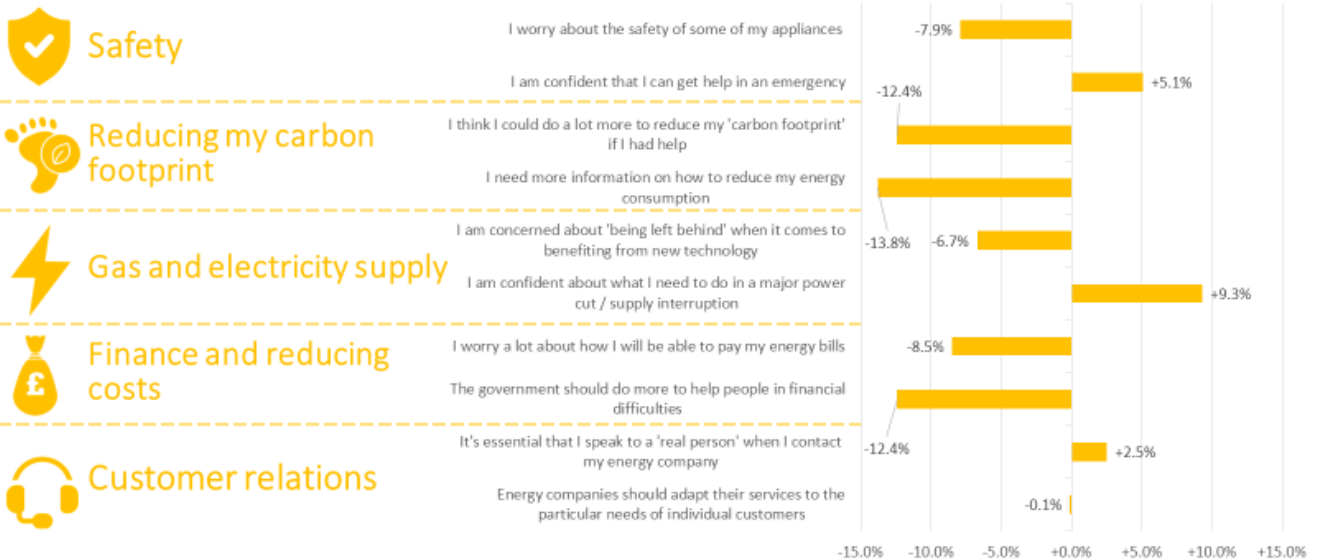
■ Total sample

■ Quiet and comfortable

Segment 3: Quiet and comfortable – Attitudes



This chart shows the difference in attitudinal scores for the 'Quiet and comfortable' segment in comparison with the baseline of the total sample (%).



2.5 Segment 4: Conscious and active

Segment 4: Conscious and Active – Characteristics

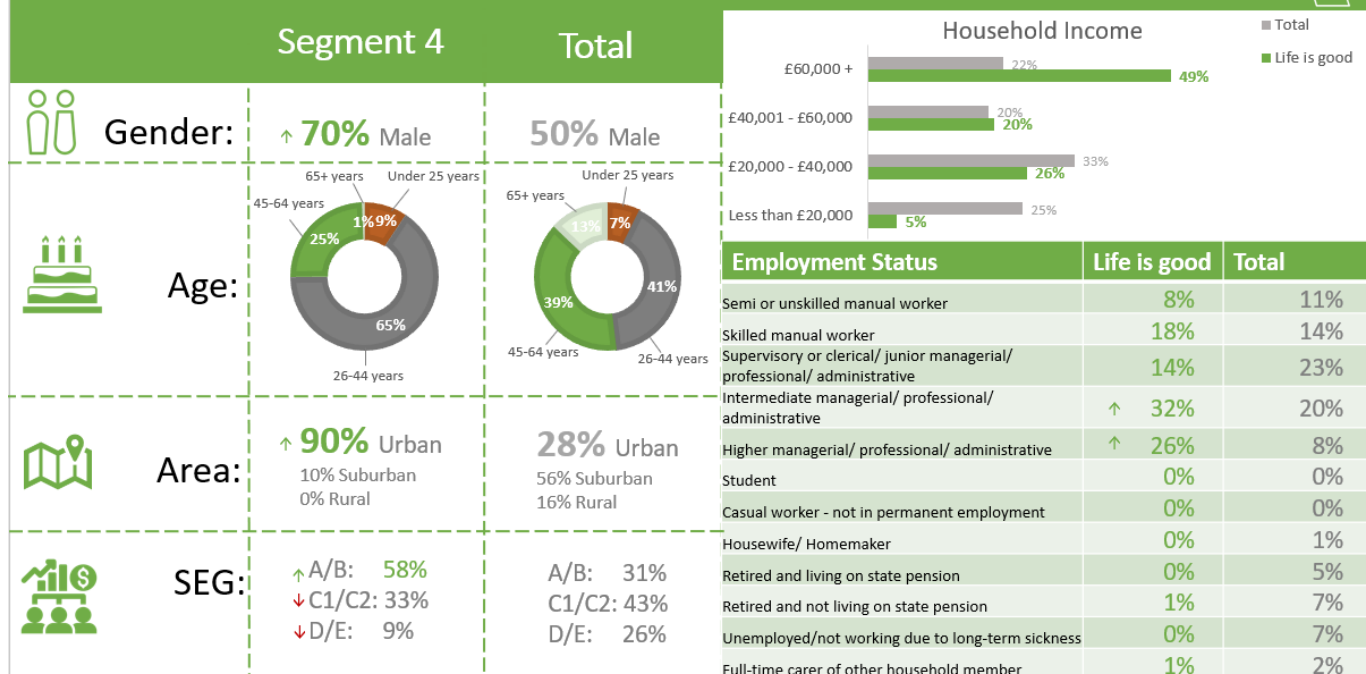


- Mostly younger and middle-aged males
- Mostly managerial positions, earning more than £40K, with some earning >£100K
- Likely to live with a partner or slightly older children
- Higher representation of Asian and Black ethnicities
- More likely to suffer health issues or live with those who do
- Most likely buying their first or second house/flat.



- Engaged in the utilities sector, although they are worried about safety.
- Well connected with the internet and are confident users.
- Many have experienced a power cut before and are confident they know what to do.
- Mostly financially “comfortable” (in Socio-economic group A/B)
- Environmentally aware and take action, with many having already installed LCTs, or say they are considering them.
- Live in suburban built-up areas where they are well connected via their car/public transport.
- Don’t struggle with bills at all and have options to work more to earn more if they need to
- If they have a health condition it is often well-managed and they are in good health

Segment 4: Conscious and Active – Demographics



Segment 4: Conscious and Active – Situational



Have contacted their GDN within the last year



Had stayed in a hostel, refuge, or emergency accommodation in the past 12 months



Someone else in their house was blind or partially sighted



Someone else in their household was medically dependent on equipment



Own solar panels



Stated that they own underfloor insulation



Have contacted their DNO regarding solar panels



They have contacted their DNO within the last 6 months



They support others in their household for 9-34 hours a week



They (A)/someone in their household (B) had a speech difficulty



Stated that they had dementia



Own a heat pump



Are considering double glazing in at least one of their windows.



Have contacted their DNO regarding electric vehicle chargers



Stated that they have experienced gas interruptions within the last year



Stated that they have 2+ children under 18 in their household



Stated that they (A) / someone in their household (B) had Anosmia (lack of ability to smell)



Own an electric vehicle charging point



Are considering loft insulation or top-up loft insulation



Have contacted their DNO regarding heat pumps

■ Total sample ■ Conscious and Active

Segment 4: Conscious and Active – Attitudes

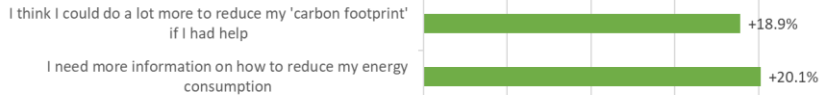


This chart shows the difference in attitudinal scores for the 'Conscious and Active' segment in comparison with the baseline of the total sample (%).

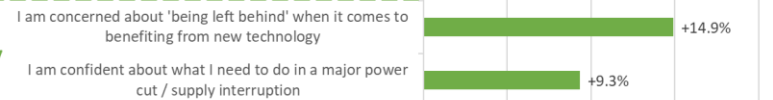
Safety



Reducing my carbon footprint



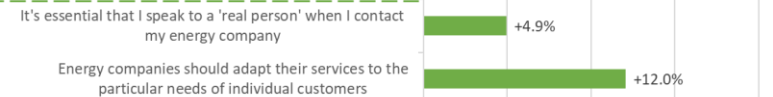
Gas and electricity supply



Finance and reducing costs

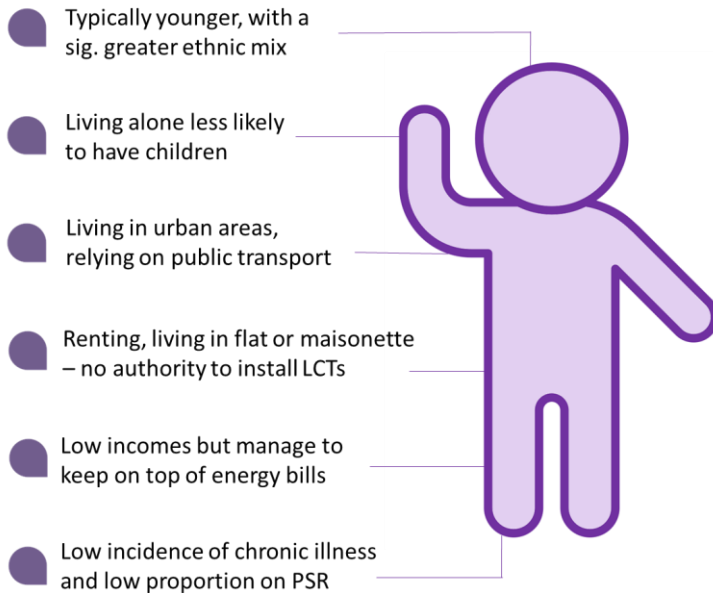


Customer relations



2.6 Segment 5: Lone climbers

Segment 5: Lone Climbers – Characteristics



➤ Sometimes struggle with energy bills (lower incomes) but generally manage. Belief that government should help more.

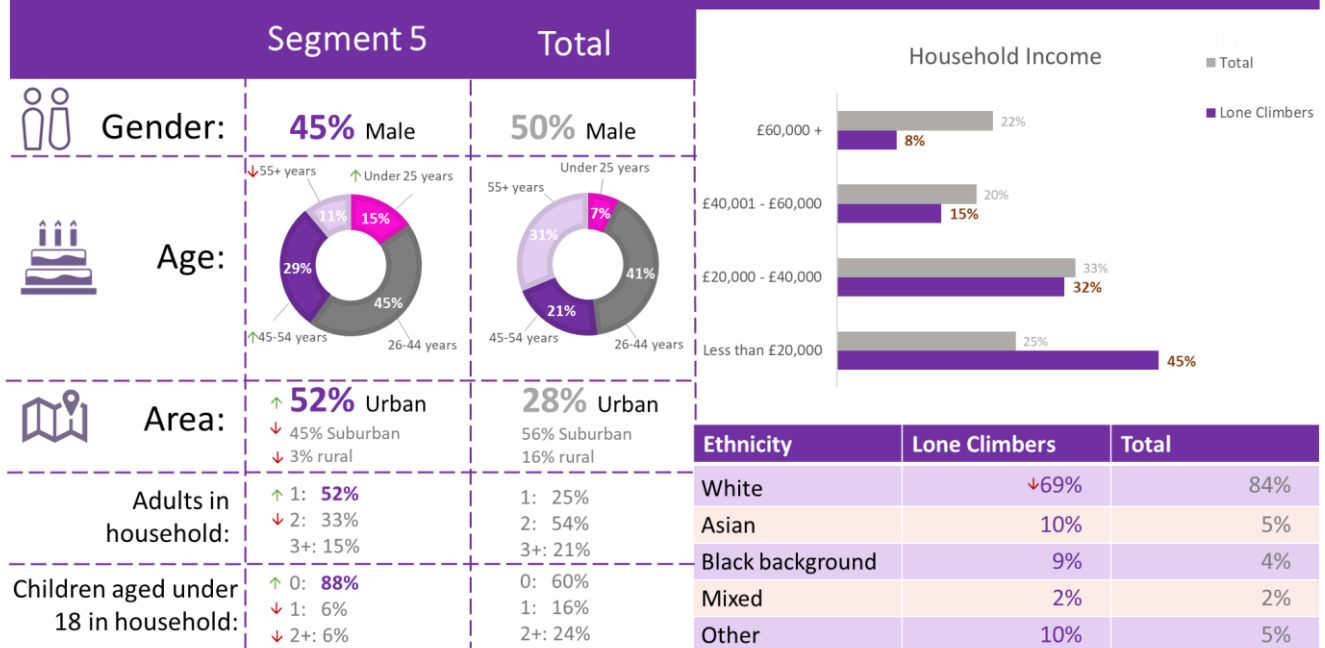
➤ Less confidence in what to do in a power cut, as not yet experienced one due to their age.

➤ Lowest uptake on energy-saving measures installed in their home. Largely due to it not being their decision to make.

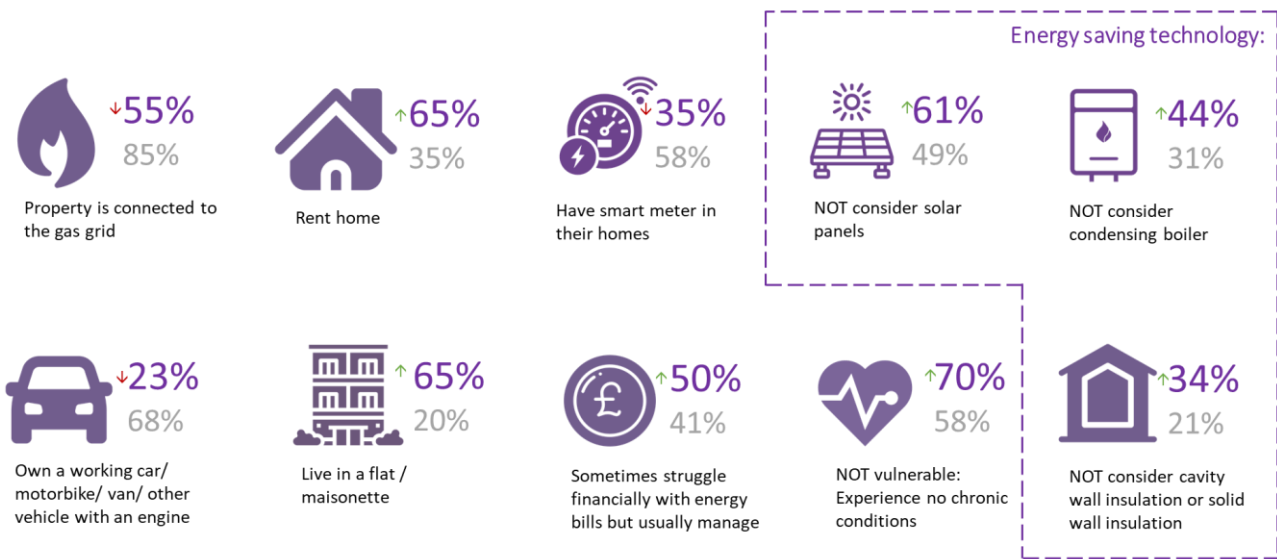
➤ Less likely to own a car and reliant on public transport network.

➤ Less likely than average to be connected to the gas grid

Segment 5: Lone Climbers – Demographics



Segment 5: Lone Climbers – Situational

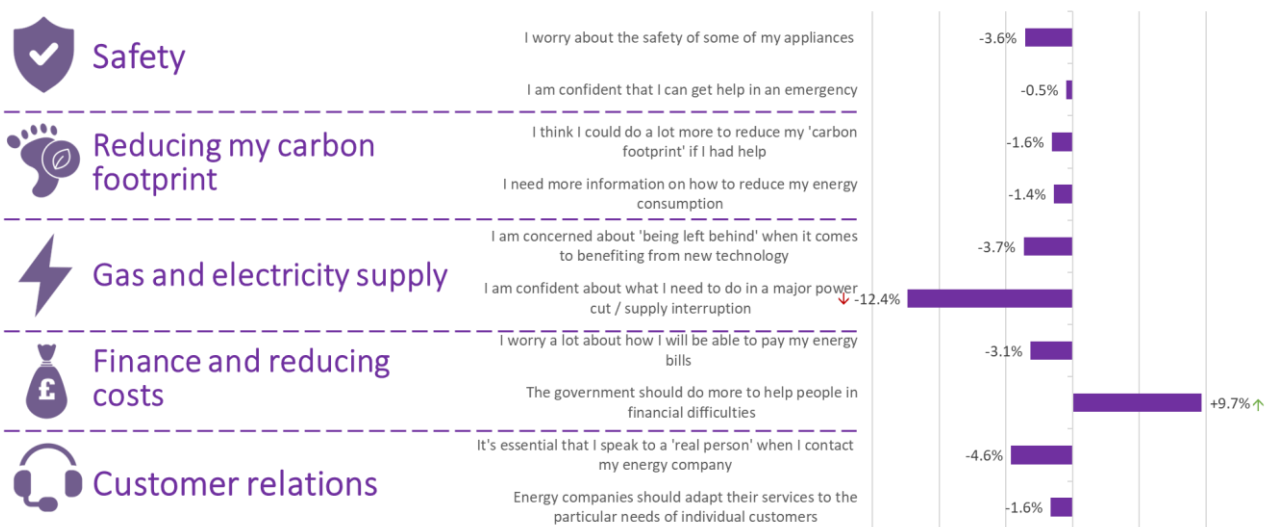


■ Total sample ■ Lone Climbers

Segment 5: Lone Climbers – Attitudes

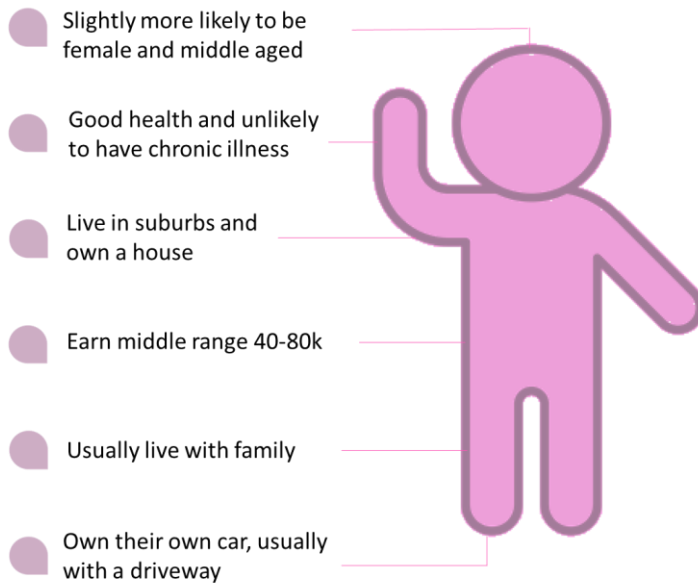


This chart shows the difference in attitudinal scores for the 'Lone Climbers' segment in comparison with the baseline of the total sample (%).



