



Defining Energy Hardship

About this survey

This survey seeks your feedback on MBIE's proposed definition of energy wellbeing and energy hardship, and how energy hardship should be measured at a national level in Aotearoa. Your views will contribute to the development of the Government's official definition and measurements.

MBIE's proposals are outlined in the Defining Energy Hardship Discussion Document. We recommend that you read the Discussion Document before filling out this survey for a broader understanding of the material. Each question will refer to a relevant section of the Discussion Document, which you can view on the [consultation webpage](#). On the webpage you will also find a summary of the proposals and a short factsheet, which you can use to help fill out this survey.

You can only complete the survey once. You do not need to answer all the questions, only those which are important to you.



Defining Energy Hardship

We will keep your information safe

The information provided in your submissions will be used to inform MBIE's development of a definition and measures for energy hardship, related policy development, and will inform advice to Ministers. It will also become official information, which means it may be requested under the Official Information Act 1982 (OIA). The OIA specifies that information is to be made available upon request unless there are sufficient grounds for withholding it.

Use and release of information

To contribute to transparency in our decision making, MBIE proactively releases a wide range of information. MBIE will upload copies of submissions to its website at www.mbie.govt.nz. By making a submission, MBIE will consider you to have consented to uploading, unless you clearly specify otherwise in your submission.

Your name, or that of your organisation, will be published with your submission on the MBIE website unless you clearly specify you do not consent to your submission being published. Other contact details you provide will not be made publicly available.

Personal information

All information you provide will be visible to the MBIE officials who are analysing the submissions and/or working on related policy matters, in line with the Privacy Act 2020. The Privacy Act 2020 includes principles that guide how personal information can be collected, used, stored and disclosed by agencies in New Zealand.

If your submission contains personally identifiable information that should not be made public, please make clear what can and cannot be made public. For example, information about other people that you are sharing without their consent or information about children.

Contacting you about your submission

MBIE officials may use the information you provide to contact you regarding

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Viewing or correcting your information

This information will be securely held by MBIE. Generally we keep public submission information for three years. After that, it will be destroyed in line with MBIE's records retention and disposal policy. You have the right to ask for a copy of any personal information we hold about you, and to ask for it to be corrected if you think it is wrong. If you'd like to ask for a copy of your information, or to have it corrected, please contact us at definingenergyhardship@mbie.govt.nz

1. Have you read and understood the Privacy Statement?

Yes

No



Defining Energy Hardship

About you

2. What is your name?

Dr Sea Rotmann

* 3. What is your email address?

We may need to contact you for clarification on your submission, or regarding Official Information Act requests. Your email address will not be used for any other purpose.

Privacy of natural persons

4. Are you submitting as an individual or on behalf of an organisation?

- Individual
- Organisation

5. If on behalf of an organisation, what is its name?

Users TCP by IEA (on behalf of HTR Users Task)

6. If on behalf of an organisation, which of these best describes it?

- Iwi, hapū or Māori organisation
- Energy retailer
- Energy regulator
- Energy distributor
- Registered charity
- Non-governmental organisation
- Local Government
- Central Government
- Academic/Research
- Other (please specify)



Defining Energy Hardship

Proposed Definition for energy wellbeing

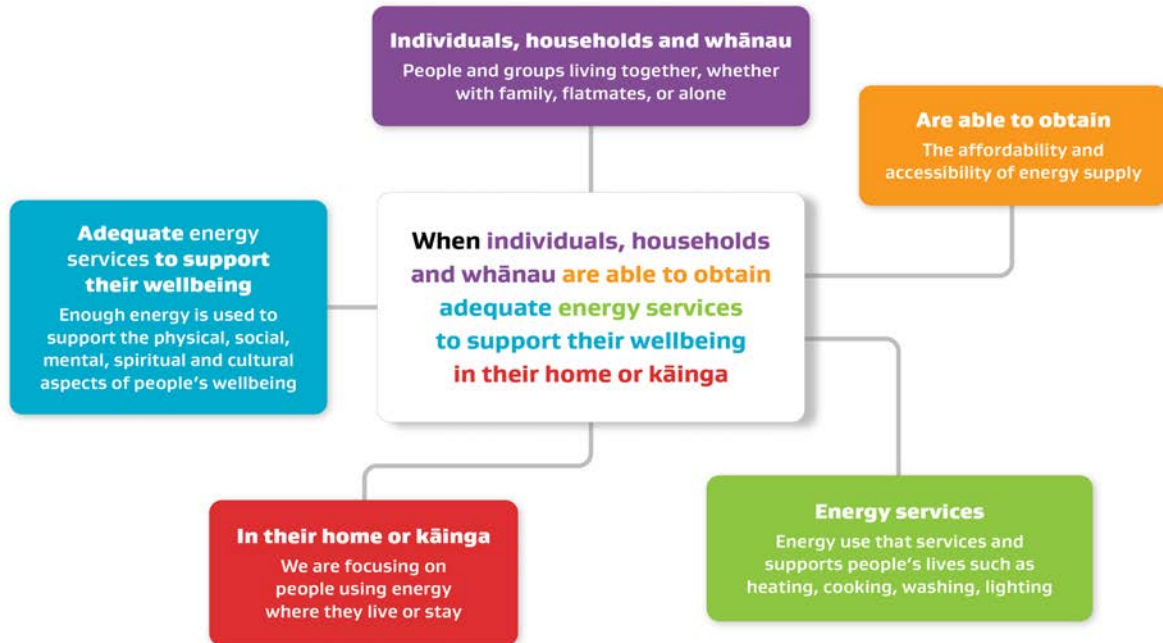
In order to measure levels of energy hardship, we first need to come to an **agreed definition** of what energy hardship is. Aotearoa does not currently have a generally accepted definition of energy hardship, which has made it hard to measure over time.

