



Hard-to-
Reach Energy
Users

How has COVID-19 impacted hard-to-reach energy users?

OERC Symposium 2020, Day 1

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UsersTCP

UsersTCP and the International Energy Agency (IEA)

- The **International Energy Agency (IEA)** is an intergovernmental organisation that works to shape a secure and sustainable future for all, through a focus on all fuels and all technologies, and analysis and policy advice to governments and industry around the world.
- To facilitate global cooperation on energy technology, the IEA created the **Technology Collaboration Programme (TCP)**. Today, the **UsersTCP** is one of 38 TCPs each focused on a different topic. Together, they connect thousands of experts across government, academia and industry in 55 countries dedicated to advancing energy technology research and application.
- The UsersTCP is **functionally and legally autonomous** from the IEA. Views and findings of the UsersTCP do not necessarily reflect those of the IEA.



Hard-to-Reach Energy Users Annex

This international research collaboration focuses on a very distinctive and important audience segment - the hard-to-reach (HTR) energy users in the residential and non-residential sectors. It will determine who, and how many they are, where they are, and how to better motivate and engage them in energy efficiency and demand-side interventions geared at changing their energy-using behaviours.





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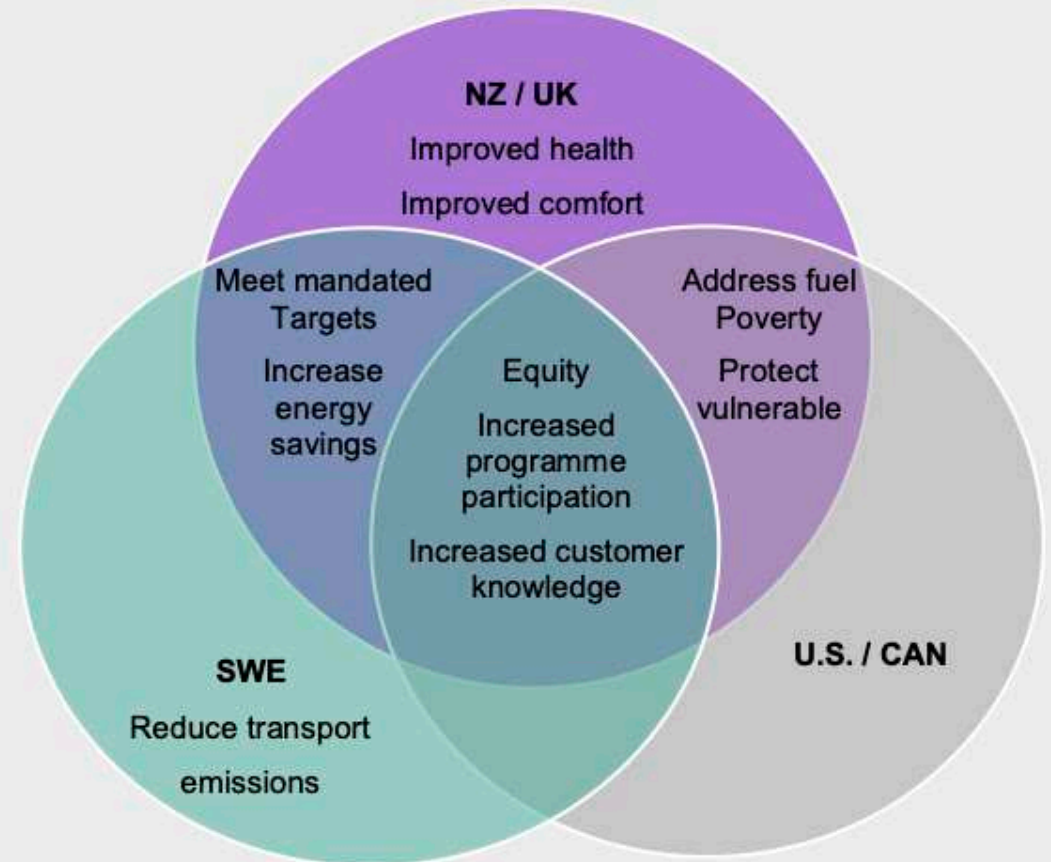
Our definition of HTR energy users

“In this Annex, a hard-to-reach energy user is an energy user from the residential or commercial 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.”