2.7 Segment 6: Getting on with life

Segment 6: Getting on with life – Characteristics



➤ They have started implementing many environmental technologies if affordable, or at least considering them.

➤ Are most likely to have a supervisory or management role.

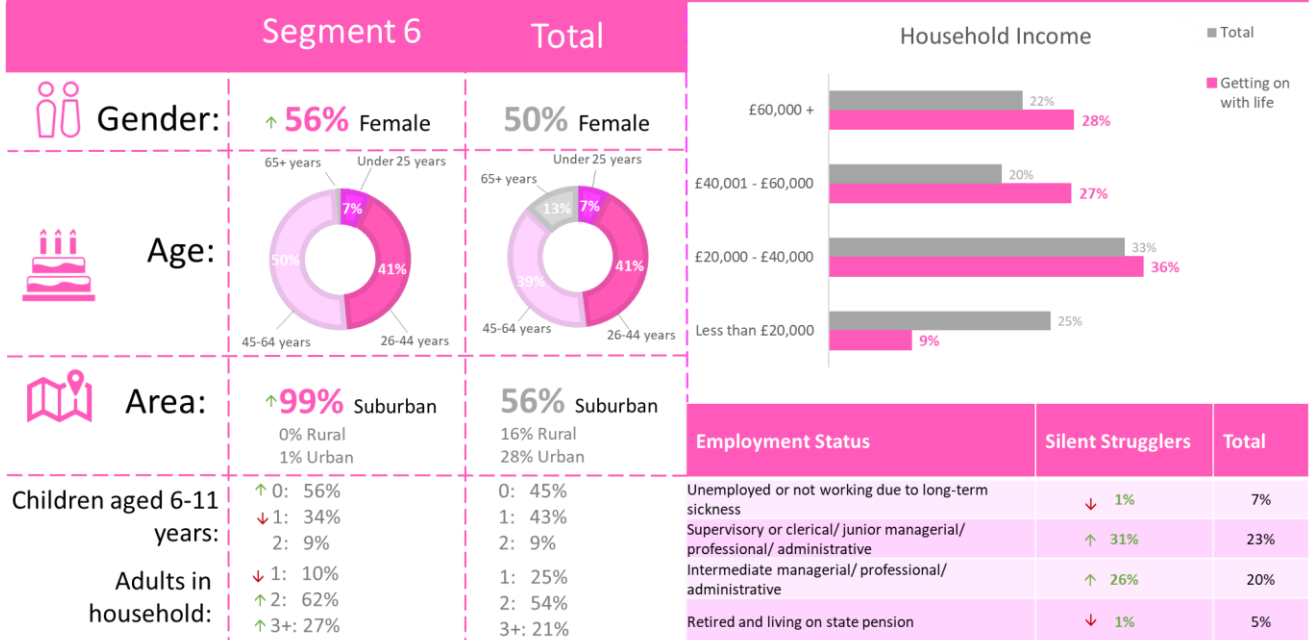
➤ Usually don't struggle to pay for bills but think things have become more difficult.

➤ Have average levels of confidence with knowing what to do in a power cut.

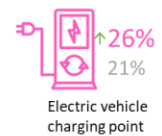
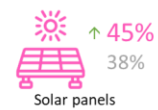
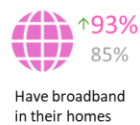
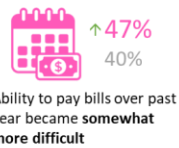
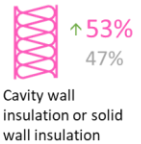
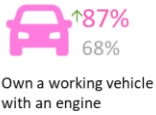
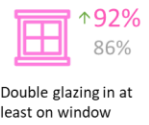
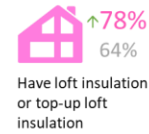
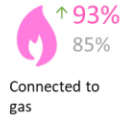
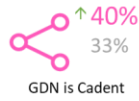
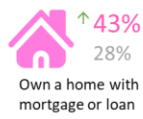
➤ Are well connected on the internet and smart phones

➤ They are not well represented on the PSR.

Segment 6: Getting on with life – Demographics



Segment 6: Getting on with life – Situational



■ Total sample ■ Getting on with life

Segment 6: Getting on with life – Attitudes



This chart shows the difference in attitudinal scores for the 'Getting on with life' segment in comparison with the baseline of the total sample (%).

Safety

I worry about the safety of some of my appliances

-5.7%

I am confident that I can get help in an emergency

-4.9%

Reducing my carbon footprint

I think I could do a lot more to reduce my 'carbon footprint' if I had help

-7.3%

I need more information on how to reduce my energy consumption

-7.9%

Gas and electricity supply

I am concerned about 'being left behind' when it comes to benefiting from new technology

-4.2%

I am confident about what I need to do in a major power cut / supply interruption

-3.2%

Finance and reducing costs

I worry a lot about how I will be able to pay my energy bills

-5.0%

The government should do more to help people in financial difficulties

-1.3%

Customer relations

It's essential that I speak to a 'real person' when I contact my energy company

-0.4%

Energy companies should adapt their services to the particular needs of individual customers

-4.4%

2.8 Segment 7: Don't forget me

Segment 7: Don't Forget Me – Characteristics



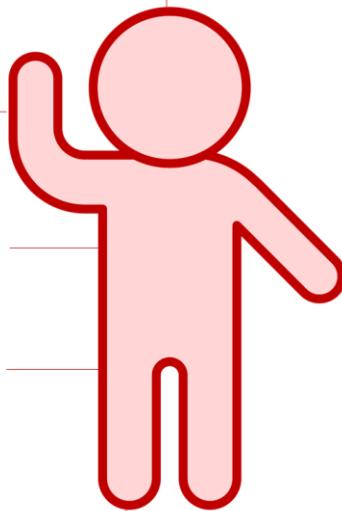
Most likely to be younger females.

High proportion are renting and living on their own or with a very young dependent child

Low-income earners, possibly starting out in their careers.

Often struggle to pay energy bills

In the D/E segment.



➤ They feel it has become a lot more difficult recently and will sometimes take measures like skipping meals or not paying bills.

➤ Less likely to have professional jobs, and more likely to be semi or unskilled worker, a carer or housewife.

➤ Average amount of this segment are on the PSR

➤ There is a higher proportion chronic mental health conditions within this group.

➤ This segment likely needs more support as they lack confidence an emergency and have increased worry around finances.

Segment 7: Don't Forget Me – Demographics



Segment 1

Total

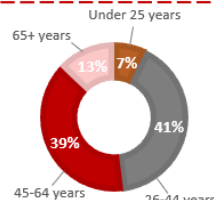
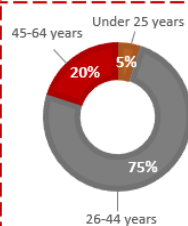


Gender: ↑ **75%** Female

50% Female



Age:



SEG:

↓ A/B: 12%
↓ C1/C2: 37%
↑ D/E: **51%**

A/B: 31%
C1/C2: 43%
D/E: 26%

Adults in household:

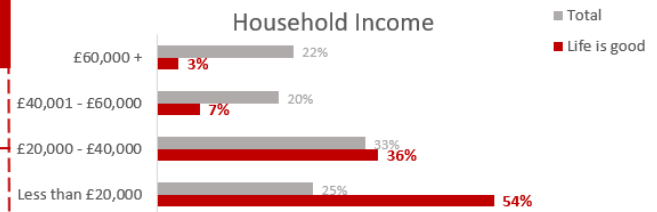
↑ 1: **100%**
↓ 2: 0%
↓ 3+: 0%

1: 25%
2: 54%
3+: 21%

Children aged under 18 in household:

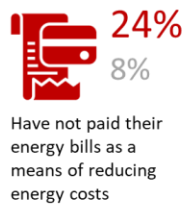
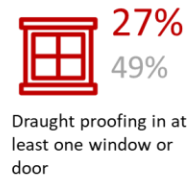
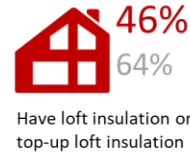
↓ 0: 2%
↑ 1: **53%**
↑ 2: **29%**
↑ 3+: **17%**

0: 60%
1: 16%
2: 18%
3+: 6%



Employment Status	Life is good	Total
Semi or unskilled manual worker	24%	11%
Skilled manual worker	14%	14%
Supervisory or clerical/ junior managerial/ professional/ administrative	22%	23%
Intermediate managerial/ professional/ administrative	8%	20%
Higher managerial/ professional/ administrative	4%	8%
Student	0%	0%
Casual worker - not in permanent employment	2%	0%
Housewife/ Homemaker	6%	1%
Retired and living on state pension	0%	5%
Retired and not living on state pension	0%	7%
Unemployed/not working due to long-term sickness	8%	7%
Full-time carer of other household member	10%	2%

Segment 7: Don't Forget Me – Situational

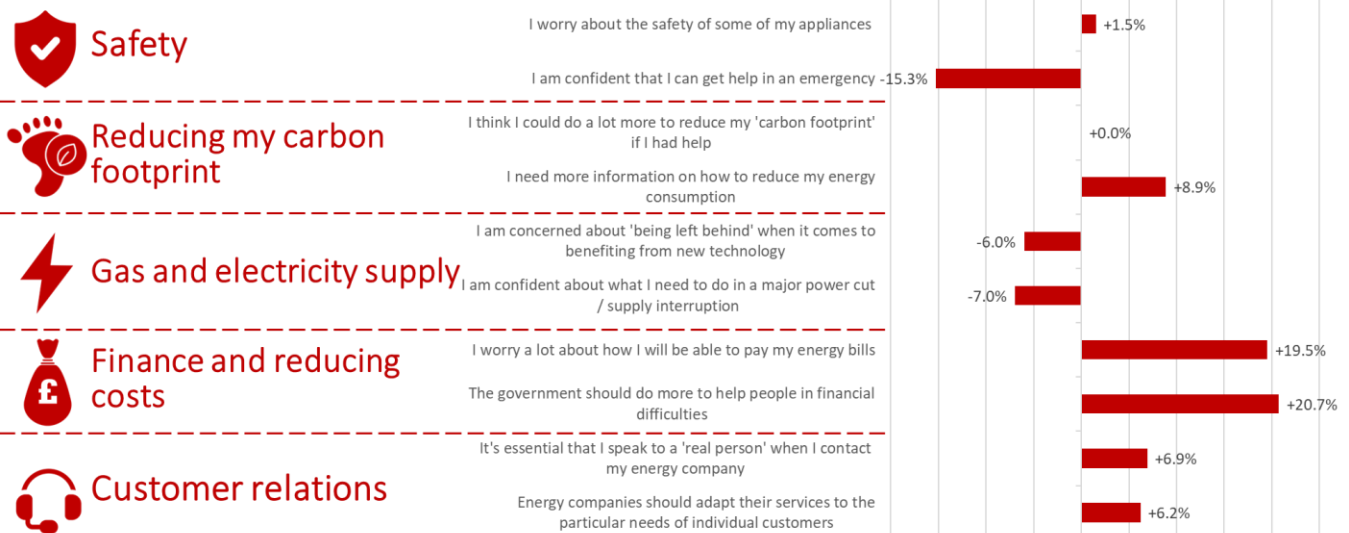


■ Total sample ■ Don't forget me

Segment 7: Don't Forget Me – Attitudes



This chart shows the difference in attitudinal scores for the 'Don't Forget Me' segment in comparison with the baseline of the total sample (%).



3 Customer segment identification

The segments themselves are useful to understand customers from a strategic planning standpoint. They identify specific groups of people with differing challenges. This does not always translate into highly different strategies when addressing the five identified lenses, but it does lend itself to a more bespoke and targeted approach, which will ultimately better meet and address the needs of vulnerable customers.

There are two key ways that the segments can be used going forward:

- Identifying a customer’s segment via future surveys
- Tagging the internal customer database with segment membership

Both methods require the application of a mathematical model, which can predict membership given known criteria to a certain level of accuracy. The latter part of this is key – if we know a lot about a customer, we have a greater chance of predicting the correct segment, however, this requires more survey time or a larger number of known criteria via the internal DNO database. In most cases, a model which exceeds 70-80% overall is acceptable.

3.1 Model to predict segment membership via future surveys

To test the stability of the segments, we estimated a predictive model based on the following variables can predict membership with 87% accuracy overall. This is considered high and therefore robust⁵.

Figure 3.1 Key discriminating attributes for model 1

Question	Demographic
S15	Household income
S14a	Type of accommodation (flat, house, other)
S12a	Single parent house
S16a	Struggling financially
S2	Age
S6	Area lives
S10	Motor vehicle ownership
S6/S9	Off-gas / rural

This model has the potential to be developed into a tool that could be applied to future surveys to establish segment membership. For example, if a survey was focussed entirely on the lens of ‘technology’, using the findings from the survey alongside segment membership will give an in-depth understanding of how each segment reacts to ‘technology’. This then feeds into the targeted strategy for addressing technology alongside vulnerability. The model as it stands it will need to be subjected to further testing and development before being made more widely available.

A survey which collects these attributes can predict segment membership before the respondent enters into the main survey, which means respondents can be funnelled into specific parts of a survey. This makes for a targeted and efficient survey where DNOs can increase the depth of understanding for specific groups.

The model can also be used as part of recruitment. For example, if a survey or focus group needed to target one segment, a screener survey could be used, and respondents allocated whilst they are being interviewed. Anyone allocated in segments not required could be filtered out at an early stage.

This model should not be considered final, but an example of what is possible. These attributes are some of the best discriminators of the segments, but there are others which should be considered for a final developed model.

Of the 7 segments, some are easier to predict and have an extremely high success rate, whereas others are more difficult. Difficulty in prediction often occurs in segments which are less discriminating, where members may ‘dip’ into other segments.

⁵ ‘A general rule of thumb when conceptualizing discriminant validity is that values starting at $r = 0.85$ are considered high’, Nikolopoulou, June 2023, What Is Discriminant Validity? | Definition & Example, <https://www.scribbr.com/methodology/discriminant-validity>

Often this is seen in those who are young to middle-aged. Respondents can move into different segments as they age and/or their situation changes. Figure 3.2 shows the accuracy of the model developed across each segment. This is based on deriving linear discriminant functions for each segment and then applying these across the whole sample to ‘predict’ membership. It’s therefore a test of how efficiently we can classify the respondents back to their assigned membership and an indication of how convincingly a classification algorithm could be used to classify respondents in future surveys.

Figure 3.2 Accuracy across individual segments

Segment	Correct prediction	Predicted membership						
		<i>Life is good</i>	<i>Silent strugglers</i>	<i>Quiet and comfortable</i>	<i>Conscious and active</i>	<i>Lone climbers</i>	<i>Getting on with life</i>	<i>Don't forget me</i>
Life is good	92%	92%	2%	0%	0%	4%	1%	0%
Silent strugglers	97%	0%	97%	0%	1%	0%	1%	1%
Quiet and comfortable	70%	1%	1%	70%	7%	3%	19%	0%
Conscious and active	81%	4%	4%	1%	80%	3%	10%	0%
Lone climbers	56%	7%	1%	0%	17%	56%	19%	0%
Getting on with life	95%	0%	0%	1%	1%	4%	94%	0%
Don't forget me	98%	0%	0%	0%	0%	2%	0%	98%

Of these, the greatest challenge is the Lone Climbers segment, where some were allocated to ‘Conscious and Active’ and ‘Getting on with Life’. This is typically a young segment, possibly starting in their careers and there is possibly more variability within this group compared to the other segments.

3.2 Tagging internal DNO databases with segment membership

It is possible to ‘tag’ customers on internal DNO databases (e.g., a PSR database) with segment membership; however, this requires certain attributes to be known about the customer. The model will predict a good level of accuracy if there is some known information about the customer. The model derived above serves as a good starting point for what would be required on the database.

4 DNO initiatives

A series of options were developed based on the findings from the group discussions to represent different ways that DNOs could assist them. These were additional to what would typically be expected from a DNO for those on the PSR, to explore how a DNO could realistically extend their help to customers. Each 'lens' had five corresponding options which respondents were asked to rank in terms of their usefulness to themselves and their household. On the whole, there were relatively few significant differences between segments with regard to the ways these options were ranked⁶. From an operational perspective, this is quite useful, in that it suggests that initiatives of this type have broadly similar appeal across all vulnerable groups.

