



User-Centred  
Energy Systems



Hard-to-  
Reach Energy  
Users

# Subtask 2: Case Study Analysis Methodology

Template for National and  
Contributing Experts

---







**FEBRUARY 2021**

Rotmann, S., Mundaca, L., Ashby, K.,  
O'Sullivan, K., Karlin, B., and H. Forster

**Suggested citation:** Rotmann, S., Mundaca, L.,  
Ashby, K., O'Sullivan, K., Karlin, B. and H. Forster  
(2021). *Subtask 2: Case Study Analysis  
Methodology - Template for National and  
Contributing Experts*. Users TCP HTR Annex:  
Wellington. <https://doi.org/10.47568/3OR111>



# Contents

<b>Background</b> .....	<b>2</b>
<b>Report audience and purpose</b> .....	<b>4</b>
<b>Methodology</b> .....	<b>5</b>
<b>Case Study Analysis (CSA)</b> .....	<b>5</b>
 Why?.....	6
 Audience .....	6
 Behaviour .....	6
 Content.....	6
 Delivery .....	6
 Evaluation .....	6
<b>Interview protocol and information sheet</b> .....	<b>6</b>
<b>Report Template for Case Study Analyses</b> .....	<b>9</b>
<b>References</b> .....	<b>10</b>
<b>Appendix 1. Overarching activities</b> .....	<b>11</b>
For National Experts in participating countries (NZ, Sweden, the U.S.): .....	11
For in-kind participating countries (to date: UK, Spain, the Netherlands) .....	11
<b>Appendix 2. Information Sheet for Interviewees</b> .....	<b>13</b>
Background to this research .....	13
Purpose of interviews.....	13
How will this data be used .....	14
Data storage and privacy .....	15



## Background

Social science disciplines (especially economics, psychology and sociology) have been identifying and examining behaviour change strategies and models of understanding for decades (e.g. Rotmann & Mourik, 2013). These insights have increasingly been applied at the organisational and institutional levels in the form of targeted behaviour change interventions (e.g. Cowen et al, 2018). Our decade-long field research as part of the Users TCP by IEA [Task 24](#) and [HTR Annexes](#), together with the expertise and insights of our U.S. Project Partners [See Change Institute](#) have highlighted that many organisations do not follow a systematic, rigorous, and replicable approach to the design, implementation, and evaluation of such behaviour change interventions. In addition, it is often unclear which strategies have been followed (implicitly or explicitly) in a given context (see Karlin et al, 2021). Karlin et al (*ibid*) believe that “the most effective behaviour change interventions come through the embrace of diverse approaches and perspectives, refined over years of application.”

The Hard-to-Reach (HTR) Energy Users Annex thus follows a recently-developed research framework by See Change Institute, called “The ABCDE Building Blocks of Behaviour Change” (Karlin et al, 2021). This approach, as Figure 1 illustrates (see page 6), focuses on standardising the *process* of designing, implementing and assessing a behaviour change intervention, rather than specifying a one-size-fits-all intervention. This process is flexible - the exact methodologies and approaches will vary depending on the goals of the intervention and constraints of the organisation/s implementing them - but also systematic, by constructing our efforts as a set of building blocks which requires a holistic consideration of how each effort fits together. It follows several steps based on Design Thinking (e.g. Hoolohan & Browne, 2020), which are coupled with quantitative and qualitative data collection and analysis on the [A \(Audience\)](#), [B \(Behaviour\)](#), [C \(Content\)](#), [D \(Design\)](#) and [E \(Evaluation\)](#) building blocks of solid intervention design and implementation. These blocks are described in detail in the Methodology section, below.

Guided by this research framework, the HTR Annex undertook research in Year 1 following the first two phases:

### 1. **DISCOVER:**

- a. *Stakeholder Analysis* based on survey (n=120) and interview (n=50) data with HTR policymakers, programme administrators and research experts (see Ashby et al, 2020a and b); as well as our first international workshop (HTR Annex, 2020).
- b. *Landscape Analysis* based on initial analysis of cross-country transferability, and the metrics used to assess the applicability of international learnings (see Ashby et al, 2020b) and an in-depth literature review (see Rotmann et al, *forthcoming*).



