

EnergyMate Phase 2 Evaluation Report

Electricity Retailers' Association of New Zealand

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1. ENERGYMATE PHASE 2 RESULTS AND LESSONS

EnergyMate delivers free in-home energy coaching for whānau struggling to pay their power bill or keep their homes warm. The project is a collaboration between the Electricity Retailers' Association of New Zealand, lines companies (Top Energy, Unison, Electra, Powerco and Wellington Electricity) and the Energy Efficiency and Conservation Authority (EECA), and forms part of industry's response to address energy hardship. The evaluation assessed evidence of EnergyMate Phase 2 outcomes for key stakeholders (whānau, community providers and electricity retailers) and explores drivers of energy hardship experienced by participating whānau.

EnergyMate Phase 2 was rolled out over August 2020 - 30 May 2021 in eight locations across New Zealand. Delivery was significantly slowed by the impact of Covid-19, resulting in lower numbers than expected. In total, 319 homes were visited and eight community hui held. Providers faced challenges to deliver under Covid impacts and implementation numbers varied across regions. The evaluation found providers' approach to delivery differed significantly.

On its own, EnergyMate makes a small but potentially powerful contribution to addressing energy hardship for participants. This effect, however, can be either magnified or inhibited by systemic factors experienced by EnergyMate participants such as housing quality and overall affordability of electricity. The need for multi-sectoral approaches to energy hardship by government, industry and community was strongly recognised by evaluation stakeholders and expert informants. Overall, EnergyMate was viewed by stakeholders as a positive industry response to clients in vulnerable circumstances.

EnergyMate whānau are negotiating well-known energy hardship challenges in New Zealand, including low income and poor quality housing. EnergyMate participants were likely to know exactly how much they spent per week on electricity. These low income consumers were highly energy cost-conscious, more likely to avoid using electricity, even if cold, rather than drive up their bill. For low income whānau, lack of finance to address home energy improvements was the most frequently mentioned barrier to improve energy efficiency. This included progressing their share of subsidised insulation/ heat pumps, or even small scale changes such as replacing a shower head. Low income was also a factor affecting some participants' ability to heat their homes adequately. Private renters were often wary of landlords and security of tenure.

There is evidence Phase 2 has successfully built on the achievements delivered under Phase 1 for participating whānau. Overall, EnergyMate has worked very effectively with whānau to identify and action specific household level changes to improve energy efficiency and to ensure the most appropriate electricity plan. Providers also successfully connected whānau with further support to tackle energy hardship (budget services; Healthy Homes; and curtain banks). Most referrals were actioned within eight weeks. The majority of participants were able to make changes in their homes to improve energy efficiency. Most participants were confirmed to be on the most appropriate payment plan and comfortable getting in touch with their retailer. For participants needing more support to engage with retailers, including switch to an appropriate tariff, EnergyMate has made a big difference. Retailer representatives feel EnergyMate is supporting stronger retailer engagement with customers.

Lessons for improvement to the delivery model included:

- The community connectedness of providers is important for EnergyMate success. Providers need to know their communities well and be able to reach those who could most benefit from tailored home energy support. In addition, providers need to be well connected with other support services to optimise coordination and leverage system coherence to address multiple drivers of energy hardship.
- Provider capacity must be sufficient to not only deliver home visits, but also promote and recruit to extend EnergyMate’s reach. EnergyMate is a relatively small contract and some providers were stretched to deliver it alongside across multiple, larger contracts. This issue was also noted in the Phase 1 evaluation.
- Targeting home visits to participant need was not an issue in Phase 2, as providers struggled to reach overall delivery numbers. The evaluation did not examine the extent to which EnergyMate could scale efforts according to need (for example, whānau experiencing multiple energy hardship vulnerabilities). As Phase 3 expands EnergyMate, increased attention to scaling intensive in-home support alongside community hui and other support mechanisms such as: electricity bill ‘drop-in clinics’; help engaging with retailers; or context-led education materials could be considered for those who need less intensive support. Such scaling would extend the project reach relative to resource, but should still be delivered by trusted community actors.

The report is based on the following data sources: **Phase 2 delivery data** as at 31 May 2021 [surveys conducted during home visits (n=319) & post-visit survey with whānau (n=226)]; **Electricity bill data** for Phase 1 participants (n=51); **In-depth interviews** with whānau (n=7), expert informants (n=5) & EnergyMate providers (n=2); a **survey** of participating electricity retailers (n=7); a **community hui observation** 14 May 2021; and a **provider workshop** 11 June 2021).

EnergyMate Phase 2 Evaluation Report

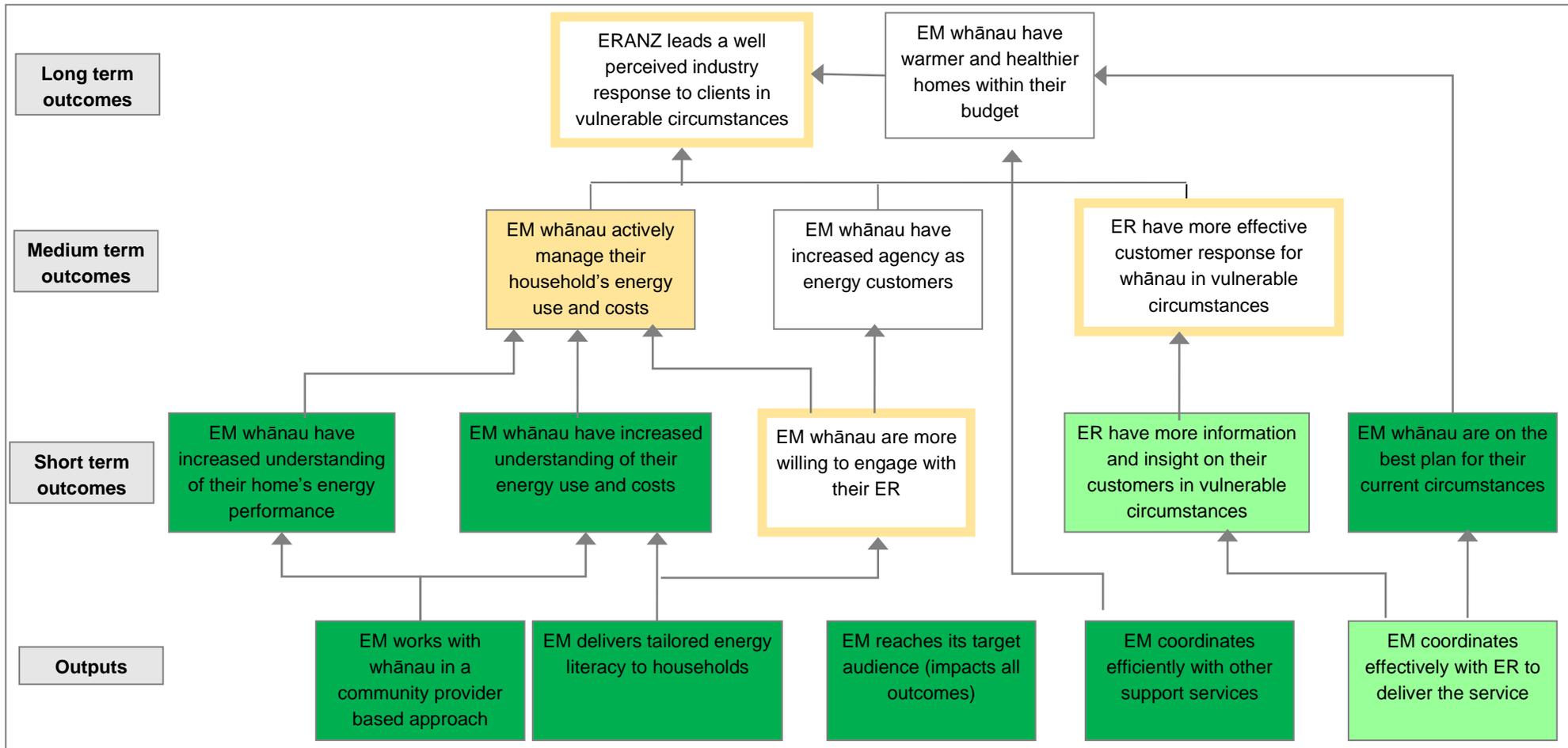


Figure 1. EnergyMate Outcomes Model showing strength of Phase 2 achievement building on Phase 1 (dark green= strongly achieved; light green= achieved; amber= steps towards achievement; amber outline= signs of progress).

EM (EM = EnergyMate ER = Energy retailers)

2. BACKGROUND

2.1 EnergyMate Phase 2

The 2018-19 Electricity Price Review¹ highlighted the complexities of energy hardship in New Zealand. Electricity retailers recognise industry's role to collaborate on addressing the drivers of energy hardship. As such, the Electricity Retailers' Association of New Zealand (ERANZ) is leading cross-sectoral work to address energy hardship in meaningful and pragmatic ways through the EnergyMate project.

