

## Energy hardship interventions in Aotearoa

Finding best practices and envisioning eradication

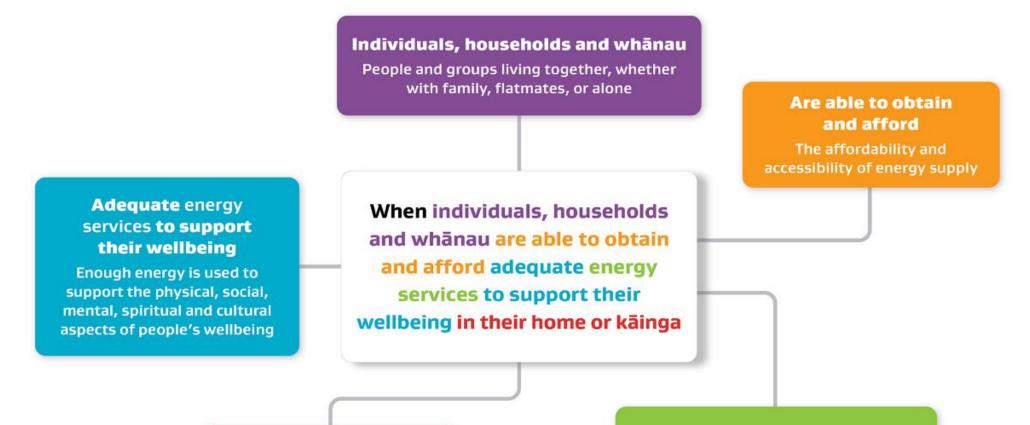
Luiza Brabo-Catala, PhD Summer School of Energy Economics 19 Feb 2024

## **Research questions**

- What are the best interventions needed to eradicate energy hardship in Aotearoa?
- How does the MBIE concept of energy hardship compare to its international counterparts?
- What types of interventions exist to minimise energy hardship?
- What is the demographic of households in energy hardship?
- What socioeconomic issues relate to energy hardship?

### How is energy hardship defined in Aotearoa?

It is the opposite of energy wellbeing, which is...



#### In their home or kāinga

We are focusing on people using energy where they live or stay

#### Energy services

Energy use that services and supports people's lives such as heating, cooking, washing, lighting

# How does the MBIE concept of energy hardship compare to its international counterparts?

#### Energy hardship

#### Fuel poverty

- Essentially means being unable to <u>afford and</u> <u>access</u> sufficient energy services.
- Aotearoa (official).
- 26 proposed objective and subjective indicators, not considering required energy use (for now).

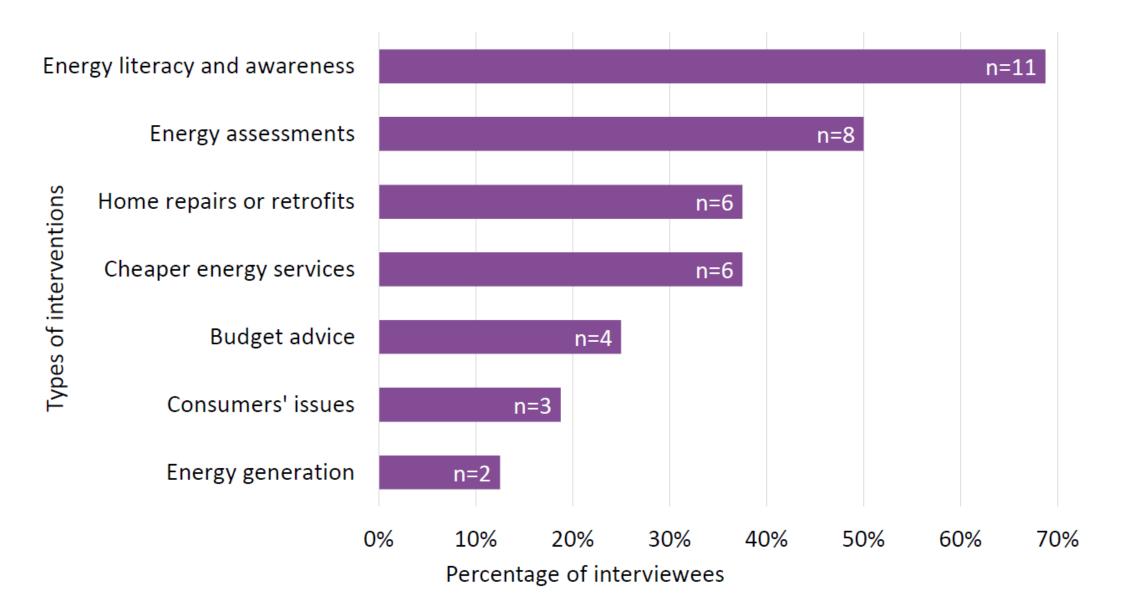
- Essentially means being unable to <u>afford</u> sufficient energy services.
- United Kingdom (official), Ireland (official).
- Common indicators: 10% of income used as energy expenditure (often being required energy).