Figure 4.1 Safety Initiatives (Ranked First)

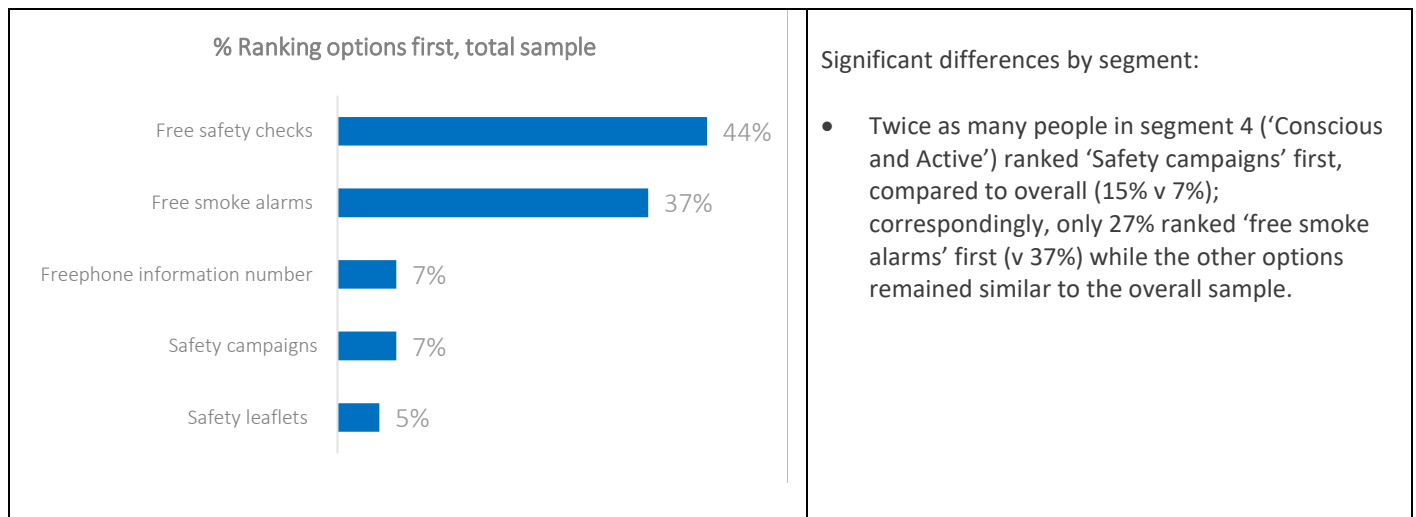
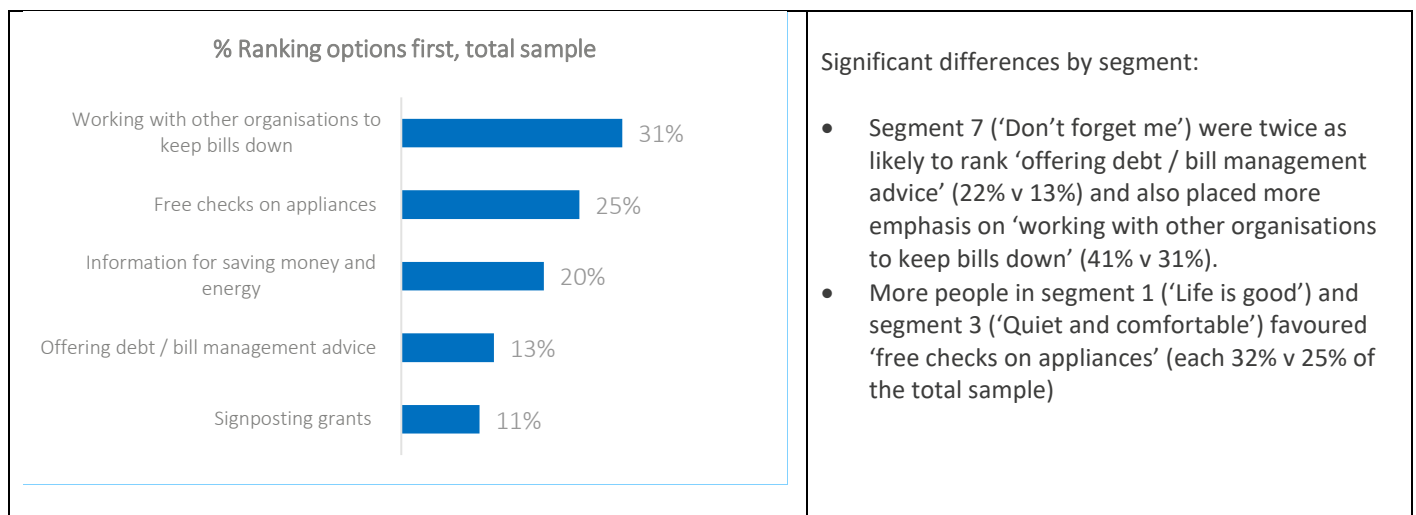


Figure 4.2 Finance and Reducing Costs (Ranked First)



⁶ See Figures 7.10 and 7.11 in the appendices for the ranking of all initiatives by each segment (top rank and top 2 ranks).

Figure 4.3 Gas and Electricity Supply (Ranked First)

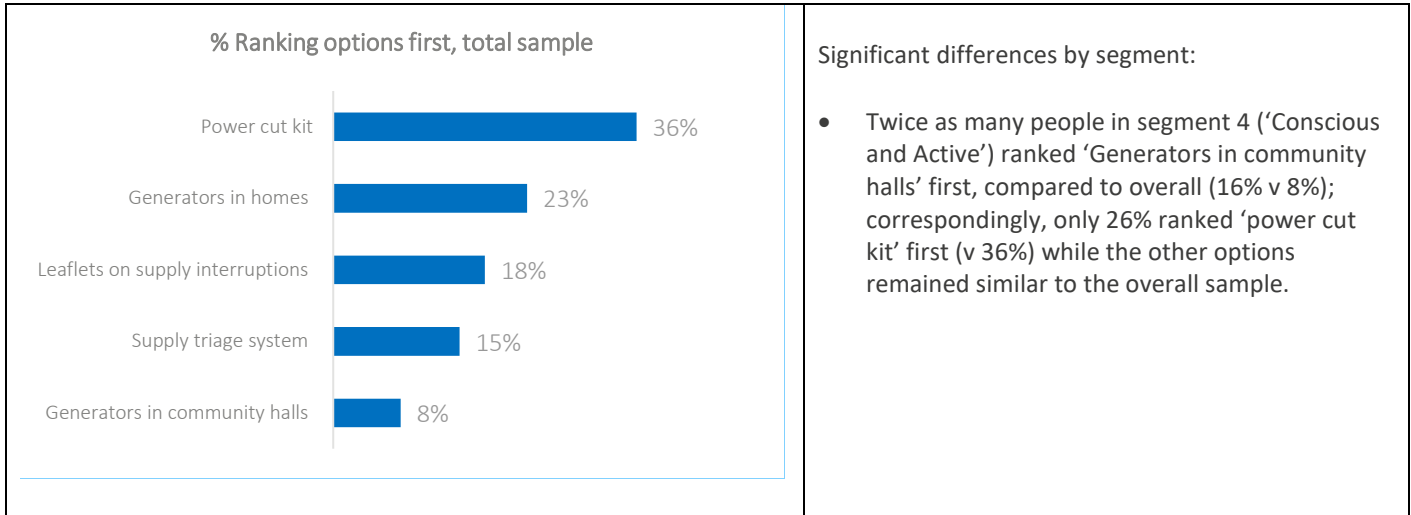


Figure 4.4 Reducing My Carbon Footprint (Ranked First)

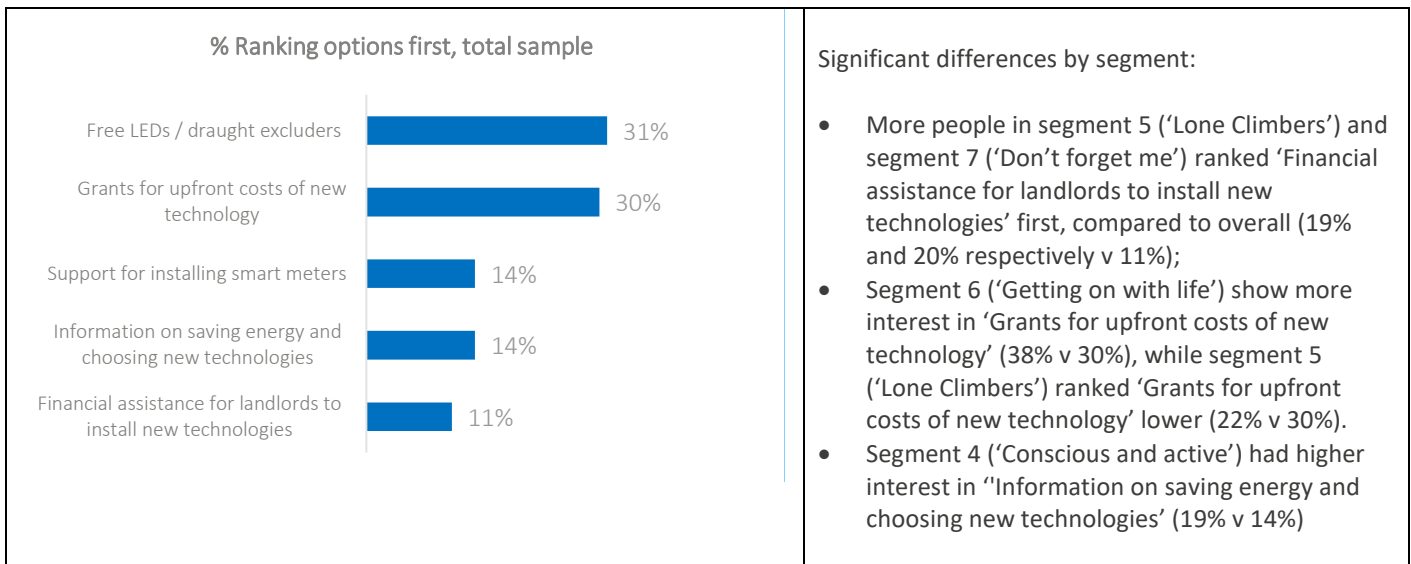
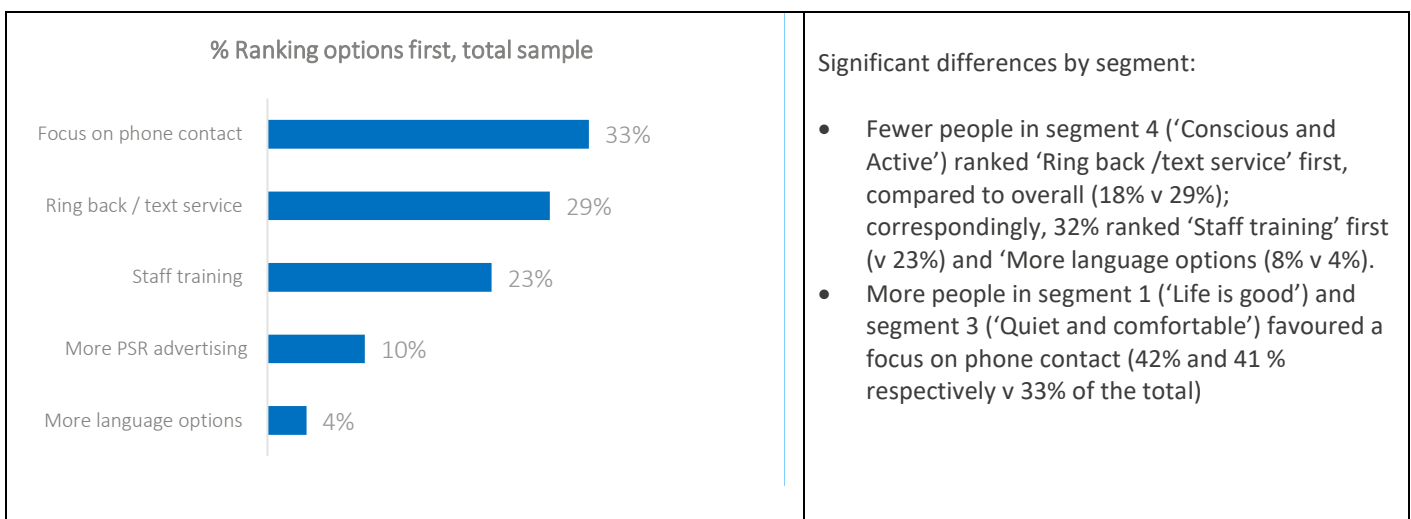


Figure 4.5 Customer Relations (Ranked First)



5 Customer segment summary

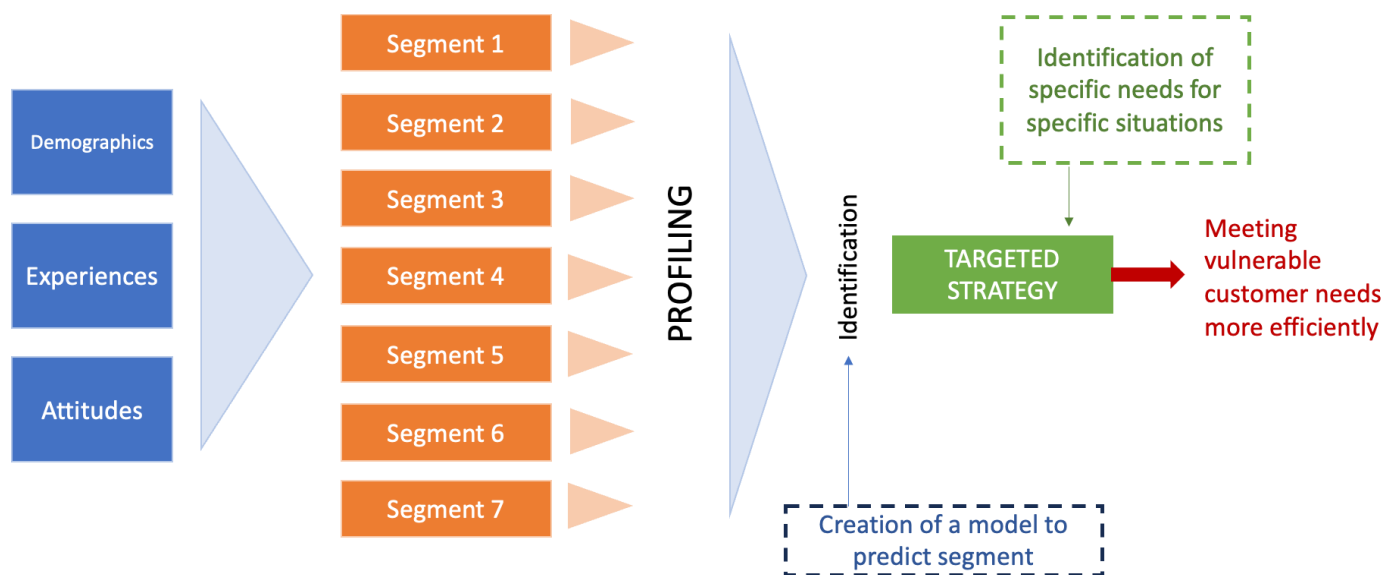
5.1 Summary

The purpose of creating segments is to understand what types of vulnerability potentially exist across different lenses. The definition of vulnerability is a complex one and therefore a method of understanding what demographic segments exist concerning vulnerability is key to best meeting their needs.

The diagram below summarises the segmentation journey that has been undertaken. Customer demographics, situations and attitudes were used to define 7 key segments in the sample. These segments were profiled across all questions on the survey and pen portraits were developed. A model was developed to check whether the segments could be predicted on new samples and to a high level of accuracy.

As an additional potential benefit of this research, we also asked each respondent to rank several potentially new actions that DNOs could take in the case of the 5 lenses. This lends itself to the creation of different strategies for servicing the needs of different customer vulnerabilities in different situations. The result of this is that DNOs can better support their customers.

Figure 5.1 The segmentation process and how it relates to a more targeted approach



5.2 Next Steps

This research has produced distinct and readily identifiable segments that will assist DNOs in their aim of shaping their services to match the characteristics and priorities of their customers more precisely. There is scope to take these learnings further with the following:

1. Qualitative research – all the segments have some level of vulnerability, depending on the ‘lens’ through which they are viewed by an energy distributor, but groups of particular need appear to be ‘Silent strugglers’, ‘Lone climbers’ and ‘Don’t forget me’, which between them account for a third of all customers. If further qualitative research was conducted, that would allow us to understand the sorts of support mechanisms that could be put in place, and how they would particularly help those segments most in need.
2. Quantitative research – a large survey with a nationally representative sample of energy customers, potentially with over-sampling on key groups to enable more rigorous statistical analysis, will allow a more comprehensive exploration of their needs and vulnerabilities. We suggest that a survey of around 10,000 customers UK-wide could be conducted, using a mix of different methods to contact respondents (online, telephone and potentially face-to-face). This would give additional weight to the results and allow the analysis to drill down into particular segments more, giving further understanding on which customers fit into which key segments and how they can be better served by DNOs and GDNs.
3. Application to energy distributors’ customer databases – an opportunity to ‘tag’ customer records with this segmentation to observe how it compares and contrasts to current PSR and other categorisations of customers.

6 Implications for DNOs and GDNs

The results of this research can be used to build on the findings from the best practice guide, and further develop suggestions for how DNOs and GDNs should be engaging with their customers. It is a ready-made tool for DNOs and GDNs to use, and the principles of an engagement strategy laid out in the report can be followed, using results from this research to add specifics on how it can be implemented.

The guide explains the following steps, which can be used alongside findings from this research to develop individual strategies.