The EnergyMate project delivers free in-home energy coaching for whānau struggling to pay their power bill or keep their homes warm. The project is a collaboration between ERANZ, lines companies (Top Energy, Powerco, Electra, Unison and Wellington Electricity) and the Energy Efficiency and Conservation Authority (EECA). EnergyMate is a key cornerstone of the electricity industry's response to energy hardship in New Zealand. EnergyMate was piloted with 150 whānau in 2019 (Phase 1)² and a pilot review³ informed roll-out of Phase 2 (August 2020 – May 2021). Phase 3 is currently underway with a target to deliver 1,100 in-home visits between 1 June and 30 November 2021. EnergyMate Phase 3 will focus on delivery to Māori and Pasifika, and will be jointly funded by ERANZ, lines companies and the Supporting Energy Education in Communities (SEEC) Programme (MBIE).⁴

The **overall intention of EnergyMate** is to empower whānau to improve their energy efficiency (improve the warmth and dryness of their homes in the most economical way). The project seeks to influence this change by building knowledge of energy efficiency in the home and supporting whānau to ensure they are on the most appropriate consumer plan.

EnergyMate Phase 2 aimed to reach 800 whānau in eight regions over mid-2020 and March 2021 (Kataia, South Auckland, Rotorua, Hawera, Levin, Petone, Christchurch and Dunedin). Covid-19 impacts significantly slowed delivery, particularly in Auckland, and targets were revised to 400 whānau. In total, 319 whānau were visited by the end of May 2021. An ERANZ Accessible Energy Advocate project manages EnergyMate and the ERANZ Board provides governance oversight.

ERANZ has partnered with Fincap (the non-government organisation which supports 200 free financial capability/ budgeting services community providers) to deliver EnergyMate. Eight community providers were selected by Fincap and contracted to deliver Phase 2, with a cadre of 16 trained EnergyMate coaches.

¹ <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-consultations-and-reviews/electricity-price/>

² Phase 1 (July – October 2019) piloted EnergyMate with 150 whānau in Porirua, Rotorua and South Auckland.

³ <https://www.energymate.nz/energymate-pilot-findings-independent-evaluation>

⁴ The SEEC Programme supports community-level energy education to help households in need. The Programme is part of a \$17 million four-year package from the Government's COVID-19 Response and Recovery Fund, announced in August 2020 to reduce energy hardship and strengthen the consumer voice.

<https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-hardship/support-for-energy-education-in-communities-programme/>

Key delivery mechanisms for Phase 2 were:

- Energy hardship training to social service providers working with whānau at risk of energy hardship.
- In-home visits with whānau to:
 - review their home's energy efficiency
 - co-create an action plan to reduce non-essential power usage
 - connect with electricity retailers to understand plans and payment options
 - connect with other services where needed such as budgeting support and home energy support e.g. the Healthy Homes Initiative (HHI).⁵
- Eight week follow up with whānau to check-in on their progress to action changes.
- Community hui to share energy efficiency knowledge and hands-on learning to save energy in homes, read a power bill and find the best power plan.

Community providers were contracted to refer eligible whānau to EnergyMate; conduct in-home energy coaching visits (including assessment, paperwork, follow-ups and regular reporting to ERANZ); and to refer whānau on to other support services as required. Regular reporting to ERANZ was supported by an online data platform.

Eligible whānau were referred from providers' own client base; HHI programme where available; and from retailers. Referred customers may have experienced some or all of the following: disconnection; pre-payment meters; be in credit/debt cycles; under-heat their homes due to affordability; or have insufficient heating.

HHI clients will typically have already been identified as being in high need and will have received some housing interventions such as heating, insulation and curtains. However, they will have not received significant tailored home energy efficiency support.

Participating whānau gave informed consent to participate and share energy consumption data with ERANZ.

2.2 EnergyMate Theory of Change

A theory of change and outcomes model was developed for EnergyMate during Phase 1 (see Figure 1). The model describes EnergyMate project outputs and intended outcomes and guided Phase 2 analysis.

It is important to note, however, that the outcomes model is not intended to depict a simplistic linear causal chain, nor capture every aspect of the EnergyMate project. Rather, the model is intended as a representation of the *key changes* EnergyMate seeks to monitor and assess.

Phase 1 monitoring and evaluation clarified how EnergyMate aligns with and differs from other interventions (its unique profile), and established a shared understanding of the intervention's sphere of influence. This highlighted that EnergyMate seeks to leverage its effectiveness through targeted alignment with other interventions aimed at joint goals (increased whānau capability to manage warmer

⁵ <https://www.health.govt.nz/our-work/preventative-health-wellness/healthy-homes-initiative>

drier homes). Such initiatives include the HHI and Regional Public Health's Well Homes and the 2020 Electricity Power Credit⁶ Scheme. The Phase 2 evaluation considers such leveraging when assessing the EnergyMate delivery model.

Phase 1 results also highlighted the limited scope of EnergyMate's sphere of influence within the complex nature of energy hardship. Energy vulnerability (proportion of income spent on energy; housing quality; residents' age profile), is experienced as energy hardship. This hardship affects, and is affected by, in-house energy use and costs (which, in turn is also affected by consumers' payment plans and tariffs). The evidence on user-centred energy outcomes is growing in New Zealand (Electricity Price Review⁷, Warmer Drier Homes Evaluation⁸). EnergyMate's defined sphere of influence thus focuses on building whānau capability to actively manage their in-home energy use and consumer plan. This sphere of influence informs the project's problem definition and theory of intervention:

Whānau in vulnerable circumstances experience disproportionate levels of energy hardship, which is exacerbated by low levels of energy literacy and financial literacy; and which can be helped by tailored in-home intervention and being on the most appropriate consumer plan.

The EnergyMate theory of change proposes that delivering tailored in-home advice and support from trusted community actors, who combine budget support, healthy housing and home energy knowledge, **and** refer participants to coordinating support services **and** facilitate engagement with electricity retailers on payment plans, will positively influence home energy outcomes for whānau (increased understanding of home energy, their energy use and costs and their choices as energy consumers).

2.3 Evaluation purpose and objectives

The **overall purpose** of the evaluation is to assess evidence of Phase 2 outcomes and increase understanding of energy hardship in order to provide insight and learnings for improvement.

Evaluation objectives are to:

1. Investigate core underlying drivers of energy hardship for whānau, including enablers and barriers for positive change.
2. Establish key outcomes for core EnergyMate stakeholders (whānau, providers and retailers).
3. Identify lessons and improvements for the EnergyMate delivery model and implementation processes.

The Phase 2 evaluation builds on the findings of Phase 1 monitoring and evaluation, which tested the EnergyMate delivery model and theory of change.

Evaluation questions were developed from the evaluation terms of reference and refined in evaluation planning with EnergyMate project managers.

⁶ ERANZ worked with Fincap in 2020 to administer a scheme offering \$120 electricity credit for 10,000 households experiencing electricity hardship during Covid <https://www.fincap.org.nz/electricity-power-credit/>

⁷ <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-consultations-and-reviews/electricity-price/>

⁸ <https://www.eeca.govt.nz/assets/EECA-Resources/Research-papers-guides/warmer-kiwi-homes-evaluation-phase-1-motu.pdf>

1. What are the core underlying drivers of energy hardship experienced by whānau, including enablers and barriers to improving energy efficiency in their homes?
2. What are the key outcomes for EnergyMate stakeholders over Phase 2 (building on Phase 1 where relevant)?
 - Key outcomes for whānau, retailers and providers, drawing on the EnergyMate outcomes model.
3. What lessons can be learned to improve the EnergyMate delivery model?

2.4 Evaluation data sources

Data sources for the evaluation included:

A **Desk review** of key project documents provided background and contextual information on project design and implementation, intentions and desired outcomes, as well as project partners and funders.

Project delivery data and monitoring information provided data on project roll-out over Phase 2. This included quantitative data on participating whānau home energy profiles (n=319), as well as quantitative and qualitative information from the check sheet⁹ completed by EnergyMate coaches during home visits (n=319 check sheets) and eight week follow up (n=226 surveys).

In-depth korero/discussions with whānau (n=7) on their experiences of EnergyMate, energy efficiency and energy hardship, as well as enablers and barriers to positive change. Discussions were held with seven whānau (six by telephone and one in person). Participants were selected in liaison with community providers to introduce the evaluation and establish trust. Informed consent was discussed and agreed with participants. Participants received \$40 koha.

An EnergyMate provider workshop shared learnings and assessed what went well and why/ why not for Phase 2 delivery. The session provided an opportunity for contract managers and EnergyMate coaches (n=7) to assess outcomes for whānau and providers to date, as well as the value of these results (i.e. progress towards intended outcomes). In addition, **in-depth interviews were conducted with two contract managers**.