Our shared goal

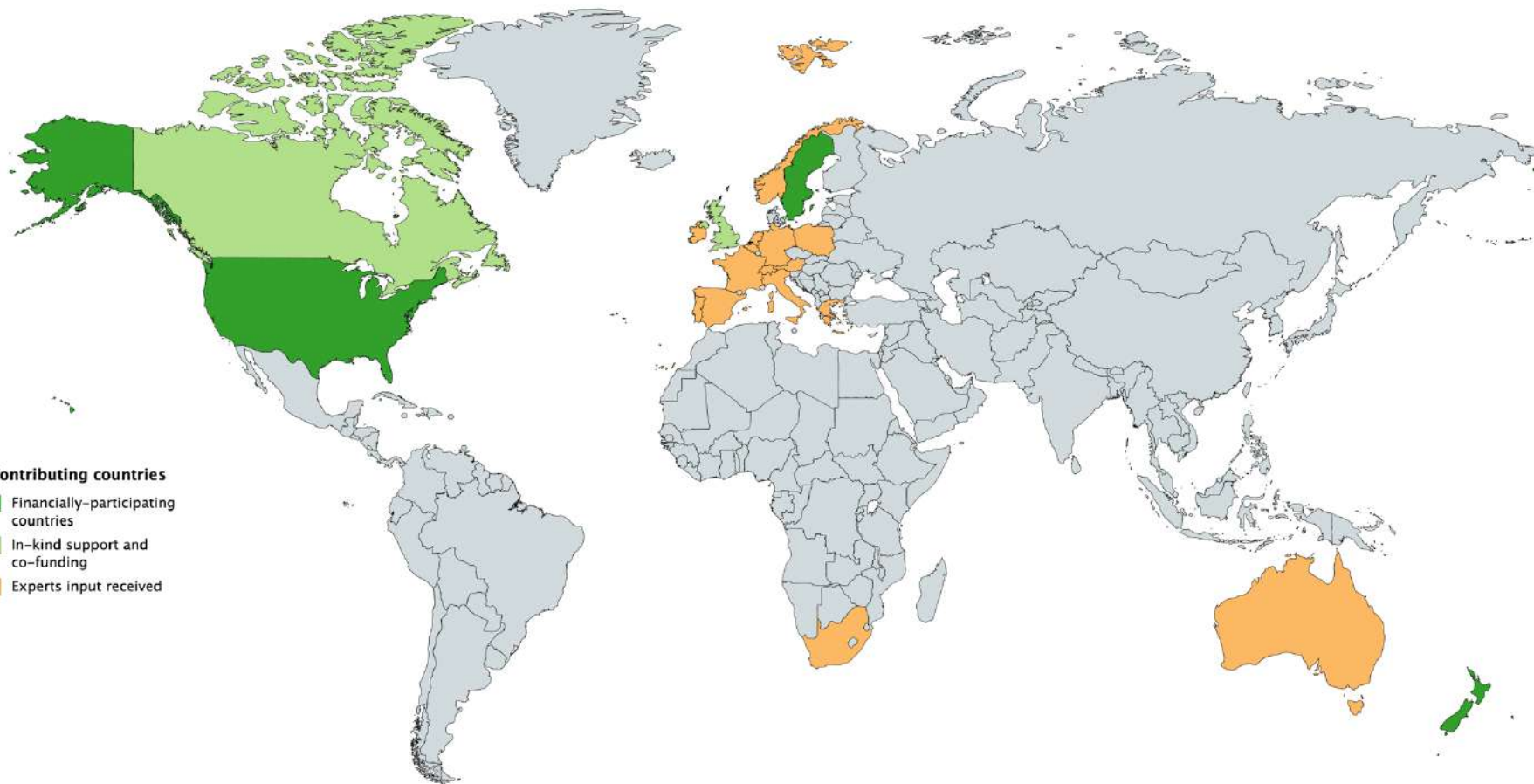
“Our shared goal is to identify, define, and prioritise HTR audiences; and design, measure and share effective strategies to engage those audiences to achieve energy, demand response and climate targets while meeting access, equity, and energy service needs.”