1. **Define and understand your audience** – these could be the seven vulnerability segments laid out in Section 2
2. **Plan your engagement** – set objectives for what you want to achieve
3. **Pilot engagement initiatives with a small audience** to ensure the topics and methods are accessible and understandable for customers

6.1 Measuring success

Identifying segments is only the start of the process; the segments are only useful if they can be used to further existing knowledge and implement tailored actions as a result. Each piece of research that uses the segments as part of the analysis can be used to deepen understanding about the segments and therefore how best they can be supported by the networks. This can be achieved by either tagging databases before engagement (e.g. customer and stakeholder databases) or asking the segmentation questions on each piece of engagement so that segment can be determined during analysis. Learnings related to each segment should be collated in a standalone evidence library, so that segment knowledge can be held centrally, knowledge shared easily, and evidence built upon each time.

With regards to particular initiatives, it may be even more important to consider the likely cumulative effect of multiple lenses on a particular issue. Where knowledge is limited, it can be worth conducting some small-scale qualitative research to shed light on any potential inhibiting factors or challenges for those living with those composite vulnerability factors.

An effective way to measure impact is to analyse the social return on investments made. Most LIV customers want financial support systems or information as a priority. Where networks can show a ‘pounds and pence’ impact, or information that ultimately leads to financial improvements for the key LIV segments, this will prove beneficial to customers in financial terms. It can be communicated back to customers and their key stakeholders, supporting future engagement, and building deeper customer relationships.

Partners that support customers in vulnerable situations are critical to engagement mechanisms and delivery of support to those most in need (and often hardest to reach). Networks should work with these partners to set a timeframe in which they would expect to see improvements, and the nature of change expected. Reviewing impact regularly with partners will indicate the extent to which the end customer is benefiting from improved LIV engagement and delivery of support. They can also provide feedback on enduring areas of frustration, enabling networks to tweak their delivery strategies further.

6.2 How best to engage with specific types of customers

Figure 6.1 draws out the most prominent engagement needs for each of the segments, based on the information gathered in this study. In this and the following tables, we have ordered the segments in terms of most to least vulnerable, based on the broad characteristics of group.

Figure 6.1 Engagement needs by segment

<i>Don't forget me</i>	<i>Silent strugglers</i>	<i>Lone climbers</i>	<i>Quiet and comfortable</i>	<i>Conscious and active</i>	<i>Getting on with life</i>	<i>Life is good</i>
How to use less energy within their home	How to use less energy within their home	What to do in the event of a supply interruption	How to use less energy within their home	How to use less energy within their home	How to install LCT in their home	How to install LCT in their home
How to receive help with energy bills	Ways to lower own carbon footprint	Ways to liaise with landlord in Private Rental Sector	Ways to lower own carbon footprint	Ways to lower own carbon footprint	Ways to finance LCT installations	
	How to receive help with energy bills		Which LCTs are most appropriate for them	Ensuring appliances within the home are safe		

As mentioned in previous reports, but further supported by the findings here, any communications or marketing plan needs to consider who their target segments are, and tailor accordingly. Consider accessibility needs that may be more likely encountered in particular segments e.g., hearing impairment in the elderly, digital disengagement amongst those with certain learning difficulties, and therefore the mix of appropriate media for each. It may be necessary to add on small scale engagement in novel ways to reach key but small in number customer groups that would otherwise be excluded from media planning.

Information provision is an important area where networks can provide support to LIV customers. The networks' role is limited in terms of how far they can go providing information but is likely that they are well placed to know what the pathway is that needs to be followed. Customers are likely to benefit if networks can sign post contact information and funding support for customers for various (all) touch points along the way, rather than simply information about the first step on the pathway.

Figure 6.2 Communicating to segments

<i>Don't forget me</i>	<i>Silent strugglers</i>	<i>Lone climbers</i>	<i>Quiet and comfortable</i>	<i>Conscious and active</i>	<i>Getting on with life</i>	<i>Life is good</i>
Leaflets, letters, TV and radio adverts	Leaflets, letters, TV and radio adverts	Online adverts	Online adverts	Online adverts	Online adverts	Online adverts
Bill inserts	Bill inserts	Social media	Social media	Social media	Social media	Social media
Online adverts	Phone calls, or face-to-face support	Leaflets, letters, TV and radio adverts	Community events	Phone calls, or face-to-face support		Leaflets, letters, TV and radio adverts
Social media	Community events					
Community events						

The use of segmentation to express customer needs should not draw attention away from the fact that some LIV customers often have highly individualised circumstances and this impacts their lives in unique ways, suggesting that there will be a few cases where an individual engagement plan is required. Of course, this is not possible for every LIV customer, particularly as the proportion of LIV customers is currently so high, however there are some customers at the extremes of LIV inhibiting factors, who simply fit outside the segments identified and require more than standard support. It is likely that not all these customers are identified by networks, however where they are known to the networks e.g., regular calls to the customer service centre, dedicated case workers that support these types of customers would ensure that the networks can deliver everything in their power to support that customer via the most appropriate channels and make referrals to partner agencies for additional support.

6.3 Which initiatives appealed most?

Engagement that allows for two-way dialogue tends to build deeper relationships, therefore wherever possible, providing the opportunity for customers to communicate directly with the networks is preferable. Feeding back on actions taken as a result of any previous engagement, such as the social return of investment analysis, closes the feedback circle, ensuring that customers feel their feedback is valued and actioned to provide improvements for customers like themselves, making them more likely to engage in future.

The initiatives that were tested in the research and appealed most to each segment are summarised in Figure 6.3. These are items that were ranked first by 25% or more of customers in segment. In some areas, such as safety, certain initiatives have almost universal appeal, for example 'free safety checks' are popular across all segments, followed by 'free smoke alarms'. In other areas, such as finance / reducing costs and reducing carbon footprint, 'Working with other organisations to keep bills down' and 'Grants for upfront costs of new technology' generally feature more among the more vulnerable groups ('Silent strugglers', 'Don't forget me').

Figure 6.3 Leading engagement initiatives by segment

	<i>Don't forget me</i>	<i>Silent strugglers</i>	<i>Lone climbers</i>	<i>Quiet and comfortable</i>	<i>Conscious and active</i>	<i>Getting on with life</i>	<i>Life is good</i>
SAFETY INITIATIVES	Free safety checks	Free smoke alarms	Free safety checks	Free safety checks	Free safety checks	Free safety checks	Free safety checks
	Free smoke alarms	Free safety checks	Free smoke alarms	Free smoke alarms	Free smoke alarms	Free smoke alarms	Free smoke alarms
FINANCE AND REDUCING COSTS	Working with other organisations to keep bills down	Working with other organisations to keep bills down	Working with other organisations to keep bills down	Free checks on appliances	Free checks on appliances	Working with other organisations to keep bills down	Working with other organisations to keep bills down
			Free checks on appliances			Free checks on appliances	Free checks on appliances
GAS AND ELECTRICITY SUPPLY	Power cut kit	Power cut kit	Power cut kit	Power cut kit	Generators in homes	Power cut kit	Power cut kit
	Generators in homes				Power cut kit		
REDUCING MY CARBON FOOTPRINT	Grants for upfront costs of new technology	Grants for upfront costs of new technology	Free LEDs / draught excluders	Free LEDs / draught excluders	Grants for upfront costs of new technology	Grants for upfront costs of new technology	Free LEDs / draught excluders
	Free LEDs / draught excluders	Free LEDs / draught excluders		Grants for upfront costs of new technology		Free LEDs / draught excluders	
CUSTOMER RELATIONS	Ring back / text service	Ring back / text service	Focus on phone contact	Focus on phone contact	Staff training	Ring back / text service	Focus on phone contact
	Focus on phone contact	Focus on phone contact	Ring back / text service	Ring back / text service	Focus on phone contact	Focus on phone contact	

6.4 Recommendations for how DNOs can adapt their current processes to adopt outputs from the best practice guide

Our recommendations from this research develop the learnings from the Best Practice Guide to build an engagement strategy most suited to customers in individual circumstances. Using the seven segments alongside the engagement topics, methods and initiatives laid out in Figures 6.1-6.3, multiple engagement strategies can be developed. Once the strategy is planned, and tested the following steps can be followed, as laid out in the Best Practice Guide.

6.4.1 General objectives

Energy distributors need to ensure that their services are accessible for all customers within the relevant groups. This may involve multiple channels and providing additional support for those that need it. In many cases it will also involve partnerships with other organisations (local authorities, charities, community groups, etc).

It will be critical to keep information up to date; the current cost of living crisis is a fast-changing situation, and for those with financial vulnerabilities their situation can deteriorate quickly e.g., with a rent rise, increased mortgage rate, unexpected maintenance bill etc. Customers may not have been vulnerable in the latest engagement but could be by the next engagement opportunity. Therefore, as mentioned adding to the segmentation information will be critical to keeping it useful and current, and regular assessment of the size of the segments in the customer base will ensure the networks can make informed decisions about engagement and support delivery.





6.4.2 Addressing the needs of the most vulnerable (Segments with high proportions of low income / vulnerable)

The segments that include the highest proportion of low income / vulnerable customers are:

- 'Don't forget me' (5% of all customers)
- 'Silent strugglers' (12% of all customers)
- 'Lone climbers' (13% of customers)

To these we can add 'Quiet and comfortable' (13% of all customers), who have fewer financial challenges but are more likely to be suffering chronic health conditions and will have generally low incomers due to many being pensioners.

Below we recommend the approach that energy distributors should take for each vulnerable group.

<p>DON'T FORGET ME (5%)</p> 	<p>This group are the most financially challenged, comprising single mothers on low incomes and mostly renting. They feel that they need support in a number of areas. They highly value any financial assistance available and advice on how to reduce energy costs. They are receptive to a wide range of communication channels, but the most prominent are conventional paper-based media. In particular, they value personal contact through ring / test back and phone contact.</p> <p>It should be the objective of energy distributors to use these to the establish as much contact as possible with customers in this very vulnerable group. The message from energy distributors should be 'we are here to help' and 'we are on your side'. Help can take the form not only of providing advice and access to information, but also actively providing practical assistance, such as connecting them with appropriate organisations who can help financially and providing targeted assistance, such as free safety checks and free / subsidised low carbon technology.</p>
<p>SILENT STRUGGLERS (12%)</p> 	<p>This next most vulnerable group is similar to 'Don't forget me' but encompasses a wider range of customers who are characterised by having low incomes and worrying a lot about how to pay their bills. Their focus in particular is on how to reduce energy costs and are open to advice on how to achieve this. However, they also see the objective of lowering their carbon footprint as being potentially allied to this – that is, lower carbon is seen as both good for the environment and as a method for reducing bills; the capital costs associated with LCTs will be the primary barrier here. They are receptive to a range of communication channels, but phone/face-to-face contact features strongly.</p> <p>Energy distributors can approach this group in much the same way as 'Don't forget me' but should ensure that phone contact is available as a main channel of support. The message from energy distributors here can be: 'Save money and help the environment', as they are open to messages related to saving energy as a means to achieving environmental goals, provided it is accompanied by an assurance that it will lead to cost savings. In this respect, financial help in acquiring LCTs will be particularly important, either directly from energy distributors or through assistance in obtaining grants.</p>
<p>LONE CLIMBERS (13%)</p> 	<p>This vulnerable group are predominantly male, living in rented accommodation and just about able to manage their bills. A high proportion are members of an ethnic minority, and 1 in 5 are unemployed. The main challenges for this group are a comparatively low level of confidence when dealing with energy matters, including what to do in a power cut.</p> <p>The main objective for energy distributors should be to encourage this group to know they are available and easy to contact when customers need them. The message from energy distributors should be 'we are here when you need us'. Online / social media are strong channels of communication for this group. Like the other groups above, they value personal contact through ring / test back and phone contact.</p>
<p>QUIET AND COMFORTABLE (13%)</p> 	<p>The needs of this segment are focused on personal circumstances, particularly related to health and the challenges of old age. They are confident in their approach to energy-related issues and many will already be familiar with how to engage with their DNO or GDN (almost 40% say that they or a household member are on the PSR).</p> <p>Although generally older customers, this segment are receptive to online and social media, and while they see less urgency in reducing their carbon footprint, this is mainly because many have already adopted some form of LCT (solar panels, etc). The message from energy distributors should be 'you can rely on us' – there is less need for proactive contact for this segment, but they need to trust that the assistance and information is there when they need it.</p>

6.4.3 Other households

The picture that emerges from this research is that about a third of households ('Don't forget me', 'Silent strugglers' and 'lone climbers' = 30%) can be classed as 'most vulnerable', primarily for financial reasons. This rises to more than two fifths of households when the older customers with health conditions are added in ('Quiet and comfortable' = 13%).

The remaining segments amount to over half the household population, and while these will include some truly vulnerable customers, they are largely free from financial struggles or other concerns relating to energy. This is certainly the case for 'Life is good' and 'Getting on with life'. However, the 'Conscious and active' (=15% of households) do experience a form of 'vulnerability' in being more much concerned than most about (a) the safety of their appliances and (b) not doing enough to reduce their carbon footprint. There is therefore scope for energy distributors to ensure that the appropriate advice is made available to these households (primarily through online and social media), backed with offers to carry out free safety checks and to assist in the adoption of LCTs.

7 Appendix

7.1 Survey 'Soft Launch'

As part of the quantitative element, the survey was 'soft launched'. This is the process of fielding the survey and then releasing the data for inspection after approximately 10% of the full sample has been acquired. In this instance, the soft launch data included 110 respondents.

A soft launch allows the opportunity to examine both data quality and any emerging patterns seen. At this point, it is not unusual to make some adjustments to the survey instrument to improve the outcome.

7.1.1 Data quality

As with the main survey, the quality of the data is checked. In the soft launch data, quality checks affecting the patterns emerging in question 5 (attitudes to the 5 lenses), the ranking exercise (actions DNOs/GDNs could take), as well as demographic variation and inclusion, were a key focus. Question 5 consisted of 10 attitudinal statements relating to safety, finance, technology, supply and relations. Checks included:

- Assessment of the variation in responses across the 10 statements
 - Were the statements capturing the 5 lenses?
 - Were respondents reading the 10 statements?
- Logic testing
 - Did the respondents appear to be answering logically?
- Emerging segments
 - Do the attitudes appear to be differentiating enough amongst different groups of respondents?

7.1.2 Preliminary findings

The above 3 points were addressed firstly, using investigative descriptive analysis, secondly, by assessing the pattern of responses and thirdly, by creating a 'mock' segmentation.

In the first instance, the use of means and standard deviations showed consistent variation in scoring across the 10 attitudes as well as the ranking question. The means varied, as did the spread (standard deviation) of scores given across the scale. Although it was impossible at this interim stage to predict how the full sample would behave, this confirmed that the 10 attitudes included were capable, of identifying meaningful differences across segments. The proportion ranked first across the action questions (column title 'Rank 1') shows considerable variation, indicating that it would be a useful measure when estimating segments from the main survey data set.

Figure 7.1 Descriptive Analysis across the attitudes (q5) and ranks of potential actions

Attitudes	Finance	Technology/ LCT	Safety	Supply	Customer Relations	mean	sample	SD	Top 3 box
I worry about the safety of some of my appliances						4.54	106	2.81	19%
I am confident that I can get help in an emergency						7.26	107	2.34	49%
I think I could do a lot more to reduce my 'carbon footprint' if I had help						6.46	106	2.35	37%
I need more information on how to reduce my energy consumption						6.16	107	2.64	36%
I am concerned about 'being left behind' when it comes to benefiting from new technology						5.10	107	2.88	24%
I am confident about what I need to do in a major power cut / supply interruption						6.82	108	2.46	43%
I worry a lot about how I will be able to pay my energy bills						5.78	106	2.83	32%
The government should do more to help people in financial difficulties						7.46	107	2.18	54%
It's essential that I speak to a 'real person' when I contact my energy company						7.25	106	2.40	50%
Energy companies should adapt their services to the particular needs of individual customers						7.18	107	1.82	41%
Rank of actions						mean	sample	SD	Rank 1
Free safety checks (boiler/electrics) for those customers in vulnerable circumstances						2.02	110	1.09	40%
Leaflets teaching customers how to reduce potential safety risks in their homes						3.65	110	1.30	10%
Electricity and Gas safety campaigns in the local community, schools and on social media						3.43	110	1.27	10%
Free fitting and checking of smoke alarms and Carbon Monoxide detectors						2.35	110	1.31	32%
Free phone number to get information on potential safety issues in the home						3.55	110	1.24	8%
Giving access to trained advisors on how to best meet your costs of living						3.52	110	1.24	5%
Working with other organisations such as Age UK and National Energy Action to keep bills down						2.63	110	1.38	29%
Signposting customers to support from other parties with grants for new low-carbon technology						3.27	110	1.39	13%
Free efficiency checks (boiler/electrics) for those customers in vulnerable circumstances						2.89	110	1.51	28%
Working with landlords and tenants to identify what help is available when paying bills and heating your house efficiently						2.69	110	1.35	25%
Free light bulb changing services to LEDs / Free draught excluders						2.58	110	1.40	28%
Grants for paying the upfront cost for new low-carbon technology (e.g., new boilers, heat pumps)						2.46	110	1.28	32%
Support for landlords/ housing/tenants' associations to install low carbon technologies / energy efficiency measures in their properties						3.75	110	1.36	8%
Information packs on reducing energy/gas usage and the benefits/downsides of low-carbon technologies						2.94	110	1.25	17%
One-to-one support to install smart meters in challenging properties (high rise flats/multiple occupancy homes)						3.27	110	1.40	15%
Informative pamphlets that can be stuck to fridges or notice boards on what to do in case of a power cut/gas supply interruption						3.44	110	1.51	16%
Putting generators in local community halls to act as a community hub in case of a power cut						3.37	110	1.25	10%
Supplying customers in vulnerable circumstances with power cut kits containing: torches, batteries, candles, emergency heat packs, blankets and heaters						2.35	110	1.30	33%
Implementation of a power cut triage system, where vulnerable customers are prioritised in case of a power cut						2.7	110	1.32	23%
Generators supplied to the homes of those reliant on an energy supply during power cuts						3.14	110	1.40	18%
A focus on offline (over the phone) contact to benefit those without internet connection						2.48	110	1.34	31%
Better advertising of the Priority Services Register and information on who is eligible and how to register						3.36	110	1.26	12%
Taking account of customers' personal circumstances through the implementation of a ring back service and a text service						2.47	110	1.25	25%
Greater training for staff to support customers with mental health conditions						2.84	110	1.37	24%
More language options available during contact						3.85	110	1.36	8%

In the second instance, patterns of answering across the 10 attitudes were assessed. We identified how many respondents 'flatlined'. This is where the respondent has given the same score across the 10 attitudes. We deliberately included positive and negative statements to check flatlining respondents. There were a small number of respondents where this was the case. We identified this was more of a problem with younger respondents and considered the placement of the attitudinal battery within the survey – this is addressed in the next section.

