

# Annex of consumer testing methodology and results

## Description of method

We decided to use [Nesta's Experian segments](#) to recruit participants. In total, there are eight distinct segments that represent 30 million households in the UK. Each segment is composed of commonalities across different traits and characteristics, but it is important to note that these are not universally consistent across the whole population of a segment. The segments have been provided with the following titles to try and draw out key differences between them:

**Segment A** – Eco high-earning Gen X-ers

**Segment B** – Techie young families

**Segment C** – Budget-conscious millennial parents

**Segment D** – Rural retirees on stable income

**Segment E** – Homeowners eligible for free heat pumps

**Segment F** – Tech-cautious pre-retirees

**Segment G** – Young, green urban renters

**Segment H** – Social tenants on tight budgets

Four participants were recruited per segment across six segments for a total of 24 interviewees. We excluded segment G – Young, green urban renters and segment H – Social tenants on tight budgets, as we wanted to speak to owner occupiers who would be able to make use of financial products to purchase a heat pump in their current abode. Segment E was included despite portions of the segment potentially being eligible for a free heat pump, as we wanted to include a diverse range of participants.

Each hour-long interview consisted of four sections: 1) attitudes towards finance and previous use, 2) familiarity with heat pumps and relationship with current heating system, 3) review of potential financial models, and 4) discussion of PLF. Interviewees were first asked to fill out basic details such as their tenure, annual household income, mortgage status, and property type as though they were using a comparison website. They were then shown visual examples of what borrowing

£5,000 would look like for each financial model. Summary boxes and simple descriptions were used to help enable comparison between each choice. This method was chosen to mimic a potential customer journey when selecting green finance products, whilst also trying to increase accessibility and comprehension of a topic that some consumers may find less familiar or uncomfortable. The models shown were selected to try to represent the range of components that a consumer might be faced with, rather than showing every possible offer on the market currently. PLF was shown separately due to not being available in the UK and due to its novelty.

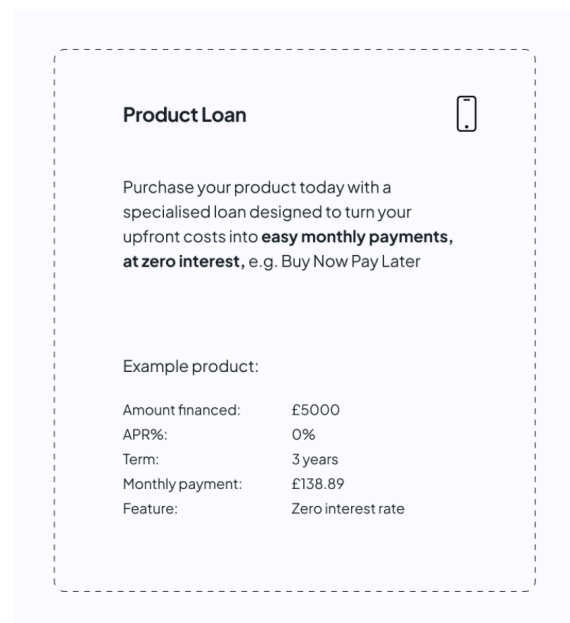
## Results


Participants were asked whether they had ever used any of the models previously, and were encouraged to voice their thoughts on the differing components, such as APR, length of term, monthly repayment amount, and any additional features. After being shown all of the models, participants were asked which would be their preferred choice to purchase a heat pump if they were unable to solely use savings. We heard a strong preference for three models when purchasing a heat pump: product loans, subscription models, and PAYS.

### Products loans

#### **Product loans were the most consistently preferred option across all consumer segments.**

Almost all of the people we spoke to were familiar with product loans, with previous use common amongst all consumer segments. Most people had made use of them on at least one occasion and a few had extensive prior experience. We heard that they were most commonly used for large purchases like sofas and kitchens, but also smaller purchases such as electronics and white goods, with one person having recently used a product loan to pay for their boiler.



