

Hard-to-Reach Energy Users Annex

Users Academy Webinar, April 7, 2020

Dr Sea Rotmann, Operating Agent: HTR Energy Users Annex

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.”

<https://userstcp.org/annex/hard-to-reach-energy-users/>



Webinar overview and objectives

- Share findings on the HTR project to date
- Gather input on HTR target audiences
- How to overcome barriers to more effectively engage specific HTR audiences

⇒ Especially in response to COVID-19, including behavioural lessons to learn



Quick Poll



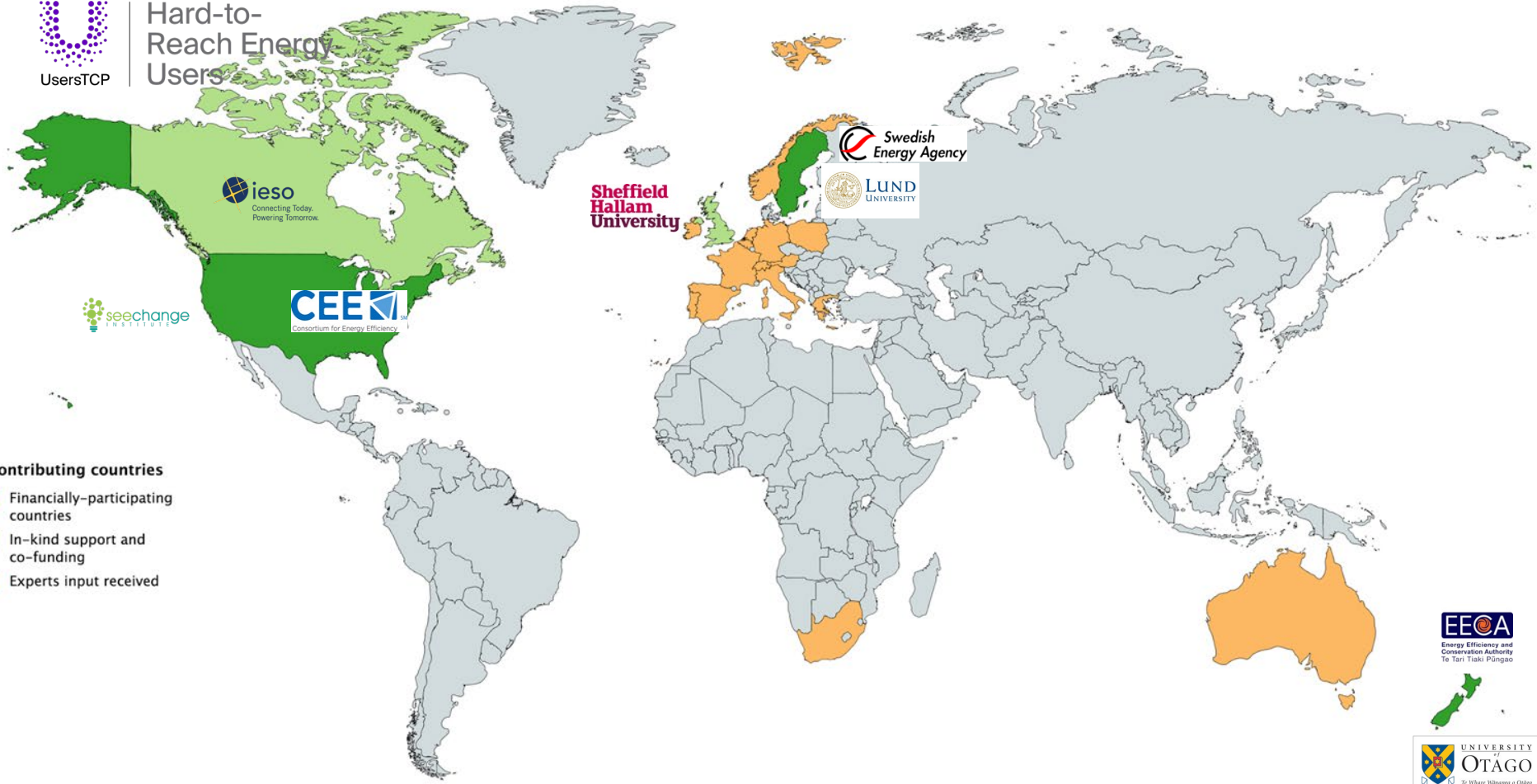
- **Who is your top hard-to-reach (HTR) audience?**
- **What is your second-ranked HTR choice?**
- **What is your third HTR choice?**

Options:

- Low income households / fuel poor
- Small businesses
- Physically isolated / remote energy users
- Vulnerable (sick, disabled, non-native speakers, single parents etc.)
- Very wealthy households
- Building operators in commercial sector