2. **DEFINE:**

An in-depth literature review about HTR definitions and audience characteristics (Rotmann et al, *forthcoming*) and its shorter summary (Ashby et al, 2021) delve, in detail, into target HTR Audiences (*Building Block A*) and Behaviours (*Building Block B*).

In Year 2 of the HTR Annex, the project team will focus on the third phase:

3. **DESIGN:**

Cross-country Case Study Analyses (CSA) of engagement strategies that were used in our participating (and in-kind contributing) countries to successfully engage the HTR audiences in the following sectors:

- a. *Residential*: Using *income* as qualifier plus an intersectionality denoting vulnerability (e.g. minority status<sup>1</sup>, geographic isolation, stigma)
- b. *Commercial*: Using a prioritisation methodology (e.g. that developed by U.S. national experts, see below) with national stakeholders to decide on a priority commercial sub-sector.

Based on the above, Year 2 means a particular focus on *Content (Building Block C)* and *Delivery (Building Block D)*. Specific details will be provided in the methodology section below. In addition to focusing on past or existing engagement strategies for residential and commercial HTR audiences in different countries, we will also assess the extent to which these case studies have collected data that fit or match the ABCDE building blocks as we believe that a successful intervention needs to at least have done a cursory exploration into these elements. This is, of course, an *ex-post* analysis and, seeing that this research process is in development, we do not expect any case studies having explicitly addressed these steps.

There are several reasons why we are utilising this research framework to undertake each country's *Case Study Analysis (CSA)*, which will form a bigger *Cross-Country Cases Study Comparison (CCCSC)* in Year 2:

1. HTR Annex aims to use a standardised, common framework for the CSA capable of capturing the ample variety of (potential) behavioural-oriented interventions across participating countries.
2. We want to use the *ABCDE Building Blocks* framework to guide and prompt each country's CSA as it will allow more systemised data collection for a cross-country comparison (CCCSC), which would otherwise be much more difficult to achieve.
3. The CCCSC is expected to also be used as a learning tool, so we hope to not only focus on (potentially) highly-successful interventions, but also those deemed less successful (or which may simply not have been able to be evaluated in depth to prove either way). The interview questions (see Methodology section below) guiding each of the Building Blocks will help tease out comparable learnings from each CSA.

---

<sup>1</sup> See Rotmann et al (*forthcoming*) for detailed list of minority status HTR audiences.



4. It also allows us to look for patterns where e.g. very specific aspects have been included by most case studies (e.g. engagement strategies via *Building Blocks C and D - Content and Delivery*) vs those where detailed data may not have been collected by most interventions (e.g. clear descriptions of very targeted / detailed behaviours to be changed - *Building Block B*).
5. We expect most case studies to have at the very least thought about some aspects of each of these building blocks during their design phase - even if they were decided not to be actioned on in-depth, for whatever reason. Understanding why e.g. detailed Audience analysis (*Building Block A*) or Evaluation (*Building Block E*) weren't possible is also very valuable for us to incorporate into the CSA.
6. Finally, we hope to use the various CSAs that are analysed following this method as a way to validate and test the adequacy of this ABCDE framework, including for complex CCCSC.

## Report audience and purpose

The CCCSC hopes to attract several different audiences to this Year 2 deliverable, aside from participating countries:

1. Our *National Experts* from the financially-participating countries (U.S., New Zealand and Sweden), who are already well-versed in this Annex' research background and methodology.
2. *Contributing Experts* from in-kind participating countries (UK, Canada, Spain, the Netherlands), who are invited to review this CSA methodology.
3. *New Executive Committee (ExCo) members and countries* who have not yet decided to join this part of the HTR Annex.

However, this specific document focuses on the first two audiences only.

The purpose of this document is thus:

1. To provide a *background to the research framework* used by this Annex, and how it will be applied in Year 2.
2. To provide *clear guidelines of the methodology* of the CSA, including interview questions and templates.

