User-Centred Energy Systems

Hidden Energy Users Hui Report

National Expert Workshop, Aotearoa New Zealand

Māngere East, 20–21 April, 2026
Site visits to Te Tai Tokerau,
22–25 April, 2026

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Contents

Executive summary 3

Introduction and *kaupapa* [topic] 4

Participation 5

Day 1: State of play of measuring energy hardship 6

- The framing critique (Ian McChesney) 6
- The official numbers (Lorenz Magaard-Romano, MBIE) 8
- The consumer view (Nina Campbell, Consumers International) 8
- The remaining Day 1 presentations 9
- Sweden, Sápmi, and the Nordics (Dr Ann-Sofie Kall, Jönköping University) 10

Day 2: The HTR Task and international mahi 11

Session 1: The Energy Wellbeing Network (EWN) 12

- The missing middle 12
- World Café workshop outputs 13

Session 2: Measuring hidden energy hardship 15

- The MBIE “measurement petals” workshop and priority vote 15
- Gaps and proposed solutions 17

Session 3: Building community resilience 18

The measurement gap: what the hui surfaced 20

- Participant feedback 21

Site Visits: Te Tai Tokerau, 22–25 April 2026 22

- Habitat for Humanity Northland, Whangārei 22
- CBEC, Kaitaia 23
- TOP Energy and the Ngāwhā geothermal plant, Kaikohe 24
- Te Kao *papakāinga* [home base] and Waimirirangi marae 25
- What the field trip added 27

Conclusions and next steps 27

- Five action priorities for a just transition 27
- Recommendations arising from the hui 28

What comes next for the HTR Task 28
Appendix: Supporting documents and links 29
Note on sources and attribution 29

Executive summary

The *Hidden Energy Users Hui* [workshop] brought **87 participants from 52 organisations** to Māngere East Hall in *Tāmaki Makaurau* [Auckland] over 1.5 days in April 2026. It was the third and final National Expert Workshop of Phase 2 of the Users TCP Hard-to-Reach (HTR) Energy Users Task, hosted in *Aotearoa* [New Zealand]. International experts from Sweden and the U.S. joined *kaupapa partners* [stakeholders] from the community, government, research, industry and philanthropic sectors, before travelling North for a four-day field trip through *Te Tai Tokerau* [Northland] - Aotearoa's most deprived region with the highest energy prices.

Six findings dominated the *kōrero* [discussion]:

- **The energy hardship measurement gap is the headline issue.** Government reporting for the year ending June 2024 (MBIE, 2025) put the share of households unable to afford to keep their home adequately warm at 6.7%. Consumer NZ found 30% of survey respondents reporting homes too cold in winter - a 4-5x difference. Reported hardship, based on the latest Stats NZ data, rose approximately 50% between 2024-25.
- **Energy literacy, habitability, and financial resilience were the top priorities chosen by hui participants.** Given three stickers each, participants concentrated their 61 votes on energy literacy (12), dwelling habitability (8), and financial resilience (8). Household income, tenure security, payment methods, financial literacy, and energy awareness received none. The room thus prioritised what is invisible over what is already counted.
- **The "meso" layer is still missing.** Aotearoa has a functioning "macro layer" of regulators and agencies, and a committed "micro layer" of frontline and community organisations, but no durable connective tissue between them. This is the gap the proposed Energy Wellbeing Network (EWN) is intended to fill.
- **Legal architecture obstructs measurement.** The EA holds comprehensive retailer data and has published some of it live on its website. As market enabler and regulator - explicitly not a data broker - it has not yet published comprehensive data by individual retailers. Section 54Q of the Commerce Act limits the Commerce Commission to incentivising lines, poles and wires - not improving system efficiency.
- **Programme delivery funding is still far too low.** For example, the *Whānau* [Family] *HEAT Kit* SEEC-funded national scale-up received only one third of the funding needed for two in-home visits, and none for programme evaluation. The EWN, despite strong support and co-design from across the energy system, still remains unfunded.
- **Te Tai Tokerau shows leadership in many ways.** Te Kao secured $750,000 for solar on their *marae* [communal meeting place] and 40 homes, cutting household bills from $1,500–$2,000 a month to about $400. TOP Energy is 100% owned by the consumers on its own network and has launched a $100,000 energy hardship fund. CBEC has successfully run a community enterprise in Kaitaia for 38 years. Habitat for Humanity Northland began its *Healthy Homes* work with $500 per house, later raised to $6,500, serving 170 families a year.

The hui closed with five action priorities for a just transition, and a commitment to carry the kōrero into the 2026 Ara Ake *Energy Resilience and Affordability Conference* (now cancelled, since the government's sudden decision to close down Ara Ake in June 2026), and a proposed Phase 3 of the HTR Task (2027–29).

We would like to sincerely thank and acknowledge our hui sponsors and co-organisers: Ara Ake, the Community Energy Network (CEN), the Electricity Authority (EA), and Auckland Council. We would also like to thank all hui participants for joining us, and TOP Energy, Habitat for Humanity Northland, CBEC, and Waimirirangi marae for the generous hospitality shown to our international guests throughout the site visits in Te Tai Tokerau.

Introduction and *kaupapa* [topic]

The world is talking about a "just and clean energy transition". But what does a just transition mean for those who remain hidden to decision-makers - because they are too hard to reach, too disengaged, or too traumatised to participate actively? In this *mahi* [work] we call them **Hidden Energy Users (HEU)**. Many also live in **Hidden Energy Hardship (HEH)**. Some are hidden voluntarily, out of fear, *whakamā* [shame, embarrassment], or distrust of the system. Others are simply overlooked, and sometimes stigmatised and outright ignored. We need this research because we do not know how many there are, where to find them, or who can help bring them from the shadows to the centre of the kōrero.

> *In this Task, a hard-to-reach (HTR) energy user is one who is under-served, under-represented, or intentionally under-invested in by energy decision-makers.* *HTR Task working definition, Phase 2*

Four main objectives were set for the hui:

1. **To incorporate international and national expertise** to co-design a Phase 3 of the HTR Task, focused on the practical aspects of a just transition.
2. **To build relationships across sectors** and highlight the importance of community navigators and community and Indigenous perspectives.
3. **To tease apart how to support co-design of energy policy** while confronting systemic injustice.
4. **To celebrate the mahi to date** under the HTR Task and Aotearoa's longstanding efforts on energy hardship.

Phase 1 had found that HTR and hidden energy users are far more numerous than hypothesised, making up roughly two thirds of all energy users; that top-down interventions aimed at poorly-characterised users have serious methodological failings, notably an absence of participatory co-design; and that involving community middle actors and navigators is crucial

but extremely hard, because they are overworked, undervalued and subject to the same distrust of well-meaning experts as the communities they serve. Phase 2 shifted from characterising the problem to addressing it.

> *Our shared goal is to identify, listen to, elevate, and empower priority voices, so as to be guided by their experiences, insights, and needs, to achieve a truly just energy system transition for all. The just transition should build energy sovereignty, influence and resilience in those priority communities.*
>
> *HTR Task Phase 2 shared goal*

Participation

Eighty-seven people registered for the hui - showing both the enormous interest in this mahi, and the strong relationships built up over 6 years of running the HTR Task. Fifty attended in person and 24 online only, the remainder in a mixed or partial capacity. Day 1 was deliberately focused on presentations outlining the underlying problem, with Day 2 focused on workshops and active problem-solving. The sector balance was a design choice by the hui organisers, and community representation was the largest single bloc.

Sector	Participants	Share
Community and frontline	29	33%
Government and regulators	26	30%
Research and academia	17	20%
Industry (retailers, lines companies, generators)	10	11%
Philanthropy	2	2%
International	3	3%
Total	**87**	**100%**

Table 1: Participation by sector.