Hard-to-Reach Energy Users

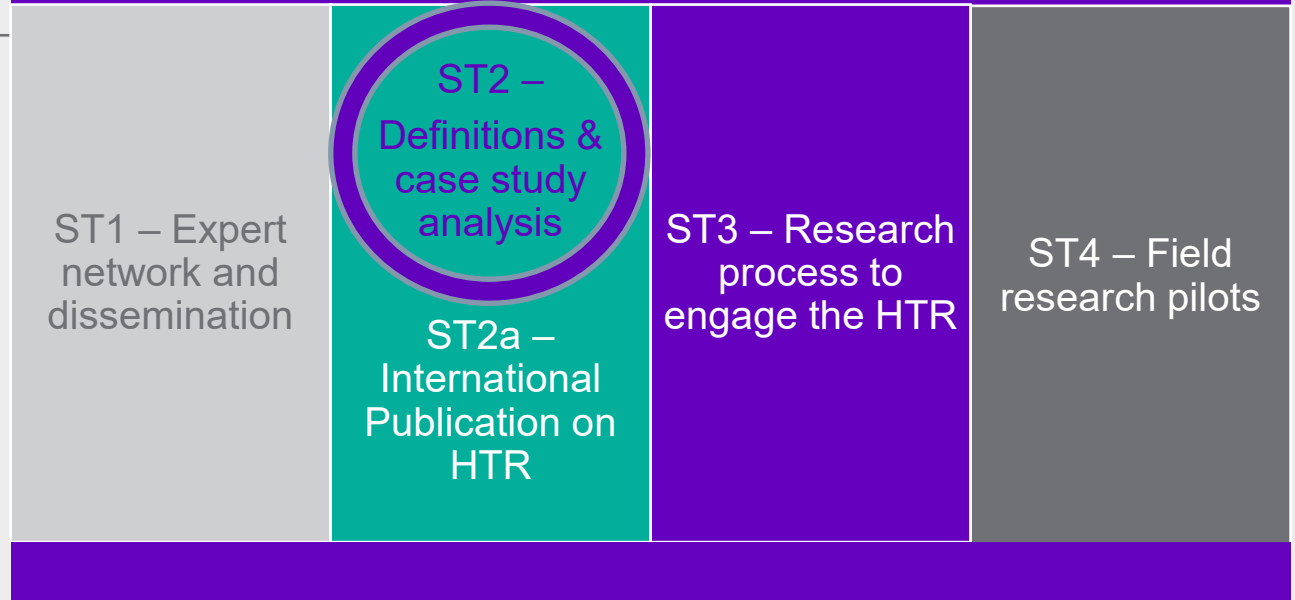


Contributing countries

- Financially-participating countries
- In-kind support and co-funding
- Experts input received

ST0 – Administration of HTR Annex

Subtasks





Expert Network & Collaboration

- BECC, BEHAVE, ECEEE & ACEEE conferences – [Subtask 1](#)
- Task 24 experts – from >30 top Universities & Research Institutes - [Subtask 1 & 2](#)
- UK Fuel poverty expert network – from >20 Institutions - [Subtask 1 & 2](#)
- See Change Institute – Behaviour Change Process – [Subtask 3](#)
- ParEvo Rick Davies - Storytelling & Evaluation - [Subtask 3](#)
- BC Hydro (CA) – Field Research Pilot & Literature Review – [Subtasks 2 & 4](#)
- IESO Ontario Systems Operator (CA) – Field Research Pilot - [Subtask 4](#)