The proposed definition is **aspirational**, meaning it defines what we are working towards (i.e. energy wellbeing). Because of this, we define energy hardship as being the **opposite** of energy wellbeing.

The terms within the definition are explained in the image below. We have aimed for the definition to be **accessible** so that it can be used and understood by all New Zealanders. Also, the definition is **flexible** so it can be adaptable to changes in data availability.

For further information relating to these questions, see Section 3 of the Discussion Document.

The proposed definition and explanation of terms



7. To what extent do you agree or disagree that the proposed definition for energy wellbeing is right for Aotearoa?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

8. Do you have comments on why have you chosen this answer?

I think it is important to add "equitable access to energy services" in here, as inequity goes to the crux of the causes for energy hardship, which is a symptom of wider, structural and systemic inequity such as racism, colonialism, classism, sexism etc. I'm also missing home-based micro businesses where energy use is a mix of residential and commercial - this has become a particular issue following COVID lockdowns where working from home has become the norm for many Kiwis

What is covered by the definition?

The proposed definition includes all types of energy that are used within a home, including (but not limited to) electricity, gas, wood and coal. These energy types are used for services that support wellbeing, such as cooking, lighting, heating and washing.

The proposed definition also includes all dwellings where people live or stay, including marae and papakāinga.

9. To what extent do you agree or disagree with the inclusions in the proposed definition?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

10. Do you have any comments on what is included in the definition?

Appreciate that transport/commuting energy use isn't covered under this definition, though I'm not sure I agree, even though it's easier. It can contribute to significant energy hardship, especially in rural areas or where there is less access to public transport. Once EVs become more prevalent, they will increase residential electricity use significantly. Again, home-based small businesses (might be up to 70% of A-NZ businesses) and contractors working from home due to COVID aren't covered explicitly, although they form a mix of commercial and residential energy use.

What is not covered by the definition?

The definition focuses on places where people live or stay, so it doesn't include commercial energy consumption, or energy for transport. People who are sleeping rough or inhabiting improvised dwellings are not considered to be in energy hardship by this definition, but this does not mean they are overlooked. We recognise that their needs are not related to energy use within a dwelling, so their housing situation should be prioritised before focusing on their energy wellbeing at home.

We are proposing that transport energy is not included as an energy service in this definition, because it is used outside the home.

11. To what extent do you agree or disagree with what is excluded by the definition?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

12. Do you have any comments on what is excluded by the definition?

As you acknowledge in the discussion doc, especially once EVs come in, there will be increased in-home electricity demand. The transport fuel bill still contributes to energy hardship so I don't think cutting it off at the house level is quite that simple. Again, there is an issue with small businesses working from home, especially those who were forced to do so because of COVID-19. Contractors' home energy use may have increased significantly, even though their commuting costs (not covered here) are now less. Women especially may have lost work or had to switch to small contracts or online work due to having to stay at home with children that couldn't go to school. And only about 5% of transitory homeless are chronic rough sleepers, most still use energy within homes, though they may not pay for it directly (i.e. via a utility bill) - see Rotmann et al, 2020 in-depth lit review.

13. Do you have any further comments on the proposed definition of energy wellbeing?

- Is it clear and easy to understand?
- Do you think there is anything missing?
- Is it relevant to you and your community?

It is quite clear and easy to understand, especially with the caveats / explanations. What I really like is that the goal is energy wellbeing, and hardship is the opposite. The strength-based approach is good.