Fifty-two organisations took part; individual names are not listed:

Community and frontline: 350.org Aotearoa · Age Concern · Awarua Synergy · CBEC · Citizens Advice Bureau · Community Energy Network · EcoMatters · Failoa Famili · Habitat for Humanity · Kootuitui · MUMA · Sustain & Enable · Sustainability Options · Sustainability Trust · Te Pou Matakana · Time to Thrive / Triple Tees · Utilities Disputes · WISE · Rewiring Aotearoa

Government and regulators: Auckland Council · Auckland Transport · Dunedin City Council · Electricity Authority Te Mana Hiko · EECA · MBIE · MSD · New Plymouth District Council · Stats NZ · Te Whatu Ora

Research and academia: Ara Ake · Beacon Pathway · BRANZ · Motu · SEA · University of Auckland · Victoria University of Wellington · plus independent consultants

Industry: Contact Energy · Mercury · Meridian · Nova Energy · Orion · Our Energy · Revolve Energy · TOP Energy · Trust Horizon · Unison · Vector

Philanthropy and international: Tindall Foundation · Consortium for Energy Efficiency (US) · Consumers International · Energy Trust of Oregon (US) · Jönköping University (Sweden)

Figure 1: Day 1 was held mostly *kanohi-ki-te-kanohi* [face to face] in the Metro Theatre at Māngere East Hall.

Day 1: State of play of measuring energy hardship

Day 1 addressed one big question: ***How do we currently measure energy hardship in Aotearoa, and what does that measurement miss?*** Eleven presentations were given from government, regulators, industry, research, the community sector, and two international jurisdictions. The cumulative effect was a portrait of a measurement system that is improving but still unable to fully *see* the energy users this Task is concerned with.

Note that all of the hui presentations can be found here.

The framing critique (Ian McChesney)

Measurement, Ian McChesney argued, exists in the service of energy wellbeing and to better target and evaluate programmes: it is the handrail of social policy. He traced the workstream

from Rosemary Goodyear's 2017 report and the 2019 Electricity Pricing Review to the current five MBIE government measures, then set out a structural critique that framed the whole hui.

Defining energy hardship as the opposite of energy wellbeing loses its **scalar nature** - both in severity and depth - and reverts to a binary; measurement is not consistently done against the affordability condition of the definition itself; there is no achievement goal, target or timeframe; outcomes are essential but insufficient, and disconnected from the causes and interventions that produce them; and the reporting process lacks best practice on timeliness and the involvement of non-government stakeholders.

He proposed reframing the system around **exacerbators** (energy costs, inflation, income, health, dwelling quality, household decisions), **responses** (programmes, the Winter Energy Payment, retailer obligations, switching and electrification initiatives, electricity debt), and **outcomes**, then closing the loop by assessing and reprioritising. His wish list was an energy hardship-focused goal and targets, an expanded measurement database, annual dashboard reporting on a fixed release date, full reporting every two to three years, a participatory process, and broader poverty indicators. His figure with the most recent data was cited repeatedly over the following two days: reported energy hardship rose steeply (approximately 50%) between 2024-2025 (Fig. 2). This time period does not take into account the latest power price rises.

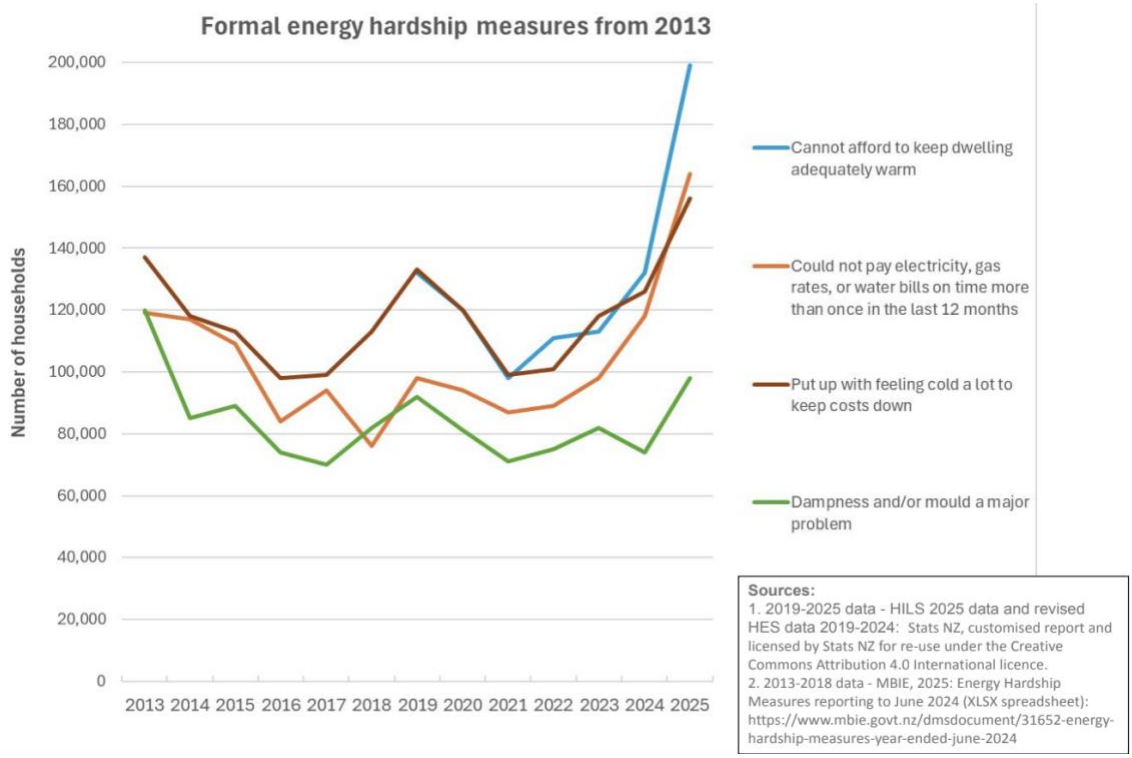

Figure 2. Formal energy hardship measures including latest Stats NZ data (Source: Ian McChesney).

The official numbers (Lorenz Magaard-Romano, MBIE)

Government energy hardship measure, year ending June 2024	Households	Share
Could not afford to keep home adequately warm	132,000	6.7%
Put up with feeling cold a lot to keep costs down	126,000	6.3%
Paid utility bills late more than once	118,000	6.0%
Major problem heating / keeping accommodation warm	102,000	5.2%
Major problem with dampness or mould	74,000	3.7%

Table 2: MBIE energy hardship measures. (Source: MBIE, 2025; Stats NZ HES and HLPI).

Renters experience more hardship than non-renters, though their measures have improved faster, and households with Māori and Pacific peoples are two to three times more likely than the general population to experience measures of energy hardship. MBIE was candid about the **reporting limitations**: reliance on existing datasets, sample sizes too small for regional breakdowns, subjective survey questions, and a heavy housing focus.

The consumer view (Nina Campbell, Consumers International)

Internationally, the IEA estimates 120 million households in advanced economies cannot afford the energy they need; household energy costs have risen 4% on average since 2019; only one third of affordability policies target those who need them most; 58% of consumers report confusion at tariff options; and trust in energy companies is critically low at 43%. The 2026 World Energy Issues Monitor identifies **affordability** as the number one consumer issue.

The EU definition of energy poverty is based on self-restriction and captures **Hidden Energy Poverty** (HEP): "*energy poverty occurs when a household must reduce its energy consumption to a degree that negatively impacts the inhabitants' health and wellbeing*." In 2024, 9.2% of EU households could not keep their homes adequately warm (cf. MBIE's 6.7%). NZ has a similar measure but without the obligations - the EU policy architecture that accompanies it recognises energy as an essential service; obligates member states to identify, monitor and address energy poverty; bans disconnection for vulnerable and energy-poor households; and provides dedicated transition funding streams. The Consumer NZ survey data (Table 3) presented alongside the international insights showed much higher prevalence of cold homes than MBIE's reporting, but the question / attribution was not the same as MBIE's / Stats NZ's data.