def·i·ni·tion

\də-fə'-nī-shən\

meaning of a word;
can be subjective

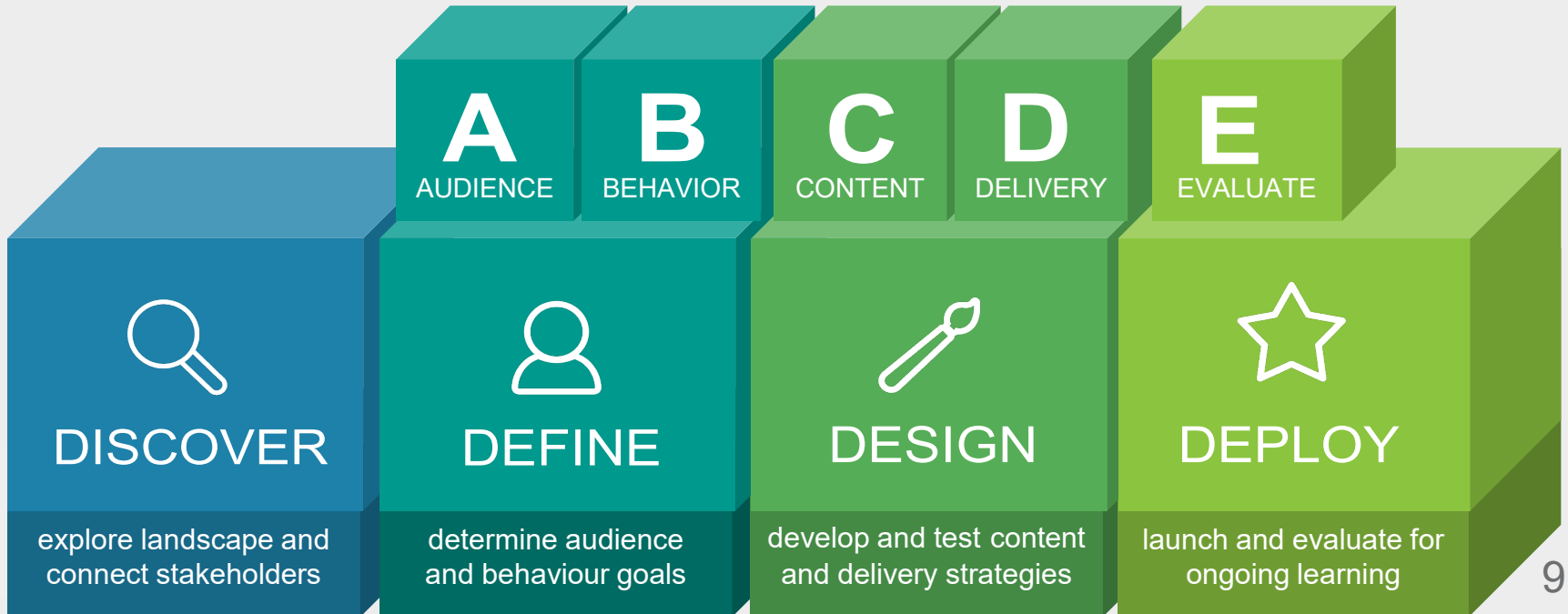
Our Working Definition of HTR

“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, mobility and communications services, 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.”

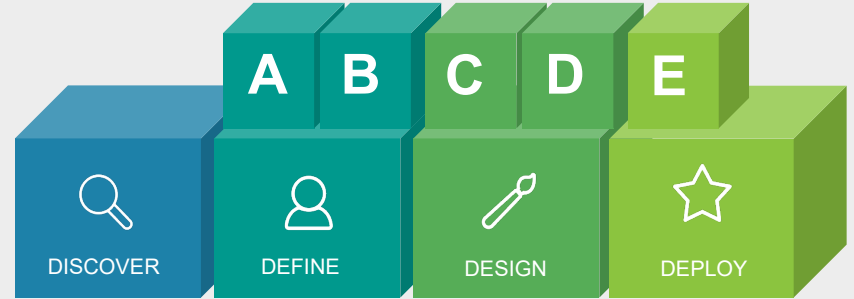
<https://userstcp.org/annex/hard-to-reach-energy-users/>