 Essentially means being unable to <u>afford and/or</u> <u>access</u> sufficient energy services.

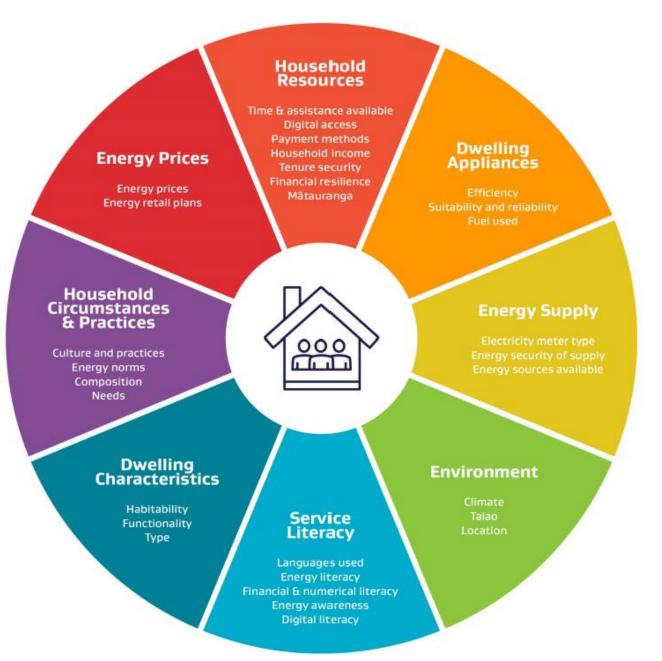
Energy poverty

- EU, North America, Asia, Africa.
- Subjective indicators are often used regarding affordability.

## What types of interventions exist to minimise energy hardship?



## Components of energy hardship



## Energy hardship surveys

#### **OurPower survey**

- <u>773 respondents</u>.
- Customers of a <u>social electricity</u> <u>retailer</u> based in Waikato.
- The answers represent the <u>whole</u> <u>household</u>.
- Ability to <u>win rewards</u> (one month of free electricity).

#### National survey

- 505 respondents.
- <u>Nationally-representative</u> sample.
- The answers represent the <u>whole</u> <u>household</u>.
- Ability to <u>win rewards</u> (energy advice, information on energy subsidies, thermal curtains, winter warmer packs from Habitat for Humanity).

## Measures of energy hardship

- Put up with <u>feeling cold</u> to keep costs down a lot;
- No home access to computer or internet;
- Could not pay electricity, gas, rates, or water <u>bills</u> <u>on time</u> (more than once);
- Unable to afford <u>unexpected expense</u> without borrowing;
- Cannot afford to keep the dwelling <u>adequately</u> <u>warm</u>;
- Using (or having used) prepayment metering;
- <u>No heating type used;</u>

- Not heating <u>own bedroom</u> in winter;
- Not heating <u>children's bedroom</u> in winter;
- Not heating <u>main living room</u> in winter;
- Trouble <u>heating accommodation</u> and/or keeping it warm in winter;
- Use of unsafe substitute heating methods (portable gas heater);
- Lacking one or more <u>basic amenities</u>;
- Housing <u>repairs needed</u> major;
- <u>Mould</u> larger than an A4 Always;
- <u>Damp</u> Always;
- Can see <u>breath indoors</u> in winter.