Observation at a community hui delivered by EnergyMate at the Manakau Urban Māori Authority (MUMA) 14 May 2021. The hui was attended by 42 participants, one electricity retailer and two community providers.

An **Online survey questionnaire** was conducted with Electricity Retailer staff (n=7). The survey asked credit managers' views on EnergyMate delivery and outcomes for retailers and customers.

Customer data for EnergyMate Phase 1 captured 51 participants' monthly energy bills (n=927) for the 12 months prior and post EnergyMate visit. This provided information on energy usage, payments, debts and disconnections for this cohort.

Interviews with expert informants (n=5) provided information on energy hardship policy and programming in New Zealand and globally. Interviews were held with three policy advisors from the

⁹ The questions on the EnergyMate check sheet are aligned with national data gathering models such as BRANZ research organisation <https://www.branz.co.nz/about/>

Energy, Resources Markets Branch (New Zealand Ministry of Business, Innovation and Employment); a policy advisor from Population Health and Prevention (New Zealand Ministry of Health); and independent energy behaviour change expert Dr Sea Rotmann, User-Centred Energy Systems Technology Collaboration Programme (International Energy Agency).

Regular discussions with the EnergyMate project manager on Phase 2 delivery roll-out and results supplemented the data sources outlined above.

See Appendix for further detail on data collection.

Evaluation scope & limitations

The evaluation covers the period of Phase 2 implementation (August 2020 – 31 May 2021).

The evaluation focus is on direct project beneficiaries (whānau), with outcomes for delivery partners (providers and retailers) also examined. As noted above, the Phase 1 evaluation found evidence of EnergyMate progress towards short term outcomes (Figure 1.) The Phase 2 evaluation further tested the EnergyMate theory of change with a larger participation sample and confirmed Phase 1 findings. Phase 2 data indicates some progress towards medium term outcomes, but evidence is modest and the strength of progress needs to be further tested over time. Having noted this caution, the evaluator is confident evaluation findings are robust and accurately reflect triangulated data from project delivery, interviews, surveys and consumer bill data.

The evaluation does not assess value for money, EnergyMate's return-on-investment or corporate social responsibility value for electricity retailers.

Notes to the report

Unless otherwise noted, all whānau data analysis and percentages are based on an achieved data set of participating whānau (n=319) at 31 May 2021.

EnergyMate participants are referred to as 'whānau' or participants in the report. Whānau is used in the report as a New Zealand reference to family in its many forms and does not refer to ethnicity. The use of whānau also indicates an important project understanding of EnergyMate participants, namely that home energy improvements involve whole households and the collective of people who live in them.

3. ENERGYMATE PHASE 2 RESULTS

3.1 EVALUATION FINDINGS

Key findings for each evaluation question are presented in the following section.

3.1.1 Core underlying drivers of energy hardship experienced by whānau

The evaluation explored EnergyMate participants' experience of energy hardship, including enablers and barriers to improving energy efficiency in their homes.

EnergyMate whānau are negotiating well-known energy hardship challenges in New Zealand, including low income and poor quality housing. For low income whānau, lack of finance to address home energy improvements was the most frequently mentioned barrier to improve energy efficiency. This included progressing their share of subsidised insulation/ heat pumps, or even small scale changes such as replacing a shower head or buying draught excluding tape. Low income was also a factor affecting some participants' ability to heat their homes adequately. Some private renters were wary, if not actually fearful, about asking too much of landlords or even contacting them at all.

The EnergyMate Phase 1 evaluation noted the complexities of defining and assessing energy hardship. Although New Zealand lacks a standard definition of energy hardship, at a minimum 45,000 New Zealand households (2.5%) are estimated to be at risk of severe energy hardship.¹⁰ The 2018-19 Electricity Price Review noted a broader estimation, drawing on Statistics New Zealand analysis: "More than 100,000 households are spending more than 10 per cent of their income on power."¹¹ By many definitions, that puts them in energy hardship." (Electricity Price Review Final Report 2019: 18).

Despite no standard definition, there is broad agreement energy hardship is driven by a combination of factors including: income; housing quality; energy needs related to age and health; appliance efficiency and energy literacy (Statistics New Zealand 2017).¹² In addition, the Electricity Price Review cites low consumer awareness of tariff and payment options. In New Zealand, poor quality housing stock (low insulation levels, inefficient heat sources and single glazing) means whānau may need to use high levels of electricity to heat their homes. Combined, these factors multiply energy hardship.

¹⁰ PwC *Definition of Energy Vulnerability in New Zealand* October 2019 report commissioned by ERANZ.

¹¹ Statistics New Zealand *Investigating different measures of energy hardship in New Zealand* 1 September 2017 http://archive.stats.govt.nz/browse_for_stats/people_and_communities/Households/energy-hardship-report/background.aspx

¹² Ibid

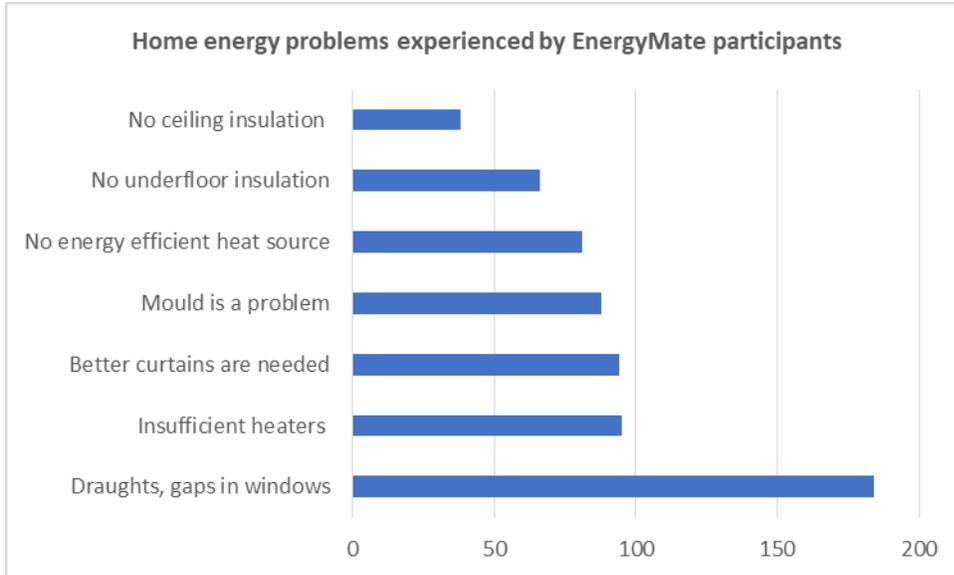


Figure 2: Energy hardship challenges (responses not mutually exclusive)

The quality and stability of participants’ housing situation emerged as a key issue for energy hardship.

Whānau, providers and expert interviewees all noted tenants’ fear or wariness to contact landlords about housing quality as a primary barrier to reducing energy hardship. This is within a nationwide context of poor quality housing stock, high average rents, a housing shortage and relatively insecure tenure rights for renters. 18% of EnergyMate participants in private rentals had an energy efficiency issue to refer onto their landlord. In this context, a few stakeholders (a provider and an expert interviewee) observed the difficulties of reaching groups less visibly at risk of energy hardship, (such as renters above the Community Services Card threshold), but vulnerable to poor housing quality or ‘heat or eat’ pressures.

“I’m only renting and you can only ask for so much [like a heat pump or fixing windows]; being a renter, I’ve got to be in their good books” (EnergyMate participant)

“Spoke to landlord about the gaps in the window which brings the cold in the landlord replied and shared that the house was old. When the whanau asked to put curtains up the landlord said that he did not want to put holes on the framework. Whanau do not want to cause problems with the landlord as whanau fear that landlord may ask them to leave.” Eight week follow up with EnergyMate participant

“Condensation and dampness are an issue in my house, but installing a HRV¹³ system is not cheap as I’m the home owner....it’s a low priority right now...I have a leak in my roof” (EnergyMate participant)

Energy hardship issues linked to housing quality and income were experienced by many EnergyMate participants (Figure 2). Almost two thirds of EnergyMate homes have draughts and gaps in windows (60%) and just under one third of homes require better curtains (30%). Mould is a problem in around one third of EnergyMate homes (30%). A significant minority do not have an energy efficient heat

¹³ Heating and ventilation system

source¹⁴ (28%) and of these, 11% are using an unflued gas heater or oven for warmth. Being unable to sufficiently heat their homes was a common theme in whānau interviews and overall home visit data indicates 30% did not have enough heaters to heat their homes. For low income whānau, these issues are compounded by sometimes not being able to pay for electricity at all. Around a third of prepay customers¹⁵ (29%) sometimes run out of credit and of these, just under half (43%) go longer than 12 hours before topping up.

Despite these difficulties, some EnergyMate participants were not comfortable with the concept of energy hardship in relation to their situation. Personal prioritisation and choice, was frequently highlighted by participants when making decisions about their power usage. For example, one participant noted she chose to ‘light up the house’ for security purposes, even though this cost more. For careful energy consumers, the end of prompt payment discounts was noted as a negative.

