How might we design a fair energy future where finding people and supporting them is easy?

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Fair Future Lead

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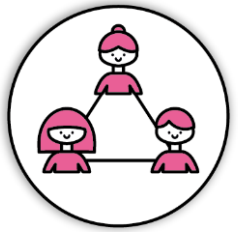
ABOUT ENERGY SYSTEMS CATAPULT.

MISSION: UNLEASHING INNOVATION AND OPEN NEW MARKETS TO CAPTURE THE CLEAN GROWTH OPPORTUNITY.

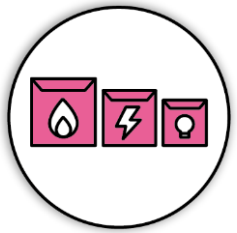
WHO?

INNOVATION EXPERTS



DRIVING COLLABORATION

WHAT?



SUPPORTING INNOVATORS TO COMMERCIALISE

HELPING TO DESIGN THE FUTURE ENERGY SYSTEM TO UNLOCK INNOVATION

- Consumer Insight and Proposition Design
- Business Model Innovation
- Harnessing Digital and Data
- Test and Demonstration
- Delivering Large Scale Innovation Trials
- Whole System Modelling
- Clean Tech Engineering
- Systems Engineering
- Integrating the Transport and Energy Systems
- Markets, Policy and Regulation
- Decarbonising Local Places
- Decarbonising the Public Sector Estate
- Decarbonising Campuses, Business Parks and Industrial Estates

We work with Innovate UK

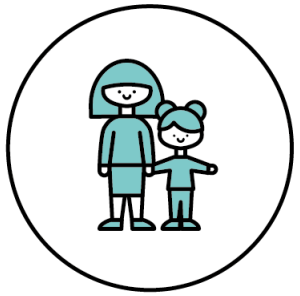
If we need all consumers to be able to involved, how will these current consumers participate?

6 million customers need additional services from their supplier and DNO

12 million people can’t use the internet for basic everyday tasks

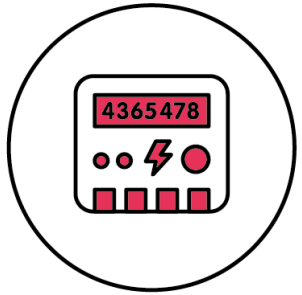
34% of UK adults had less than £1k in savings

20% of households don’t have space for off-street parking



Older and vulnerable consumers are switching less than previous years and less than all other consumer groups

75% of dissatisfied energy customers were so because they didn't understand how their bill was calculated



15% of customers pay for their energy upfront

Potential obstacles to participating in a future smart energy market

1. Finance
   a) Capital for initial purchase of new technology
   b) The stability of household income
   c) Access to grants and loans
2. Building and physical space
   a) Permission to make changes to the building
      - Property owner
      - Local area planning
   b) Availability of space to install new heating or energy technology
3. Digital access
   a) Home internet access
   b) Digital skills
   c) Accessible technology
4. Engagement with energy market
   a) Ability to switch supplier and service (e.g. because of energy account debt)
   b) Capability to access information on alternative options in the market
   c) Willingness to switch supplier and service
5. Stability of household needs and circumstances
   a) Health
   b) Social relations within and outside the house
   c) Financial vulnerability
6. Proximate location
   a) Availability of fuel types
   b) Local acceptance of energy generation and demand types
   c) Network availability

Notice

Participation of low income and vulnerable consumers: Project InvoLVe

A project to identify how future innovation can enable low income and vulnerable consumers to increasingly benefit from a smart energy system.

From: Department for Business, Energy & Industrial Strategy
Published: 28 October 2020

To build a fair energy future now, we will need to…

Harness business opportunities so innovation can benefit all

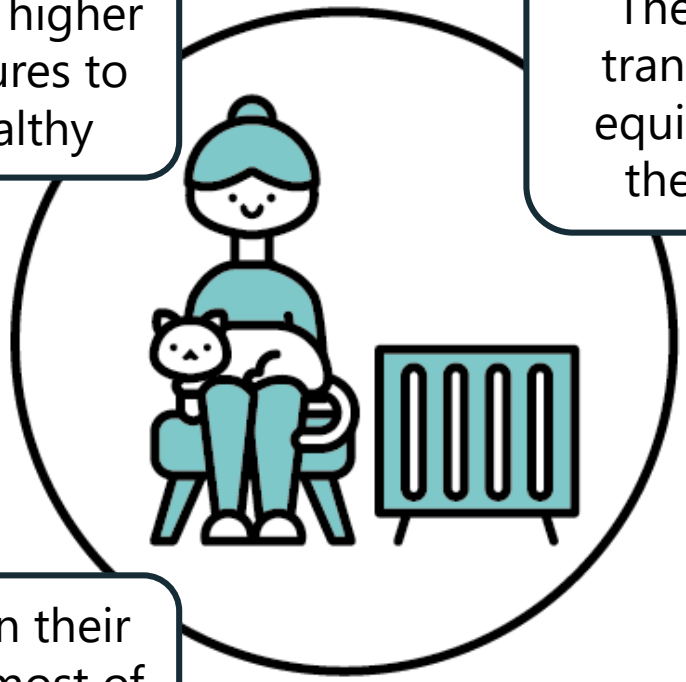
Pre-empt risks for consumers and mitigate where possible