Finally, we created mock segments using the small number of respondents available. We used both 'K Means' cluster analysis as well as 'Two step' cluster analysis. Although we found a good level of discrimination across groups emerging using the attitudes, this analysis pointed towards a need to include the demographics in addition to the attitudes in the creation of the segments in the final stage.

7.1.3 Survey instrument improvements

The soft launch analysis led to the following improvements to the survey:

- The attitudinal battery was moved to the first part of the survey to reduce the possibility of respondent fatigue and therefore flatlining potential
- Inclusion of the age of the respondent's house

Several specific data quality checks on the main data file, specific to what was seen in the soft launch would be applied in depth.

It also shaped deeper thinking on analysis techniques which would be used to identify segments which were usable, and distinctive and identified vulnerability groups based on demographic combinations and differing attitudes.

7.2 Main Survey

The main stage of the pilot study resulted in 1205 respondent interviews. As identified in the soft launch data analysis, several deep quality checks were required, with the option to remove certain respondents depending on the nature of the removal and the analysis techniques used.

7.2.1 Time taken to complete the survey (Speeders)

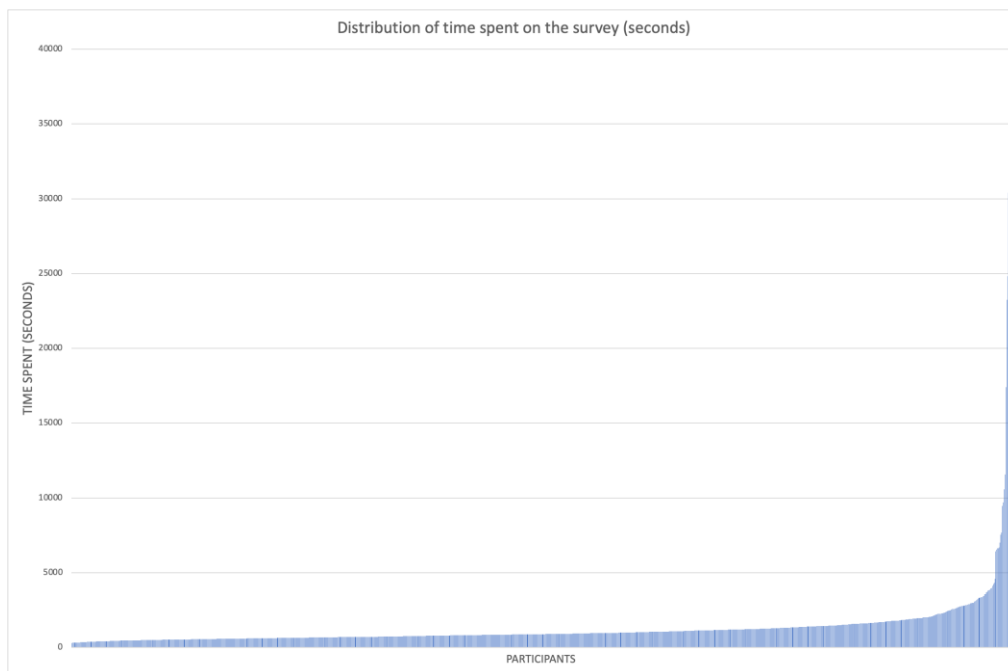
A common indication of data quality is to assess how quickly a respondent completed the survey. If a respondent completed the survey extremely quickly, this lends itself to further data quality and logic checks on the individual respondents.

Figure 7.1 Time taken to complete the survey

Total interview time	Statistic
Average time taken	1288 seconds (21 minutes)
Confidence interval for the average	1159 seconds to 1417 seconds (between 19 and 24 minutes)
Median time take	891 seconds (15 minutes)
Minimum time taken	297 seconds (5 minutes)
Maximum time taken	33687 seconds (9 hours)

Turning our attention to the spread of time across the sample, there is a large variation in time, spreading from very quick to very long. In the latter case, the survey was likely started and not completed until the next day. This does not indicate poor data quality, although the responses are checked at an individual level.

Figure 7.2 Time taken to complete the survey



Where a survey contains a large number of demographic questions which are typically easier for respondents to complete, or the survey contains filters (which leads to skipping large parts of the survey where not relevant), it is possible respondents can complete a survey quickly. However, it is good practice to investigate each individual further. In this case, checking for logic in the responses as well as the quality of the written open-ended responses is one such way to do this.

We identified 13 of the fastest respondents who, after further investigation were found to have multiple 'repetitive' patterns in their responses. These respondents all completed the survey in less than 6 minutes. They were tagged for elimination in the final analysis.

7.2.2 Attitudinal flatlining

The attitudinal battery of 10 statements was investigated for ‘flatlining’. Flatlining exists when respondents give the same score (on a 1 to 10 scale) across all 10 statements. It is not impossible that a respondent would agree or disagree in the same way across the 10 statements, however with the inclusion of ‘positive’ and ‘negative’ statements, this is unlikely. We identified 26 respondents who had flatlined on the attitudinal battery.

These 26 respondents were investigated further. Their answers to the demographic questions as well as open-ended text responses were assessed and there were no grounds found to eliminate these respondents based on their demographic responses, however, they were eliminated on any analysis that included the attitudinal statements.

7.2.3 Unexpected patterns

In addition to ‘flatlining’, we have identified certain attitudes as ‘worry’ statements and others as ‘confidence’ statements. Whilst it is possible that a respondent can be worried and confident at the same time (i.e.. Worried about safety but confident about what to do in an emergency), it would be unusual to have very high levels of correlation between the ‘worry’ and ‘confidence’ statements across all respondents.

The following table looks at the correlation between the statements:

Figure 7.1 Correlation between ‘worry’ and ‘confidence’ statements

Intercorrelations	Q5r1	Q5r2	Q5r3	Q5r4	Q5r5	Q5r6	Q5r7	Q5r8	Q5r9	Q5r10
Q5r1 I worry about the safety of some of my appliances										
Q5r2 I am confident that I can get help in an emergency	0.16									
Q5r3 I think I could do a lot more to reduce my ‘carbon footprint’ if I had help	0.19	0.31								
Q5r4 I need more information on how to reduce my energy consumption	0.17	0.18	0.26							
Q5r5 I am concerned about ‘being left behind’ when it comes to benefiting from new technology	0.28	0.22	0.23	0.15						
Q5r6 I am confident about what I need to do in a major power cut / supply interruption	0.27	0.33	0.22	0.17	0.21					
Q5r7 I worry a lot about how I will be able to pay my energy bills	0.16	0.06	0.09	0.14	0.19	0.11				
Q5r8 The government should do more to help people in financial difficulties	0.18	0.13	0.16	0.09	0.08	0.17	0.32			
Q5r9 It’s essential that I speak to a ‘real person’ when I contact my energy company	0.21	0.08	0.06	0.11	0.01	0.19	0.00	0.12		
Q5r10 Energy companies should adapt their services to the particular needs of individual customers	0.18	0.12	0.22	0.15	0.13	0.25	0.04	0.11	0.25	

■ 'Worry' statements
■ 'Confidence' statements

We consider a correlation of 0.3 to be a ‘medium’ correlation. This table shows that ‘worry’ statements never exceed a correlation of 0.3 with ‘confidence’ statements. Therefore, the notion of ‘unexpected’ patterns is not expected to bias the analysis.

7.2.4 ‘Bots’

Bots are algorithms from a third party that put random responses into the data file, including open-ended text responses. They are often difficult to find, however, we conducted the following data checks to eliminate the possibility of Bot-related responses:

- A deep scan of all open-ended responses – do they make sense or could they have been computer generated
- Logic tests i.e., those on high income struggling to pay bills

We concluded that Bots did not affect the quality of the data, which is a reflection of the high quality of the commercial panel that was used for the survey.

7.2.5 Actions

The following actions were taken to improve data quality at the analysis stage:

- Respondents were tagged as ‘clean’, ‘flatlining on q5’ and ‘speeder’. This tag was used to filter respondents for different levels of analysis
 - All respondents who completed the survey in less than 6 minutes (speeders) were removed from all analyses (13 respondents)
 - 26 respondents were identified as ‘flatliners on q5’ and were removed from any analysis using the attitudinal statements (question 5)

7.3 'Vulnerability' segmentation

7.3.1 Why segment respondents?

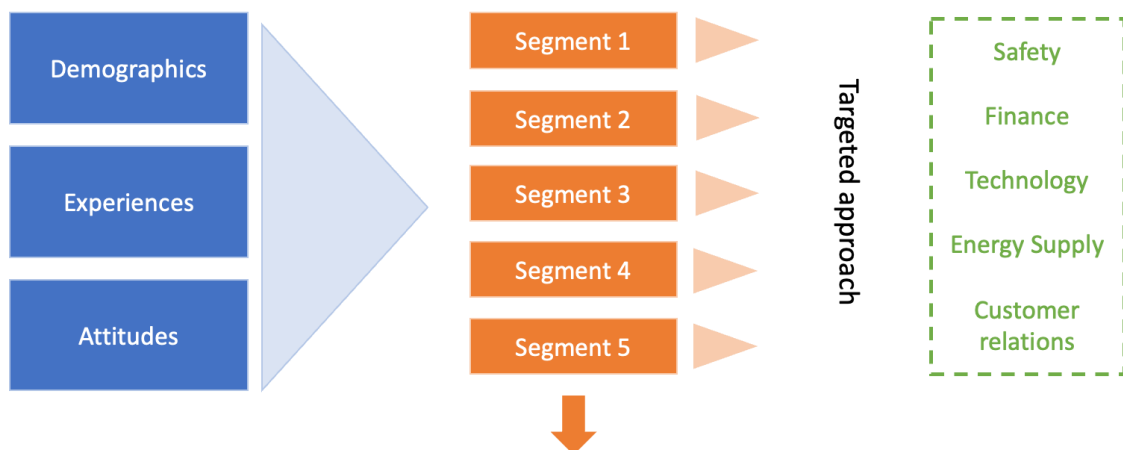
Segmentation is the process of splitting the sample into groups which are homogenous within its group but are heterogenous to other groups. Being 'homogenous' simply means that respondents within the group are similar in some aspect – for example, they have similar attitudes, needs or demographics. The purpose of segmentation is to understand these differences so that a more targeted, more cost-effective approach can be taken. In this case, it was to allow a more targeted approach to contacting and supporting different groups under different circumstances, or lenses.

The process of examining respondents for the presence of different segments is therefore exploratory in nature. Whilst the previous qualitative research has indicated the presence of differing needs, we do not force respondents into particular groups based on our own biases, rather, we allow the groups to form mathematically, using responses to three main categories of questioning:

- Demographics
- Attitudes
- Experiences

The following diagram explains this process. It should be noted that the number of segments is not predetermined.

Figure 7.1 The segmentation process



7.3.2 Attitudes

Attitudes towards the five lenses were captured in question 5 (Q5r1 - Q5r10). The following is a summary of the 10 attitudinal statements. Respondents were asked to rate each statement on a 1 to 10 agreement scale.

These 10 statements were developed using the results of the qualitative research undertaken. The aim was to represent each of the 5 lenses with an attitudinal statement which may reflect this. See Figure 7.1

Figure 7.1 Attitudinal statements

Attitudinal statement	Lens
Q5r1: I worry about the safety of some of my appliances	Safety
Q5r2: I am confident that I can get help in an emergency	
Q5r3: I think I could do a lot more to reduce my 'carbon footprint' if I had help	Reducing my carbon footprint
Q5r4: I need more information on how to reduce my energy consumption	
Q5r5: I am concerned about 'being left behind' when it comes to benefiting from new technology	Gas and electricity supply
Q5r6: I am confident about what I need to do in a major power cut/supply interruption	
Q5r7: I worry a lot about how I will be able to pay my energy bill	Finance and reducing costs
Q5r8: The government should do more to help people with financial difficulties	
Q5r9: It's essential that I speak to a 'real person' when I contact my energy company	Customer relations
Q5r10: Energy companies should adapt their services to the particular needs of individual customers	

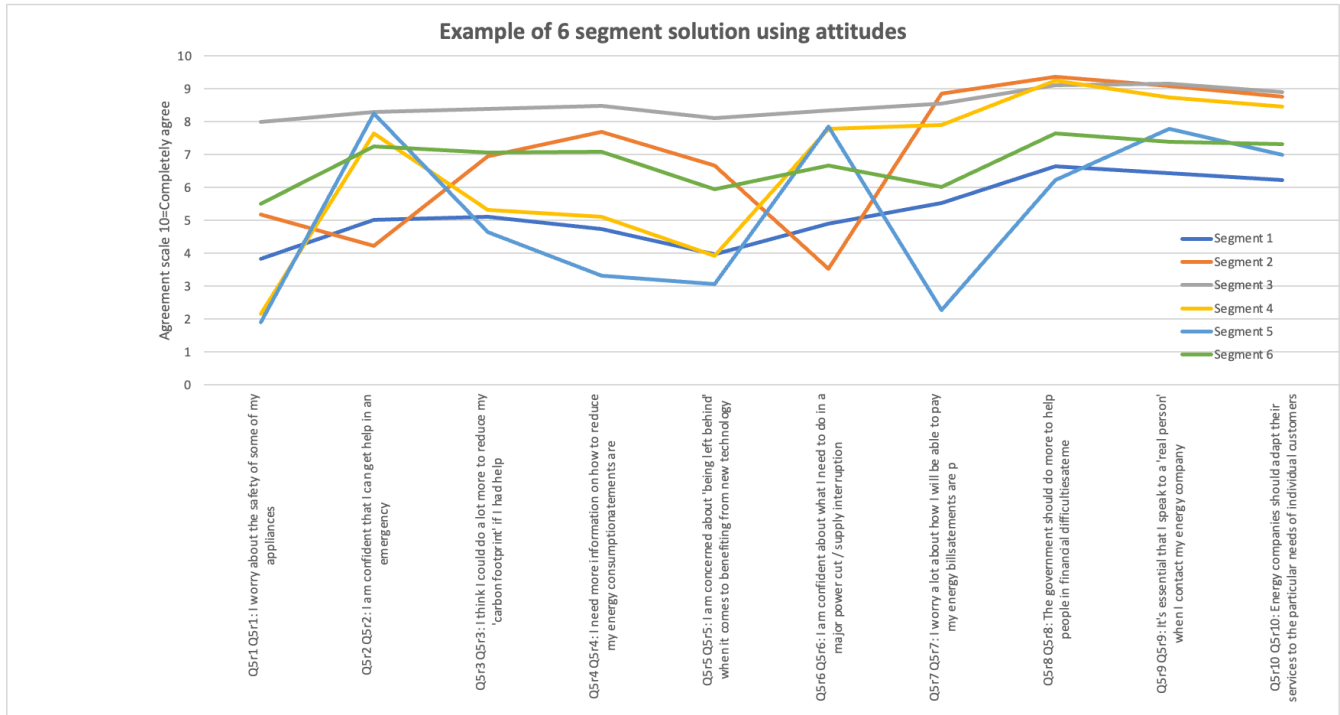
Our initial investigation into how these 10 statements split up amongst different segments was to use a K-Means and Latent Class approach to partitioning. The initial table below shows good discrimination in scoring the top 3 boxes across the 10 attitudes.

Figure 7.2 Top 3 box % across the 10 attributes

Attitudinal statement	Top 3 box % (8,9,10 on 10-point agreement scale)
Q5r1: I worry about the safety of some of my appliances	17%
Q5r2: I am confident that I can get help in an emergency	44%
Q5r3: I think I could do a lot more to reduce my 'carbon footprint' if I had help	33%
Q5r4: I need more information on how to reduce my energy consumption	34%
Q5r5: I am concerned about 'being left behind' when it comes to benefiting from new technology	23%
Q5r6: I am confident about what I need to do in a major power cut/supply interruption	40%
Q5r7: I worry a lot about how I will be able to pay my energy bill	40%
Q5r8: The government should do more to help people with financial difficulties	65%
Q5r9: It's essential that I speak to a 'real person' when I contact my energy company	66%
Q5r10: Energy companies should adapt their services to the particular needs of individual customers	56%

When a Latent Class approach was applied to the creation of segments using attitudes alone, we found that although there were some distinct differences amongst potential segments, *attitudes alone do not give the full picture*. Each line in Figure 6.2 represents a potential segment. Whilst there are distinct groups emerging, segments 1, 3 and 6 are not sufficiently discriminating, other than the average scale value. For example, segment 3 effectively 'flat-lines' across all measures: it is a group that generally scores everything highly. Segment 6 is similarly 'flat' but gives middling scores and segment 6 gives generally lower scores. For the segments to be useful, we need distinct variations across the measures, and this suggests that to segment on attitudes alone does not give sufficient differentiation.

Figure 7.3 Example of 6-segment solution using only attitudes



We concluded from this that other analytical techniques and inclusions were necessary, as reported below.