“I don’t like to put it that way, energy hardship, because I don’t like to think I’m hard up” (EnergyMate participant)

“I don’t want to be in debt, that’s my thing” (EnergyMate participant)

“If you’re struggling financially, reducing energy use will only go so far” (EnergyMate participant)

Most interviewees were careful budgeters and very aware of their power use and 78% of participants¹⁶ overall reported they budget for electricity. Interviewed participants were mostly very energy aware, carefully monitoring their electricity usage, often via smart meters, and more likely to do without heating to avoid higher bills they could not pay. Many whānau interviewed for the evaluation also noted that although they knew ways to improve their energy efficiency, the challenge was acting on more substantial issues such as housing quality or lack of good quality efficient appliances. Some interviewees noted even heavily subsidised insulation¹⁷ was still out of reach for them. When asked what would help them, a number of interviewees suggested ‘power shouts’. Other suggestions included extending cheaper night-time power rates (from 8.00pm rather than 11.00pm). In this context, the 2020 Electricity Power Credit was noted to have been very helpful by some EnergyMate participants. The credit was closely associated with EnergyMate as it was administered through the same community provider.

“I would like the power companies to give customers a break, like a power shout....[if I got one] I would have a bath! And turn on the heater for a cold night” (EnergyMate participant)

“We never use the heater in the sitting room, it’s scary because we’re worried it’s going to blow up” (EnergyMate participant)

¹⁴ Energy efficient heat sources include heat pumps and wood burning stoves.

¹⁵ Data set n=49

¹⁶ Data set n=281

¹⁷ Warmer Kiwi Homes grants subsidise insulation costs for low incomes home owners

<https://www.govt.nz/browse/housing-and-property/insulation-and-energy-efficiency/paying-for-home-insulation/>

“Before we got the better heater, we used the oven with the door open for heat, a lot of us older Māori and Samoans do this....our house is really, really cold in the winter, we take turns putting the heater in the bedrooms” (EnergyMate participant)

“I might end up sleeping in the lounge with the fire this winter” (EnergyMate participant)

“It’s expensive being poor, you can’t afford to upgrade your appliances, your lightbulbs, can’t get online maybe, to learn about your options...if your financial history affects your credit check, this can mean you can’t shop around, can’t change power company, you’re stuck with who you’re with....[or you’re on] prepay, most expensive option” (EnergyMate participant)

“Competing life priorities [play a big part]...the more vulnerable the circumstances, the less likely they are to be able to engage with energy efficiency” (Expert informant)

Evaluation stakeholders agreed EnergyMate complements, rather than duplicates, other interventions aimed at addressing energy hardship. Expert interviewees noted energy hardship is a very busy and complex policy and programming space in New Zealand,¹⁸ with numerous actors seeking to make a tangible difference for whānau, as well as influence positive change at a system level. All evaluation stakeholders, including whānau interviewees, felt EnergyMate coordinates well with adjacent initiatives, most notably Healthy Homes. EnergyMate has achieved this by connecting a whānau-focused intervention with wider energy hardship support, as outlined in the following sections.

3.1.2 EnergyMate Phase 2 outcomes

EnergyMate delivered 319 home visits and eight community hui over Phase 2 (August 2020 – 31 May 2021). Phase 2 implementation was significantly slowed by Covid-19 impacts, resulting in under-delivery against anticipated targets (400 visits). Phase 2 was delivered in eight locations¹⁹ (see Appendix A).

3.1.2.1 Results for whānau and households

EnergyMate sought the following outcomes for whānau:

- Increased understanding of their home’s energy performance, their energy use and costs; and
- Increased willingness to engage with their electricity retailer;
- Confirmation they are on the best plan for their circumstances.

And, as a result, strengthened:

- Management of household energy use and costs;
- Agency as energy customers.

And, ultimately, have warmer and healthier homes within their budget.

¹⁸ Including a current Ministerial Advisory Panel to address energy hardship and a cross-government, cross-sector Reference Group.

¹⁹ Kaitaia; South Auckland; Hawera; Levin & Otaki; Christchurch; Dunedin; Rotorua; and Petone.

Overall, EnergyMate has worked very effectively with whānau to identify specific household level changes to improve energy efficiency and to ensure the most appropriate electricity plan. By connecting whānau with other home energy performance services and resources, EnergyMate has contributed to addressing barriers to warmer drier homes for some participants. EnergyMate has made a big difference for a smaller number of whānau who needed help to engage with retailers. Most participants were confirmed to be on the most appropriate tariff and were comfortable getting in touch with their retailer.

Most whānau²⁰ (90%) agreed EnergyMate was very helpful in providing new knowledge or reminders of what they should be doing for energy efficiency. EnergyMate coaches worked with whānau to assess their home’s energy performance and identify efficiency issues. The most frequently noted action items during visits were switching light bulbs to LEDs (85%), boiling less water in the kettle (61%) and shorter showers (45%). When asked what was most useful about EnergyMate, most participants agreed it was tips to use power more efficiently. The most common energy efficiency actions remembered by interviewees (up to 6 months post-visit) were switching off power points at the wall and reducing hot water use (e.g. taking fewer baths, switching to cold water laundry washes). Hot water is an energy efficiency issue for many. Shower flows were too swift for 18% of participants, with flow greater than ten litres per minute (and 5% of participants had flow greater than 20 litres per minute). Almost a quarter (24%) of participants reported running out of hot water (Figure 3). The longer lasting LED light bulbs gifted by EnergyMate were also frequently mentioned by interviewees.

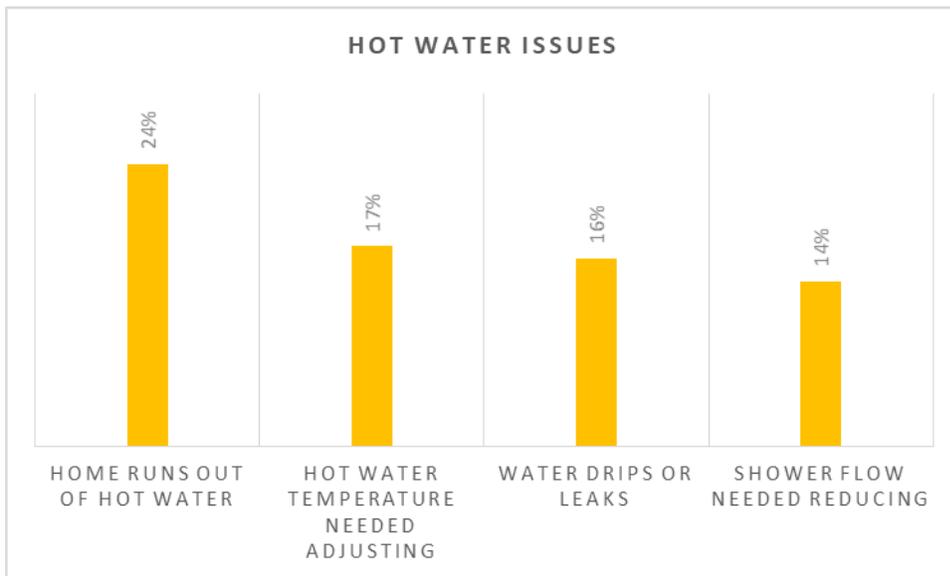


Figure 3: Hot water issues experienced by EnergyMate participants²¹

Providers successfully connected whānau with further support to tackle energy hardship. At least 60% of participating whānau²² were referred onto other services: budget services (22%); Healthy Homes

²⁰ Data set n=226

²¹ Data set ranges n=293-305

²² Data set n=226

(11%); and curtain banks (13%). Most referrals had been actioned within eight weeks (55%). Whānau were also able to make changes (some as a result of referrals) noted for action during visits (85%) (Figure 4).