**Product Loan** 

Purchase your product today with a specialised loan designed to turn your upfront costs into **easy monthly payments, at zero interest**, e.g. Buy Now Pay Later

Example product:

Amount financed:	£5000
APR%:	0%
Term:	3 years
Monthly payment:	£138.89
Feature:	Zero interest rate

**We were told that product loans were particularly appealing as a result of the 0% interest, not having to pay anything upfront, and the short length of term.**

The desire to avoid interest-bearing loans was universally shared across the segments. Amelia (Eco high-earning Gen X-ers) told us, "I really like the product loan because there's no interest rate on it and there's no upfront payment either". A subset of people like Grace (Homeowners eligible for free heat pumps) went on to clarify that they found this combination of 0% interest and no upfront cost valuable because they "could have left my five grand in the bank... and had some interest out of it, so actually come out on front". One participant also told us that they found a product loan particularly appealing for religious reasons. Evelyn (Budget-conscious millennial parents) said: "I'm Muslim, so from an Islamic perspective, we try not to go into something that's got interest added to it".

The short term of three years shown in the product loan example was also consistently seen as appealing. Interviewees with families in segments B and E specified that the short term was important as it was a "reasonable amount of time to plan family finances around," whereas they found it difficult to anticipate what costs they might face in 10 years. Individuals in groups D, E, and F were older and felt that shorter terms were desirable due to estate planning concerns and uncertainty as to their length of life remaining. Leo (Tech-cautious pre-retirees) described how he didn't want to leave a complicated estate to his daughter to deal with in the event of "something dreadful happening" as "you don't know what's around the corner".

**A small number of people expressed reservations about affordability, scepticism of the offer, and the risk of stacking multiple payments towards product loans.**

Both Ava (Eco high-earning Gen X-ers) and Ethan (Rural retirees on stable income) were sceptical that a company could provide 0% offers and still profit, telling us "I don't believe you can borrow money for nothing ....the cost of the finance is in there somewhere". Chloe (Techie young families ) was wary of product loans because they had "a friend who got a bit reckless with it and put himself in a lot of debt" by taking on too many at the same time. Two interviewees in the budget-conscious millennial parents segment pointed out that the higher monthly payments due to the shorter term would be a drawback to their using a product loan. Isabelle (Budget-conscious millennial parents) described the higher monthly payment as "a

bit of a stretch” compared to lower monthly payments over a longer period and Ben (Budget-conscious millennial parents) felt that the higher monthly payments of a product loan could make any future unexpected payments “hard to navigate”.

## Subscription models

### **Subscription models were highly rated by interviewees who prioritised peace of mind and affordability.**

There was a high level of familiarity with the concept of subscription models across all the consumer segments. Most interviewees had made use of at least one subscription model in the past, but typically for software, entertainment, or maintenance. The idea of using a subscription model to acquire larger physical assets was less familiar, although a number of participants identified hire leases for cars as an example of their use.

**Subscription model** SUBS

**All-inclusive**, zero hassle. Get the product, the setup, and the servicing for one simple monthly fee—and **own it all when you're done.**

Example product:

Amount financed:	N/A
APR%:	N/A
Term:	12 years
Monthly payment:	£55
Feature:	Includes servicing and repairs

### **The subscription model was seen as the second most appealing model when interviewees were asked how they would pay for a heat pump if they couldn't just use their savings.**

The appeal of the subscription model was specifically due to the lower monthly payment on offer and the inclusion of servicing and repairs. Although almost all consumer groups found aspects of the subscription model to be appealing, segments C, E and F found it particularly attractive. Both Isabelle and Ben (Budget-conscious millennial parents) found the reduced hassle from not having to find an installer to initially install the heat pump particularly appealing, and thought that the monthly cost was “not a huge hardship for something that I don't then have to think about at all”. Segment E and F also found the monthly cost to be affordable, but particularly valued the peace of mind from the inclusion of repairs and maintenance rather than the installation. Thomas (Tech-cautious pre-retirees) told us: “One simple payment including servicing and repairs, what's not to like about that?”


