2. b. Defining your audience: Propensity characteristics

We have created two frameworks of characteristics, or capabilities, that households or small and medium enterprises (SMEs) might have, which could impact on their ability to fully participate in an energy-related activity.

These build on the work of the Centre for Sustainable Energy (CSE) in developing their <u>Smart</u> <u>and Fair: Offer Profiling Tool</u>.

The two frameworks are at the end of this document. We have also created them as two mural templates for internal use:

- 1. Domestic audience segmentation mural
- 2. Small & Medium Enterprises segmentation template

Useful for

- Propensity analysis exploring which characteristics help define those with a propensity to use an existing service.
- Audience segmentation the most successful products and services are those designed to meet the needs of a very specific, and narrow target audience.
- Helping energy flexibility service providers assess the capabilities required to use a particular service and who might be excluded from using it.
- Understanding what additional support might be needed to help people gain the capabilities needed be able to benefit from a particular service.
- Profiling the characteristics of a target audience, to gain insights as to which local energy offering might be best suited to a defined audience.

How it works

A wide range of characteristics impact on the ability of a household to be willing or able to participate in an energy-related activity. These fall into three broad areas:

1. Energy:

Characteristics to do with the building, their energy use profile and characteristics relating to the local energy system in which the building is situated, that are relevant to the way the householder can, or does, use energy.

2. Agency:

A wide range of characteristics relating to the personal circumstances of the householder which impact on their ability to make choices – from their financial circumstances, power to make decisions, granularity and availability of data, digital connectivity and capability, household make-up and attitudes.

3. Motive:

What benefits the householder might value, and if there are any current triggers that could spur them into action.

Using the list of characteristics in the Domestic Audience Segmentation framework below, build up a picture of your audience based on those characteristics they are most likely to have, and what their likely motivations will be. Try and only pick the key defining characteristics.

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Grid Edge Engagement – The Playbook



For example, customers most likely to benefit from a paid-for retrofit service such as Cosy Homes Oxfordshire customers may not share a distinct set of 'energy' related characteristics. The service is suitable for any type of dwelling, energy use profile and any building's existing energy system. However, those who are most likely to benefit from the service may share a distinct set of agency and motive characteristics. For example, being owner occupiers, with access to capital and motivated by carbon savings.

What next?

Build a value proposition for your target audience by identifying how your service best creates value or identify ways users who might be lacking key characteristics or capabilities could be supported to gain them, so they can also benefit from the service.

Related tools and resources

CSE's Smart & Fair Offer profiling tool - <u>https://www.cse.org.uk/resource/smart-fair/</u>

Industry Archetypes

Centre for Sustainable Energy have developed two sets of consumer archetypes to enable better policy design and decision making. Neither are currently in the public domain.

ESO Archetypes

The 18 archetypes were produced to inform their Future Energy Scenarios (FES) modelling. The archetypes were produced by splitting the Smart Energy Research Laboratory dataset by the following characteristics considered to have the largest impact that determines daily energy usage patterns:

- Presence of Solar PV
- Electric vehicle (EV) ownership
- Type of central heating system (e.g. electric storage, oil, mains gas)
- Number of children
- The head of the household is aged 65+

These were then mapped to Local Super Output Area (LSOA) level to help map the time and location of energy demand peaks.

Ofgem

CSE created 24 archetypes derived from the Living Costs and Food (LCF) Survey, supplemented with the Ofgem Consumer Engagement Survey and the English Housing Survey. The archetypes created are by Ofgem's Distributional Impacts Model. This model assesses various policies (including the price cap changes that have rocked consumers for the last few years) through their impact on the different archetypes.

Intersectionality

Intersectionality is a critical framework that provides us with the mindset and language for examining interconnections and interdependencies between social categories and sys-tems. A concept developed by Kimberle Crenshaw in 1989 it relates to how gender, race, class and other social categories intersect and interact with individual experiences, societal norms, institutional structures and cultural ideologies.



Low Carbon Hub took part in two workshops with Nickhil Sharma, UEA to explore how complex sociotechnical dynamics are considered while evaluating justice considerations in relation to the energy system transformation.