The Building Blocks of Behaviour Change



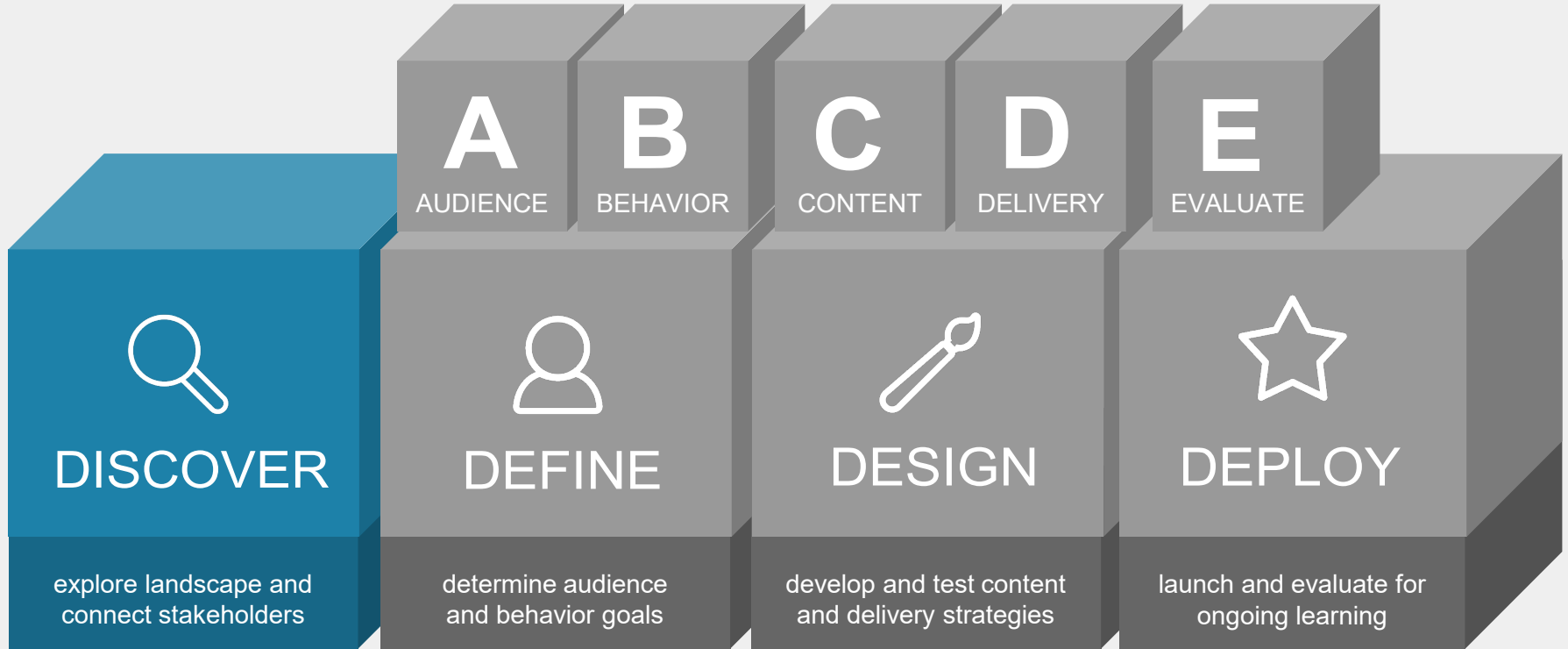
Our research approach



- **Discover** needs & opportunities - set shared goal/s
- **Define** target **Audience & Behaviour/s** - identify the barriers & opportunities
- **Design Content & Delivery** strategy based on social science - develop materials & pre-test them
- **Deploy** pilot/s to engage priority HTR audiences - **Evaluate** impact & share successes



DISCOVER



US & Canadian utilities



- Regulated, often monopolies
- Investor-owned (U.S.), Government-owned (CAN)
- Motivations for EE programmes
 - More cost-effective than building new power plants
 - Mandates and regulations for EE generally
- Funding for EE programmes
 - U.S.: ratepayer, CAN: tax-payer



New Zealand Perspective

- Particularly unhealthy housing infrastructure
- Several national policies to improve health, comfort & EE
- Highly deregulated utility sector
- High inequality between industrial & commercial vs residential pricing
- *Electricity Price Review* to tackle energy hardship with short-, medium- and long-term recommendations



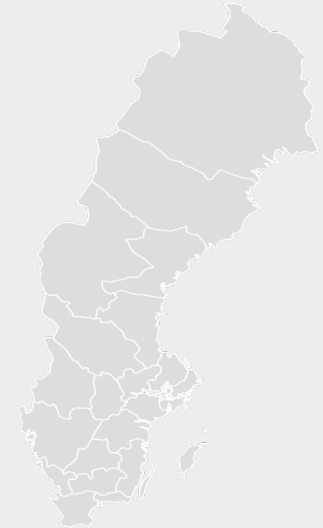
Swedish Perspective

EE motivations:

- EU climate targets (e.g. 20% improvement in EE by 2020)
- ↓ Fossil fuel dependency: carbon neutral economy by 2045
- ↑ Economy's competitiveness/efficiency

Main EE policies:

- Taxes/subsidies, labelling, codes
- Behaviour mostly confined to experimental settings in utilities / academia

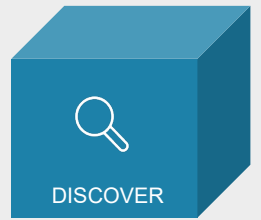


UK Perspective

- Energy legally recognised as essential service (*OFGEM* is the regulator)
- EE programme responsibility on energy companies
- Energy Company Obligation (*ECO*): funded by levies on energy companies (paid for by their customers); focus on low income, vulnerable and fuel poor
- Large energy suppliers must promote measures for these households to heat their homes via EE interventions and heating system replacement
- Cold weather payments - one-off payment to over 65s to help with winter fuel bills (but has freerider issues)



DISCOVER: What have we learned so far?



What are our participants' goals?