### **People found the long-term option in the given example unappealing.**

There was a clear theme of interviewees disliking the length of the 12-year term given in the example subscription model, although the reasons provided differed. Interviewees like Olivia (Rural retirees on stable income) told us that they would be “very happy to be alive in 12-years time”, referring to their reticence to enter into a subscription with a longer term than they might expect to live. Interestingly, segment E was an outlier to this pattern, as three of the interviewees selected the subscription model as their preferred choice despite the group all being between 62 and 72 years old. Concerns about the 12-year term were also raised by Evelyn and Isabele (Budget-conscious millennial parents) and Ethan (Rural retirees on stable income), who were apprehensive about the implications for selling their homes. Interviewees George and Chloe (Techie young families) felt that such a long-term was like a “perpetual subscription or mortgage” and would have preferred to be able to purchase and own the heat pump outright.

## Pay-as-you-save

**Pay-as-you-save models were considered to be very novel and unfamiliar by almost all interviewees.**

Most people explicitly stated that they had never heard of it or any similar arrangement. A number of individuals struggled to comprehend how the arrangement would work in practice and required more detailed explanations from interviewers. A few interviewees likened the arrangement to existing schemes they had seen for solar panels, with Grace (Homeowners eligible for free heat pumps) explaining that they currently had a power purchase agreement for their solar panels.

**Pay as you save** 

The upgrade that pays for itself. Switch for £0 upfront and let your **energy savings cover the cost**, no extra out-of-pocket spend.

Example product:

Amount financed:	£5000
APR%:	8%
Term:	10 years
Monthly payment:	£60.66
Feature:	No upfront payment

**Despite an initial lack of familiarity, a number of interviewees found aspects of PAYS to be highly appealing.**

The two main forms of appeal were the lack of any upfront cost and the avoidance of any increases to monthly outgoings. The zero upfront cost element was described as appealing by a range of interviewees across the segments, as it allowed them to not touch their existing savings, with Olivia (Rural retirees on stable income)

remarking that an initial lump sum was "what scares people". Having no change in monthly running costs was seen as appealing due to the budget stability that it allowed. Jacob (Techie young families ) appreciated that not having a change to their family's utility outgoings over the 10 year term would make it much easier to plan their finances. Other interviewees like Scarlet (Techie young families ) liked the method of repayments being made from energy savings, "feels a little better because t's not money straight out of your pocket". This was echoed by Thomas (Tech-cautious pre-retirees), who liked the logic of getting an energy company to fund the work and then "paying them back in fuel rather than actual pounds and pence". A small number of interviewees also found the 10-year term provided in the PAYS example to be a more suitable duration than the longer terms of the example mortgage or subscription models.


**The attached APR and uncertainty around reduced bills were the most unappealing features of PAYS.**

Most commonly, the 8% APR in the example was pointed out as highly off-putting. Grace (Homeowners eligible for free heat pumps) explained that she would not want to borrow on those terms as "you're still paying a reasonable bit of interest on top of that" as the term was 10 years in the example. Several interviewees displayed skepticism in the offer and questioned what would happen if their bills were not actually lowered. The complexity of the model compared to more familiar arrangements was also seen as a deterrent, confusing some interviewees and making them hesitant to trust it. Although some participants found a 10-year term to be acceptable, others still found a 10-year term to be unappealing due to concerns around selling their home and not seeing any of the financial savings themselves for the duration of the term.

## Personal loans

### **Personal loans were disliked by almost all interviewees due to the attached interest rate.**

All consumers interviewed were familiar with personal loans. A significant portion of the interviewees had also made use of them previously for major expenses such as buying cars or carrying out home improvements like kitchens. Those who had never used personal loans often cited strictly avoiding them due to being averse to debt, preferring to use their savings or 0% interest options from product loans or credit cards.

**Personal Loan** 

**Total flexibility**, zero fuss. Secure the cash you need, then pay it back in steady, fixed instalments. No collateral needed.