I do think leaving out transport energy use (for commuting and EVs especially), and the significant overlap of residential and commercial energy use in home-based small and micro businesses (or those forced to WfH due to COVID-19) is problematic. I don't think that the distinction between working and living is as "pure" as it once may have been, nor that it will ever be that simple again.

Also think that more care needs to be taken with "homeless", as there are 3 types and only the smallest % is chronically homeless and sleeping rough (see Rotmann et al, 2020). They are among the most vulnerable.

This work is certainly relevant to me and my community of researchers of this topic, especially as we undertake field research pilots with community actors supporting those whānau.



Defining Energy Hardship

Proposed framework for energy wellbeing

A framework is an agreed way of thinking about something. We have developed an energy wellbeing framework based on engagement and research. This framework supports and expands on our proposed definition.

Our proposed framework shows the connected factors that can contribute to a household's energy wellbeing or hardship. People and their dwellings are at the heart of the framework. Each term in the framework is explained in Section 4.3 of the Discussion Document.

The framework will be used by MBIE to understand the factors of energy wellbeing or hardship, and how they might interact. This helps guide which factors we can target with different policies, as well as the aspects of energy hardship we can measure. This framework may also help other groups working to address energy hardship. For example, a community group might use it to communicate which parts of a households' situation they could assist with.

For further information relating to these questions, see Section 4 of the Discussion Document.



14. To what extent do you agree or disagree that the framework represents the factors that influence energy wellbeing in Aotearoa?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

15. Do you have comments on why have you chosen this answer?

The main components are all there but I miss some way of prioritising them in terms of what are the biggest barriers for households, and where are the biggest needs for improvement. The Energy Cultures framework could help with framing (What do they have - think - feel and - do?), or my Behaviour Changer framework (Rotmann, 2016), which shows the outside factors and relationships that occur in a wider socio-ecological system - the importance of other people (e.g. peer pressure, social media, family stories and politics), and of policies, rules and regulations. You acknowledge that policies and regulations are reflected in the framework but it may need a broader concentric circle around it (also including other environmental factors, such as climate (crisis), climactic zones, infrastructure access etc.). I realise you don't want to prioritise factors here, but there are certainly levels of influence, some more directly on the dwelling and households, others more broadly on neighbourhood / community / regional / national levels - these broader factors will have influence over all households and dwellings in a certain area and should thus be differentiated IMO.

16. Do you have any other comments on the proposed framework?

You may want to consider:

- The layout of the framework, and if it is easy to understand
- If anything is missing, or should be added
- Which factors you think are most significant in your community

It's easy enough to understand, though the tradeoff is that it doesn't prioritise or show the most important barriers and drivers. It does not explicitly address the huge influence of other people (including intra-family politics and landlords) and (social) media, as well as that of policies, regulations, rules and processes we are all bound by.



Defining Energy Hardship

Proposed indicators for energy wellbeing

We have proposed the following indicators of energy wellbeing to connect household outcomes to the energy wellbeing definition. We have used these indicators to consider how to measure energy hardship.

For further information relating to these questions, see Section 6 of the Discussion Document.

Theme	Energy wellbeing indicator
Able to obtain – access	Access to a reliable energy supply when needed
	Able to access and use technologies to manage energy, such as making online transactions.
Able to obtain – able to afford and manage bills	Able to afford energy bills without borrowing or economising on other expenses
	Able to heat, wash, cook and use other energy services as required to stay comfortable without having to forego other necessities
Able to obtain – enabling resources	A dwelling that can maintain a healthy temperature
	Access to necessary appliances that are safe, effective and efficient
Wellbeing is supported in the home or kāinga	A dry and well-ventilated home
	A healthy indoor temperature

17. To what extent do you agree or disagree with the proposed indicators for energy wellbeing?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

18. Do you have comments on why have you chosen this answer?

You may want to consider:

- Are the indicators comprehensive?
- Are there any other indicators of energy wellbeing that should be considered?

I think they are quite comprehensive and it's good that there is the idea that whānau shouldn't be forced to trade-off energy services and health with paying (other) bills. You may want to add something about a dwelling that meets the needs of all its occupants. E.g. for some like very frail elderly, the WHO temperatures may not be enough to keep them healthy. There does seem to be a duplication of the "healthy temperature" theme?