Consumer NZ / Consumer Sentiment finding	Result
Homes too cold in winter	30%
Households find it difficult to pay their bill	20%
Missed paying a bill by the due date	17%
Rank the cost of energy as a top three financial concern	37%
Cut back on heating due to the cost	12%
Denied service due to credit	9%

Took out a loan to pay a power bill	7%
Disconnections	40,000
Aware of the Consumer Care Guidelines before the survey	1 in 4 (26%)

Table 3: Selected findings from the Consumer NZ Annual Energy Retailer Survey and quarterly Consumer Sentiment survey. Samples are nationally representative.

Te Tai Tokerau (the region the international experts visited after the hui) was singled out as having both the highest energy prices and the lowest median household income in the country.

The remaining Day 1 presentations

The other 7 presentations are summarised below. Full slides are in the accompanying deck.

Presenter and organisation	Key points and figures
Julia Arnold, Electricity Authority	Retail market monitoring under the clause 2.16 notice covers billing, disconnections, flexibility and consumption, flagging medically dependent consumers, prepay, payment support and arrears. Post-pay disconnections declined from April 2025; new notification requirements were associated with a 25% drop. First prepay data: ~30,000 households, disconnected frequently but usually only for hours, with a subset disconnected repeatedly. The EA is working to estimate under-consumption - the self-restriction largely invisible in expenditure data.
Caroline Shone, EECA	Five SEEC providers contracted 2025–27 across Northland, Auckland, Bay of Plenty, Wellington and Marlborough; Round 6 intends up to ten providers and coverage of unserved areas. The winter campaign targets middle-income households - a group in which the “too proud” can be hidden as a result.
Dr Sea Rotmann, SEA - Whānau HEAT Kits	Eligibility required at least three compounding vulnerabilities; data from 145 whānau across two rounds, including two in-home visits and twice-daily temperature and moisture readings. Pilot (n=44): 100% completion, bedroom temperatures +2.3 °C, humidity −3 per cent, 90% reported lower bills. Consortium (n=101): 65% Māori and Pasifika, 65% renters (25% with HHS violations), 45% chronic health conditions, 25% overcrowded. Gaps: $200 for 2 visits is a third of what is needed; no evaluation funding in Round 2; self-reported data; no shared repository.
Andrew McGill, Auckland Transport	Transport equity framework analysing local access, regional access and system disbenefits, overlaying worst outcomes with highest deprivation to identify Equity Priority Areas that now inform investment.
George Ashby, Mercury	Hidden hardship as unspoken stress masked by fear or shame. Addressing it meets ethical and regulatory duties and lowers escalation and recovery costs. “Here to Help” has moved 240 customers out of hardship and cut closed account debt by $750,000. Site visit teams engage non-confrontationally; partners bring expertise in grants and entitlements.
Evelyn Hunsberger, Vector / ENA	The ENA Energy Hardship Forum meets quarterly. Its March 2025 benchmark survey drew 18 of 27 lines companies (86 per cent of national connections) and identified ~50 projects and 45+ partnerships, while noting the complexity of the problem and the difficulty of measuring impact.
Jessica Niemack, Utilities Disputes	Complaints rose ~60 per cent in the last financial year, mostly on customer service and billing, with a clear imprint of the cost-of-living crisis. Compared against Authority disconnection data, the scheme receives a complaint for roughly 1 in every 12 completed post-pay disconnections — 8 per cent.
Kira Ashby, Consortium for Energy Efficiency (US)	North American utilities often group diverse audiences into “equity communities” via socio-economic and census-tract indicators. Five common eligibility methods: income proof, categorical eligibility, geographic eligibility, self-attestation, and identification through collaboration with community organisations. Twenty-four per cent of US households carry high energy burdens (>6 per cent of income), rising to 67 per cent of low-income households. Recommendations: translators and one centralised application; self-attestation for moderate-income upgrades; and prioritise qualitative metrics gathered at assistance offices, social services and food pantries.
Tracy Scott, Energy Trust of Oregon (US)	Energy Trust is an independent non-profit of 24 years serving five investor-owned utilities. 2025–30 focus: cutting decarbonisation costs, greater impact for priority customers, and community resilience. Reach is extended via community partner funding; no-cost offers; higher incentives; and renter-specific workshops, toolkits and turnkey HVAC.

Table 4: Summary of the remaining Day 1 presentations.

> "*This data shows us that there is a large portion of disconnections that we never hear about.*" *Utilities Disputes, Day 1*

Sweden, Sápmi, and the Nordics (Dr Ann-Sofie Kall, Jönköping University)

The Nordic contribution by the Swedish National Expert for the HTR Task reframed the problem for a room that may have been assuming that a country's wealth can solve it. Energy hardship in the Nordic countries is increasing despite high living standards, and is not about lack of access. It has long been invisible because it sits embedded in broader welfare issues, producing a lack of clear definition and measurement; the 2021–23 energy crisis sharply increased household pressure. In Norway, many live in cold homes despite having heating, balancing warmth against affordability in constant uncertainty, and low-income households in inefficient housing become locked in, lacking both resources and options.

> "*You could see his breath, so it was really cold […] I think it's embarrassing to talk about, to admit that electricity prices and turning on the heat are things you can't afford.*"
>
> *Norwegian research participants, cited in Lunder Bredvold & Jackson Inderberg (2022)*

The takeaways map directly to the theme of this hui: Nordic energy hardship is *hidden* rather than absent, and common indicators such as energy costs or self-reported cold homes systematically miss households that adapt their consumption downward.

The second half addressed energy equity in Sweden and Sápmi, and was one of the more uncomfortable and valuable sessions of the hui. Sweden is widely seen as a leader in sustainability, climate action and human rights, but its transition relies on intensive land use in the North, driven partly by the EU Critical Raw Materials Act and the strategic goal of European rare earth processing capacity. Much of Sweden's energy production and resource expansion is concentrated on Sámi land - Kiruna and the Gabna Sámi reindeer herding community were presented as a case study - and in the resulting public narrative, the "elite" reindeer-herding Sámi are depicted as standing in the way of humanity's survival. The HTR Task will soon publish a peer-reviewed *Politics & Governance* paper on "Elevating Indigenous Voices in the Just Energy Transition" that outlines this case study (Rotmann et al, *in press*).

> "*The question is not only about green energy — but whose land, whose priorities, and whose costs. Rather than a simple success story, Sweden's transition is also a case of unresolved trade-offs.*"
>
> *Dr Ann-Sofie Kall, Jönköping University*

Day 2: The HTR Task and international mahi

Day 2 opened with *karakia* [prayer] and a welcome from Dr Will Edwards of Ara Ake, a summary of Day 1 for online and new participants, then an overview of the HTR Task and some background on energy hardship in Sweden and the U.S. The Task's central claim is that hidden energy hardship is not primarily a delivery or data problem but a symptom of **systemic injustice**. The familiar energy trilemma - security and access, profit and affordability, climate and decarbonisation - was presented with a fourth dimension added: justice, comprising democracy, equity, policy and law.

> "*In terms of policy formulation, society has become too influenced by economists, and this applies in particular to the energy sector.*"
>
> *Heffron et al. (2018), cited in the HTR Task presentation*

A deliberately provocative section challenged the framing embedded in the Task's own name. Identifying and recruiting hard-to-reach users is extremely difficult across both residential and non-residential sectors: for SMEs and the Municipality, University, Hospitals & Schools (MUSH) sector, industry and government need to engage middle actors such as tradespeople, contractors and auditors; for residential users, community navigators are essential but are themselves often hard to reach and overwhelmed. **Lack of trust and low energy literacy** are the biggest barriers throughout. Mass campaigns do not work for this group, and for these energy users it is often not about awareness or willingness - it is about survival.