We need to know that innovation will work for a range of consumers

Some consumers have different basic needs from energy than others

They need higher temperatures to keep healthy

They rely on transport and equipment for their health

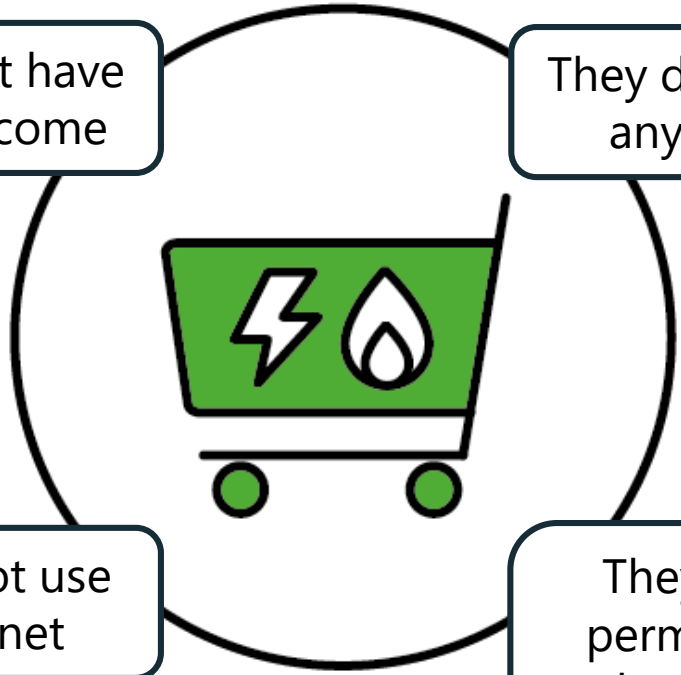


They are in their home for most of the day

Some consumers have different capabilities for using and buying energy than others

They do not have a stable income

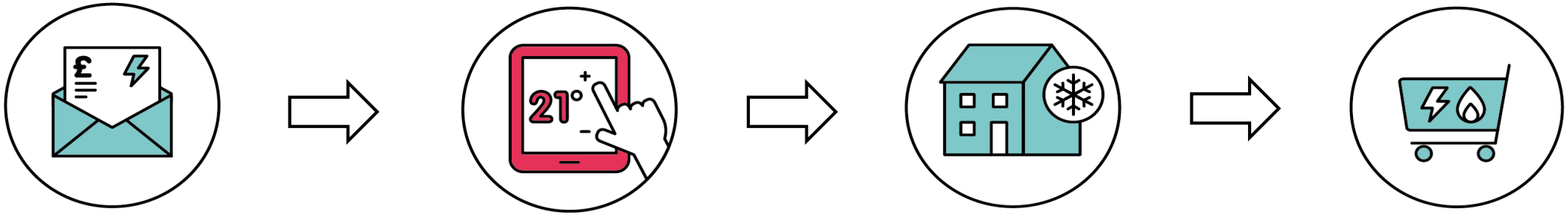
They do not have any savings



They do not use the internet

They do not permission to make changes to their home

Households at risk of fuel poverty enjoyed using smart controls to get comfortable



Households were not focused on only minimising their energy bill

These households enjoyed using smart heating controls to meet their needs in different ways

These households were constantly trying to managing how much they spent on the heat they wanted

These households could find information about the cost of heating helpful but they want to be able to use it to decide how much to spend.

People in fuel poverty want to control how much money they spend getting the heating experiences they need

Vulnerable consumers enjoy smart energy services that meet their needs. Services could reduce costs to other sectors.

- We designed and prototyped a service we called Warmth on Prescription which allowed people to heat their home to ‘healthy temperatures’ at no additional cost to them.
- We designed this service with and for people living with conditions made worse by the cold and at risk of high cost to the NHS.

HOW YOU CAN IDENTIFY FUEL POOR HOUSEHOLDS AND SUPPORT THEM

- Householders are your experts and key to identifying and designing support that works for people like them
- Use a combination of quantitative data about the homes and the buildings and qualitative data directly from householders in your housing stock
- Understand what is important to householders and how you can provide that with the support you have available

Let's build a Net Zero future we want to go to

OUR MISSION

TO UNLEASH INNOVATION AND OPEN NEW MARKETS TO CAPTURE THE CLEAN GROWTH OPPORTUNITY.

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