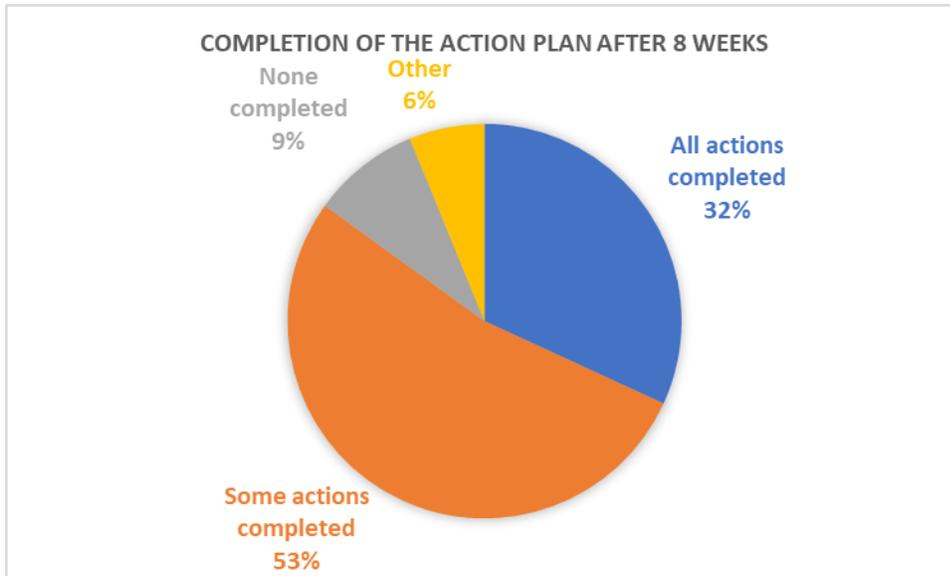


Figure 4. Completion of EnergyMate action plans (n=226)

“Save the power, save the money...[this was the most useful thing]” EnergyMate participant Auckland

“We already know [a lot about energy efficiency], I mean, we’re adults, but we do make mistakes and we still need advice” EnergyMate participant Auckland

“I have been energy wise for a long time. Most of our conversation was confirmation that I was doing the best I can do to have my house run efficiently” EnergyMate participant

“It’s not just about power[electricity]...talking to people, asking those questions about power...our team is dedicated to making sure the home is safe and warm. It’s whole wraparound service and it takes a network” (EnergyMate provider Contract manager)

“Getting into the community [church, marae, disability support group] is the most important thing. But personalised, relevant and actionable advice is key.” Expert interviewee

A total of eight community hui were held in seven regions, reaching at least 172 attendees. The hui observed for the evaluation was well attended and participants were interested and engaged with the content on keeping homes warmer/ drier, saving money and understanding power bills. Hui content and delivery are well planned to deliver key messages on in a lively and engaging format (games, quizzes, prizes such as LED lightbulbs/electric heaters and brochures). The chance to hear from retailer representatives and ask questions was viewed favourably by some interviewees. Some interviewees mentioned sharing EnergyMate knowledge with wider whānau as a result of hui. One interviewee talked about the helpfulness of combining budgeting advice with energy advice – reflecting very clearly the EnergyMate theory of change.

Results over time (warmer drier homes)

EnergyMate coaches followed up with participating whānau eight weeks after the home visit to ask about their experience completing the action plan and any changes in their energy use. Post-visit data (eight week follow up and evaluation interviews more than six months later) indicates participants are retaining energy use knowledge and continuing to act on efficiency tips and support. As noted above, when asked what was most useful about the EnergyMate visit, whānau most frequently mention (in addition to LED bulbs); switching off appliances; boiling less water in the jug; having the heat pump at the right temperature; and discovering their hot water temperature was set too high. Most of these are commonly noted action items, suggesting the action plan is a useful tool for whānau to engage with their energy efficiency. EnergyMate coaches were often noted to be helpful and understanding. Experts interviewed for the evaluation (supported by research²³) agree on the important role of community delivery to support change over time.

All the checks helped me to understand where my consumption was coming from (EnergyMate participant)

On the call that EnergyMate coach made I was switched from low fixed user to standard. It seemed to make a big difference to my bill (EnergyMate participant)

[EnergyMate coach] informed me about the various duties landlords have with regard to insulation, heat pump provision, etc. (EnergyMate participant)

Advocacy by Energy Mate Coach with [retailer] - reduction in weekly payments from \$121 to \$95 and an electrician sent by [retailer] to check the meter board. (EnergyMate participant)

More conscious of energy use, making showers shorter, switching appliances off when not in use. Got rid of heaters that weren't efficient. (EnergyMate participant)

Changes in electricity use: the eight week follow up survey asked participants whether they had seen changes in their electricity use: just over half (53%) reported a change in kWh and electricity bill (60%).²⁴ Many of these observations, however, are in the context of seasonal change from winter to summer. For a view over a longer timeframe, EnergyMate reviewed Phase 1 participants' (n=51) monthly bills spanning 12 months before and after the home visit. Key findings for these whānau are outlined below:

- Median daily usage in spring and summer was lower in the year following EnergyMate participation, compared with the same seasons previously (6.2% lower in spring and 2.3% lower in summer). There is a corresponding increase in winter (3.0%) and autumn (8.4%). This is the pattern of usage change EnergyMate sought to influence: for whānau to make efficiency savings where possible, but then use more electricity in the colder months to keep warm and healthy.

²³ Burchell, K., Rettie, R. and Roberts, TC. (2016) Householder engagement with energy consumption feedback: the role of community action and communications. *Energy Policy*, 88: 78–186

Electricity Networks Association (2017) Options for assisting customers in energy hardship Concept Consulting Russell-Bennett et al. (2017) Power Shift Project One: Driving Change – Identifying what Caused Low-Income Consumers to Change Behaviour, Final Report, Brisbane: Queensland University of Technology and Swinburne University of Technology.

²⁴ Data set n=223

- Of the 457 bills received in the 12 months before the EnergyMate visit, customers were in debt 20% of the time. Of the 470 bills received in the 12 months after the visit, this fell to 13.3% (a 35% reduction in debt rates).
 - Bills received in the 12 months before an EnergyMate visit had an average debt of \$146, which fell to \$51 for bills received in the 12 months after a visit.
 - When only looking at bills with some debt, the level of debt falls by 47% following an EnergyMate visit – from \$720 on average to \$385.
 - Debts greater than \$150 occur in 17% of bills before an EnergyMate visit, falling to 10% of bills following a visit.
- 18% of households were on the wrong plan (low fixed charge versus standard) before an EnergyMate visit. After the visit this fell to 8%.

These data show encouraging signs of adjusted usage and reduced debt patterns. Evidence of whether this is translating into warmer drier houses will be needed over time.

Whānau as electricity consumers

Most EnergyMate participants are post-pay customers (84%), with the remaining 16% prepay (consistent over renter, owners and those on benefits) (Figure 5). Overall, most (92%)²⁵ are happy with their billing/ payment cycle. For some participants, payment is less straightforward, however, particularly participants on low incomes and/or benefits. EnergyMate participants on benefits can have electricity payments deducted from benefit payment and then top-up via prepay. Prepay customers can chose to top-up their electricity credit, or in some cases, choose **not** to top-up if they do not have the money. Prepay customers’ energy poverty (‘heat or eat’) is an area of low visibility as difficulties paying for electricity do not show up in unpaid bills or disconnections.

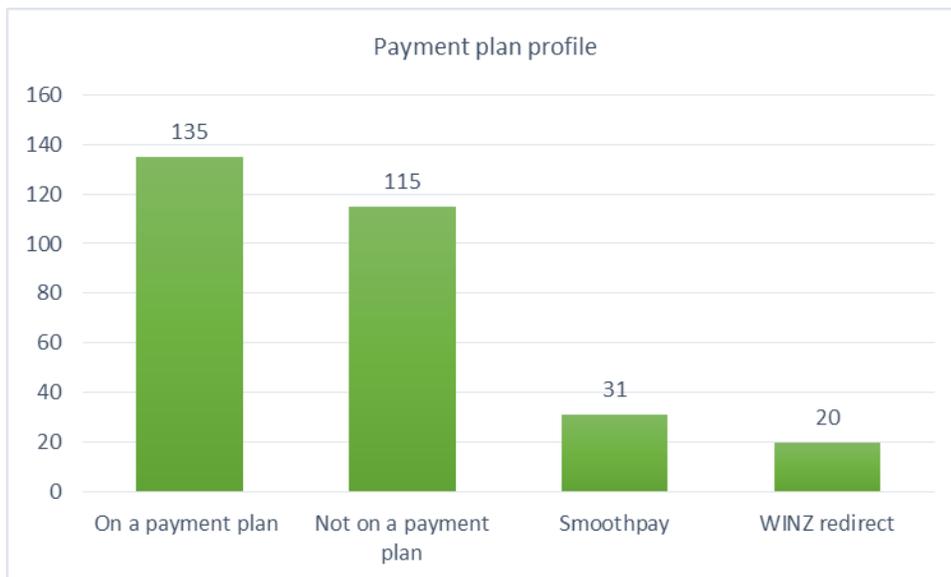


Figure 5. EnergyMate participant payment plan profile (responses not mutually exclusive)