## Methodology

### Case Study Analysis (CSA)

Behavioural interventions<sup>2</sup> can be systematised and analysed through this series of sub-components, or building blocks, which must be considered in tandem to develop, implement, and evaluate an effective intervention. Given its flexibility, the *ABCDE Building Blocks* (named “framework” from now on) aims to cover any approach within each block, as they are very likely to vary from intervention to intervention (Karlin et al, 2021). However, the overarching structure of the building blocks serves to systematise the overall process. In the context of the HTR Annex, and in addition to systematisation, the framework is used to provide a basis for comparative analysis and complement several specific phases facilitating behaviour change through a rigorous, scientifically-driven research agenda.

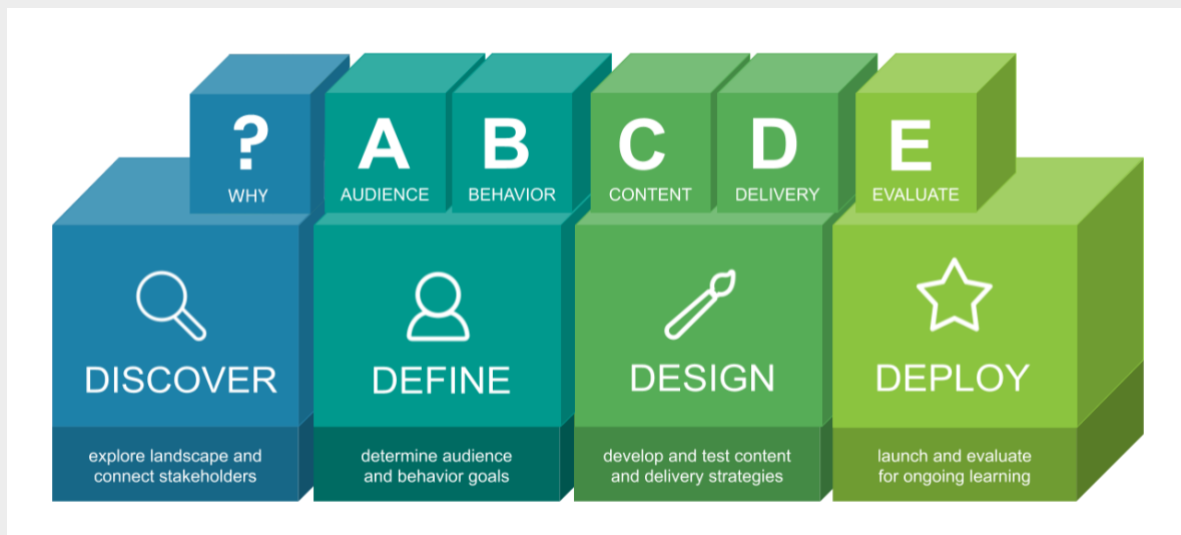


Figure 1. *The ABCDE Building Blocks of Behaviour Change* (Source: See Change Institute).

As indicated above, the framework serves to systematise the overall process of designing, developing, implementing and evaluating a behaviour change intervention(s) in the field. In Year 2 of the HTR Annex, case studies will be developed based on this framework and are expected to provide a comprehensive analysis of an HTR pilot or programme that has data which can be shared. Case studies will be organised based on the framework with the following elements:

<sup>2</sup> Mundaca et al (2019): "We conceptualise behavioural-oriented interventions as any policy instrument (e.g. economic incentive) or policy measure (e.g. practices, processes) that either explicitly incorporates behavioural factors (i.e. cognitive, motivational and contextual aspects) into its design, or is deliberately intended to address the constraints, biases and the context of human decision making (e.g. via choice defaults to promote green electricity, social norm information campaigns to promote energy conservation."