Example product:

Amount financed:	£5000
APR%:	8%
Term:	5 years
Monthly payment:	£101.38
Feature:	No collateral needed

### **A small number of interviewees preferred personal loans due to already being familiar with them.**

Amelia and Ava (both Eco high-earning Gen X-ers) both found personal loans to be a preferred model for financing a heat pump due to their high familiarity with the product. Amelia described how they had an established relationship with their high street bank and felt that newer schemes might be hiding their true cost. Ava felt that a 5-year term was “a reasonable amount of time to commit to”, with Ava clarifying that they didn't want a “noose” of long-term debt hanging over them.


### **The attached interest rate was strongly disliked by all consumers.**

The attached APR of 8% was the resounding factor that was seen as unappealing across all consumer segments. This aversion was characterised by a comparison with the product loan. We heard a number of participants explain that they felt the personal loan did not make sense when the product loan was 0% APR. Charlie (Eco high-earning Gen X-ers) told us, “it doesn't make any sense to drag out a loan and pay 8% when you could pay it off quicker at 0%”. Interviewees noted that the monthly repayments were lower than the product loan example, but felt that the lower monthly repayments were not compelling enough to override their aversion to the interest rate attached.

## Green mortgages

### **Green mortgages were rejected as a choice for paying for a heat pump by almost all interviewees.**

Most people were completely unfamiliar with green mortgages, although a small number had heard about them through their professions or family members. None of them had been offered a green mortgage when interacting with brokers in the past. Although not as green mortgages, some participants had borrowed extra funds via their mortgage to cover large expenses such as a new roof, kitchens, bathrooms, a conservatory, an extension, and extra insulation.

**Green mortgage** 

Get paid to go green. **Unlock lower interest rates** and exclusive cashback rewards by upgrading your current home to be more energy-efficient.

Example product:

Amount financed:	£100,000
APR%:	5.6% (average)
Term:	20 years
Monthly payment:	£693.55
Feature:	£1500 cashback; fixed APR for 5 years

### **Cashback rewards were seen as appealing, but not enough to make green mortgages a preferred choice.**

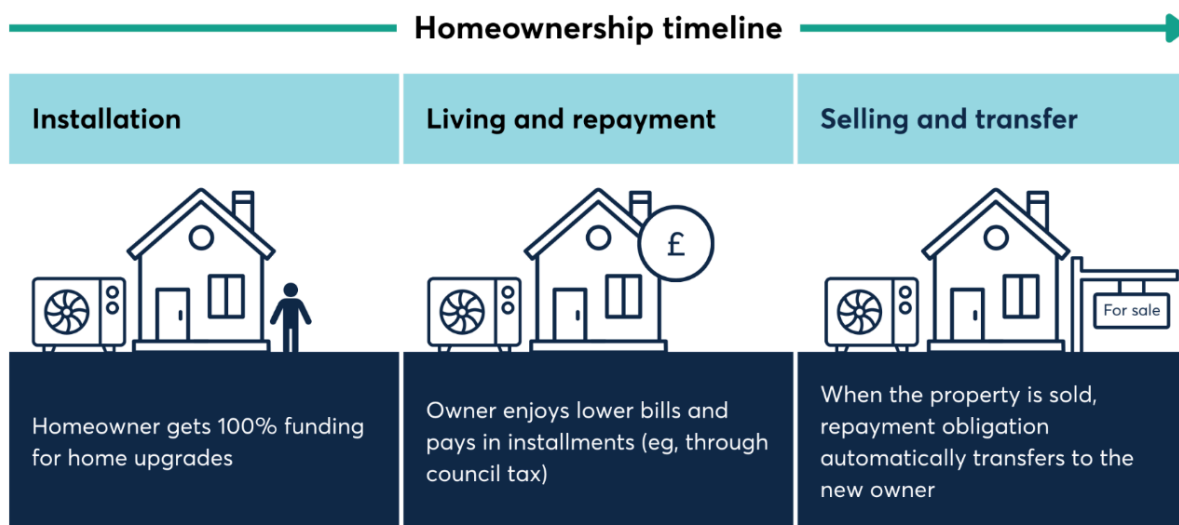
Only one interviewee selected the green mortgage as their preferred model for adopting a heat pump. Chloe (Techie young families) explained that “you can spread it over the long term with my existing payments”, whilst also finding the potential for accessing cashback rewards as being very appealing. Isabelle and Ben (Budget-conscious millennial parents) also found the idea of adding to their mortgage an affordable option, with Isabelle loving the idea of being “paid to go green” with cashback rewards, although both found PAYS and subscription models to be preferable choices.