²⁵ Data set n=290

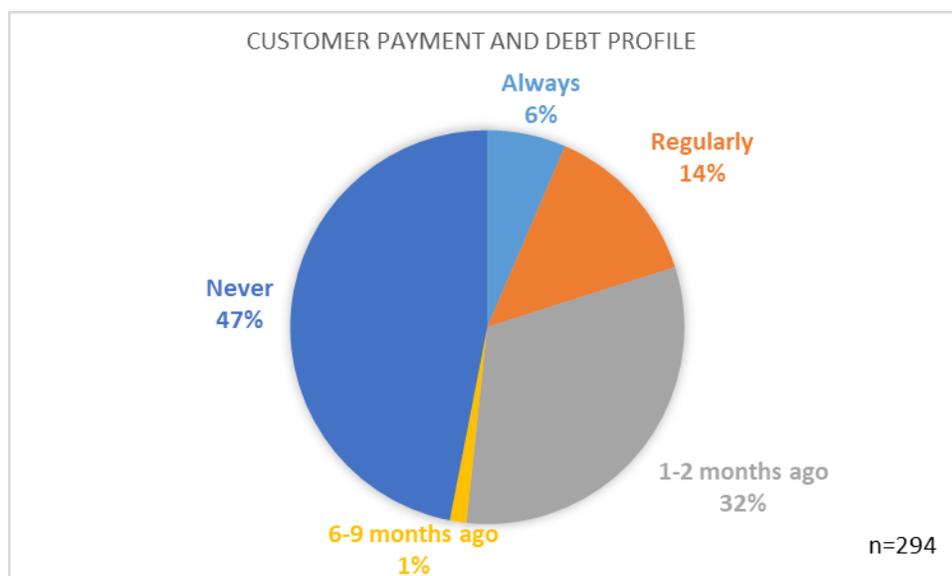


Figure 6. EnergyMate participants' customer payment and debt profile

Almost one third (31%) of EnergyMate participants were in debt to their electricity retailer with an average debt of \$444 (Figure 6). A small proportion (9%)²⁶ have been disconnected within the past year. Participants on a WINZ benefit are much more likely to be in debt (84%) or disconnected (89%). Overall, three quarters (76%) of EnergyMate participants use the Winter Energy Payment.²⁷

Most whānau (homeowners, private renters and social housing) were already on the best tariff for their circumstances (85%).²⁸ For the remaining 15%, however, EnergyMate's support to change to a more suitable payment plan was significantly valued. In total, 11% switched to a new power plan and 6% moved onto a new/updated payment option such as SmoothPay. At the time of the EnergyMate visit, most participants (62%)²⁹ had spoken with their retailer within the last six months and very few (8%)³⁰ reported poor or very poor experience of their retailer. Participant interviews back this overall picture, with four of seven interviewees happy to talk with their retailer if needed. However, when asked who they go to if they need help with their electricity bill, only 22% of participants overall named the retailer as first choice (Figure 7). In this context, EnergyMate coaches' anecdotal examples of the three-way call resulting in stopped disconnections, bill corrections and refunds, indicates EnergyMate is assisting those participants who need extra support to engage with their retailer as electricity consumers (including supporting a small proportion to switch to a more appropriate tariff). Whether or not these participants may be more likely to engage with retailers over time (indicating increased agency as customers) will require further evidence.

²⁶ Data set n=308

²⁷ <https://www.workandincome.govt.nz/products/a-z-benefits/winter-energy-payment.html>

²⁸ Data set n=274. The proportion of whānau on the best plan for their circumstances is very similar to Phase 1 results.

²⁹ Data set n=299

³⁰ Data set n=286

“I would not feel comfortable phoning my power company if I couldn’t pay my bill....I did query something once that was not right, but paid it anyway in the end” (EnergyMate participant)

“Online chats are really good, increasing communication options if you don’t like phoning” (EnergyMate participant)

“I would definitely phone my power company if I had an issue, I’ve done this a few times, I’m happy to ask to speak to the manager even” (EnergyMate participant)

“Customers who most need to get in touch are the least likely to call” (EnergyMate participant)

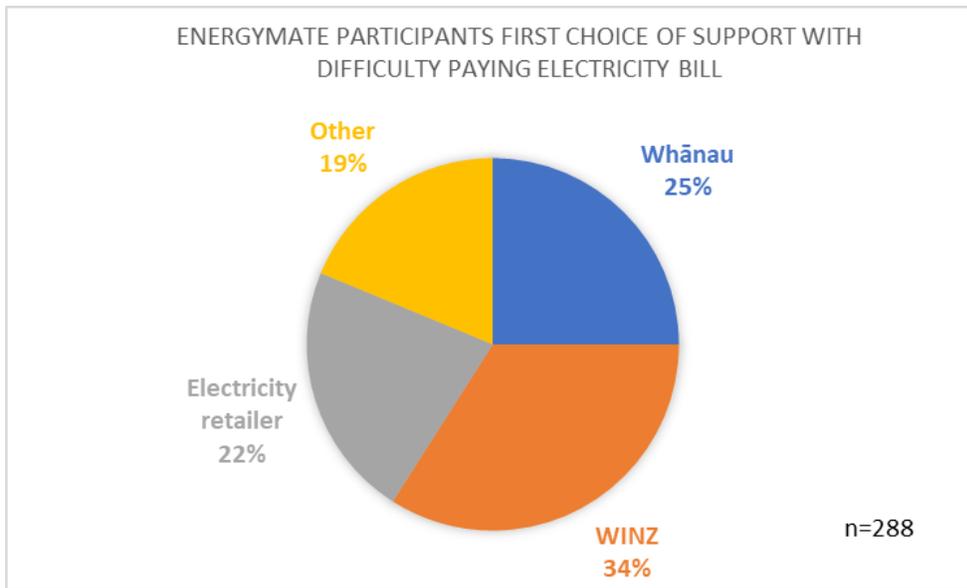


Figure 5. EnergyMate participants’ first choice of support with difficulty paying electricity bills

3.1.2.2 Results for retailers

EnergyMate sought the following outcomes for retailers: more information and insights on their customers in vulnerable circumstances and as a result, better customer responsiveness.

Overall, retailer representatives strongly agree EnergyMate is improving customer engagement and responsiveness for this participant group. Coordination continues to be effective, with a few suggestions for improvement, including sharing provider-retailer learnings more formally.

Overall, retailers are positive about the value of EnergyMate for both customers and retailers and many agreed EnergyMate should be expanded to cover more areas nationally. Most representatives³¹ agreed EnergyMate is supporting stronger retailer engagement with customers and positively influencing customers’ willingness to get in touch if they are experiencing difficulties. Survey respondents agreed in general that EnergyMate is improving retailers’ information and therefore responsiveness to customers in vulnerable circumstances. Where EnergyMate Coaches have developed

³¹ Credit managers from seven electricity retailers responded to a survey for the evaluation.

relationships over time with key retailer contacts, this has reinforced positive outcomes for retailer insights as well as customers. There is an opportunity to extend these gains by increasing shared learnings between retailers and providers more formally. The evaluation did not explore whether retailers have extended EnergyMate learnings internally to improve their overall responsiveness to customers in vulnerable circumstances. Applying such learnings could be of significant benefit to retailers.

“I believe it has encouraged some customers that would be reluctant to engage with us are now more comfortable to do so. It has helped us move customers on to better plans.” (Retailer)

“we had only few customers from [us] who got connected with ERANZ and most of them were recently signed up with Direct debit options.... only few occasions [when] we had customers who are financially struggling and assisted with payment options” (Retailer)

Most retailers agreed EnergyMate is coordinating efficiently with them on the three-way phone call (five out of seven survey respondents agreed or strongly agreed). A suggestion for improvement was to include the name of the retailer and a customer account number on the appointment to guide credit managers. When a home visit is booked on the system, an auto-generated email gets sent to retailers for requesting they are ready for a call 45mins after the appointment time to allow for coaches to do their visit. Providers noted timing was an issue, however, with visits lasting longer than 45 minutes and missing their slot with retailers. Nonetheless, the three way phone call is viewed as valuable by retailers, providers and whānau, as a means to connect customers, who may be reluctant to engage, with retailers.

“The benefit I can relate to is that Customers [during] the Coaches visit seem to be more happy to give the information that they would give normally. Maybe it is because they have a better understanding when someone is doing a face to face approach” (Retailer)

“[We] benefited from being able to have eyes on the ground when it came to dealing with some of the customers that were referred to Energymate. The 3 way phone conversation is particularly beneficial as the coaches are in the customers home and able to provide us with information we may not have been able to gain from dealing with the customer directly.” (Retailer)

“We’ve got a good relationship with the power companies, we’ve stopped disconnections and got refunds” (EnergyMate provider Contract manager)

“We always want to help our customers and pride ourselves on being as proactive as possible with customers who may be struggling to understand how best to use their power and pay their bills.” (Retailer)

“EnergyMate has provided the opportunity for myself to meet and engage with customers and community supports in both South Auckland and Rotorua. These experiences provided insights and also faces to the issues customers are facing on a daily basis not only with their Electricity but also housing and family situations. Through the 3 way conversations, we have been able to assist customers who otherwise would of most likely not of engaged with us and the customer has come through that call with

more knowledge, an achievable payment option (if needed), and hopefully more confidence in us as a retailer that we will be there for them when needed.” (Retailer)

Industry’s role as a vital lead in the energy hardship space was agreed by all evaluation stakeholders, echoing the Electricity Price Review’s recommendations around the sector’s social responsibilities. In some policy experts’ view, industry should play a lead role to support on-going education and awareness raising for consumers, particularly messaging that recognises one size does not fit all. Retailers’ support via EnergyMate and the Consumer Advocacy Council³² acknowledges industry’s role to support electricity consumers and help to reduce energy hardship as part of a system-wide approach. In this context, EnergyMate was viewed by most evaluation stakeholders and policy commentators as a positive industry contribution. Some evaluation stakeholders’ mistrust of electricity retailers in the energy equity space must also be acknowledged however. Electricity accessibility and affordability is a key part of energy equity for these stakeholders.