> "*We have failed them, and we need to do much, much better to combat the energy crisis and have a truly just transition.*" *Dr Sea Rotmann, HTR Task*

The **HEU Tier Typology** was presented as the organising framework for the rest of the hui, and was referenced throughout the measurement and community sessions. Causes were split along two axes: **intrinsic factors** (consumption habits, health and special needs, cultural and social practices) versus **extrinsic factors** (poor housing quality, energy prices, low income); and **voluntary motivation** (choosing to remain hidden through fear, distrust, whakamā or guilt) versus **involuntary motivation** (misrecognised or deprioritised by decision-makers).

Tier	Who	Defining challenge
1	**The most isolated and hidden**: those affected by mental illness and disability, the isolated elderly, isolated rural and Indigenous communities, victims of crime and domestic violence, overcrowded households, socially stigmatised groups (beneficiaries, refugees, single mothers, addicts) and illegalised or criminalised groups (recently incarcerated, overstayers, sex workers, the homeless, gang affiliates). Subtiers incorporate access-constrained customers; medically-dependent customers; vulnerable renters; and severely housing-constrained whānau.	The system is impossible to navigate, they often fight for survival, and are extremely disempowered and often stigmatised, marginalised or criminalised by society and decision-makers.

2	**Low-income homeowners**. A sub tier also incorporates whānau-owned home occupants.	Asset-rich in a house they cannot afford to run or repair; or in complex legal and interpersonal living conditions.
3	**The squeezed middle**: households earning roughly $86,000–$230,000, including families, middle-income professionals, the elderly with large homes but little cash, and "HENRYs" (high earners not rich yet) who are asset-poor, income-rich, and time-bankrupt.	Whakamā, stigma and self-restriction; ineligible for support. Retailers can genuinely help this group - if they can identify them before they fall into hardship.
4	**Higher-income, high-consumption households**.	Not necessarily in hardship (except if living in poor housing); relevant to demand flexibility, electrification, and equitable distribution of transition benefits.

Table 5: Tiers of hidden energy users. Moving from Tier 4 to Tier 1 increases the time and resources required to reach these customers, the complexity of trusted relationships, the degree of tailoring, and the complexity of data collection and metrics.

Session 1: The Energy Wellbeing Network (EWN)

The first session addressed **collaborative governance**. The Energy Hardship Expert Panel report "Te Kore, Te Pō, Te Ao Mārama" (MBIE, 2023) recommended developing an Energy Sector Wellbeing Network, and ERGANZ has since facilitated further co-design (Rotmann, 2025), which was validated by an independent review by EECA. The session aimed to leave participants with a clearer shared vision for a coalition of kaupapa partners and co-funders.

The missing middle

The strawman presented by Gareth Cartwright (CEN) mapped the sector across three layers. At the **macro layer** sit ERGANZ and its members (as well as other retailers), the ENA and its 29 Electricity Distribution Businesses (EDBs), EECA, the EA and Commerce Commission, MBIE and Stats NZ, and the health, housing, Māori and social services agencies. At the **micro layer** sit whānau, marae, *iwi and hapū* [Māori tribal structures], local delivery organisations and community groups, councils and local health services. In between should sit the **meso layer** mapping and coordinating healthy homes assessors, community energy activators, and regional navigators across 16 regions.

This diagnosis - that we have a functioning top, a committed bottom, and nothing to coordinate them - recurred in every subsequent discussion, and is the clearest single conclusion of the hui. A well-funded EWN could coordinate three pillars (outlined below) nationally, advocate between the micro and macro layers, and provide a strong voice for hidden and small energy consumers.

Beacon Pathway's work on "enabling the enablers" (Sally Blackwell) gave empirical weight to the **training and education pillar**. There is a core of fewer than 250 home energy advice practitioners; no sustainable funding base; advisor churn; and signs the sector may now be shrinking. Services developed organically in response to demand, funding and shifting policy objectives, and advice is growing more complex, requiring new capability in electrification,

understanding bills, adaptation and resilience. Most advisors have some training (64% Home Performance Advisor [HPA] Principles, 40% HPA CERT, 20% Homefit) and some funders now require it, but this is new and not universal, gaps remain in ongoing professional development, and more culturally-responsive training is needed.

The **research and data pillar** (Dr Sea Rotmann) distinguished monitoring from evaluation and made the case for why evaluation matters: are we actually helping those who need it most, and could we anticipate and avoid unintended consequences by collecting and sharing data better?

> "*We need evidence-based policy, not policy-based evidence.*"
>
> *Dr Sea Rotmann, research and data-sharing pillar, Session 1*

Ara Ake (Dr Dan Gnoth) described its role as bridging idea-to-scale deployment, which requires pilots and testbeds - but Aotearoa lacks the science infrastructure for them: each trial rebuilds its processes from scratch and the data is locked away once the pilot ends. The **living labs** proposal aims to identify replicable resources and reach agreement among organisations to share and build on knowledge from innovation trials (note: Ara Ake has since been dissolved).

Sustainability Options (Nik Gregg) described a **regional delivery pillar** from the frontline: an altruistic social enterprise based in the Bay of Plenty but working across the *motu* [country], offering free home assessments to anyone while prioritising those who need it most, and visiting about 1,000 homes a year. The presentation walked through HEU tiers using real cases - an isolated individual on dialysis living without power; a couple renting a house they cannot improve; and a person with mental health issues in a home with multiple owners.

> "*Don't say no. Look for ways to say yes. Look for lots of ways to say yes. Trust comes with perseverance. Hidden is hidden till you find it. You only discover it when you happen to be around. You are only around if you said yes.*"
>
> *Nik Gregg, Sustainability Options*

World Café workshop outputs

Participants rotated between tables on the three pillars (education & training; research & data; regional delivery), with a facilitated parallel session online, each considering funding and collaborators, initial projects and pilots, and the big picture. The following is condensed from the flipcharts. The research and data table produced the framing that reoriented the whole kōrero.

> *"Collect data WITH the community, not FROM the community."*
>
> *Research and data table, World Café*

Its barriers were overwhelmingly **legal and institutional** rather than technical:

- **Commerce Act.** Section 54Q requires the Commerce Commission to ensure incentives for EDBs to undertake energy efficiency and demand-side management, but section 54C takes precedence and confines the Commission to lines, poles and wires. Participants noted that this needs fixing.
- **Permission and retention.** The EA holds comprehensive retailer data and has published some Disconnection and Regional Pricing dashboards live on its website. As market enabler and regulator - explicitly not a data broker - it has not yet published comprehensive data by individual retailers, even though it already holds all of it.
- **Quality and provenance.** Mercury reported datasets lost in a CRM migration requiring manual re-import. GeoScope aggregates indexed customer data into a single opaque output. Credit checks and ratings are used to identify hidden households, raising “big brother” concerns.
- **Quantitative bias.** Retailer and Authority data is all quantitative with no qualitative insight - it captures the vendor’s own data source but is not holistic. Mixed methods are needed, and how we use, collect and present data matters as much as what we collect. The EA’s proposal to conduct qualitative research on access-constrained consumers is a good step in the right direction to better understand the “how,” not just the “how many”.

Other good proposals included social infrastructure to hold data over time, resolution of data sovereignty questions (who accesses it, who is told, how information gets back to people locally), a pilot designed around specific outcomes rather than generic problems, and a collaboration MoU establishing clean intent. One observation shows why qualitative data matters: in January, Samoan whānau will disconnect because they have to buy school uniforms. No quantitative dataset explains that pattern.