<p><b>?</b> Why?</p> <p>The importance of having a clear <i>why</i> or justification cannot be overstated. One of the most common pitfalls we see in behaviour change interventions is jumping to solutions before knowing the knowledge gaps, clarifying shared goals and desired outcomes.</p>	<p><b>A</b> AUDIENCE Audience</p> <p>Defining the target audience helps ensure that an intervention reaches the right people. Since tailored interventions are typically more effective, knowing the audience means better understanding what barriers and needs exist and consequently adapting the intervention.</p>	<p><b>B</b> BEHAVIOR Behaviour</p> <p>Providing specific target behaviours focuses programme / pilot design, enabling the intervention to match strategies and behavioural components to more closely support or achieve the desired outcome(s).</p>
<p><b>C</b> CONTENT Content</p> <p>The implementation strategies that are used in an intervention help ensure picking the best strategy for each target audience that addresses their unique needs and barriers.</p>	<p><b>D</b> DELIVERY Delivery</p> <p>Intervention success depends on selecting the right messenger, timing and delivery mechanism. Even the most evidence-based, well-researched intervention can fail if the delivery timing and mechanism aren't well-designed.</p>	<p><b>E</b> EVALUATE Evaluation</p> <p>It is critical to know the impact of the intervention and how effective they are. Setting clear goals and success metrics early, and measuring is essential. Effective evaluation also assesses how and for whom an intervention works best.</p>

The overarching activities of the CSA methodology are explained in detail in **Appendix 1**.

## Interview protocol and information sheet

### Interviewee Information Sheet

This background information (found in **Appendix 2**) is to be sent to potential interview subjects before they agree to partake in the CSA. We expect each case study programme manager to have provided a certain level of materials for each National Expert (NE) or Contributing Expert (CE) to review *before* the interviews commence. This will ensure that interviews will remain within a reasonable time frame (around 45 minutes, no longer than 1h) as not all questions will need to be asked/answered every time. The interview questions below are thus more a guidance to be fleshed out by written material that is provided and reviewed by the NE/CE beforehand.

### Questions to ask / explore during each case study analysis

These can be shared as part of the background information (see **Appendix 2**). If so, please add the following instruction: *We will ask for any (written) information to be shared about the pilot/programme/project beforehand and then would like to undertake a 45-60min interview with you to follow-up/clarify on any points that aren't explained by documentation you might be able to share.*



## Question guidelines

### 1. WHY did you design this pilot / programme / project?

- What was the **main motivation or justification** to implement this initiative?
- Did you identify and bring together various **stakeholders** who could help you with the project design, implementation and/or evaluation before starting?
  - If so, how did you **identify and facilitate** these stakeholders?
- Did you clearly decide with your stakeholders on **shared goals and objectives**?
  - If so, can you share them here please?
- Did you return to this shared objective and **change / reiterate** it in any way?
  - If so, why / how?
- Did you undertake any type of **analysis** before starting to design your project / programme / pilot?
  - If so, what **form** did this take? E.g. lit review, market or landscape<sup>1</sup> analysis, talking to other programme managers doing similar interventions...
- Did you assess any **regulatory and/or ethical** obligations or barriers?

### 2. AUDIENCE

- Who was your **target audience(s)**?
- Would you regard this audience group as **hard-to-reach**?
  - Yes/No, why?
- Did you aim to choose any specific **HTR audience segment(s)**?
- How was your target audience chosen / **prioritised**?
- How was your target audience **identified, defined, and characterised**?
  - Did you undertake any demographic / psychographic, needs or barrier analyses?
- Were there any **inclusion / exclusion** criteria (e.g. income, level of energy use) used for your target audience?
- Please provide **any information** on audience definition or research conducted, as available (e.g. via official document, publicly available information)

### 3. BEHAVIOUR

- What were the chosen **target behaviour(s)** for the intervention?
- How were they **chosen / prioritised**?
- **Who was involved** in that prioritisation process?
- What is it that the intervention wanted **people to do / change**?





## 5. CONTENT

- How did you decide on the **approach**? (Please describe overall approach here)
  - Can you provide us with any case study reports, materials or examples?
  - Are they publicly available / able to be published by this Annex?
- What **engagement strategy and messages** were used in the intervention? (e.g. was it a competition / pledge?)
- Was this content **tailored to the intended audience**?
  - If yes, how?
- How was the **messaging strategy** created / decided upon?
- Who was part of this **decision-making process** (e.g. internal marketing team or consultants / designers?)
- What **materials** were created and shared with the target audience?
  - Please **provide examples**, as available.