7.3.3 Grouping Demographics and circumstances using factor analysis

From the initial investigation into segments based on attitudes alone, it was obvious that the demographic and situational profile of respondents would need to drive the segments, or at least have a significant role. Different demographics and circumstances could lend themselves to a different set of needs when DNOs are addressing the five identified lenses.

During the design phase of the study, we ensured that we included all demographic and situational questions that would potentially be captured on internal DNO PSR databases. We used the comprehensive work undertaken by the Centre for Sustainable Energy as a reference point⁷, so that we could align our findings with studies and knowledge already acquired.

We used Factor Analysis to summarize the individual elements of each demographic and circumstance. Each respondent has several demographics i.e. age, gender and particular circumstances (i.e., Chronic illness, young children, access to transport), which could greatly influence their vulnerability status.

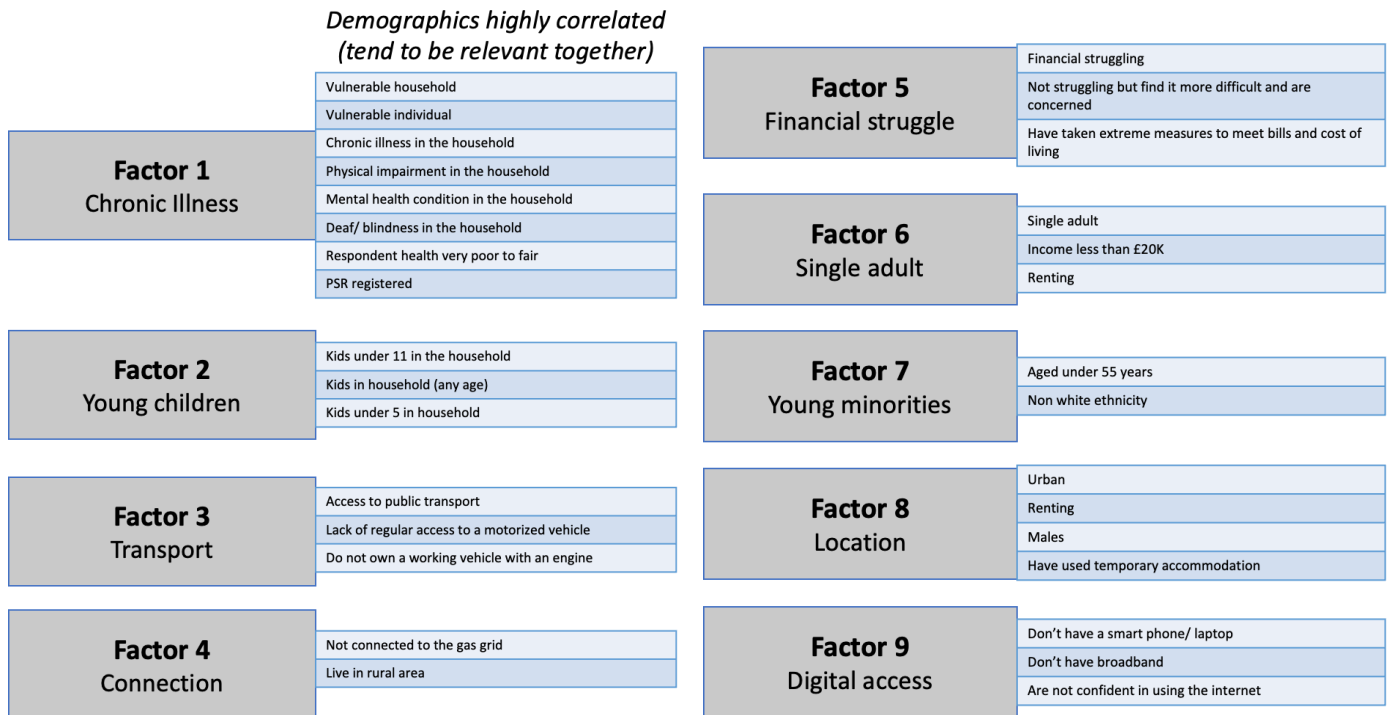
Used in this context, Factor Analysis summarizes groups of demographics and situational questions using inter-correlations. In other words, it identifies and groups together demographics and circumstances that tend to present commonly in a respondent. One such summary grouping we found was about 'Chronic Illness'. In this, we see many chronic illnesses, vulnerability status, PSR registration and poor general health all highly correlated with each other. Therefore, if a respondent tells us they live in a vulnerable house, they very often also tell us they have poor health and a number of chronic illnesses.

Factor Analysis is quite often used as a precursor to other analyses. In this context, it showed some very interesting demographic and circumstance groupings, but this does not imply that these are the groups people segment into. This is because respondents may correlate (fit the demographic and circumstances) with more than one factor. For example, a respondent may have a chronic illness *and* have poor digital access.

Factor Analysis grouped the demographic and circumstance attributes in the following way:

⁷ Centre for Sustainable Energy, March 2017, Mapping customer vulnerability: Methodology, WPD
November 2023
Produced by Impact Research Ltd in strict confidence

Figure 7.1 Demographic and circumstance factor groupings



These factor groupings indicate 9 potential vulnerability areas. We often seek to identify vulnerability in terms of pre-determined combinations of demographics and personal circumstances; this approach allows for a more nuanced summary of the key areas affecting vulnerability based on objective measurement.

It should be noted from an analytical viewpoint that all respondents have a factor 'score' on each of the 9 factors. For example, if a respondent has no chronic illnesses, but lives in a family with young children, they will score low on Factor 1 'chronic illness', high on Factor 2 'young children' and probably low on Factor 6 'single adult'. Each factor is scored, and this gives insight into the unique combination of potential vulnerability.

7.3.4 Vulnerability Patterns

We explored this notion further with 'Pattern Analysis'. We aimed to discover vulnerability groups as a whole, but also those less known. Using a scoring system, we defined each respondent as 'very high' or 'not very high' on each of the factors. This was attempted using the distribution of each factor and then classifying the top 25% as 'very high'. This would highlight whether a respondent is in the top 25% of the sample to have the characteristics of each of the 9 factors. From here we looked at the patterns across all 9 factors (for example, what combinations of these 9 factors were common?). By doing this we allowed the data to tell us what 'common' groupings of potential vulnerabilities were – this would capture *combinations of vulnerabilities* which may need an entirely different approach for support.

Whilst this analysis was interesting, it showed the number of combinations amongst those with a vulnerability to be vast. We concluded that this analysis should be re-visited if this study should extend beyond a pilot study so that the actual number of respondents with a vulnerability was far greater. A much larger sample size would allow for a finer and more robust breakdown of the combinations presented.

7.4 Demographic Segmentation

The Factor Analysis conducted showed that there were different types and levels of vulnerability based on demographics and circumstances. In addition, we wanted to understand how attitudes differed amongst different levels of vulnerability.

7.4.1 K-Means Clustering

We used K Means Clustering, confirmed using Latent Class and Two Step Clustering techniques. This is a segmentation technique which has a basis on 'distance' between the segments. It is important to end up with segments which are as far

different as possible but are as similar as possible within. In other words, a segment of respondents should be similar in terms of demographics, personal circumstances, and potential attitudes.

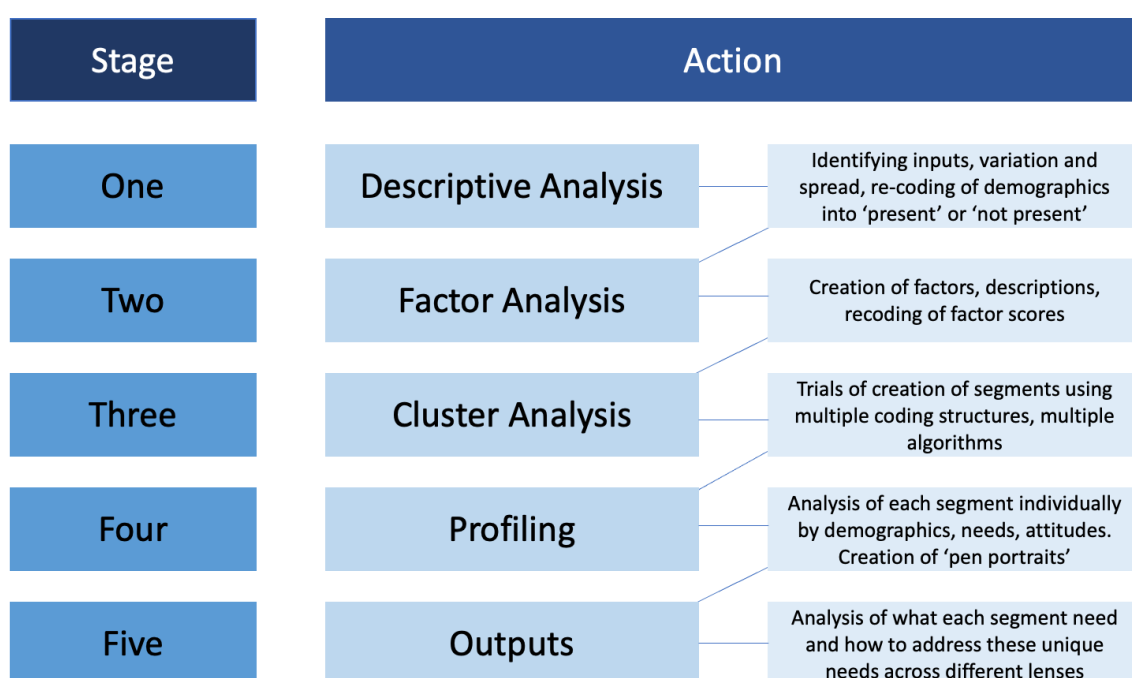
Given the strength of the 9 factors, which neatly summarise a large number of demographic characteristics, this formed the basis of our segments. Each respondent was scored on each factor, and this is indicative of how much the factor itself characterised them. We experimented with several additional scoring techniques; however, the original factor scores gave the best discrimination.

It should be noted that as even the main survey of this study is effectively a pilot study, a much larger sample would be needed to confirm and expand on some of the resulting segments.

7.4.2 Stages of the segmentation

Segmentation can be complex as each respondent is unique, even though we are attempting to group them with like individuals. Segmenting means that a more targeted approach can be sought, rather than relying on a 'one fits all' solution which may miss vulnerable individuals. There are multiple stages, with a large amount of analysis in-between. The stages have been summarised below.

Figure 7.0 Stages of the segmentation



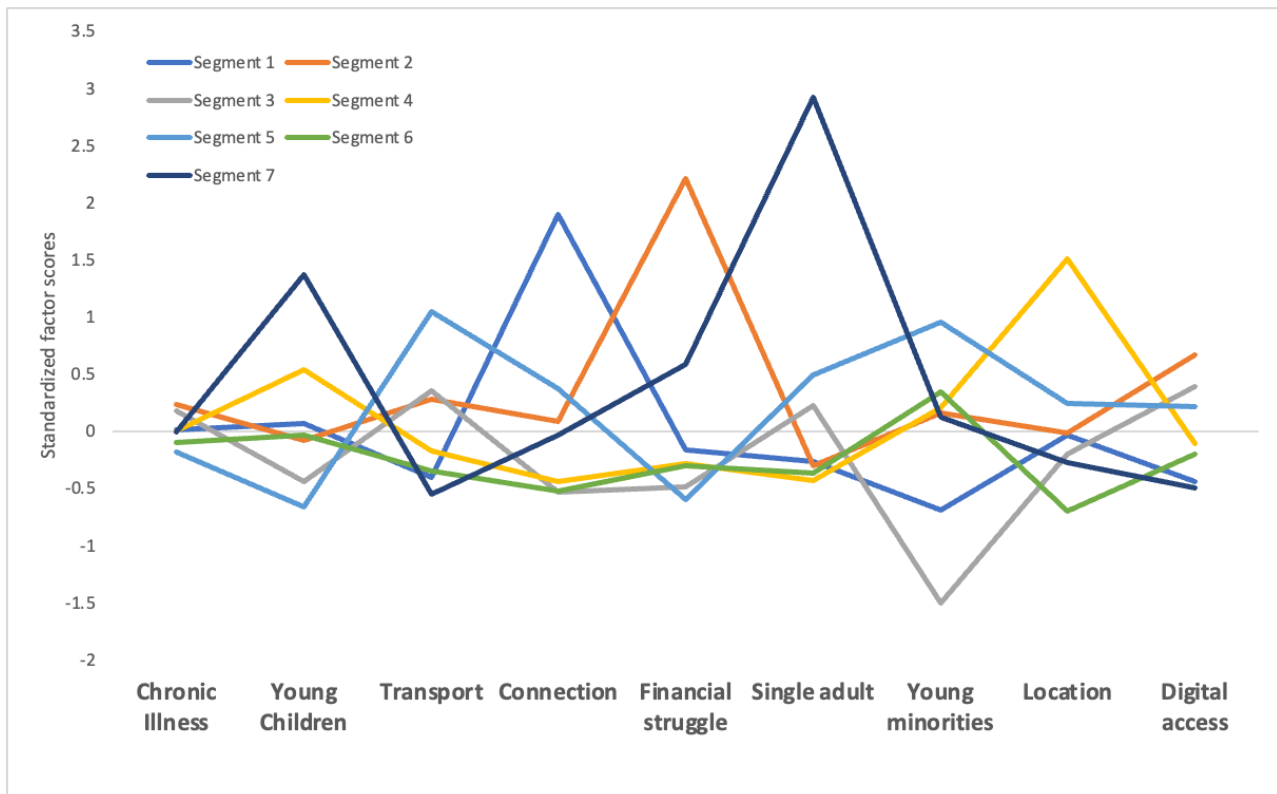
7.4.3 The emerging segments

Using the factors as a basis of our segments, we analysed a large number of combinations, numbers of segments and techniques. We chose a 7-segment solution using standardised factor scores as inputs on the basis of:

- Each segment discriminates at least once across the 9 factors
- Sample sizes within each segment are satisfactory, except one segment (to be addressed later)
- Different techniques (i.e., Latent class/ Two-step clusters) yielded similar results
- The segments could be explained objectively
- We produced a 'test model' to see how well the segments could be explained using demographics and this was >85%

The chart below shows the discrimination achieved across the 9 Factors. Each segment is distinctive in one or more factors. The presence of 'isolated peaks' emphasizes the differences we expect to see when a full profile is conducted.

Figure 7.1 Segment solution showing discrimination on the 9 Factors



The breakdown of the proportion of respondents falling into each segment is shown in the table below.

Figure 7.2 Final sample sizes

SEGMENT	Sample Size	Proportion
Segment: 1 Life is good	142	12%
Segment: 2 Silent strugglers	134	12%
Segment: 3 Quiet and comfortable	148	13%
Segment: 4 Conscious and active	171	15%
Segment: 5 Lone climbers	144	13%
Segment: 6 Getting on with life	343	30%
Segment: 7 Don't forget me	59	5%

With the exception of segment 7 which was small and segment 6 which made up 30% of the sample, all other segments were evenly spread. We decided to retain the smallest segment, as the profiling showed a distinctive group that were perhaps not having their needs well met.

7.4.4 Profiling

The next stage was profiling. This is where all 7 segments undergo significance testing against all demographics, needs, behaviours, experiences and attitudes. Although the 7 segments mathematically discriminate, the main criteria are:

- Do they make sense to DNOs and GDN's?
- Are they usable?
- Can they potentially be translated back to DNO and GDN databases?

The outcomes of this profiling process are reported in the main body of this report, chapter 2.

7.4.5 Possible segment expansion

We undertook a process of further splitting out 2 of our segments to try and discover ‘emerging segments’ – groups of respondents not large enough to form their group, but potentially a distinct vulnerability group of the future.

We first split out segment 7 – ‘Don’t forget me’. Amongst this group of largely women, there appear to be what we called the ‘super vulnerable’ and we wanted to investigate why. Although the sample for this group was too small to be confident, we found that the segment split into two groups of women, with children, who were struggling. However, one of the groups was younger, had younger children, was struggling more and were less likely to be working at all – rather they were carers and home-makers. The other sub-segment was slightly older, with older children, still struggling but some were working in lower-paid jobs. It may be a transitional split; however, a full large sample study may see this sub-segment group splitting out further.

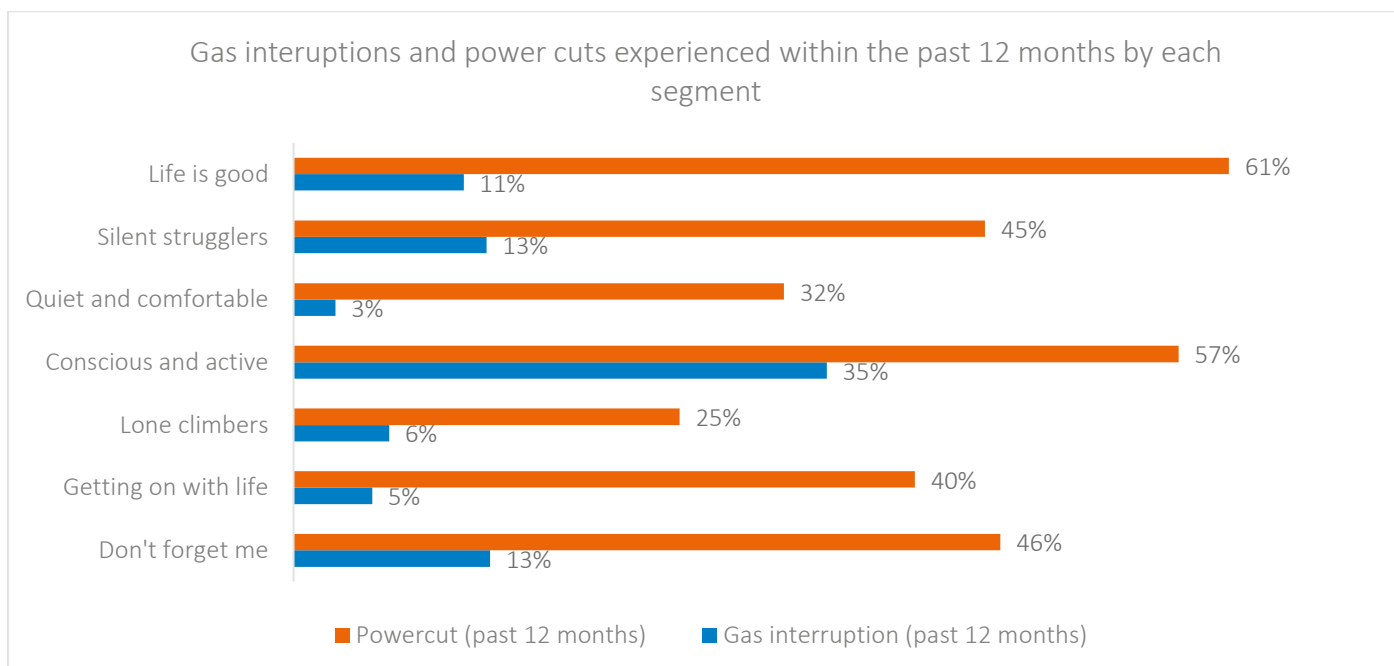
Secondly, we split out segment 4 – ‘Consciously active’. Of all the segments, this group was the least clear demographically. We wanted to investigate whether there was a ‘sub-segment’ that was perhaps ‘more’ worried than the remaining group or differed in some other way. We attempted to split segment 4 and instead combine one of the other ‘sub-segments’ with another segment, but this did not improve the solution.