3.1.2.3 Results for providers

Providers’ approach to delivery differed significantly and Covid impacts slowed delivery over 2020. Implementation numbers varied across regions and providers had differing experiences connecting EnergyMate with other services. Providers’ referral pathways were diverse and included referrals from retailers; internal referrals from providers’ other services; referrals from third party agencies; and active recruitment.

Providers faced challenges to deliver under Covid impacts. Each provider was contracted to deliver EnergyMate to “up to 100 households in high deprivation areas” within their region. Achieved numbers vary widely (Appendix A). The national lockdown and subsequent Auckland lockdowns in 2020 significantly slowed delivery and stretched some providers’ capacity. In at least one location, travel restrictions meant EnergyMate was delivered in the provider offices with whānau, rather than in homes. For another provider, small organisation size negatively affected their ability to deliver EnergyMate as staff were committed on other services. This appears to be a particular tension when providers’ have larger primary contracts with Government agencies such as the Ministry of Social Development. Organisational capacity also appears to be an issue for some providers to carry management costs of EnergyMate e.g. time expended recruiting EnergyMate participants and rescheduling visits (some of which are cancelled). A number of providers noted repeat visits are sometimes required to connect successfully with whānau. While management costs are included in payment per visit, these cannot be invoiced for if visits are cancelled. Providers experience under other contracts (e.g. invoicing for cancellation costs) appear to be influencing this expectation for EnergyMate.

Some providers appear to have been very active recruiting and generating interest in EnergyMate and this has made a difference for delivery numbers. Providers with a strong local community profile delivering social support services, as well as EnergyMate, have in general, achieved higher visit numbers over Phase 2. For these providers, active recruitment reflects knowledge of their community (and therefore those experiencing energy hardship). Other providers were more likely to discuss recruitment from pre-existing clients or referrals from retailers. Some providers reported difficulty recruiting for

³² <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-consultations-and-reviews/electricity-price/>

EnergyMate, even from existing budget support clients. Financial hardship could act perversely as a barrier for EnergyMate uptake, as other priorities were so much more urgent than 'energy education'. A few providers reported clients felt they already knew much of what was on offer and did not need support to contact their retailer. One provider noted recruitment issues if retailer referrals were not already known to them, with some referrals affronted to be contacted over difficulties paying their bills (particularly if this was due to a specific reason which had already been addressed).

A number of providers who focused on retailer referrals noted surprise and disappointment at very low referral numbers and expected retailers to take more of a lead in promoting EnergyMate. For these providers, retailers hold the most relevant information on who is experiencing energy hardship.

There was a spectrum in the way providers spoke about onwards referrals for directing EnergyMate participants onto other services such as HHI. At one end, providers spoke with great energy about connecting participants with other support. In this context, one provider noted local networks were particularly important to connect with adjacent organisations such as marae, curtain banks, home improvement grants and food banks, in order to join up sources of help. Further, as a local provider, they had to know and trust the onward referral organisation before directing whānau to them. At the other end of the spectrum, providers spoke more about delivering EnergyMate solely as an energy education service. For these providers, EnergyMate was more about knowledge transfer and practical help e.g. the LED lightbulbs gifted. In this context it should be noted, however, that the HHI and associated healthy home services are not uniformly delivered nationally and some regions may therefore have fewer referral options.

The EnergyMate project manager is recognised by providers as a key driving force behind the project and has actively supported delivery, including monthly peer to peer online hui for EnergyMate coaches. Some providers have been more engaged with this shared learning than others.

"I thought we would get a lot more referrals from power companies" (EnergyMate provider Contract manager)

"EnergyMate Coaches have to have a lot of networks to make it work" (EnergyMate provider Contract manager)

"It's time consuming to train people as financial mentors, [so] you don't want them to be doing other things" (EnergyMate provider Contract manager)

"I can see in home visits what else is needed. That is my role and skill – to bring the different strands of help together. I go in with more than just the 'EnergyMate pack'" (EnergyMate provider Contract manager)

3.1.3 Lessons to improve the EnergyMate delivery model

Evaluation findings offer a number of insights for the EnergyMate model. Insights are mostly focused around provider delivery and EnergyMate reach.

The community connectedness of providers is important for EnergyMate success. Providers need to know their communities well and be able to reach those who could benefit from tailored home energy support. In addition, providers need to be well connected with other support services to optimise coordination and leverage system coherence to address multiple drivers of energy hardship. Links between EnergyMate and HHI providers seem especially important for whānau with significant energy hardship. In this context, EnergyMate should seek to strengthen providers' connections with system actors within all EnergyMate regions.

Provider capacity must be sufficient to not only deliver home visits, but also promote and recruit to extend EnergyMate's reach. EnergyMate is a relatively small contract and some providers were stretched to deliver across multiple, larger contracts. This issue was also noted in the Phase 1 evaluation. If providers have very few staff, this can exacerbate the issue for EnergyMate which requires active recruitment to deliver. Exploring ways retailers and providers can work together more closely to identify households that could benefit from EnergyMate could improve referral pathways.

Targeting visits to participant need was not an issue in Phase 2, as providers struggled to reach overall delivery numbers. The evaluation did not examine EnergyMate's reach to those most in need (for example, experiencing multiple energy hardship vulnerabilities), or the degree to which extremely low income inhibited even minimal shifts for warmer, drier homes for some whānau. There is no doubt a spectrum of energy hardship vulnerability, however, and the extent to which EnergyMate could scale efforts according to need is not known. As Phase 3 expands EnergyMate, increased attention to scaling intensive in-home support with community hui and other support mechanisms such as: electricity bill 'drop-in clinics'; help engaging with retailers; or education materials could be considered for those who need less intensive support. Such scaling would extend the project reach relative to resource. It is important, however, that less intensive support is still delivered by local providers that know their community well.

The current EnergyMate project manager is a key driving force behind EnergyMate results, national expansion and strong delivery partnerships. This is both a project success factor and sustainability risk. ERANZ should be aware of legacy planning to manage this risk.

3.2 EVALUATION CONCLUSIONS

Phase 2 evaluation findings strengthen Phase 1 results indicating that EnergyMate has successfully engaged with whānau to build home energy knowledge and capability. Phase 2 data strengthens the evidence for EnergyMate achievement of intended short term outcomes, namely, participants have increased understanding of their home's energy performance and their energy use. There is modest evidence from participant feedback and 12 month usage data that EnergyMate is making some difference for medium term outcome (whānau actively manage their household's energy use and costs). Although retailer representatives agree EnergyMate is increasing customer engagement, more evidence is needed to judge customers increased agency, especially for those least likely to engage. The scale of EnergyMate's contribution to the effectiveness of retailers' overall customer response for whānau in vulnerable circumstances requires further evidence to determine.

Locally-led delivery of context specific education and support are likely success factors in EnergyMate results. Tailored advice and support by community providers is at the core of EnergyMate and participating whānau strongly supported the value of this approach, with whānau feedback indicating these trusted actors are significant for achieving Phase 2 results. Experts interviewed for the evaluation concur on the effectiveness of personalised energy support delivered by trusted providers. In expert informants' view, the key is the community based messenger. Pilot results from the current SEEC round (including EnergyMate Phase 3) will further inform the evidence base for the best mix of workshops and in-home visits to optimise personalisation and reach. This includes building policy makers' knowledge of community actors and initiatives in this space in order to connect with them better and improve system level coherence as recommended by the Electricity Price Review.³³

The drivers of energy hardship are complex and therefore solutions, especially when affordability and behaviour change are factored in, are not simple. EnergyMate participants were likely to know exactly how much they spent per week on electricity. These low income consumers were highly energy conscious, more likely to avoid using electricity, even if cold, rather than drive up their bill. On its own, EnergyMate makes a small but potentially powerful contribution to reducing energy hardship in New Zealand. This effect, however, can be either magnified or inhibited by systemic factors such as housing quality and overall affordability of electricity. The need for multi-sectoral government, industry and community approaches to energy hardship was strongly recognised by evaluation stakeholders and expert informants. EnergyMate is operating at the intersection of such multi-sectoral coordination and at the start of Phase 3 is adopting an increasingly 'navigator model' in its work with whānau.