The other two tables produced the following:

- **Regional delivery.** Collaborators mapped were marae, local community and business, churches, community trusts, councils, local members of parliament (MPs), landlords and investors - with repeated emphasis on appropriate *te reo Māori* [Māori language], adaptive approaches, and a focus on underserved communities. Funders were grouped as regional stakeholders: councils, community trusts, iwi and hapū, EDBs, retailers, and households as a paid service for those who can afford it. Cross-cutting concerns were organisational capacity, consistent frameworks for delivery and outcomes, and flexible funding rather than “wasting time chasing funding”. The table asked how to influence change now, pre-election, proposing a summary of the hui combining quantitative and qualitative narrative.
- **Sector capability, education and training.** Potential funders canvassed were EDBs as collectives under section 54Q, infrastructure providers (e.g., Chorus, Te Whatu Ora, MSD, the Social Investment Agency), retailers, banks via green loans, insurers, philanthropies, government, commercial providers who stand to benefit (e.g., Daikin, Rinnai), iwi, and the tertiary sector; a levy was raised as a mechanism. On possible

solutions: an audit of existing resources and tools from entry to technical level, continued Warmer Kiwi Homes funding, ongoing professional development with peer-to-peer learning - noting that the sector right now cannot afford to keep people and that roles are transitory - tenants' rights wrapped into healthy homes work, and business operation training. Risks noted were: conflicts of interest, the need for training capability beyond energy assessors extending to electricians and trades, not having "approved" provider quality assurance, and complex funding applications.

Session 2: Measuring hidden energy hardship

The second session tackled measurement directly, with a pre-recorded presentation on the MBIE Energy Hardship Framework from Dan Griffiths (EA). The literature offers four approaches to measuring energy poverty:

1. The 10% indicator, highlighting excessive energy expenditure relative to income (Boardman, 1991).
2. The Minimum Income Standard (Miniaci et al., 2014) and Low Income High Cost standard (Hills, 2011), where residual income after above-median energy expenditure falls below the poverty line; consensual-based indicators (Petrova et al., 2013).
3. Classifying a household as energy poor if it cannot meet a decent thermal comfort level.
4. Hidden Energy Poverty indicators (Betto et al., 2020), tracking households with abnormally low actual consumption.

Only the fourth clearly captures underconsumption, and it is the least used in Aotearoa in terms of assessing actual consumption data vs modelled need. This is the analytical core of our research: the households the Task is concerned with are invisible because they solve their affordability problem by not consuming enough energy, which removes them from expenditure-based measures altogether. In addition, they are less likely to be captured in official surveys (especially Tier 1 whānau). The multidimensional "Hidden Energy Hardship" (HEH) measure that the HTR Task recommends - and which builds on MBIE's (2022) initial energy hardship definition document - combines quantitative and qualitative, income, expenditure, and behavioural data with broader contextual factors, demographics and psychographics, all of which better describe the underlying structural issues causing energy hardship in the first place.

The MBIE "measurement petals" workshop and priority vote

Participants were divided across five tables, each taking one or two petals of the multidimensional MBIE framework (Figure 3) and working through four questions: what data do we have and who collects it, how, and if it would be shareable; what are the clear gaps; what single new thing would help most; and which petals are the higher priority for assessing hidden hardship. The worksheet with the completed inputs can be found here. Each participant then

placed three stickers against the sub-categories they judged highest priority. Sixty-one stickers were placed, and the distribution was strikingly uneven (Table 6).

Figure 3: MBIE's multidimensional energy hardship measurement framework, showing 8 distinct "petals".

Rank	Petal	Sub-category	Votes
1	Service Literacy	Energy literacy	12
=2	Dwelling Characteristics	Habitability	8
=2	Household Resources	Financial resilience	8
4	Energy Supply	Security of supply	5
=5	Household Circumstances & Practices	Culture and practices	4
=5	Household Circumstances & Practices	Needs	4
=7	Energy Supply	Energy sources available	3
=7	Energy Prices	Energy prices	3

=9	Dwelling Appliances / Environment / Household Resources	Fuel used · Climate · Digital access	2 each
=12	Various	Electricity meter type · Time and assistance available · Energy retail plans · Energy norms · Composition · Functionality · Type · Location	1 each
—	Various	Household income · Tenure security · Payment methods · Financial literacy · Energy awareness · Languages used · Mātauranga · Taiao · Appliance efficiency · Appliance suitability	0

Table 6: Priority sticker vote by petal sub-category. Counts are transcribed from the workshop prioritisation chart; stickers placed close to row boundaries have been assigned to the nearest sub-category.

Three observations follow:

1. **Participants prioritised the unmeasured over the measured**: the three highest scoring sub-categories are all poorly-served by existing national datasets, and all require conversation or inspection rather than administrative data, while those drawing no votes include household income and tenure security, both of which already well captured in the Stats NZ Census and Household Economic Survey.
2. **Energy literacy took nearly one in five stickers**: this statistic is consistent with the Phase 1 finding that lack of trust and low energy literacy are the biggest barriers throughout, and with Consumer NZ's finding that only one in four consumers knew of the EA's Consumer Care Guidelines.
3. **A caution on the zeroes**: *mātauranga* [knowledge] and *taiao* [environment] both scored zero despite substantial discussion, and table notes record that both are subject to only limited systematic collection. The likely explanation is not that participants judged them unimportant but that they saw no realistic near-term route to measuring them - which is in itself a finding.

Gaps and proposed solutions

Each table produced a detailed gap analysis and "quick win" proposals, transcribed in full into the accompanying worksheet alongside current data sources. Five gaps recurred across more than one petal and are the most consequential for the framework.

- **Supply data describes assets, not use.** The registry shows meter type but not whether a meter communicates or needs manual reading; occupancy level is absent, so reasonable use cannot be separated from actual use; and off-grid households are entirely invisible. *Proposals*: meter reader visits at least every two months, and comparison of households to the median and average within a deprivation level.
- **Who is in the house is not recorded.** Household composition is invisible from macro data and requires a visit; overcrowding is missing entirely; and household politics was proposed as its own sub-category. Culture and practices data is anecdotal and incompatible with energy data. *Proposals*: require retailers to collect household composition at sign-on or switching, and run a household discovery process that makes clear to whānau that data is collected to help them, not penalise them.

- **Housing and appliance quality needs eyes on the property.** Habitability and functionality gaps - sanitation, ventilation, heating, windows, flooring, drainage, mould, leaking roofs, draughts - are only visible on inspection. Second-hand and gifted appliances are invisible, and up-front cost keeps inefficient appliances in use. *Proposals*: regulatory minimum standards, right to repair, targeted grants, support for landlords to electrify, a national gas transition plan, and shared database for home assessor findings.
- **Literacy is barely measured anywhere.** Sources are limited to energy companies and AI chat searches, and few organisations measure energy literacy at all. Barriers include no internet, information overload, expert-centric jargon, no standard bill format and complex plans producing misleading information; financial literacy is challenged across all tiers, with shame and power dynamics at play. *Proposals*: community workshops that give both the information and the discretion over how to use it, an impartial trusted energy broker, school curriculum inclusion, and emergency energy plans.
- **Self-restriction and trust are the core blind spots.** People do not trust that they can use more energy even when funding exists; the elderly restrict use; and the critical question is what energy is not used - a heat pump may be installed but sit unused. Data sovereignty is unresolved, accessing help via phones and apps costs money, and bundled deals hide costs. *Proposals*: proactive data analysis to identify whānau in hardship, revisiting retrofitted houses, personal navigators as guides, income-based targeted grants, ratepayer assistance at council level, and zero-interest loans.

The household composition proposal produced a concrete action: a recommendation to retailers, via ERGANZ and the Triage Support evaluation (Rotmann, 2026), to adopt a standard question at sign-up or switching asking how many people live in the household. Participants noted that this would also address the low fixed user charge inequity, and that such data could help identify exploitative living arrangements in horticultural settings.