## 4. DELIVERY

- What **mediums/media** were used to communicate the intervention to your target audience? (e.g. mass email / radio ads / in person visits / website / text message)
- What **messenger(s)** were used for your intervention? (i.e. **who** did the messaging come from - utility / researcher / government agency / community NGO / peers)
- How was the intervention **timing** decided? What was the frequency and duration of the intervention messaging? (E.g. was it scheduled around the holidays / following a news article / after a new policy announcement?)
- Did you conduct any pre-market message or strategy **testing** (e.g., A/B or UX)?
  - If yes, **what adjustments** were made as a result?
- Was this programme decided as a **once-off or is it scalable** for wider roll-out?
  - Please **provide examples** and any other research conducted, as available.

## 6. EVALUATION

- Has the intervention been **evaluated**?
  - If so, what were the **metrics / goals / methods of evaluation**?
  - Was it a **process / impact / outcomes / goal-based** evaluation?
- **Who** was involved in evaluation decisions, and when?
  - Who were the **evaluators**?
  - Were they **included in the intervention design** or added later?
- What were the evaluation **findings and lessons learned**? What **changes** (if any) were made to the pilot or intervention as a result?
- Did you evaluate any **persistence or effectiveness in the long-term**?
  - Yes/no, why?

## Report Template for Case Study Analyses

The Users TCP HTR Annex template (in Word) can be found [here](#). We will use this to write up each country's (2 minimum) case studies, to be synthesised into the wider CCCSC.

Main headings for each country's *Case Study Analyses* (CSAs) are as follows:

### REPORT OUTLINE

- **Country background:** 1-2 pages on your country's energy system and particularly how HTR energy users are identified, characterised and engaged (in general). Potential audience size estimates would be much appreciated (see Rotmann et al, *forthcoming* for examples for the many different types of HTR audiences and their size estimates).
- **Case Study 1 - Residential:**
  - *Background* (describe organisation and outline overall approach)
  - *Methodology* (interview/s, reports and materials analysed etc.)
  - *Results*
    - *Why this approach was used*
    - *Audience/s targeted*
    - *Behaviour/s targeted*
    - *Content created / engagement strategies*
    - *Delivery mechanisms used*
    - *Evaluation of impact*
  - *Conclusions and recommendations / learnings*
- **Case Study 2 - Preferably Non-residential / commercial:**
  - *Background* (describe organisation and outline overall approach)
  - *Methodology* (interview/s, reports and materials analysed etc.)
  - *Results*
    - *Why this approach was used*
    - *Audience/s targeted*
    - *Behaviour/s targeted*
    - *Content created / engagement strategies*
    - *Delivery mechanisms used*
    - *Evaluation of impact*
  - *Conclusions and recommendations / learnings*
- **General discussion:** Discussion of any patterns, trends or learnings from the case studies, including how useful (or not) the *ABCDE Building Blocks of Behaviour Change* framework was, and if the case studies could be considered successes, and why (not). Also any recommendations for future research.



## References

### SOURCES

Ashby, K., Rotmann, S., Smith, J., Mundaca, L., Ambrose, A., Borelli, S. and M. Talwar (2020a). Who are Hard-to-Reach energy users? Segments, barriers and approaches to engage them. *ACEEE Summer Study for Energy Efficiency in Buildings*. Proceedings: Monterey.

Ashby, K., Smith, J., Rotmann, S., Mundaca, L. and A. Ambrose (2020b). *HTR Characterisation*. Users TCP HTR Annex: Wellington.

Ashby, K., Rotmann, S., Mundaca, L., O'Sullivan, K., Ambrose (2021). *HTR Literature Review: Summary*. Users TCP HTR Annex: Wellington.

Cowan, K., Sussman, R., Rotmann, S. and E. Mazzi (2018). It's Not my Job: Changing Behavior and Culture in a Healthcare Setting to Save Energy. *ACEEE Summer Study for Energy Efficiency in Buildings*. Proceedings: Monterey.