Based on this preliminary enquiry, we conclude that segment 4 – ‘Conscious and active’ and segment 7 – ‘Don’t forget me’ should be the particular focus of further attention and refinement in a future, larger-scale study.

7.4.6 Additional reporting

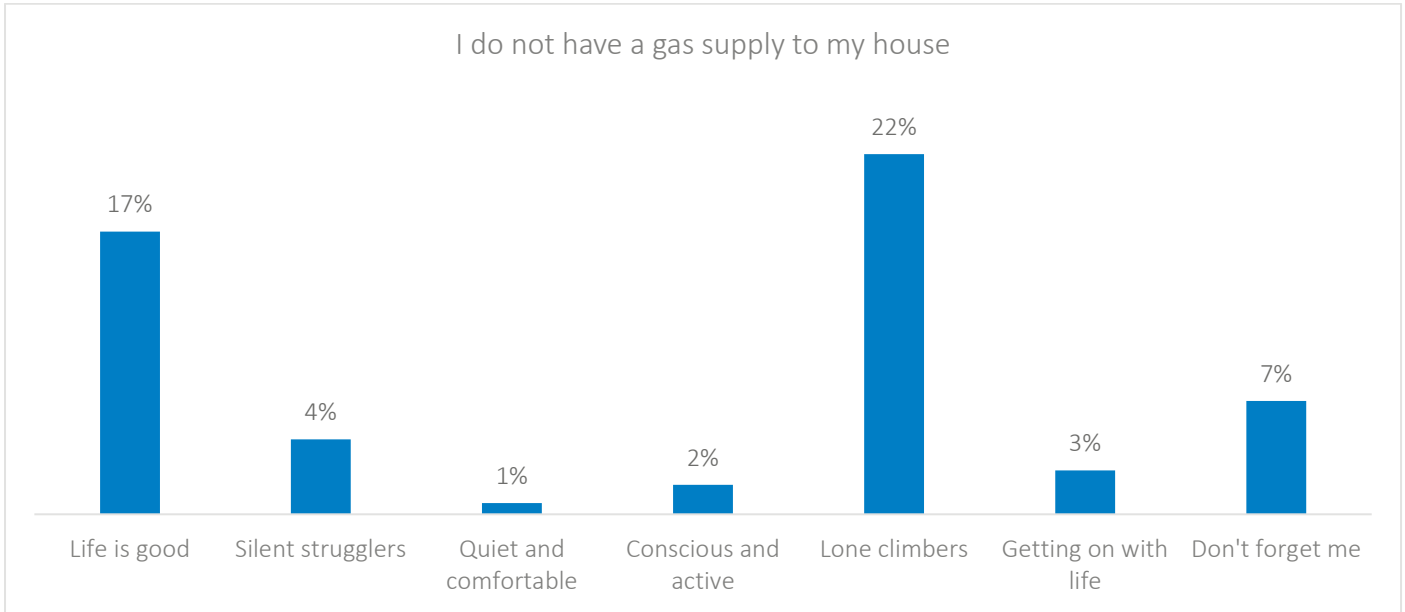
During the main reporting phase, noteworthy situational factors on each segment were selectively incorporated in order to emphasise the key attributes of each segment and avoiding the inclusion of factors that do not contribute to the differentiation of the segment to the overall population. However, as this makes comparison between various segments difficult. With this in mind, below are a series of charts comparing segments on key situational points of interest:

Figure 7.1 Gas interruptions and Power cuts experienced by each segment over the previous 12 months



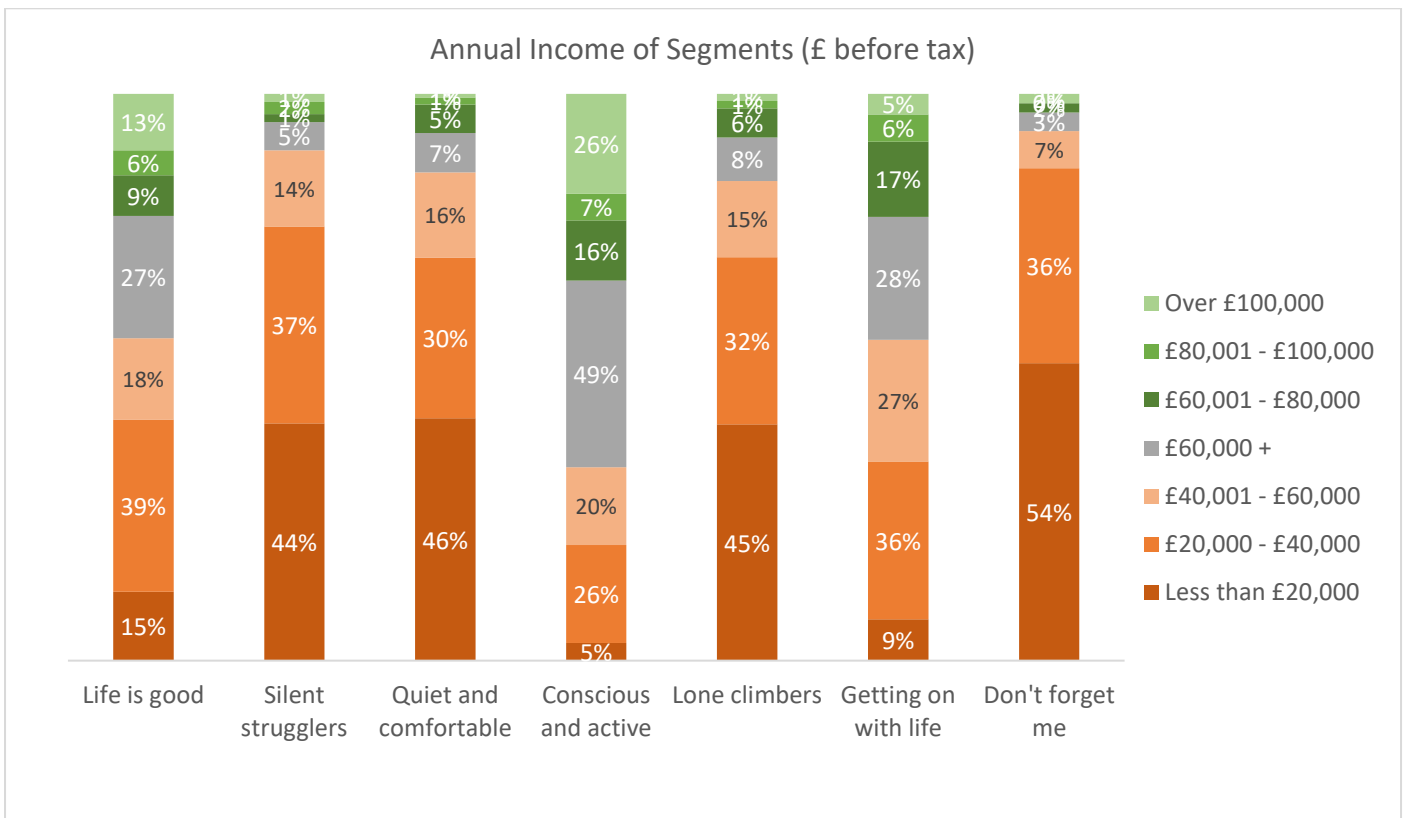
Over 50% of those within the ‘Life is good’ and ‘Conscious and active’ groups had experienced a power cut in the last 12 months, highlighted a perceived increase of awareness that this was the case. The ‘Lone climber’ group has the lowest proportion of power cuts, but given they are more likely to live alone, it could be likely that less time is spent inside their home and therefore, they were less aware of potential power cuts. Far fewer customers had experienced a gas supply interruption, however those in the ‘Conscious and active’ group had a higher proportion than all others.

Figure 7.2 Percentage of each segment that stated that they do not have a gas supply to their home.



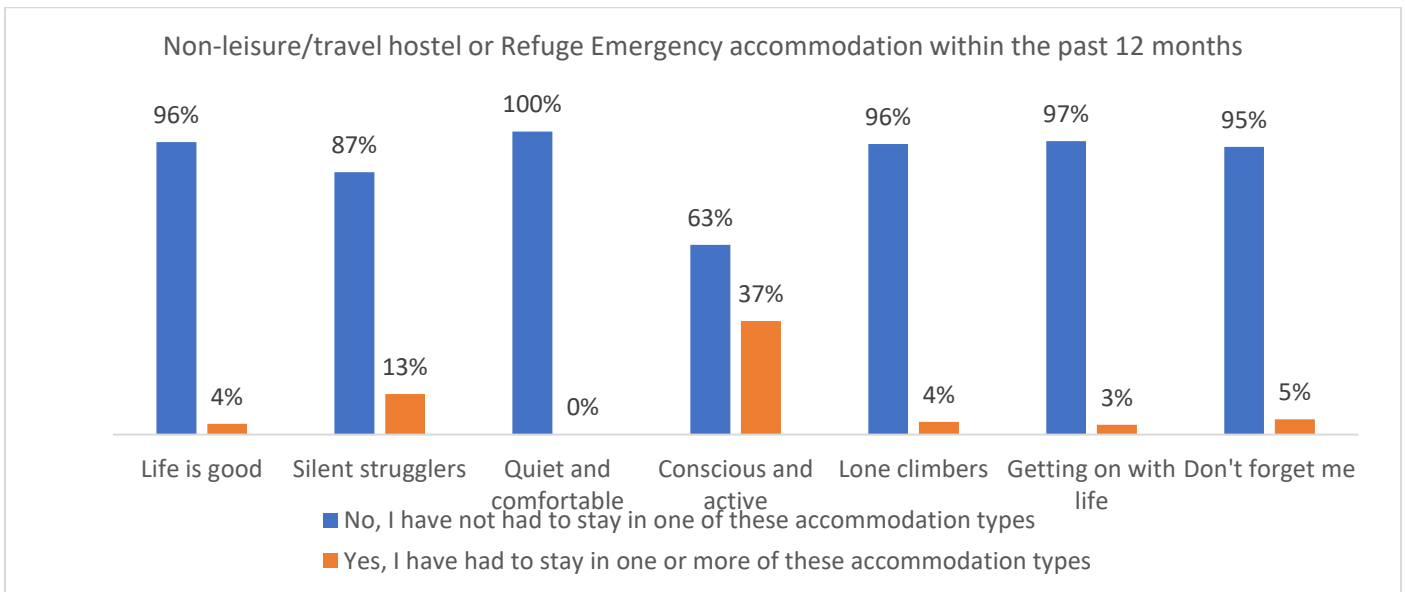
'Lone climbers' had the highest proportion of customers without a gas supply to their home. Given many live in rental accommodation and nearly two thirds living in a flat or maisonette, the potential for other heating systems to be better equipped to their home is higher. Those in the 'Life is good' category also had a higher proportion of non-gas supplied heating systems, showing they potentially have experimented with new technologies more, given their increased level of financial stability.

Figure 7.3 Annual income by segment.



Customers in segments 'Life is good', 'Conscious and active' and 'Getting on with life' had the highest income levels, however, there were still customers within each of those groups that had lower levels. 'Silent strugglers' and 'Don't forget me' have the lowest income levels.

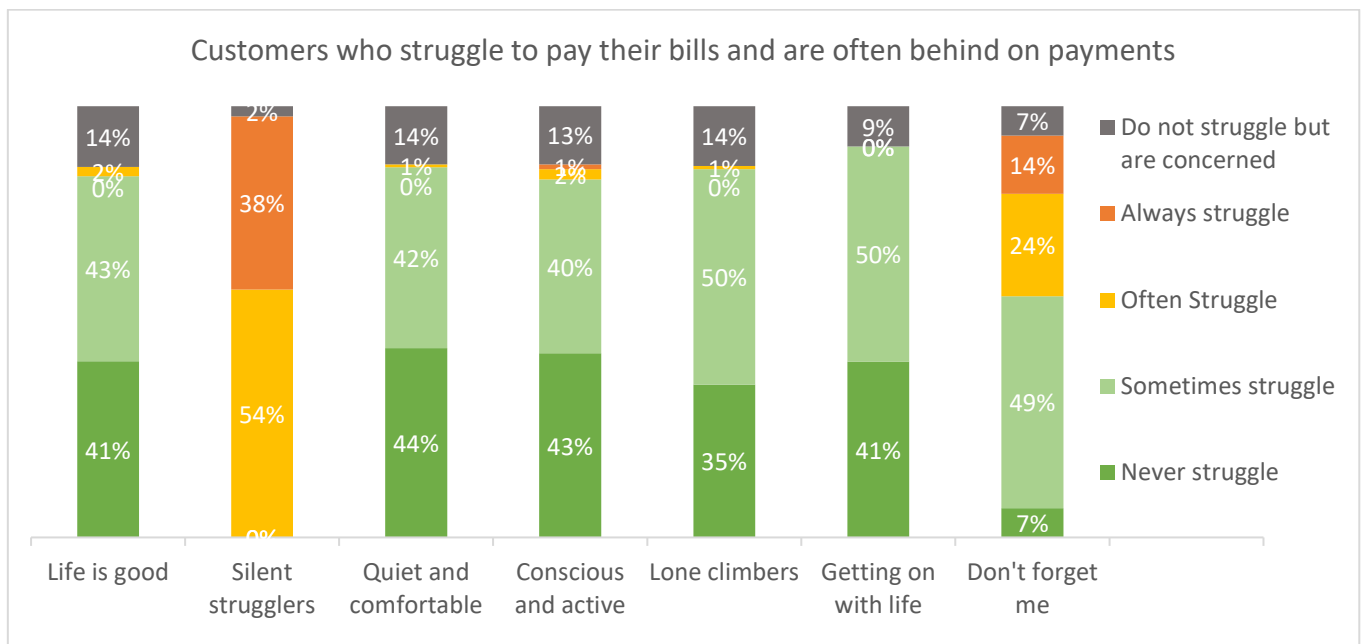
Figure 7.4 Non-leisure/travel hostel or refuge emergency accommodation attendance by each segment over the previous 12 months.



The proportion of 'Conscious and active' who say they have used a non-leisure / travel hostel in the last 12 months appears exceptionally high, and this may suggest some confusion as to how this question was interpreted. Respondents who would answer 'yes' to this question are more likely to have someone in their household who suffers from a chronic health condition (41% v 30% who said 'No'), to say that they are on the PSR (36% v 19% who said 'No') and to have contacted their energy distributor in the last 6 months (48% v 14% who said 'No'). They are generally more affluent (42% have a household income of over £60,000 v 19% who said 'No'). This suggests that many of these respondents who answer 'yes' to the use of emergency accommodation could be referring to temporary stays in medical facilities or have moved house recently.

Those in the 'Conscious and active' segment include a high proportion of people who have experienced loss of gas supply (35% v 11% of the total sample), a power cut (57% v 43% of the total sample) or have a household member with a chronic health condition (40% v 30% of the total sample). These are all likely reasons for having stayed in some form of temporary accommodation.