Meet energy efficiency spending and savings goals

Increase programme participation by HTR users

Improve equity / energy justice / energy affordability / energy access

Better conceptualise & frame the HTR narrative; beyond energy poverty

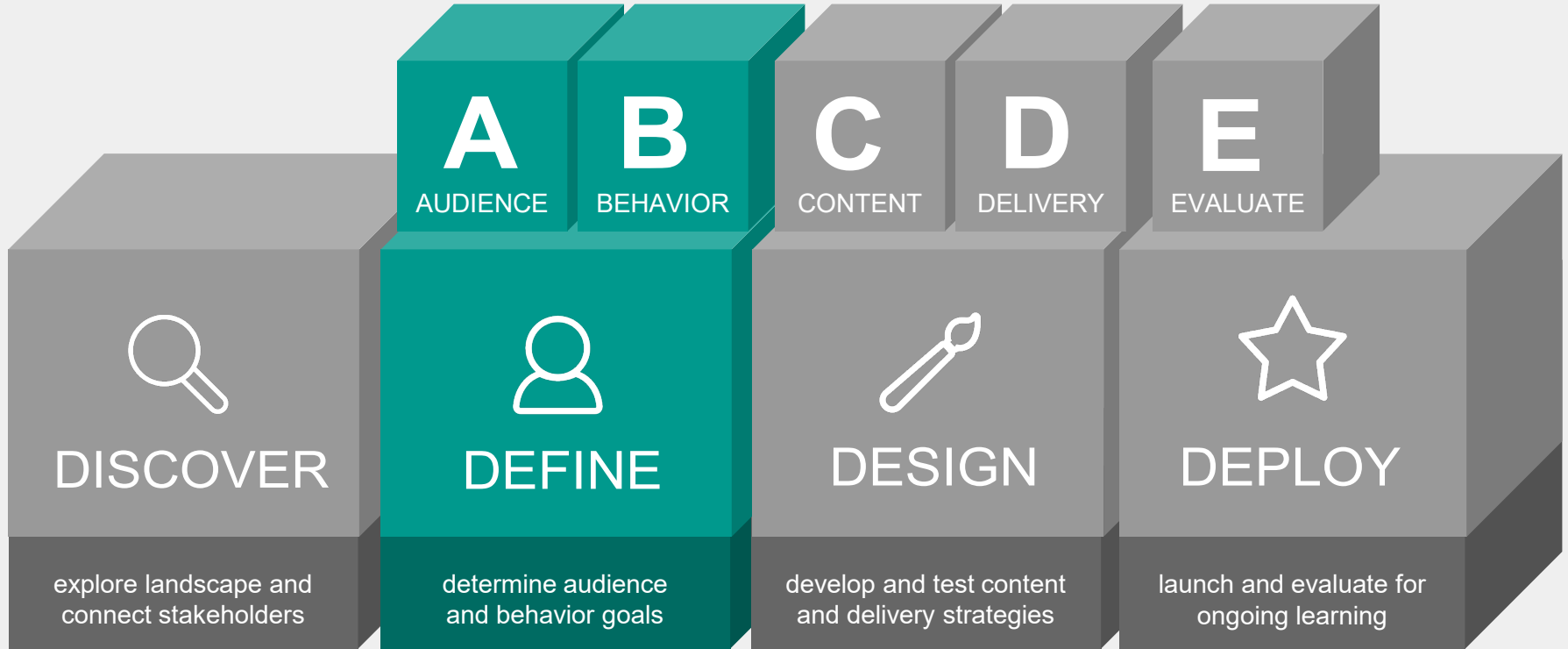
Better understand HTR segments internationally

Assess/learn behavioural-oriented policy interventions to address HTR



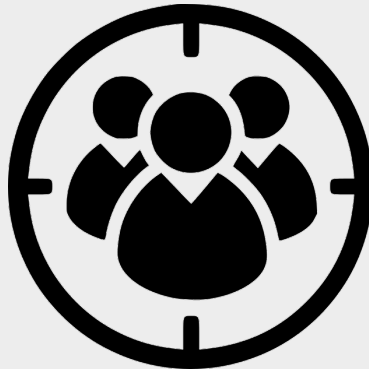
Hard-to-Reach Energy Users

DEFINE



DEFINE Audience & Barriers

- Who are your HTR audiences?
- Why do you think these groups are HTR?
- What behaviours are most relevant for this group?
- What barriers exist that prevent their engagement?





Hard-to-Reach Energy Users

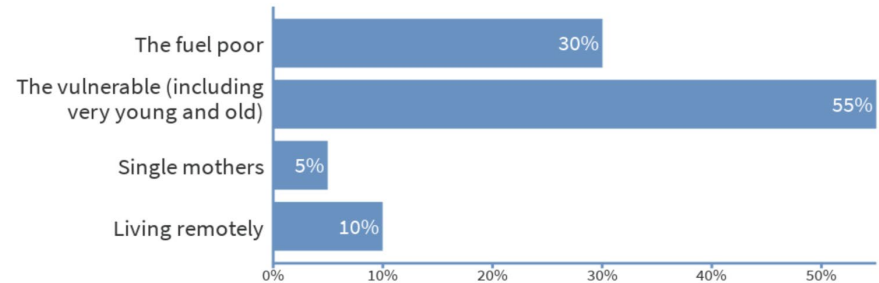
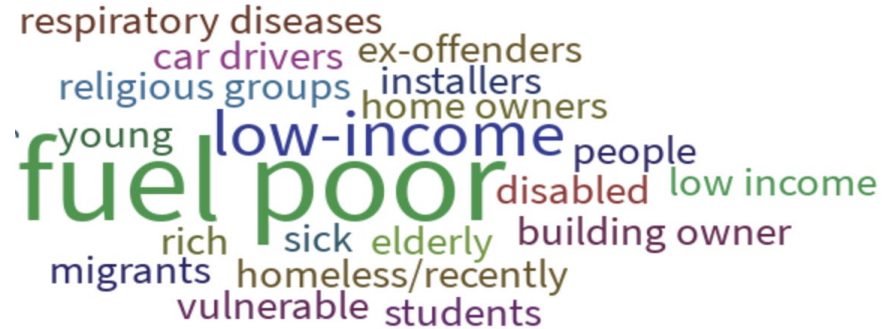
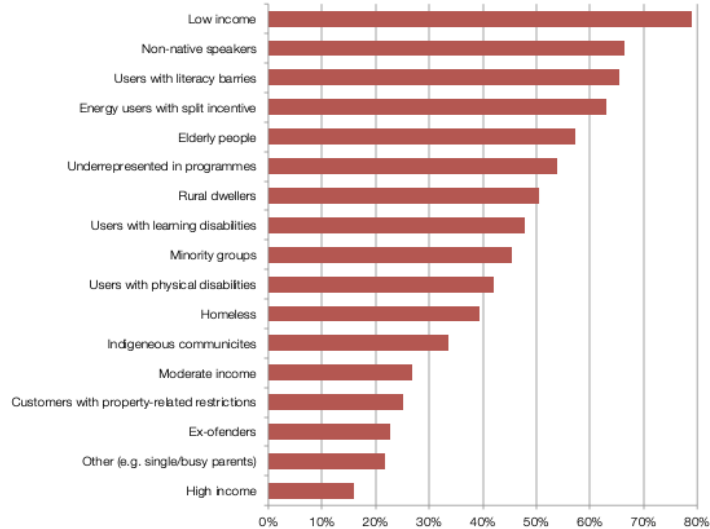
Quick Poll - Findings