Hoolohan, C., and A.L. Browne (2020). Design thinking for practice-based intervention: Co-producing the change points toolkit to unlock (un)sustainable practices. *Design Studies* 67: 102-132.

HTR Annex (2020). *First HTR Annex National Expert Workshop: U.S. 2019*. Users TCP HTR Annex: Wellington.

Karlin et al (2021). *The Building Blocks of Behavior Change: A Scientific Approach to Optimizing Impact*. See Change Institute: Los Angeles.

Mundaca, L., Sonnenschein, J., Steg, L., Höhne, N. and D. Ürge-Vorsatz (2019). The global expansion of climate mitigation policy interventions, the Talanoa Dialogue and the role of behavioural insights. *Environmental Research Communications* 1(6).

Rotmann, S. and R.M. Mourik (2013). Closing the loop between theory, policy and practice: IEA DSM Task 24 on behaviour change. *eceee Summer Study Proceedings*: France.

Rotmann, S., Mundaca, L., Castaño-Rosa, R., O'Sullivan, K., Ambrose, A., Marchand, R., Chester, M., Karlin, B. and K. Ashby (2021). *Hard-to-Reach Energy Users: A critical review of audience characteristics and target behaviours*. User-Centred Energy Systems TCP - HTR Annex: Wellington.

### FURTHER INFORMATION

Contact Dr Sea Rotmann here at [drsearotmann@gmail.com](mailto:drsearotmann@gmail.com)

## Appendix 1. Overarching activities

### For National Experts in participating countries (NZ, Sweden, the U.S.):

Participating countries will develop case studies and write a chapter each for the cross-country case study comparison (CCCSC). Each chapter will include a minimum of **2 case studies per country, one in each sector if possible**. They will all follow the same case study template (see below), which is informed by our Annex research framework (Karlin et al, 2021). There will be some **qualitative research** (e.g. interviews with programme managers or research leaders) and some **empirical analysis** of any reports, papers, and evaluations in each case study.

Case study analyses (CSAs) are suggested to be around 4000 - 8000 words depending on the particulars of the case study. A "**country chapter**" is expected to be around **15 pages** (10-12 pages case study analysis and a short, 3-5 page country background or introduction to how HTR audiences are being engaged, and by whom, plus references). We aim to have similar lengths for each country section so that the collection of all CSAs - the CCCSC is balanced, however, the main aim is to achieve high-quality analyses.

In each country, we will focus on a similar case study example in the residential sector: one that can be identified via an "**income**" qualifier (can be high or low income households) plus at least one demographic intersectionality denoting "**vulnerability**" (such as gender, age, race, another minority status or geographic isolation). In NZ, for example it is likely that we'll focus on a programme focused on improving healthy housing in *low-income, pregnant or single mothers (often also indigenous Māori or Pasifika)*.

In the non-residential sector, findings from Year 1 indicate that it is up to each country to prioritise their top HTR audience group, although we expect **SMEs** to be chosen frequently in countries with relevant case studies available. Our U.S. National Expert has developed a [prioritisation methodology](#) which she has tested with her utility sponsors and which participants are encouraged, if applicable (but not required), to use with their country stakeholders when choosing their audiences.

### For in-kind participating countries (to date: UK, Spain, the Netherlands)

We hope to attract several ExCo countries that are not formally participating in our Annex to join us for this analysis, as the more insights we gain, the richer our cross-country comparison will be. This also supports the general objective of a TCP which enables a richness of (global) research collaboration and data gathering that's typically not possible through other research projects. Each of the countries who are not formally participating in our Annex (US, NZ and Sweden), but are participating in the CSA are requested to:



1. Provide us with a contact in their country we can liaise with - this can be the ExCo representative of the Users TCP, or a national expert working on HTR energy users (please note the broadness of our terminology<sup>3</sup> of what constitutes such a user).
2. Decide if the country would rather spend **€3,500** for the HTR Operating Agent to undertake the bulk of the country case study analysis or, if they'd rather find a national expert who can commit **at least 40h of work** to do so.
3. We expect a minimum of two case studies per country, one in the **residential** (income-specified plus an intersectionality) and one preferably in the **commercial** sector. The common audience themes (outlined above) are meant to focus our analysis, so as to enable us to compare and contrast the cases across countries (we expect them to have different designs and engagement / evaluation strategies but as long as the target audience focus is similar, we will be able to do a reasonable comparison).
4. Our 3 participating countries have chosen these audience themes. The **prioritisation methodology** provided by our U.S. national expert (to be used voluntarily) can be used to help in deciding how to choose the second sub-sector target audience, should it be relevant to your country.
5. Each country liaison is expected to identify two appropriate case studies, unless their country staff decide to take on more with their own time. Either the HTR Annex or the country liaison (or other country expert) will undertake the analysis (lit review, interviews, analysis and write-up of 4000 - 8000 words depending on the particulars of the case study). We expect two case studies for each country (with some country background, this will be a total of around 15 pages) to form a country chapter in the overall CCCSC.
6. Publication of the cross-country case study comparison is planned to be completed by June/July 2021, so preferably country case studies should be done by the end of **April 2021**.
7. The HTR Annex OA is responsible for creating the overall Case Study Template (this document), refining the template based on country input, project managing all case studies and national experts who are undertaking them, collating the country case studies, and synthesising and analysing them into a paper which we will aim to publish in a scientific journal (this will also form the intro, methods and discussion section of the book, with the results/finding section being the individual country chapters).

The individual country Case Study Analyses (CSA) for each country will form a chapter in the Cross-Country Case Study Comparison (CCCSC).

---

<sup>3</sup> "In this Annex, a hard-to-reach energy user is any energy user from the residential and non-residential sectors, who uses any type of energy or fuel, and who is typically either hard-to-reach physically, underserved, or hard to engage or motivate in behaviour change, energy efficiency and demand response interventions that are intended to serve our mutual needs."

## Appendix 2. Information Sheet for Interviewees

*Thank you so much for considering to be interviewed for this Case Study Analysis. Before you agree, we would like to provide you with some important information on this research.*

[Note: If you decide to share the interview protocol upfront, please add the following instruction: *We will ask for any (written) information to be shared about your case study beforehand and then would like to undertake a 45-60min interview with you to follow-up/clarify on any points that aren't explained by documentation you might be able to share.*]

### Background to this research

These stakeholder interviews form part of an international research collaboration on HTR energy users in the residential and non-residential sectors. It is part of the [User-centred Energy Systems \(USERS\) Technology Collaboration Programme \(TCP\)](#) by the [International Energy Agency \(IEA\)](#). The title of this Users TCP Annex is “[Hard-to-Reach \(HTR\) Energy Users](#)”.

What drives this research is the knowledge about a large and growing percentage of the human population who could be regarded as HTR energy users, and that they are underserved by current energy efficiency (EE) and behaviour change<sup>4</sup> efforts. We define these HTR audiences as follows:

*“In this Annex, a hard-to-reach energy user is any energy user from the residential and non-residential sectors, who uses any type of energy or fuel, and who is typically either hard-to-reach physically, underserved, or hard to engage or motivate in behaviour change, EE and demand response interventions that are intended to serve our mutual needs.”*

The shared goal of this HTR Annex is as follows:

*“To identify, define, and prioritise HTR audiences; and design, measure and share effective strategies to engage those audiences to achieve energy, demand response and climate targets while meeting access, equity, and energy service needs.”*

### Purpose of interviews

To achieve our objectives in this Annex, we follow a research framework based on [Design Thinking](#) combined with robust social science data collection. We call this framework “The Building Blocks of Behaviour Change” (see Karlin et al, 2021). It has 4 distinct phases (see

---

<sup>4</sup> In this Annex, we use a very broad definition of an energy behaviour change intervention (see Rotmann & Mourik, 2013): “*Energy behaviour* refers to all human actions that affect the way that fuels are used to achieve desired services, including the acquisition or disposal of energy-related technologies and materials, the ways in which these are used, and the mental processes that relate to these actions.” “*Behaviour change* thus refers to any changes in said human actions which were directly or indirectly influenced by a variety of interventions aimed at fulfilling specific behaviour change outcomes. These outcomes can include any changes in energy efficiency, total energy consumption, energy technology uptake or demand-side management but should be identified and specified by the *Behaviour Changer* designing the intervention for the purpose of outcome evaluation.”



diagram below), and consists of the *A (Audience)*, *B (Behaviour)*, *C (Content)*, *D (Delivery)* and *E (Evaluation)* building blocks that make up a successful behaviour change intervention.