Further reading about intersectionality and research tools such as the intersectionality web: <u>Methodology and methods for collecting EDI materials</u>, <u>Atewologun and Mahalingam</u>, <u>2018</u>



Domestic Audience Segmention

ENERGY Dwelling and local area	DWELLING CHARACTERISTICS Dwelling type, EPC rating Off street parking, Outside space Indoor space for kit suitable for solar PV Geographic location	LOCAL ENERGY SYSTEM Smart meter On mains gas Local grid capacity
Energy Profile	ENERGY USE Overall energy use - controllable energy use - movable energy use - energy usage pattern - predictable peak electricity use	BUILDING ENERGY SYSTEM Existing solar PV, existing battery storage, existing EV, other energy kit eg EV charger, heating type hot water type, smart appliances,
AGENCY Finances & agency	AVAILABILITY OF FUNDING household disposable income, income reliability, existing savings, credit score, willingness to invest or borrow, eligibility for grant funding	AGENCY OF OCCUPIER Tenure type, tenure length and security, mortgage or lease conditions,
Digital tech readiness	CONNECTIVITY Mobile internet coverage, broadband availability and speed, smart phone	DIGITAL CAPABILITY Attitude to new technology, digital capability, data granularity, realtime or lag to data, accessibility to monitor and control energy data
Personal & social	HOUSEHOLD Household demographic, health, lifestyle, flexibility in lifestyle, social capital, time and capacity, research skills, DIY skills, project management skills, technical knowledge	ATTITUDINAL Willingness to change, trust in solution, trust in messenger, trust in delivery agent, attitude to risk, resilience to things going wrong
MOTIVE Motivations	INTERNAL FACTORS Eco, carbon, sustainability, do the right thing, reducing energy bills, return on capital, tech early adopter, personal energy security, comfort, health, scale of intervention sought	EXTERNAL FACTORS External funding, external decision makers, regulatory pressure, national energy security, scale of intervention recommended, peer to peer recommendation, leadership
Triggers	INTERNAL FACTORS Anticipating change in financial situation, change in occupancy patterns, change in health, change in household make up, personal recommendation, considering EV purchase, moving house or planning renovation, increased climate concern	EXTERNAL FACTORS Change in affordability of measures, availability of external funding, price of energy, change in regulation, availability of a solution, norming of measure or solution, availability of contractor, availability of kit



Small and Medium Enterprise Audience Segmention

ENERGYSITE CHARACTERISTICSLOCAL ENERGY SYSTEMConstruction type, age, EPC ratingSmart meterSite and local areaCustomer and staff parking, outside space, roof construction & orientation,On mains gas Local grid capacity		
Indoor space for kit, geographic location		
Energy ProfileENERGY USE Level of energy consumption and timing of use, predictability and 	om ting ther g type es,	
AGENCYAVAILABILITY OF FUNDING Turnover, balance sheet, number of years in business, availability of own capital, access to loans, access to grants, willingness to invest or borrowAGENCY OF ORGANISATION Tenure type, tenure length an security, mortgage or lease conditions,	N Id	
Digital tech readinessCONNECTIVITYDIGITAL CAPABILITYNobile internet coverage, broadband availability and speed, smart phone, number 	realtime tor and sting abled	
ORGANISATIONATTITUDINALCulturalSize and structure, decision making structure, time and capacity of staff, skills & technical knowledge of staff, willingess to outsource, capacity to cope with disruptionWillingess to change, trust in solution, trust in messenger, tru delivery agent, attitude to rist resilience to things going wrote	in st in k, ng	
MOTIVE INTERNAL FACTORS EXTERNAL FACTORS		
Motivations Eco, carbon, sustainability, do the right thing, reducing energy bills, return on capital, improve profit margins, tech early adopter, personal energy security, comfort, health, scale of intervention sought, improve staff performance sought, improve staff performance source and the security of the staff performance source and the security of the securi	ion egal nergy	
INTERNAL FACTORS EXTERNAL FACTORS		
TriggersBusiness expansion, moving premises, formal or informal staff champion, board champion, personal recommendation, considering EV purchase, equipment reaching end of life, increased climate concernChange in affordability of measu availability of external funding, pu energy, change in regulation, avail of a solution, norming of measu solution, availability of contract availability of kit, customer expect HQ corporate strategy & polic expectation	ures, rice of lability re or tor, tation, cy	

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