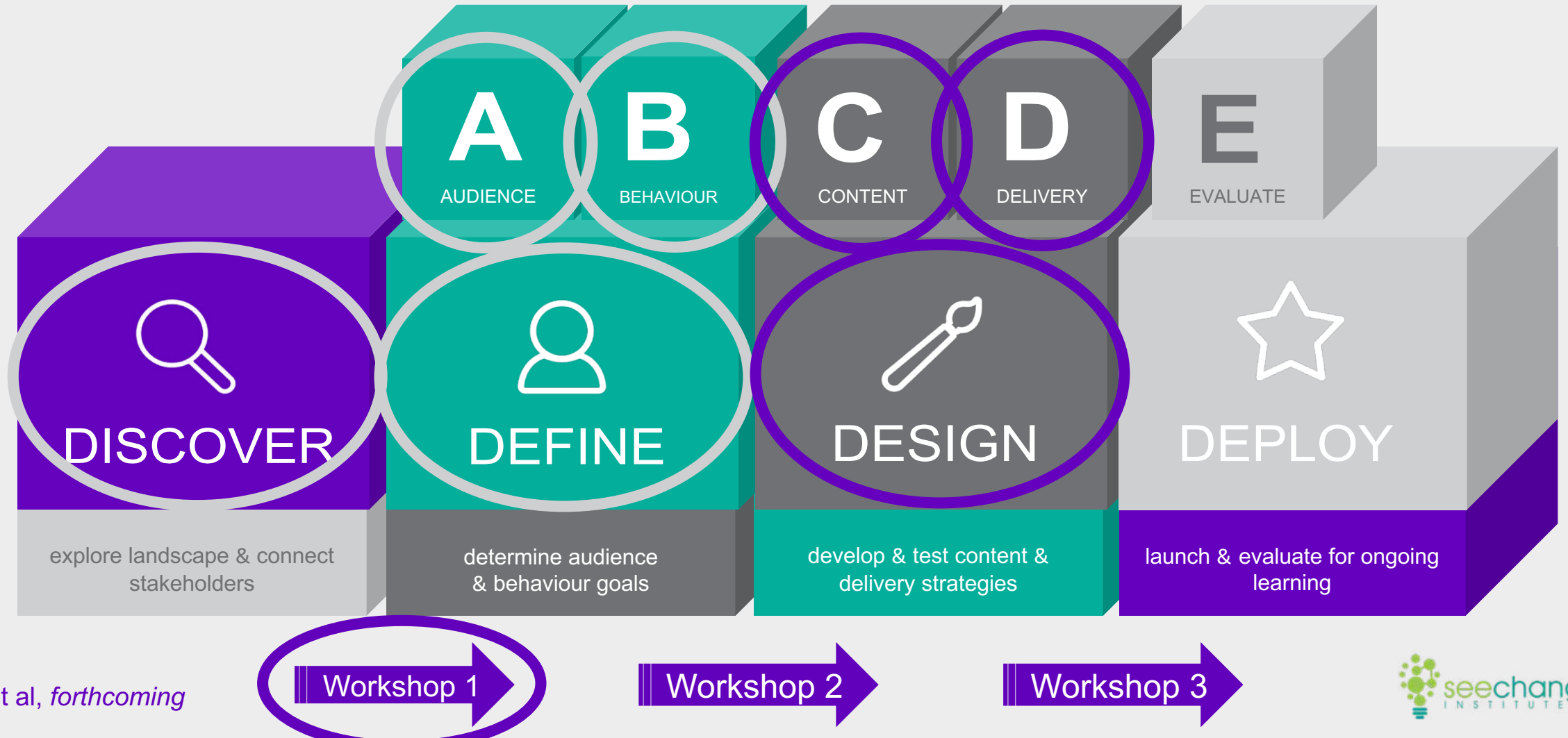


Hard-to-Reach Energy Users

Our Participants and Collaborators



HTR Annex Research Process “ABCDE Building Blocks of Behaviour Change”