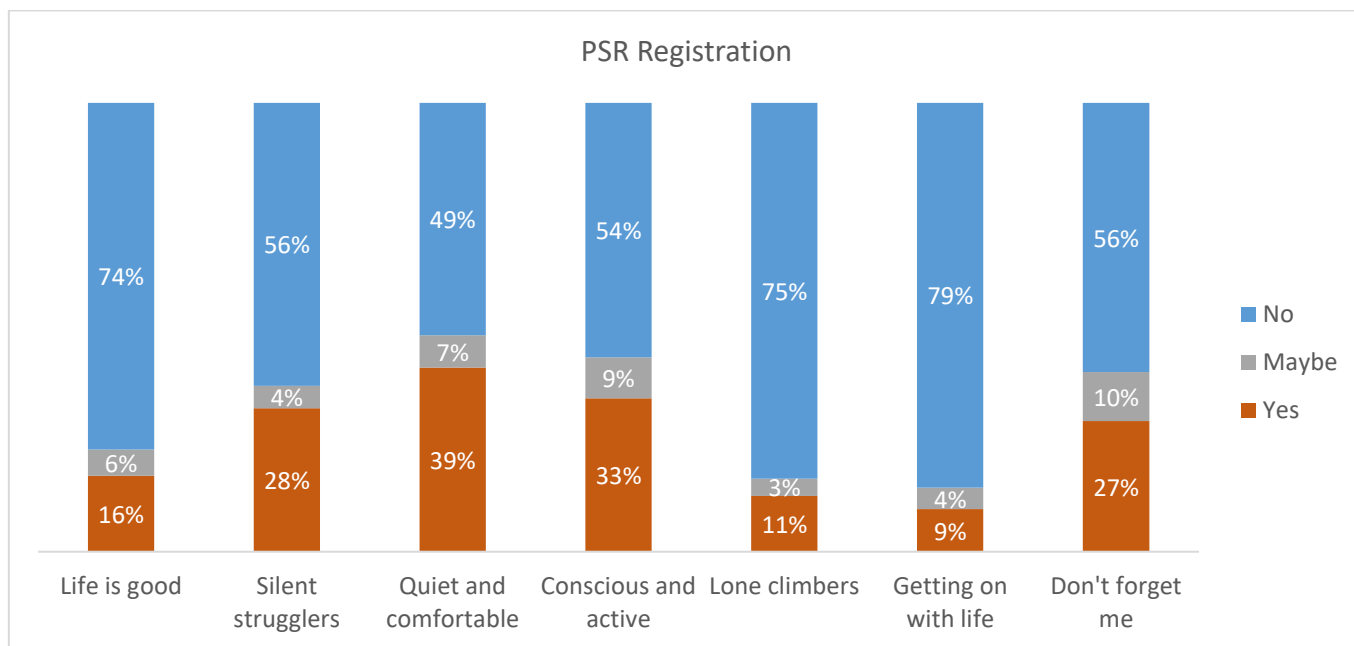
Figure 7.5 Percentage of customers who are struggling to pay their bills/behind on payments by segment⁸



⁸ Excluding 'Prefer not to say'

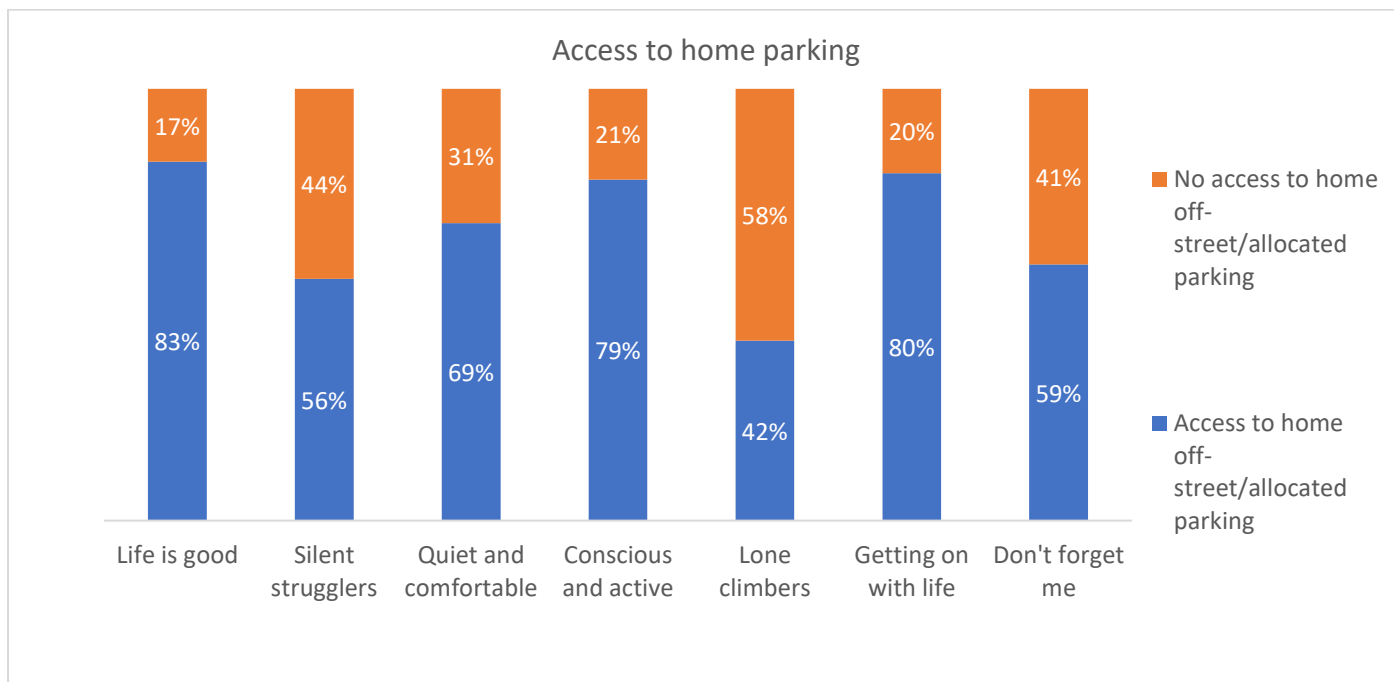
Nearly all customers in the 'Silent strugglers' struggle to pay their bills and are concerned for the future. Those within the 'Don't forget me' segment are those that struggled the second most, with over a third either always or often struggling to pay their energy bills.

Figure 7.6 PSR Registration by segment.



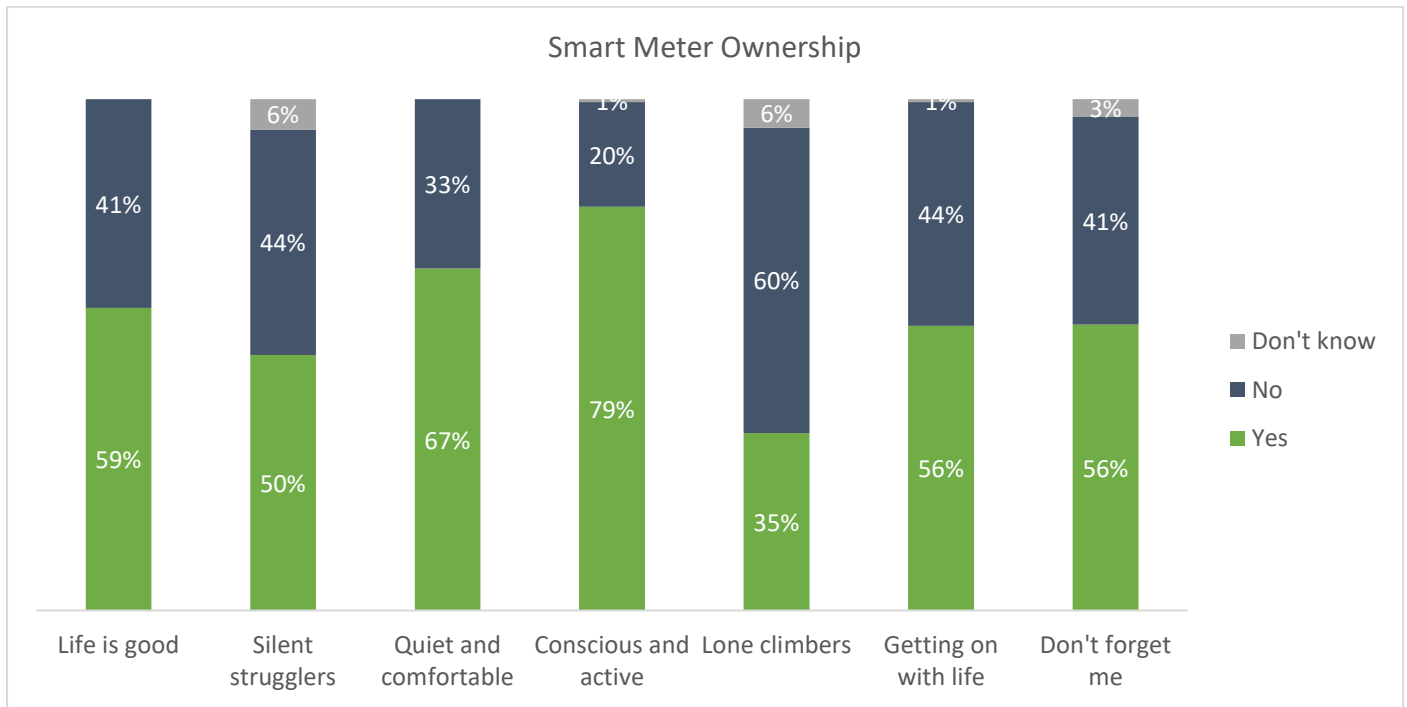
'Quiet and comfortable' and 'Conscious and active' had the highest level of PSR registration. The 'Quiet and comfortable' group had a higher level of older customers, whereas those 'Conscious and active' had slightly higher numbers of chronic health conditions in their household.

Figure 7.7 Access to home parking by segmentation



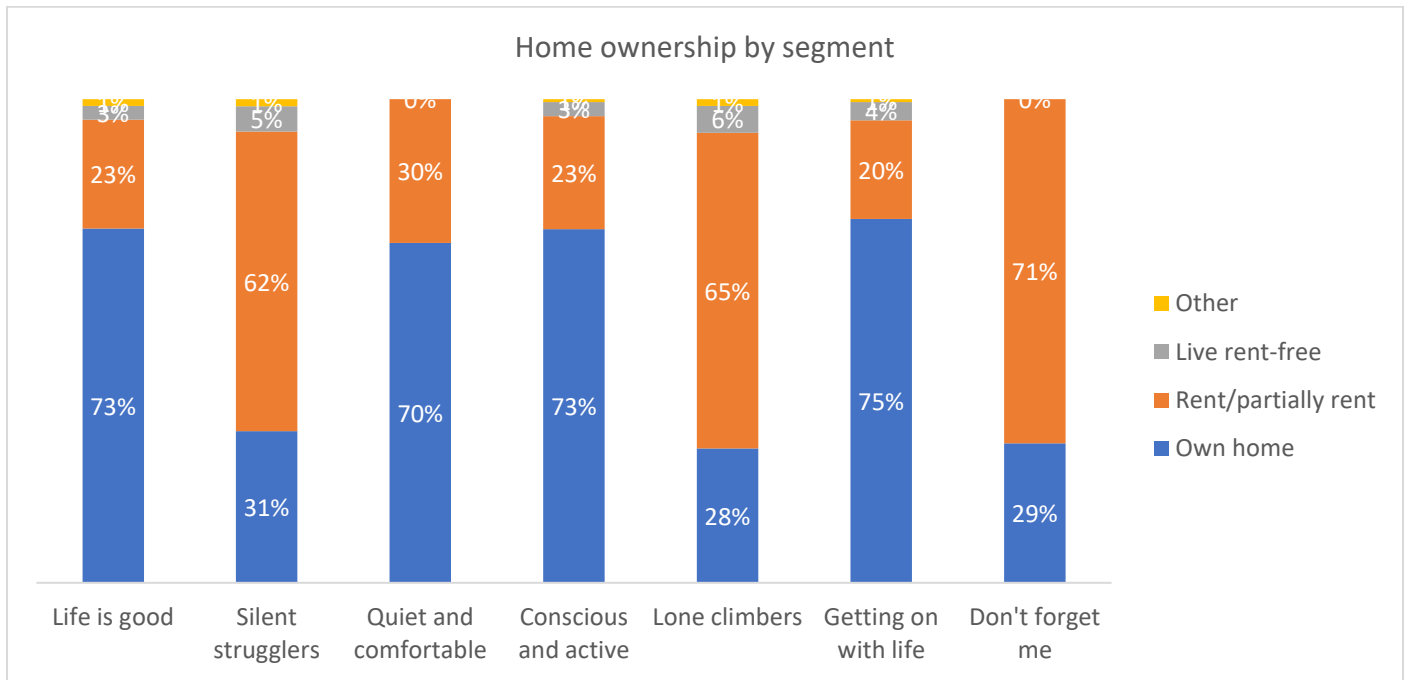
In line with the high incidence of renting in the group (see Figure 7.9), 'Lone climbers' have the lowest level of access to parking, followed by 'Silent strugglers' and 'Don't forget me'. This is in more area that may act a constraint on LCT adoption, primarily EVs. The presence of smart meters in the house follows a broadly similar pattern, with the exception of 'Life is good' and 'Getting on with life', where smart meters are around the average for the population.

Figure 7.8 Smart meter ownership by segment



Those in the 'Conscious and active' group were most likely to own a smart meter, with nearly four in five from that group owning one. In contrast, only half of 'Silent strugglers' and 35% of 'Lone climbers' own a smart meter.

Figure 7.9 Home ownership by segment



Home ownership followed a similar pattern with smart meter ownership, with 'Silent strugglers' and 'Lone climbers' having the lowest proportion of homeowners. Around three quarters of 'Life is good', 'Quiet and comfortable', 'Conscious and active' and 'Getting on with life' all own their homes. 'Don't forget me' had the highest proportion of renters, with 71%.

Figure 7.10 DNO Initiatives ranked first by segment

Column % within each topic area <i>(items in blue and red are significantly different from total sample at the 95% level of confidence)</i>	Top ranked							
	Life is good	Silent strugglers	Quiet and comfortable	Conscious and active	Lone climbers	Getting on with life	Don't forget me	Total Sample
SAFETY INITIATIVES								
Free safety checks	44%	40%	48%	44%	44%	43%	49%	44%
Safety leaflets	8%	5%	6%	6%	4%	3%	3%	5%
Safety campaigns	4%	7%	5%	15%	5%	6%	10%	7%
Free smoke alarms	39%	42%	33%	27%	38%	42%	32%	37%
Freephone information number	6%	7%	7%	8%	10%	5%	7%	7%
FINANCE AND REDUCING COSTS								
Offering debt / bill management advice	8%	16%	11%	17%	16%	11%	22%	13%
Working with other organisations to keep bills down	32%	31%	23%	23%	27%	34%	41%	30%
Signposting grants	5%	16%	10%	11%	13%	10%	15%	11%
Free checks on appliances	32%	17%	32%	26%	26%	26%	8%	25%
Information for saving money and energy	23%	19%	24%	23%	18%	19%	15%	20%
GAS AND ELECTRICITY SUPPLY								
Leaflets on supply interruptions	18%	16%	23%	14%	16%	20%	10%	18%
Generators in community halls	8%	7%	6%	16%	8%	5%	3%	8%
Power cut kit	32%	41%	39%	26%	42%	38%	42%	37%
Supply triage system	19%	12%	16%	17%	10%	16%	14%	15%
Generators in homes	23%	23%	17%	27%	24%	20%	31%	23%
REDUCING MY CARBON FOOTPRINT								
Free LEDs / draught excluders	39%	26%	36%	25%	28%	32%	29%	31%
Grants for upfront costs of new technology	23%	31%	34%	27%	22%	35%	36%	30%
Financial assistance for landlords to install new technologies	8%	11%	6%	12%	19%	7%	20%	10%
Information on saving energy and choosing new technologies	15%	12%	12%	19%	17%	12%	8%	14%
Support for installing smart meters	14%	20%	12%	18%	13%	14%	7%	14%
CUSTOMER RELATIONS								
Focus on phone contact	42%	32%	41%	30%	33%	30%	27%	33%
More PSR advertising	9%	10%	9%	12%	5%	12%	8%	10%
Ring back / text service	23%	34%	32%	18%	31%	33%	31%	29%
Staff training	22%	22%	18%	32%	25%	23%	25%	24%
More language options	4%	1%	1%	8%	6%	3%	8%	4%

Figure 7.11 DNO Initiatives ranked first or second by segment

Column % within each topic area <i>(items in blue and red are significantly different from total sample at the 95% level of confidence)</i>	Top 2 ranked							Total Sample
	Life is good	Silent strugglers	Quiet and comfortable	Conscious and active	Lone climbers	Getting on with life	Don't forget me	
SAFETY INITIATIVES								
Free safety checks	12%	16%	11%	15%	10%	10%	7%	12%
Safety leaflets	54%	56%	61%	61%	71%	64%	66%	62%
Safety campaigns	61%	62%	64%	48%	57%	56%	63%	58%
Free smoke alarms	13%	15%	13%	23%	15%	12%	19%	15%
Freephone information number	60%	51%	51%	53%	48%	58%	42%	54%
FINANCE AND REDUCING COSTS								
Offering debt / bill management advice	53%	39%	52%	39%	36%	51%	34%	45%
Working with other organisations to keep bills down	27%	31%	31%	38%	28%	21%	27%	28%
Signposting grants	59%	49%	59%	51%	58%	57%	41%	55%
Free checks on appliances	30%	43%	34%	40%	42%	37%	61%	39%
Information for saving money and energy	31%	38%	24%	32%	35%	34%	34%	33%
GAS AND ELECTRICITY SUPPLY								
Leaflets on supply interruptions	52%	56%	42%	53%	54%	55%	51%	52%
Generators in community halls	60%	40%	63%	47%	54%	52%	47%	52%
Power cut kit	18%	23%	18%	28%	17%	16%	19%	19%
Supply triage system	34%	44%	36%	40%	40%	36%	49%	39%
Generators in homes	36%	37%	41%	32%	35%	42%	32%	38%
REDUCING MY CARBON FOOTPRINT								
Free LEDs / draught excluders	26%	31%	24%	37%	29%	23%	29%	28%
Grants for upfront costs of new technology	27%	29%	16%	37%	33%	24%	20%	27%
Financial assistance for landlords to install new technologies	65%	46%	61%	49%	40%	65%	46%	56%
Information on saving energy and choosing new technologies	30%	48%	32%	34%	42%	36%	44%	37%
Support for installing smart meters	52%	46%	67%	43%	56%	52%	61%	53%
CUSTOMER RELATIONS								
Focus on phone contact	13%	26%	12%	25%	21%	17%	22%	19%
More PSR advertising	63%	59%	59%	55%	65%	59%	63%	60%
Ring back / text service	20%	17%	14%	33%	19%	17%	15%	19%
Staff training	23%	28%	27%	29%	26%	26%	24%	26%
More language options	80%	69%	88%	58%	69%	81%	76%	75%