A behaviour change intervention is defined very broadly in this Annex, and can include any of the following examples: *financial* (e.g. small-scale EE purchases or large scale investments such as retrofits); *technological* (e.g. using, maintaining, cleaning or repairing hardware or programming, automating, changing software settings); *habitual* (energy conservation habits and routines, such as turning off lights, unplugging appliances, taking the bus to work); *educational* (e.g. teaching your kids / housemates; doing training courses; reading about energy / improving energy literacy or knowledge; leaving stickers, labels or notes); or *regulatory* (e.g. changes due to new laws, tax breaks, policies or mandates).

In Year 1 of this HTR Annex, we undertook the DISCOVER (landscape and stakeholder analysis) and DEFINE (in-depth literature review defining audience characteristics and target behaviours) phases. In Year 2, we enter the DESIGN phase, where we are undertaking a *Case Study Analysis (CSA)* in each of our participating countries. This will be collated and synthesised into a *Cross-Country Case Study Comparison (CCCSC)*, published by the [Users TCP by IEA HTR Annex](#) in July 2021.



“The Building Blocks of Behaviour Change” - the HTR Annex research framework. Source: See Change Institute

### How will this data be used

We are collecting relevant case studies from so-called “Behaviour Changers” (i.e. individuals or agencies tasked with changing end users’ energy behaviours via a variety of behavioural interventions) in the policy, utility, research and community sectors to inform the direction of this research project. We utilise the *Building Blocks of Behaviour Change* framework to help us systematise the case study analysis between different countries, case study approaches, and Behaviour Changers. **We do not expect your case study to have followed any or all of the ABCDE steps, implicitly or explicitly.** We are interested in both successful and not-so-successful examples, as both will offer new and important learnings.

Ultimately, we hope to gain in-depth insights on:



- **Why** interventions targeting HTR audiences were chosen
- **Who** these HTR audience groups are in each of our participating countries, and how they have been targeted and approached
- **What** energy-saving behaviours were targeted most commonly in these interventions
- **How** engagement strategies were designed, including their messaging content and delivery mechanisms
- **When and how** impact and outcomes have been measured (if at all) and what those results have been.

This research will provide country participants with the opportunity to learn and share successful approaches on how to identify and engage HTR energy users across countries and sectors. The research will also facilitate the testing of a robust social science-based process for designing policies and programmes (e.g. national, municipal, utility and community-driven) that are better tailored to specific HTR audiences and specific behaviours. We are extremely grateful for your participation.

### **Data storage and privacy**

All interviews will be recorded for transcription purposes only. The interview protocol will be stored on the HTR Annex Google Drive and will be accessible by National and Contributing Experts from participating countries, only. The interview transcripts will be stored securely by the host institutions of each National/Contributing Expert in the ways prescribed by each participating country's legislation and data processing protocols of each respective host institution. Ethical approval to undertake the case study research will be sought by the researchers involved, as needed, as appropriate for each participating country.

All case study data and quotes published in final reports will be aggregated and anonymised. All reports, publications, and case study materials provided by the interviewees to the HTR Annex will be treated as publicly-available materials (i.e. can be showcased as examples in the CSA) unless they are explicitly highlighted as commercially-sensitive or confidential, in which case only their aggregate information will be disclosed.

The data will be stored for the duration of this research (planned for July 2022), and will be removed, if necessary, from the host institutions' servers following each country's ethics legislation. Agreement to participate in the interview will automatically indicate agreement to these conditions. If you have any further questions or enquiries, please direct them to the Operating Agent, Dr. Sea Rotmann ([drsearotmann@gmail.com](mailto:drsearotmann@gmail.com)).