### **Consumers without a mortgage did not want a new one, and consumers with an existing mortgage didn't want to add to it.**

Segments A, D, E, and F found the green mortgage model to be particularly unappealing due to their mortgage status and age. Almost all of them had paid off their mortgages and did not consider taking out new debt against their homes as an option. Many also raised concerns over taking out a new mortgage, as they felt the terms would be too long for their stage of life. Segments B and C found the green

mortgage offer to be unappealing for slightly differing reasons. We heard from both segments that the idea of adding to a mortgage they were “actively trying to get rid of” was “daunting” and the example interest rate of 5.6% was not persuasive enough compared to their current mortgage rates. A number of older interviewees across segments A, F and E felt that green mortgages would be well-suited for younger people.

## Property linked finance



Consumers were presented with an example of how PLF could work in the UK. They were then asked for their thoughts on the structure, whether they felt like it would be a solution or a complication and whether they thought it would be suitable for themselves. The concept of PLF was new to almost all the interviewees, although Grace (Homeowners eligible for free heat pumps) and Leo (Tech-cautious pre-retirees) likened the mechanism to transferring the ownership of solar panels and Thomas (Tech-cautious pre-retirees) had heard of generational mortgages abroad.

**Interviewees generally found the freedom of being able to move house without carrying the debt of an asset they no longer owned appealing.**

Having finance tied to the property instead of themselves negated the fears expressed around the long-term subscription models, PAYS and green mortgages. In particular, consumers in segments A and F referred to the value that this would have when “downsizing”. Mia (Tech-cautious pre-retirees) told us that their children would be leaving home soon and so PLF would be “really appealing” as otherwise they

might have “forked out a load of money for a heat pump and then we move out, you've lost all that investment”. Thomas (Tech-cautious pre-retirees) considered it to be a good new mechanism to release capital from their farm to conduct a larger retrofit on their property, preferring it to the option of taking out a new mortgage. Evelyn and Isabelle (Budget-conscious millennial parents) valued the security that properly linked finance provided due to not taking on debt “if life circumstances forced a move”. Maya (Homeowners eligible for free heat pumps) particularly valued the flexibility that PLF could provide due to the unpredictability of the next 20 years, noting that it would allow you to “decide to sell up or go and live in a different country” if you wanted.

**PLF was a polarising model with many of the participants noting its potential benefits, but also sharing concerns with its use.**

The most common concern raised was the uncertainty around what PLF might mean for selling a property. This concern was expressed as a fear that an attached PLF would make a property harder to sell, with some interviewees worried that a smaller pool of buys could also decrease the value of the property itself. Interviewees often expressed this view as a question back to the interviewer, such as in the case of Amelia (Eco high-earning Gen X-ers), “Would it put potential buyers off depending on how long that you've got left over the loan of the heat pump?”

**A number of people felt that they would be more comfortable buying a property with PLF attached than selling their own with it.**

To gain more insight into this question, we asked how they would feel about buying a house with PLF attached. Interestingly, we often heard a stark contrast when viewing PLF as a buyer compared to as a seller. Scarlett (Techie young families) told us that they would definitely “go forward with that” as they saw the heat pump already being installed as a benefit. Likewise, Charlie (Eco high-earning Gen X-ers) was concerned that “the only thing you need to know is how happy buyers are to take that on and how that affects your property value”, but felt “perfectly happy” to purchase a property with PLF that had already been upgraded to use “green energy”. Other interviewees felt that they would be happy as a buyer as long as the running costs of the heat pump and monthly PLF repayment were clear. Jacob (Techie young families) told us that they would feel “less fear” as the legal conveyancing process would thoroughly vet the financial arrangements first.