SURVEY: Residential Sector findings

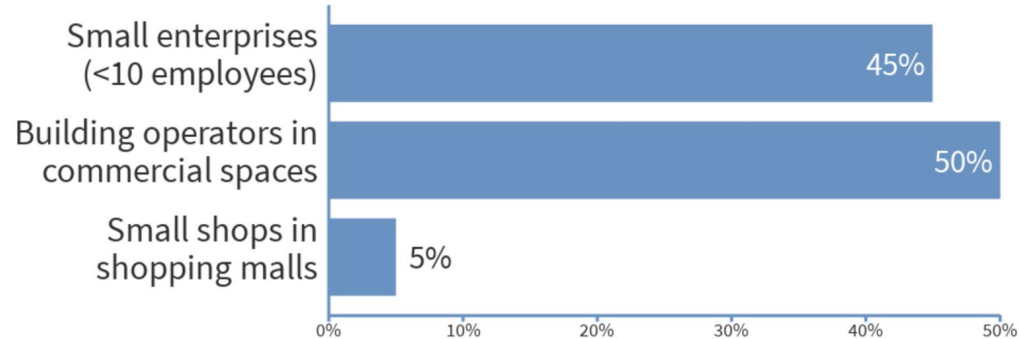
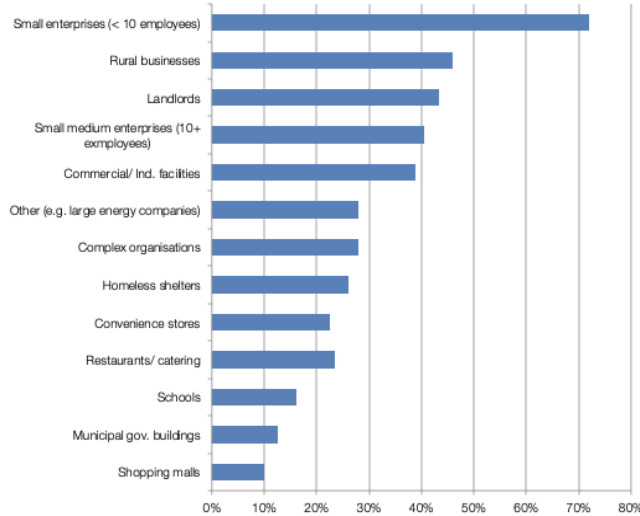
In the residential sector, how do you define Hard-to-Reach energy users? (N=119)