Obviously, we are potentially showing a blindspot again by ignoring transport energy and (lack of) access, which would affect more geographically remote whānau but also essential workers, who may have one income earner now working at home all day with the kids (in lockdown), but who still need to pay for commuting travel. I realise that the pandemic and its effects on home energy use / working from home patterns seems to be transitory, but I think it will have significant, ongoing, long-term impact on changes how we work and live. Crowding in particular is a massive issue - e.g. omicron spreads incredibly well within households - so there potentially could be an indicator that aims at reducing the need for functional crowding at least. E.g. all rooms in a house can be heated and ventilated to healthy standards. I realise the housing affordability and access crisis is a long-term problem but crowding in particular seems to be an energy hardship indicator to me that should be included.



Defining Energy Hardship

Measuring energy hardship

Our starting point for measuring energy hardship has been to define energy wellbeing. When helping people in our communities it is important to focus on aspirations and goals. However, for lifting energy wellbeing it is important to also have measures of hardship so we can better understand how many households need support, and track whether programmes are making a difference to help households out of hardship.

We have proposed a set of primary and secondary measures of energy hardship. These measures will help us to track energy hardship at a national level in Aotearoa. They will also enable us to look at energy hardship across rough regional breakdowns and some different groups, although how well we can do this depends on what data the measure is based on.

For further information relating to these proposed measures, see Section 6 and Appendix C of the Discussion Document.

19. We are proposing to use a set of primary and secondary measures for energy hardship. Do you support this proposal?

- Yes
- No
- Unsure

20. Do you have comments on why you have chosen this answer?

It's very important to go beyond income / expenditure and home infrastructure and appliances to intersecting and compounding factors of vulnerability, such as: mental or physical disability or ill health; lack of access (to technology or services); social isolation; stigma (e.g. sex workers or drug addicts); illegitimised or criminalised (e.g. gangs); refugees and immigrants (language barriers); Indigenous and Pasifika; cultural issues; geographic remoteness etc. For a very long list including characteristics of these HTR audiences, see Rotmann et al, 2020. It's also important to understand the differences and overlaps between energy hardship, vulnerability and being hard-to-reach. There is a lot of overlap but income is often the least common denominator (e.g. they are easier to reach as we know who they are due to CSC or low-decile home addresses). There also needs to be an acknowledgement for the different levels of poverty (e.g. asset rich but income poor, this may have especially changed with temporary job losses due to COVID lockdowns). A recent ACEEE report just showed that education and building type are by far the most obvious denominators if households participate in EE programmes: https://eta-publications.lbl.gov/sites/default/files/ee_program_participation.pdf The more compounding vulnerabilities there are, the bigger the barriers to engagement will be and the harder-to-reach they'll become. Some kind of prioritising to ensure the most vulnerable whānau don't get missed and that there is equitable distribution of support is important. As is not ignoring the causes for energy hardship and working on removing them, societally and structurally.

Proposed primary measures

The four primary measures are:

Proportion of AHC household income spent on domestic energy costs is twice the median or more (moving line)

Proportion of AHC household income spent on domestic energy costs is twice the median or more (fixed line)

Put up with feeling cold to keep costs down a lot

Dampness and/or mould problems - major

The first two measures come from the Household Economic Survey - Expenditure which is asked every three years. We propose that these measures are interim, and will be in place until a model for required energy for wellbeing is created.

The second two measures come from the Household Economic Survey - Core, which is asked every year.

21. To what extent do you agree or disagree with the proposed primary measures?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

Proposed secondary measures

The 22 potential secondary measures are shown here categorised by their data source and frequency. They are:

Census of Populations and Dwellings (asked every five years)

No access to electricity supply

No heating type used

Use of unsafe substitute heating methods (portable gas heater)

Lacking one or more basic amenity

Damp always

Household Economic Survey – Core (asked every year)

No home access to computer or internet

Could not pay electricity, gas, rates, or water bills on time (more than once)

Unable to afford unexpected expense without borrowing

Cannot afford to keep the dwelling adequately warm and dry

Major problem heating accommodation and/or keeping it warm in winter

Household Economic Survey – Expenditure (asked every three years)

No access to financial institution account

Absolute domestic energy expenditure half the national median or less (moving line)

Proportion of BHC household income spent on domestic energy costs twice the median or more (moving line)

Proportion of BHC household income spent on domestic energy costs twice the median or more (fixed line)

General Social Survey (asked every two years)

Can see breath indoors in winter

Indoors always colder than would like in winter

Mould larger than an A4 - Always

Housing repairs needed - major

General Social Survey - Housing and physical environment supplement (asked every six years)

Not heating own bedroom in winter

Not heating children's bedroom in winter

Not heating main living room in winter

I'd definitely ask about overcrowding (structural and functional)
I'd also ask about stigma - feeling stigmatised or socially isolated or excluded because of difficulties with
accessing affordable energy or paying for adequate energy services

Electricity Authority data (available annually)