## Measures of energy hardship

- <u>Indoors always colder</u> than would like in winter;
- <u>Dampness and/or mould</u> problems major;
- No access to <u>electricity supply</u>;
- No access to <u>financial institution account</u>;
- <u>Absolute domestic energy expenditure</u> half the national median or less (moving line)

- <u>Proportion of AHC</u> household income spent on domestic energy costs twice the median or more (moving line);
- <u>Proportion of AHC</u> household income spent on domestic energy costs twice the median or more (fixed line);
- <u>Proportion of BHC</u> household income spent on domestic energy costs twice the median or more (moving line);
- <u>Proportion of BHC</u> household income spent on domestic energy costs twice the median or more (fixed line);

## What is the demographic of households in energy hardship?

- <u>OurPower respondents</u> presented higher energy hardship indicators than national respondents.
- <u>Having at least one person in the household being Māori</u> were related to having more energy hardship indicators.
- <u>Income was inversely proportional</u> to the number of energy hardship indicators (more severe for OurPower respondents).
- <u>Highest education level obtained by a household member was inversely</u>

proportional to the number of energy hardship indicators (OurPower only).

### What socioeconomic issues relate to energy hardship?

- *MBIE measures inability to afford sufficient warmth, major housing repairs* <u>needed</u>, and <u>feeling cold often due to self-rationing</u> were the most associated with selecting other indicators.
- Energy hardship in Aotearoa is represented by the <u>poor quality of its dwellings</u>, <u>being low income</u>, <u>energy services costing too much</u>, and households having to find <u>dangerous coping mechanisms</u> to afford energy bills.
- Other variables (not MBIE measures) that were associated with higher energy hardship indicators related to <u>food insecurity</u> and having <u>energy debt</u>.

## **Energy hardship additional surveys**

#### **OurPower**

- <u>Follow-up</u> survey.
- <u>105 respondents</u> (773 respondents before).
- Questions about OurPower, rewards, actions related to energy wellbeing, suggestions to *minimise energy* hardship...

#### National

- <u>Follow-up</u> survey.
- <u>69 respondents</u> (505 respondents before)
- Questions about reward providers, rewards, actions related to energy wellbeing, suggestions to *minimise energy*

hardship...

• <u>Feedback</u> survey.

**Organisations** 

- <u>16 respondents</u>.
- Questions about their own programmes, ranking importance of groups (all three surveys), suggestions to minimise energy hardship...

What are the best interventions needed to eradicate energy

## hardship in Aotearoa?

#### Best practices

- <u>OurPower's lower rates</u> are the main reason the respondents chose them as their electricity retailer.
- <u>Keeping energy costs as low as possible</u> is a central theme discussed in the three surveys as a suggestion for reducing energy hardship.
- OurPower respondents also stated <u>OurPower's simple single-rate billing</u> as a reason for choosing them.
- OurPower also does not have a daily fixed charge, being seen as a positive.

#### Best practices

- <u>Winter Energy Payment</u> was received by more than a third of OurPower and 14.49% of national follow-up respondents. Financial savings were often mentioned as a positive result.
- Organisation survey respondents stated to <u>promote energy-efficient habits</u>, and their main programme findings were positive outcomes from energy awareness actions.
- OurPower and national survey follow-up respondents also stated positive consequences from the above (e.g. learning the efficient use of their heater increased their thermal comfort while reducing costs).

#### Further interventions

- Survey answers were linked to <u>energy democracy</u> social and environmental aspects of the energy sector and the power dynamics within.
- <u>Decentralising</u> the energy sector and making companies community-owned can lower the costs for households by removing shareholders' profits.
- <u>Localised decision-making</u> also makes it easier to support community initiatives and vulnerable households.
- Completely switching to <u>local and sustainable renewable sources</u> must be prioritised, being more achievable with decentralisation.

#### Further interventions

- <u>Winter Energy Payment</u>, <u>Warmer Kiwi Homes</u>, and <u>Healthy Homes Initiative</u> need budget expansion and programme improvement.
- <u>Te Tiriti o Waitangi</u> obligations need to be followed, and the <u>Māori and Public</u> <u>Housing Renewable Energy Fund</u> can help achieve rangatiratanga.
- NGOs can create <u>partnerships for specific purposes</u> (e.g. language and cultural barriers).

## Thank you!

## **Questions**?