Session 3: Building community resilience

The final session turned to **frontline and community activators and navigators**. The Community Energy Activator model in *Ōtautahi* [Christchurch], presented by Hinerangi Pere from Orion, is framed as community development rather than social services, defining community energy as people coming together to generate, share and manage energy resources and assets to meet local needs and aspirations. Its drivers are affordable energy, resilience, and low-carbon energy. The learnings on communities of practice were clear: peer-to-peer cohort support is powerful, shared challenges become shared solutions, and a collective cohort approach reduces isolation. On localised pathways there is no one-size-fits-all model - urban differs from rural, and options span energy efficiency, battery storage, virtual power plants, microgrids and *te ao Māori* [world view] pathways. Nine groups participated in the Activator.

The remaining presentations are summarised in Table 7.

> "*It is a tricky balance to talk about the opportunities that technology can provide while also making it easily understood by those who aren't as passionate about this as we are.*" *Hinerangi Pere, Orion*

Presenter / project	Key points
Mark Harding, Mashpee Wampanoag Tribe (US, pre-recorded)	Restoring relationships and supporting subsistence practices, and resilience against increasingly severe storms. Rooftop solar can reduce or eliminate bills and targeted battery storage reduces reliance on alternatives. The key methodological point: technical design can be married with cultural values, improving resilience without sacrificing environmental integrity. The tribe treats storage as a targeted investment protecting its most vulnerable households.
Dr Ann-Sofie Kall - Nordic energy communities	Utsira Island, Norway (~200 inhabitants): wind, battery storage and a microgrid built because of limited grid capacity and frequent failures; now an example of energy communities providing grid stability in remote areas. Smart Senja, northern Norway: flexibility and local resources deferring network investment. Permatopia, Denmark (~90 households): community-owned eco-village with geothermal heating and a wind turbine, near self-sufficiency, integrating energy and social structure. Simris, southern Sweden (~150 households): wind, solar PV and battery storage delivering 100% renewable electricity with the ability to disconnect from the national grid - demonstrating in 2017–19 that fully local renewable systems are possible.
Alexandra Kirkham, Climate Connect Aotearoa - Franklin Energy Community	With Counties Energy and Ara Ake: demonstrate how unused rooftop solar could be shared or gifted to households without solar rather than exported; demonstrate the value of an "agent" enabling billing management and exchange of energy value, which the current market structure does not permit; and show how Multiple Trading Relationships can increase uptake of distributed renewables at all income levels. Involves a 35 kW community battery, three community organisations performing household visits, and ~12,000 kWh per household per year. Required regulatory exemptions from the Electricity Authority.
Matt Newman, Rewiring Aotearoa - Whakahiko Ngā Marae	Writing the blueprint for electrifying marae, focused on economic, emissions, financial and resilience benefits. Core messages are *mana motuhake* [self determination], bill savings, resilience and slashing emissions - deliberately leading with self-determination rather than carbon. Sits alongside the Electric Homes and Electric Farms reports, with an Iwi Electrification Pathway and 37 case studies in development. "*Aotearoa is one of the first countries in the world to cross the electrification tipping point.*"
Josh Yeats, Revolve Energy	Commercial, industrial, utility-scale and community-scale solar and battery, including NZ's largest rooftop system at Auckland Airport. The Stanmore Road case study: 20 households who became property developers and still live there, a 38 kW solar system, ~$4,500 per household. The community owns and operates all its utilities including fibre. Aggressive grid connection decisions delivered a 95% saving on the fixed daily charge, and the battery a further 25%; the surplus is recycled into repricing utilities. For renters, a financing mechanism lets tenants pay for solar through their bills at lower overall cost with landlords also benefiting - an attempt to resolve the split incentive that keeps rental stock unimproved.

Table 7: Community energy presentations, Session 3.

Triple Tees and Māngere BikeFIT (Sokko's presentation) provide services, resources and local network support giving Pasifika and local communities a "hand up" into life skills, eco-friendly transport and safe cycling and walking infrastructure - delivering, as the presentation put it, "in Māngere by Māngere". The e-bike library trial illustrated the difference between designing for a community and designing with one. TTT was initially hesitant and concerned about losing the bikes. Charging a rental fee did not fit their kaupapa and would have been a barrier to participation; security requirements such as credit cards and deposits were unlikely to work. Instead of a transactional approach, TTT built relationships with participants, inviting them into the community and helping them understand the kaupapa - reimagining what an e-bike library is and making it distinctly theirs.

The hidden hardship story that accompanied it was the one participants remembered: the organisation mobilised community members with e-bikes so they could get to work, then discovered they did not have enough money to charge the batteries. It is a good illustration of why single-sector interventions fail.

The measurement gap: what the hui surfaced

One theme ran through both days with enough force to warrant its own treatment, because it was raised independently by a critic of the official measures, by international survey data, and by a community participant in written feedback, and the three accounts corroborate one another.

Measure of the same underlying experience	Source	Result
Could not afford to keep home adequately warm	MBIE / Stats NZ HES, YE June 2024	6.7%
Put up with feeling cold a lot to keep costs down	MBIE / Stats NZ HES, YE June 2024	6.3%
Cut back on heating due to the cost	Consumer NZ / Consumer Sentiment	12%
Homes too cold in winter	Consumer NZ / Consumer Sentiment	30%
Unable to keep home adequately warm (EU comparison)	European Commission, 2024	9.2%

Table 8: The same experience, measured in different ways. All figures are nationally representative for their jurisdiction. Definitions and attributions differ, which highlights the issue of non-standardised data collection.

The third account came in written feedback after the hui, from a community participant working with Pasifika whānau. It is quoted at length because it describes the room, not just the data.

> "*Just feedback on Day 1: there appeared to be a real sense of sides - more industry and others on the left side, and organisations and researchers that are on the ground on the right. It appeared that the left was okay with the graphs and stats, but the community all seemed to agree that the stats are not the true reflection - there's clearly a disconnect. Community groups are very much on the same page that the number is much higher, and growing daily. Until industry and others realise the situation, the funding and the opportunity to really provide a good support programme for all may not be possible.*"
>
> *Written feedback, community sector participant*

The same respondent added two points that also belong in the record. On timing: "*I heard at the Downstream conference that power won't get any cheaper until around 2028 - what do we do in the meantime?*" On scope: "*It's not just about the power now, it's also about the state of homes - healthy home standard violations, health issues - on top of high power bills.*"

These are not three opinions about one number, but are three descriptions of a single measurement architecture that under-counts by design:

- **Self-restriction isn't properly measured.** The official measures are affordability anchored and actual underconsumption isn't captured, nor modelled against needs. Only the HEP class of indicators tracks abnormally low consumption, and NZ does not use them. HEH multidimensional measures would capture both affordability and behavioural self-restriction, as well as the broader contextual factors causing energy hardship.
- **The instrument is mismatched to the target population.** Whakamā, stigma, fear, and distrust are in the Task's own model of why people stay voluntarily hidden. A subjective survey question administered by an official agency is the wrong instrument for a population defined partly by reluctance to disclose to officials.
- **The worst-affected are the least visible.** Sample sizes are too small for regional breakdowns, so Te Tai Tokerau with the highest prices and lowest median income cannot be reliably resolved. Utilities Disputes hears only about 8% of post-pay disconnections. Off-grid households are absent from the registry entirely.

This is why the sticker vote matters. Given a free choice, participants did not ask for better income or tenure data - both are already collected. They asked for **energy literacy, habitability, and financial resilience information**: the things you can only learn by talking to someone or looking at their house. The room diagnosed the instrument problem, and voted for qualitative and inspection-based measurements.