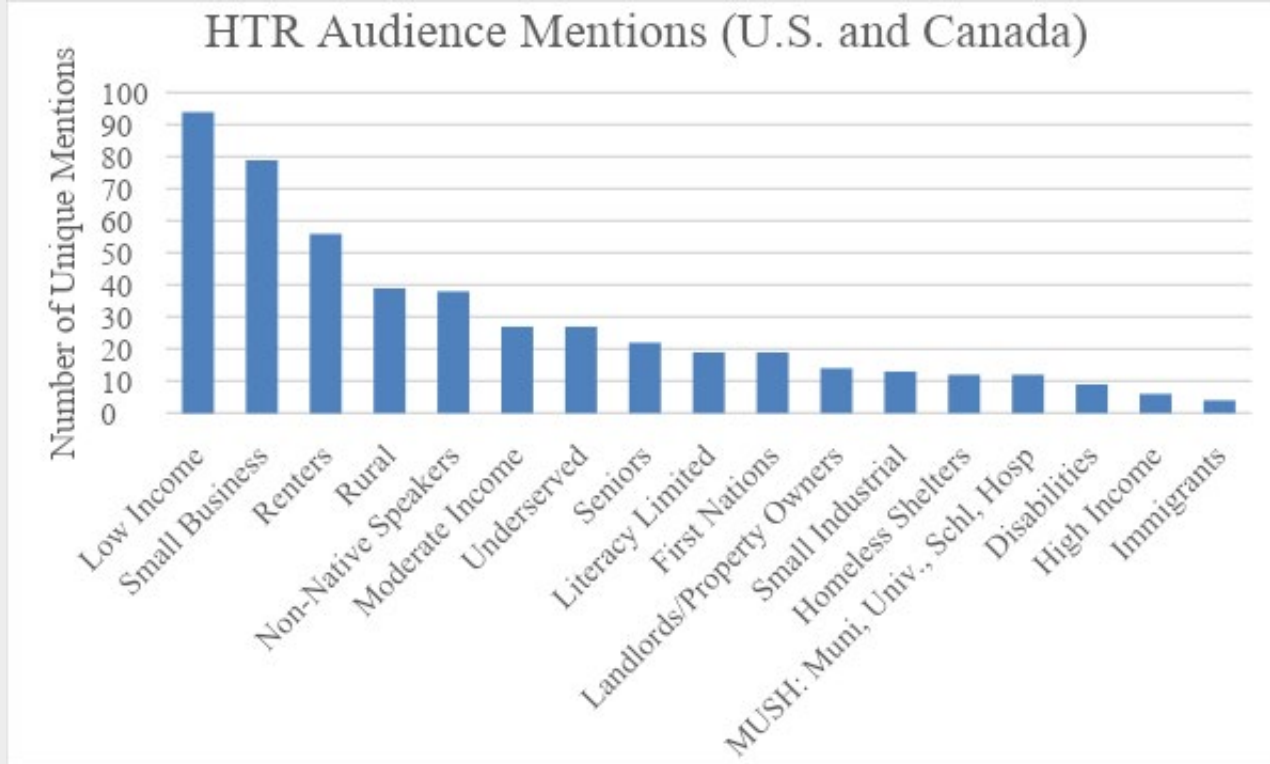
SURVEY: Commercial sector findings

In the commercial sector, how do you define Hard-to-Reach energy users? (N=111)



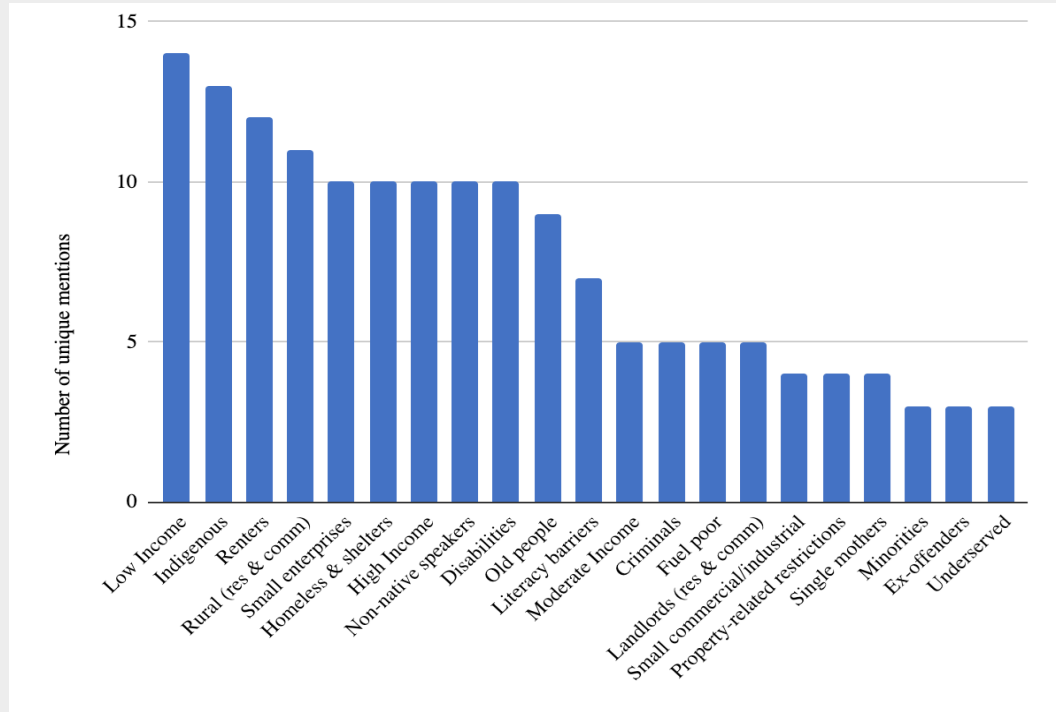


More granular findings (US / CA)



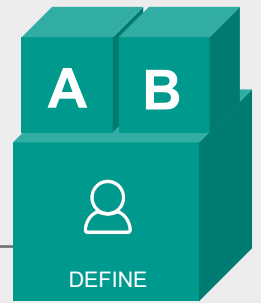


More granular findings (NZ)





DEFINE: What have we learned so far?



Most commonly-mentioned HTR audiences

RES: Low-income, rural, renters, non-native speakers, indigenous, very wealthy

COMM: Small (to medium) businesses, landlords, building operators

What key barriers exist?