## **A small number of interviewees felt strongly that they would not want to purchase a property with PLF attached.**

Ethan (Rural retirees on stable income) felt strongly that they wanted “to be in control of their own heating and my own debt, not someone else's”. This theme was characterised by the desire to be able to make a choice about how they heat their home, with Freddie (Rural retirees on stable income) explaining that they felt they would become “a hostage to fortune”.

We finished by asking whether interviewees felt that PLF was a model that they felt would be suitable for themselves. Slightly less than half of the consumers interviewed felt that it would be a suitable option for themselves if they were going to purchase and install a heat pump.

## Relationship with their current heating system

Before asking people how they might finance a heat pump, we wanted to understand what their relationship was with their current heating system, and how they thought they would replace it if needed. Many of the consumers we spoke to had oil or gas boilers that were approaching the end of their life and starting to require frequent repairs.

A number felt that they had undersized or poorly optimised systems that struggled to heat their homes during cold weather. Interestingly, most interviewees across both segments D and E had replaced their boilers in recent years and reported being satisfied with their performance. When asked how they would fund a replacement boiler, a majority of interviewees said that they would prefer to pay with cash or savings, although a number felt that they would have to use a mixture of both savings and some form of borrowing or credit. Several told us that they would need to use payment plans or would prefer to spread the cost using some form of finance rather than having to use their savings. Finally, a couple of people noted that they would not have to worry about paying for a replacement as they already had protections in place via insurance or being within their warranty periods.

## **Familiarity with heat pumps varied considerably between the people we interviewed.**

A small number were very familiar with heat pumps after speaking to heating engineers or seeing them on TV. One had even progressed as far as getting a quote, but had not progressed due to not wanting pipework along a wall in their bungalow. The majority of interviewees had heard of heat pumps before, but were much less familiar with how they worked or what getting one would entail. Finally, several interviewees had very low awareness of them, having only ever heard the term in passing. Even amongst those who were familiar with heat pumps, very few were aware of the £7,500 grant available from the Boiler Upgrade Scheme; the remainder either believed funding was means-tested or were completely unaware of any funding at all.

## Consumer attitudes towards suitability of finance

We heard that interviewees had a range of strategies when it came to paying for major life expenses, like cars or holidays. When asked whether they found finance more or less suitable for different purposes, we heard four themes of rationale. In these interviews, there was no trend between the attitude towards finance and any specific consumer segments.

1. **Necessity vs leisure/luxuries** – Many of the interviewees considered non-essential leisure purchases to be inappropriate for finance. In comparison, we heard much higher willingness to use finance for essential purchases like boilers, cars or repairs. Sophia (Homeowners eligible for free heat pumps) explained, “maintaining a property is a necessity, whereas putting a new TV or holiday on finance comes down to prioritising correctly”.
2. **Depreciating vs appreciating assets** – We heard differing opinions on this point; some consumers like Amelia (Eco high-earning Gen X-ers) considered finance appropriate for an asset that depreciates, like a car. In comparison, both Maya (Homeowners eligible for free heat pumps) and Ethan (Rural retirees on stable income) felt that they would use finance for an investment, like solar panels, but never for an asset like a car that depreciates.
3. **The 0% Finance Arbitrage** – A large number of people told us that the suitability of finance was not determined by what they were buying, but rather how they were allowed to buy it. If 0% interest was offered, then it was considered a strategic choice to use and keep their own savings earning interest.

4. **Consumer protection over lack of capital** – Participants considered using finance to be an added layer of protection when making larger purchases. Even participants who described themselves as debt averse were happy to make use of a credit card to ensure security. Ava (Eco high-earning Gen X-ers) recounted how they had made use of a credit card to purchase an expensive computer as they were dealing with an “unfamiliar trader”.