Use of prepayment metering

I think there are different types now, and not all are as bad as the old coin-fed prepay meters

22. To what extent do you agree or disagree with the potential secondary measures?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- Unsure

23. Do you have any comments on the proposed primary and secondary measures?

You may want to consider:

- How many primary and secondary measures you think we should consider

- Which measures you think should be primary or secondary (and why)

I know it's expensive and hard to get these measures into surveys or the census but the crowding one is imperative I think. A (psychographic) measure of feeling stigmatised goes more to the heart of the underlying causes for hardship, and is thus also important IMO. I would delve more deeply into demographics such as age, race/ethnicity, gender, carer status (e.g. single parent, caring for elderly or disabled), education, tenure, rural/urban, literacy and language competence, even though I appreciate how hard it is to get that granular data from the HES Expenditure survey. Maybe you can do some research in some high-risk locations first (e.g. South Auckland) to understand some of the main demographic drivers (especially for those most vulnerable AND hard-to-reach). Right now, I'd also ask if they are essential workers or have been forced to WfH due to COVID-19. I think it's a great idea to introduce electricity usage data to the IDI.

Depth of energy hardship

As well as measuring how many households are experiencing a measure of energy hardship, we are also looking into ways we can measure the depth of energy hardship. This is to determine where households in Aotearoa are on the energy hardship/wellbeing continuum. For example, statistics could show the number of people in energy hardship, and also the number in severe energy hardship. This is to determine the extent to which people are experiencing energy deprivations, and to be able to estimate how far away from energy wellbeing we are (the energy hardship 'gap').

We plan to undertake further analysis looking at the depth of energy hardship. We are interested in hearing your thoughts on how depth of hardship should be measured.

For more information see Section 6 of the Discussion Document.

24. Do you have any comments on measuring the depth of hardship?

You may want to consider:

- If we should use these measurements in Aotearoa, in addition to the primary and secondary measures
- Combining measures (i.e. a DEP-17 style approach)
- Measuring the energy hardship gap

Yes you should definitely measure depth and extent of energy hardship and how many people fall under it in Aotearoa.
Also agree that combining measures is a good idea and that you should measure the gap.



Defining Energy Hardship

Data gaps and proposed way forward

In sections 7 and 8 of the Discussion Document we describe the limitations and gaps in current data, and some ways these could be improved upon, as well as some plans for future analysis.

We are interested in hearing what you think is most important to focus on next. Please rank the following proposals in order of what you think is most important (1) to least important (4).

25. Rank the following proposals in order of most important (1) to least important (4).



4

Further analyse any currently available data



1

Work to fill existing data gaps/limitations



2

Model required energy use for households in Aotearoa



3

Research energy hardship-related indicators

26. Do you have any suggestions for alternatives or changes to the proposed way forward?

You may want to consider:

- Are there gaps in the measurement we haven't identified?**
- Are there data sets or measures you know of that should be included?**
- Do you have any other suggestions for future analysis?**

I have sent this to the Energy Hardship team in the past, but both our giant literature review of HTR Audience Characteristics (Rotmann et al, 2020) and the Portuguese Case Study Analysis in particular, who tried to estimate audience sizes in Portugal based on indicators from our characteristics, could be a good way of estimating the amount of hard-to-reach (which have a huge overlap with vulnerable whānau including those in energy hardship) energy users in Aotearoa. It could give another perspective and show where there are potential blindspots (e.g. home-based micro businesses, remote households, income-poor but asset-rich whānau who don't fit the current criteria for e.g. HHI etc.)

Lit Review can be accessed here: https://drive.google.com/file/d/1_M_pm6GNdEuwD2JJRaNdjtkk0d_Mb27R/view?usp=sharing
Portuguese case study (check out Table 1 for indicators): <https://userstcp.org/wp-content/uploads/2019/10/Case-Study-Analysis-PORTUGAL.pdf>



Defining Energy Hardship

Final thoughts

27. Do you have anything else you would like to mention?

Really important mahi! Glad to be a part of it, always happy to help!

*** 28. Can we publish your submission on the MBIE website?**

If your submission contains personally identifiable information that should not be made public, please make clear what can and cannot be made public. For example, information about other people that you are sharing without their consent or information about children.

Your name, and that of your organisation will be visible. Email addresses will not be visible.

Yes

No



Defining Energy Hardship

Your survey results have been submitted

Thank you for providing your feedback on the proposals for defining and measuring energy hardship. After the consultation period closes, feedback will be analysed and a summary of submissions will be published on the MBIE website.

To keep up to date with the government's work to reduce energy hardship, sign up to the newsletter [here](#).