Trust / mistrust of authorities

Language and energy literacy issues

Reaching & engaging property owners / split incentives

Cultural barriers

Conflicting priorities / don't care

NEXT STEPS

- Summary report from survey data & stakeholder interviews
- Literature Review
- Development of HTR Audience Characterisations
- Case study analysis
- Field research pilots



QUOTE OF THE WEEK

There's no magic bullet. There's no magic vaccine or therapy. It's just behaviors.

-- Dr. Deborah Birx, Coronavirus Response Coordinator
for the White House Coronavirus Task Force



WORLD
AFFAIRS
COUNCILS of
AMERICA





COVID-19 & Climate Change

1. **Common causes:** Habitat destruction leads to both climate breakdown and pandemics.
2. **Health inequity:** Health systems are unprepared for global crises, increasing vulnerability.
3. **Systems change:** Solutions for climate justice & health equity: resilience, mitigation & leadership.

Specific concerns for the HTR Annex:

- ❑ Importance of **behaviour change** in global crises & to protect the most vulnerable
- ❑ Usefulness of behavioural and social science in **messaging HTR audiences**
- ❑ Difficulty of changing habits except in: **MOMENTS of CHANGE** / Disruption
- ❑ Importance of **trust in science & trusted messengers** like public health professionals
- ❑ **Co-benefits** of energy efficiency & conservation
- ❑ Embedding long-term behavioural and **systems change**
- ❑ **Transition** to sustainable energy system

Why do we respond more to COVID-19 than climate change?

- Energy consumption is invisible & abstract¹
- It doesn't violate our social sensibilities
- It is low on our priority list
- Impacts from fossil-fuel energy use are global & in the future
- Systemic changes are hard and complex, need global cohesion & have no end in sight
- Energy efficiency & conservation are not high priorities



¹Karlin, Zinger and Ford (2015).



Why behaviour change is hard but essential

- Why is there such an energy efficiency gap?¹
- Why do we put so much more emphasis & funding into technology than people?²
- Why do we focus our main policy interventions around the deficit model / rational choice theory?³
- Why are (energy) habits the hardest to change?⁴

□ MOMENTS OF CHANGE or DISRUPTION

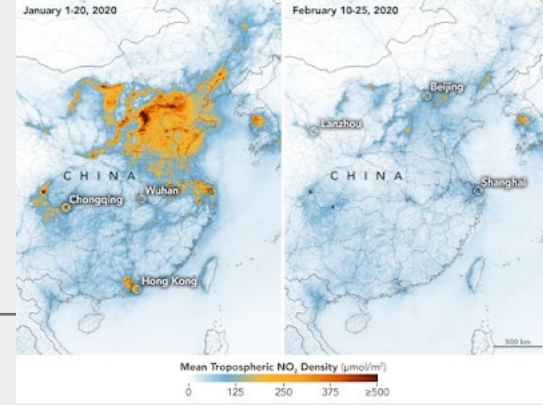
¹Gillingham & Palmer (2014). [Bridging the Energy Efficiency Gap: Policy Insights from Economic Theory and Empirical Evidence](#)

²Overland & Sovacool (2020). [The misallocation of climate research funding.](#)

³Simis et al (2016). [The lure of rationality: Why does the deficit model persist in science communication?](#)

⁴Darnton, et al (2011). Habits, Routines and Sustainable Lifestyles

Moments of change¹



1. Main driver for pandemic response is behaviour change
2. 13 behaviours were targeted with messaging campaigns²
3. Particularly, self isolation & social distancing led to huge changes in travel behaviour
4. This led to massive reduction in air pollution³ but also loneliness, increase in domestic violence, unemployment...
5. Finding moments of change & trusted messengers is key

¹ Gollwitzer & Sheeran 2008; Verplanken, Walker, Davis & Jurasek 2008; Thompson et al 2011; Bamberg 2006

² Michie 2020

³ <http://www.g-feed.com/2020/03/covid-19-reduces-economic-activity.html>



COVID-19 lessons for the HTR Annex

- This is the biggest, global **Moment of Change** we have seen yet
- Rapid, massive **behaviour change** responses have been shown to work
- **Trust** in science and public health authorities is high
- But... we need to be **careful** not to overhype behavioural science¹
- We are targeting some of the **same energy behaviours** for the HTR (e.g. reduced flying & commuting, teleworking...)
- Others can help **improve health & resilience** but after the lockdown (e.g. insulation, weatherisation, clean heating, switch to renewables...)
- We need to focus on the **co-benefits of EE & C** (improved health & comfort, green jobs, resilience, cheaper utility bills...)

⇒ **What happens next will determine our future.**

¹ <https://www.theguardian.com/commentisfree/2020/mar/13/why-is-the-government-relying-on-nudge-theory-to-tackle-coronavirus>



Please contact me with questions, ideas, feedback

Dr. Sea Rotmann

drsearotmann@gmail.com



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