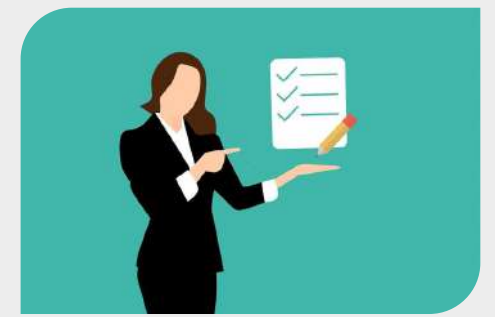
Deliverables Year 1



- [Meeting minutes](#) 1st international workshop hosted by US
- [Webinar](#) on HTR Annex for Users Academy
- [HTR Characterisation](#) (Ashby et al, 2020a)
- [ACEEE Summer Study](#) paper on interview and survey results (Ashby et al, 2020b)
- [ACEEE Summer Study](#) paper on BEST course field research pilot (Rotmann & Karlin, 2020)
- Literature Review (Rotmann et al, forthcoming) 250+ pages
- Literature Review “Cliff Notes” (Ashby et al, forthcoming)
- 4 BEHAVE conference extended abstracts (including on COVID-19 impacts on HTR)
- BEHAVE conference half-day workshop on HTR Annex
- BECC conference special panel on HTR Annex international findings
- 4 SCI client reports from field research pilots in Canada



Key Findings Year 1



- **Most commonly-mentioned HTR audiences:** Low-income households, renters, SMEs
 - **HTR audiences with great energy-saving potential:** High-income, landlords, building operators
 - **Most interesting to non-energy stakeholders:** Disabled, stigmatised, geographically-isolated
 - **Audience size estimates:** >2/3 of energy users (e.g. >60% renters, 99% of all businesses)
 - **COVID-19 impact:** Huge, particularly on most vulnerable households, renters and SMEs
 - **Biggest research gaps:** Commercial sector (outside office buildings), SMEs, multiple benefits, certain demographics (age, gender, race), psychographics and audience needs assessments
- ➔ *These audiences are not only hard-to-reach, they are also underserved and under-researched by Behaviour Changers in industry, government and academia. Energy justice, inequity, stigma are key themes that need to be addressed more urgently & on these target audiences.*



Impacts of COVID-19 (literature review)

- 300 million people worldwide will lose their jobs
- The number of vulnerable households and small businesses has increased
- Lockdowns mean increased home energy bills (though also decreased transport costs)
- Behavioural changes like working from home are not possible for essential workers
- Mental distress has become a big issue for a large part of the world; stigma is understudied

→ *“The magnitude, speed, and reach of the changes to our lives are of a different order to anything that most people alive today have experienced. Given the scale and rapidity of change, how can we ensure that conclusions drawn from data collected during the pandemic are valid, representative, generalisable to a post-pandemic world, and comparable to the pre-pandemic one?”* (Fell et al, 2020)



Impacts of COVID-19 (empirical data)

- **NZ:** online survey (with 330 respondents), and follow-up interviews with 25 householders (O'Sullivan et al, *forthcoming*)
- **Sweden:** ~30% decline in mobility demand similar to countries with stricter measures. Whereas air traffic has experienced strong low demand levels (~55-70%), road traffic has returned to near normal levels by September 2020 (Mundaca et al, *forthcoming*)
- **USA:** Survey of 1,000 energy customers found that >50% are using more energy and 48% are monitoring their energy use less; 15% reported postponing a utility bill. COVID-19 impacts varied by customer: high-income vs low-income focus groups (Uplight & SCI, 2020)
- **UK:** Fuel debt is growing, by May 2020, 4% of all energy consumers had already fallen behind on energy bills, with a further 7% expected to fall behind in the future (Ambrose et al, *forthcoming*)



Work Programme Year 2



1. Cross-Country Case Study Comparison
2. Research Process published
3. Field Research Pilots funded
4. Dissemination
 - BEHAVE special issues (2 papers), eBook, Lit review synthesis, BECC & BEHAVE panels



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Thank you very much for your attention!

Any comments or questions?

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