Participant feedback

Five written responses were received. The sample is small and self-selecting, and the ratings are indicative only. Mean overall rating was 4.2 of 5; facilitation scored highest at 4.8; Day 1 scored lowest at 4.0, consistent with the qualitative comments above, and the technical difficulties that were encountered on the day. Sessions 1 & 2 averaged 4.0 and Session 3, 4.2.

Two respondents raised the clarity of the Energy Wellbeing Network proposition. One wrote that "*the EWN concept is evolving and people aren't clear what it is - including those of us involved in the co-design*", and asked for continued discussion on what it is, how it aligns with other work underway, and how to build momentum. Given that the EWN is the proposed answer to the missing meso layer, this is a substantive finding rather than a process complaint, and it should be shaped further, including via targeted funding pitches to likely multisector co-funders.

Site Visits: Te Tai Tokerau, 22–25 April 2026

Following the hui, the National Experts from Aotearoa, Sweden and the United States, joined by a funder of U.S. participation from Energy Trust of Oregon, travelled to Te Tai Tokerau to meet community organisations and TOP Energy. The purpose was to ground the hui's discussion in the region where the conditions discussed in Māngere are most acute: Northland has both the highest energy prices and the lowest median household income in Aotearoa. The trip inverted an assumption several participants had arrived with. The most deprived region in the country holds some of its most advanced community energy work - not because of national programmes, but substantially, in spite of them.

Habitat for Humanity Northland, Whangārei

The Healthy Homes team serves 170 families a year, focused on minor repairs and energy efficiency. The funding history is the essential detail: the programme began with $500 per house and, over roughly six years described as "very messy when I started", rose to $1,000 and eventually $6,500.

> *"It's tough walking in and, like, you're there to help, and then you have to go, 'but I only have 500 bucks'. I can't even fix one window."*
>
> *Healthy Homes assessor, Habitat for Humanity Northland*

The team works with Meridian Energy and Powershop on an energy wellbeing programme and runs a financial wellbeing programme with workshops on budgets, KiwiSaver and savings. Retailer programme funding has recently reduced, and the team described combining Healthy Homes Initiative and retailer funding into a single package to give families a genuinely useful intervention. The most instructive exchange concerned funding rules: window coverings were not an eligible category but curtains were desperately needed, and the workaround was authorised by a question from the funder's own staff:

> *"Who's to say that curtains aren't made of glass?"* *Recounted at HfH Northland*

This is what rigid funding categories produce: competent practitioners spending scarce time reverse-engineering eligibility criteria instead of fixing houses. It is the strongest available argument for the flexible "tight-loose-tight" funding model the regional delivery table called for. On off-grid solutions, the team works with Grid Free (which emerged, they noted, because no solar company had an off-grid mentality) to obtain professional solar kits for families beyond the reach of the lines network.

CBEC, Kaitaia

The Community Business and Environment Centre has operated in Kaitaia for 38 years. It was founded in response to the late-1980s recession - the neoliberal reform period analogous to the Reagan and Thatcher years - when its founders returned to Aotearoa to find rural towns devastated by unemployment. They began with no plan and no organisation, renting half a building and selling products to generate cash, then secured a lapsed $80,000-a-year educational programme contract, hired staff and started building.

Figure 4: Dr Sea Rotmann with Cliff Colquhoun at CBEC, Kaitaia.

CBEC established what is understood to be the first official recycling operation in the country, at a time when there was effectively no recycling infrastructure in Aotearoa or Australia. It persuaded its local council to award it a recycling contract and ran it for 20 years, holding on despite large waste companies undercutting its prices, and partnered with community groups to train local people in its management. It now runs a garden centre of 37 years' standing, supplies and installs insulation, operates the most affordable bus service in the country, and manages swimming pools so local children learn to swim and do not drown. Its next ambition is large-scale composting.

The textile and insulation work best illustrates the model. CBEC collects and sorts textiles; working with an insulation supplier who had textile experience, it developed a recovery programme and began manufacturing mattresses. The insulation product is approximately 80% recycled content, and the loop from collection through sorting to redistribution is closed. For the visiting experts, CBEC answered a question the hui had left open: what does durable

community infrastructure look like when allowed to develop over 4 decades? The answer was an organisation doing insulation, transport, waste, horticulture, retail and water safety, as those were the needs that presented themselves - and each one funds the capability to do the next.

TOP Energy and the Ngāwhā geothermal plant, Kaikohe

TOP Energy hosted a discussion on ownership, value and energy justice, followed by a tour of the control room and both geothermal plants, the most recent commissioned in 2020–21. The ownership structure was the point of greatest interest to the international visitors.

> "*The key to this is that we are owned by the people of the Far North - owned 100% by the consumers on the network. We're owned by the community, so we will provide those services to the community, and we might make some money on them.*"
>
> *TOP Energy, Kaikohe*

Figure 5: The Ngāwhā control room. Three geothermal plants are run by a team of 14.

The context is a low-density, high-cost network in Aotearoa's most deprived region. TOP's strategy is to bid zero for power to maximise income; wholesale prices at the time of the visit were around one cent. The system processes 18.7 million tonnes of fluid annually with an ambition to reach 28 million, and the field's enthalpy has remained stable at approximately 1,000 kJ/kg after 27 years - a point made in support of geothermal reliability relative to other renewables. Network revenue runs at approximately $50 million annually with a dividend stream projected to reach $27 million by 2032.

Because it is consumer-owned, the community benefit programme is not corporate social responsibility but a distribution of returns: the rescue helicopter service, swimming lessons, youth development, home insulation and healthy homes initiatives. During the visit TOP had just opened a $100,000 energy hardship fund for community organisations and non-profits to run energy hardship programmes in the region, and discussed a pilot in Kaitaia. A forward-looking discussion covered a standardised microgrid template for the region's 33 civil defence facilities, combining solar, battery and Starlink with lessons from earlier pilots, for roll-out across the Far North. Given the region's exposure to storms and outages, and the security-of-supply votes cast in the measurement workshop, this is directly relevant to the Task's resilience findings.

A candid exchange on national programme design noted that insulation and clean heating funding is substantial but of limited help to renters, and referred to 49 distinct energy poverty programmes in Aotearoa, with a budget breakdown not yet public. That figure is worth setting against the missing meso layer: **the problem is not an absence of programmes but an absence of coordination between them** (showing the pressing need for an EWN).

Te Kao *papakāinga* [home base] and Waimirirangi marae

The final visit was to the Māori energy community at Te Kao, in the Far North - the clearest demonstration on the trip of what community-led energy sovereignty can deliver. Working with solar provider Tū Mai Rā, who helped write the application, the community secured $500,000 to install solar on the marae and a further $250,000 to supply solar to 20 homes. The programme initially focused on transformers but switched to batteries, spending $250,000 on ten batteries and prioritising the homes of elderly owners. Foundation North then matched the funding, extending solar to 40 homes with criteria targeting young families with medical conditions.

Outcome at Te Kao	Before	After
Household power bill (monthly)	$1,500–$2,000	approximately $400
Marae power bill (daily)	$800	$400
Homes with solar	0	40 (from an initial 20)
Funding secured	—	$500,000 marae + $250,000 homes, matched by Foundation North

Table 9: Reported outcomes of the Te Kao solar programme, as described during the visit.

Figure 6: The HTR Task international experts at Waimirirangi marae, Te Kao.

Several elements speak directly to the hui's conclusions.

- **Community as retailer.** The marae intends to become the retailer for the community: "*when the solar comes online, we will be your provider – the marae. We will send you a bill every month like a normal power company, and then you'll pay us, and that's a bit of an income for the marae.*" This is energy sovereignty in the literal sense, and it creates a revenue stream that funds further community capability.
- **Training built into the contract.** The agreement with the solar provider required that everyone installing the panels would be learning at the same time. The community converted its local school to a *kura iwi* [tribal school] and is seeking to install solar on additional school buildings. The binding constraint identified was the difficulty of finding qualified electricians locally – the same sector capability gap that Beacon Pathway documented, seen from the demand side.
- **Retailer and network friction.** Elderly residents were switched to a provider that buys back more solar generation, with some now earning credits. Line upgrades to accommodate increased export were expensive, and the community avoided bearing that cost, though the negotiation was described as ongoing and difficult.
- **Wind and microgrid ambitions.** Two wind turbines have been installed, with funding support attributed to Minister Shane Jones and turbine engineering support based in China; sound was a design consideration in siting. A microgrid remains the ambition, though hidden costs and resource consenting have delayed it.
- **An unanticipated risk.** Battery theft is now the community's principal security concern, having already affected the local cell phone tower, and cameras have been installed. This is a practical risk that appears in no national programme design.

The energy project was consistently framed as one strand of a broader kaupapa of cultural and community self-determination – alongside reviving te reo Māori through the kura iwi, maintaining *kapa haka* [performance art] and other traditional events, and managing water conservation under population pressure – rather than as an energy intervention.

> *"It's good if we can help other people with solar, because we're at the end of the line."* *Te Kao, 24 April 2026*

What the field trip added

CBEC, Habitat Northland, Te Kao and TOP Energy all succeed through longevity, local ownership, and diversified capability – none of which is what short-cycle, single-purpose national funding produces. CBEC's 38 years and Sustainability Options' "15 years in the making" make the same point from different parts of the motu. Consumer ownership at TOP Energy and marae ownership at Te Kao both convert energy revenue into community capability directly, without a funding intermediary: a structural answer to the missing meso layer that the hui did not fully consider, and one that deserves attention in Phase 3.

Habitat's $500-per-house start, the curtains-as-glass workaround, and Te Kao's inability to find local electricians are the field expression of the funding and capability findings from Sessions 1 and 2 – the hui diagnosed these from data, and the field trip showed what they cost. In addition, battery theft, turbine noise, consenting delays, line upgrade negotiations, and the cost of off-grid access beyond the network were all absent from the Māngere discussion. Any framework for measuring hidden hardship or designing regional delivery needs to be built with communities like these rather than for them – this is also what the research and data table concluded.

Conclusions and next steps

Five action priorities for a just transition

1. **Do not leave anyone behind.** Test and adopt the Hidden Energy User Tier Typology, so programmes are designed and tailored for identified target populations rather than an undifferentiated generic "vulnerable customer".
2. **Adopt multidimensional measurement.** Combine expenditure, behavioural, qualitative and contextual data, and create a shared, standardised database. The petal workshop and priority vote provide a start point for what to measure first.
3. **Invest in trusted frontline and community navigators.** Train health, housing and community workers in energy literacy and trauma-informed practice, and fund the Energy Wellbeing Network. This is the missing meso layer.
4. **Address the systemic drivers of hidden energy hardship.** Minimum rental standards, split incentive reforms, benefit adequacy, debt support, and the

underlying systemic injustices. Fiddle less with the symptoms and better address the causes.

5. **Centre Indigenous knowledge.** Co-design with Māori and Pacific communities, and support energy sovereignty and whānau-led solutions.

The fifth priority was elaborated in its own right, and the field trip gave it concrete form. **Energy wellbeing is holistic**: Māori concepts of *mauri* [spirit] encompass physical, mental, social and spiritual dimensions, not just bill affordability. **Whānau-centred approaches work** – initiatives designed and delivered by Māori and Pacific communities close equity gaps more effectively than top-down programmes. **Data sovereignty matters**: Māori and Pacific communities must own, control and govern data about their energy experiences. And an **intergenerational lens is required**, because energy decisions today affect *28amariki* and *mokopuna* [children and grandchildren], and policy must consider civilisational time, not just electoral cycles.

Recommendations arising from the hui

Recommendation	Owner / partners
Develop the Energy Wellbeing Network strategy document and clarify the EWN proposition for a broader audience, addressing feedback that the concept is not yet clear even to co-designers.	CEN, HTR Task, Beacon Pathway, ERGANZ, EA, EECA, EDBs, Philanthropics
Recommend to retailers, via ERGANZ, a standard question at sign-up or switching asking how many people live in the household.	HTR Task, ERGANZ
Amend section 54Q of the Commerce Act so the Commission can incentivise energy efficiency and demand-side management across the system, not only lines, poles and wires.	MBIE, Commerce Commission
Recommend to the Electricity Authority to publish outputs from the RMM with greater pace and with greater accountability of individual retailers.	EA, MBIE
Establish a living labs framework and shared data infrastructure so pilot data is retained, reusable and comparable.	(Ara Ake), EWEC, HTR Task
Develop a pilot with a clear data and methodology approach answering specific research questions, and share the funder “shopping list”.	HTR Task, EWEC
Explore how credit-check data could identify households in hidden hardship and target outreach, with data sovereignty concerns addressed explicitly.	HTR Task, retailers, EDBs
Develop a standardised microgrid template for the Far North’s 33 civil defence facilities (solar, battery, Starlink).	TOP Energy
Develop IEA case studies on TOP Energy’s consumer ownership and on Ngāwhā as an illustration of the energy quadrilemma, subject to TOP Energy’s approval.	HTR Task
Circulate the presentation deck and videos to all attendees and collect feedback.	HTR Task
Use hui feedback to prioritise measurement elements and prepare recommendations for the September conference (now canceled).	HTR Task, CEN
Complete Phase 2 and publish the final report; pursue Phase 3 funding.	HTR Task

Table 10: Actions and recommendations arising from the hui and field trip.

What comes next for the HTR Task

- Finish Phase 2, with the final report due at the end of 2026.

- Secure funding for Phase 3 (2027–29), with a strong focus on Aotearoa New Zealand as an international best-practice case study.
- Carry the kōrero into the Māori National Energy Summit, October 12-15, 2026.
- Present at the Fuel Poverty Research Network Conference, 27–28 October 2026.

The hui achieved its relationship-building objective and produced a clearer specification of the measurement problem than the Task had before. It did not fully resolve the Energy Wellbeing Network question, and the written feedback is candid that the concept still needs sharpening. That is the most important piece of unfinished business to carry forward.

> *"Hidden is hidden till you find it. You only discover it when you happen to be around."* *Nik Gregg, Sustainability Options*

Appendix: Supporting documents and links

- **Presentations:** HTR Task Aotearoa 2026 Hidden Hardship Hui — full presentation deck (264 slides, PDF)
- **Hui agenda:** Agenda, HTR Task Hidden Energy Users Hui, 20–21 April 2026
- **Invitation and kaupapa:** Hidden Energy Users Hui — kaupapa and objectives
- **Measurement worksheet:** Hidden Hardship Hui Worksheet — petal framework, data sources, gaps, solutions, priority vote
- **Hardship worksheet:** How much hardship is there in Aotearoa? — supporting spreadsheet
- **Feedback form:** Hui feedback form
- **MBIE reporting:** MBIE Energy Hardship Measures, year ended June 2024

Note on sources and attribution

This report draws on the hui agenda and invitation, the full presentation deck, meeting minutes, transcripts of Day 2 sessions and of the four field trip meetings, the participant register, the measurement worksheet, photographs of workshop flipcharts and sticky notes, and five written feedback responses. Presenters are named as listed in the agenda. Contributions made during table discussions, the World Café workshop and the feedback form are reported without attribution to individuals. Participating organisations are listed; individual participant names are not. Workshop outputs transcribed from handwritten flipcharts and sticky notes are rendered as faithfully as the source material allows; where handwriting was ambiguous, the reading judged most likely in context has been used. Claude Sonnet 5.0 was used to assist in synthesising this data, and drafting the report. All content was checked and verified by the author and presenters.