³³ Electricity Price Review Final Report 2019: 21

APPENDIX A: ENERGYMATE PHASE 2 DELIVERY

Phase 2 delivery

EnergyMate delivered 319 home visits and eight community hui over Phase 2 (August-2020 – 31 May 2021). Phase 2 implementation was significantly slowed by Covid-19 impacts, resulting in under-delivery against anticipated targets (400 visits). Phase 2 was delivered in eight locations, as outlined below:

Phase 2				
Location	Provider	Visits delivered	Community hui delivered ³⁴	Attendees ³⁵
Kaitaia	Kaitaia Family Budgeting Service	60	1	17
South Auckland	Manukau Māori Urban Authority	20	1	42
Hawera	Hawera Budget Service	16	Postponed due to Level 2	-
Levin and Otaki	Levin Budget Service	10	1	18
Christchurch	Kingdom Resources	26	1	18
Dunedin	Presbyterian Support Otago	45	1	17
Rotorua	Family Focus Rotorua	85	1	27
Petone	Petone Budget Service	57	2	33
Total	8	319	8	172

EnergyMate Phase 2 participants

Most EnergyMate participants identify as Māori (64%), with the remainder identifying as New Zealand European (43%), Pasifika (12%), or Other (9%) (Ethnicity identifications are not mutually exclusive). Most participants (82%) were receiving a benefit or Work and Income New Zealand (WINZ) entitlement. Around half (44%) had received budgeting support within the previous 90 days. Over half (63%)³⁶ of EnergyMate homes had children and 12% had elderly residents.

Private rentals dominate the EnergyMate housing profile (56%). Just under a quarter of participants (22%) were either homeowners or in social housing³⁷ (22%). Most participants (77%) had been living in their current address for a year or more (lower for private rentals (66%) and higher for home owners and social housing tenants (94% and 96% respectively). Most homes had three or more bedrooms (74%).

³⁴ An additional community hui was delivered in May with a new EnergyMate Phase 3 provider in Porirua.

³⁵ Minimum number based on sign-in sheet. Actual attendance higher.

³⁶ Data set n=278

³⁷ Data set n=69: Kainga Ora Housing (Housing NZ) (19%) or other social housing (3%)

APPENDIX B: EVALUATION APPROACH

The evaluation approach is based on initial discussions with ERANZ and has been designed with a number of considerations:

- The purpose, scope and objectives of the evaluation
- The context of the evaluation, specifically Covid-19 impacts on EnergyMate Phase 2 delivery
- Evaluation principles of independence, transparency and research ethics
- The timely completion of the evaluation to ERANZ requirements
- Value for money to provide high quality evaluation within the evaluation resource.

The following table provides a broad overview of the evaluation plan.

Phase	Activities	Key outputs	Timing	Responsibility
1. Evaluation inception & desk review	<ul style="list-style-type: none"> ▪ Finalise evaluation objectives ▪ Review briefing materials/ documentation ▪ Draft evaluation plan ▪ Review and agree evaluation plan & tools 	<ul style="list-style-type: none"> ▪ Evaluation plan 	10 May	Evaluator EM Project Manager
2. Data collection	<ul style="list-style-type: none"> ▪ Community hui observation (Auckland) ▪ Whānau interviews/ group discussions (n=3) ▪ Industry stakeholder survey ▪ Provider workshop (n=1) ▪ Delivery dataset (including retailer data analysis) 	<ul style="list-style-type: none"> ▪ Raw data ▪ Analysed data 	14 May 17-30 May 20-31 May Start June Start June	Evaluator Evaluator Evaluator Evaluator EM Project Manager
3. Analysis and reporting	<ul style="list-style-type: none"> ▪ Analysis & synthesis of information ▪ Report drafting ▪ Findings presentation ▪ Report finalisation following ERANZ feedback 	<ul style="list-style-type: none"> ▪ Findings presentation ▪ Draft report ▪ Final report 	End June End June End July 2021	Evaluator

The evaluation approach includes three key phases as outlined below.

Evaluation Inception

Inception meetings were held with ERANZ. The evaluator was briefed on delivery of EnergyMate Phase 2. The requirements and scope of the evaluation were confirmed and methodological and logistic considerations discussed.

Relevant project, policy and research documents were reviewed to inform the evaluation plan. Documents were sourced from the EnergyMate project manager.

Data collection

The evaluation will utilise a mixed method approach, drawing on a mixture of qualitative and quantitative data sources to provide an in-depth holistic picture of EnergyMate's Phase 2 outcomes to date.

Data sources for the evaluation include:

A **Desk review** of key project documents will provide background and contextual information on the project, its design and delivery, intentions and desired outcomes, as well as project partners and funder. As noted above, key documents were reviewed in the preparation of the evaluation plan. Documents will continue to be sourced during the data collection phase.

Project delivery data and monitoring information will provide data on project roll-out over Phase 2. This includes quantitative data on participating whānau energy profiles, as well as information from the questionnaire completed by EnergyMate delivery staff at end of visit and eight week follow up. This data will be cleaned by ERANZ and preliminary analysis provided to the evaluation.

In-depth korero/discussions with whānau on their experiences of energy efficiency, energy hardship, as well as enablers and barriers to positive change. Around three Zoom/telephone interviews/group discussions will be conducted at a time convenient for participants. Interviews are expected to last 30 – 45 minutes. Liaising with community providers to recruit whānau and introduce the evaluation and evaluator will be critical for success. Information sheets and informed consent forms will be provided to participants along with verbal explanations about the process.

An EnergyMate provider workshop will share learnings and assess what has gone well and why/ why not for Phase 2 delivery. The workshop will be held at the same time as the regular provider meeting at the start of June in order to reduce burden on participants. The session will provide an opportunity for contract managers and EnergyMate coaches to assess outcomes for whānau and their organisations to date, as well as the value of these results (i.e. to what extent intended outcomes have been achieved).

An **Online survey questionnaire** will be conducted with Electricity retailers (and potentially lines companies). The survey will ask industry stakeholders' views on the EnergyMate delivery model and outcomes for retailers and customers. The survey will be hosted on Survey Monkey and the link will be sent to respondents following an introductory email from ERANZ. The survey will use predominantly closed questions with around two-three open ended questions. The survey will be pre-tested for logic, flow and timing. The survey will be remain open for ten working days.

Potential additional data

Retailers' customer data for EnergyMate Phase 1 capturing participants' monthly energy profile (usage, payments, debts and disconnections) for the 12 months prior and post EnergyMate visit. This data will be analysed by ERANZ.

Interviews with external stakeholders will be sought to address gaps as necessary. Such stakeholders include Government (e.g. MBIE, Ministry of Health) and NGO stakeholders (e.g. Home Performance Advisor).

Regular discussions with the EnergyMate project manager on delivery roll-out and results will supplement the data sources outlined above.

Table 2. summarises key evaluation data sources and indicates the evaluation questions they will inform (refer Table 2 below)

Table 2: Evaluation questions and key data sources					
Evaluation question	Desk review	Project delivery data	Whānau korero	Retailers survey	Provider workshop
<p>1. What are the key outcomes for EnergyMate stakeholders over Phase 2 (building on Phase 1 where relevant)?</p> <p>➤ Key outcomes for whānau, providers and retailers, drawing on the outcomes model established in Phase 1</p>		✓	✓	✓	✓
<p>2. What are the core underlying drivers of energy hardship experienced by whānau, including enablers and barriers to improving energy efficiency in their homes?</p>	✓		✓		✓
<p>3. What lessons can be learned to improve the EnergyMate delivery model?</p>	✓	✓	✓	✓	✓

Sample frame

A diverse range of project stakeholders will be drawn on to answer the evaluation objectives and associated questions. Stakeholders include:

1. **Whānau** will provide information on their experience of EnergyMate and their experience of energy hardship and efficiency
2. **Provider contract managers and EnergyMate coaches** will provide information on all evaluation objectives and in particular, the effectiveness and efficiency of delivery processes
3. **Electricity retailer credit managers** will provide information on outcomes for retailers' customer management and EnergyMate engagement
4. **EnergyMate project managers** will provide information on all evaluation objectives and in particular, will be able to comment on the successes and challenges of the project as well as its inception, aims and context.

An indicative sample frame is presented below.

Table 3: Indicative sample frame	
Stakeholder group	Sample (n=)
Whānau	7
EnergyMate Provider contract managers and coaches	8
Retailers credit managers	7
EnergyMate project managers	2

Analysis and reporting

The evaluator will analyse all data streams (refer Table 2) to answer the evaluation questions. Data will be organised and documented from different sources as it is collected. Data tables will be generated for closed questions and open questions will be coded for content and thematic analysis.

A grounded theory approach (flexible, iterative and emergent) will be taken to data collection, coding and analysis. This means the key focus of data analysis will be to identify and test the emergence of short and medium term EnergyMate outcomes over 2020-21. This analysis will seek to test the strength of project theory of change assumptions about connections between EnergyMate and any observed changes. Findings and conclusions will be strengthened through the triangulation of data across the evaluation components and the strength of evidence for findings will be clearly stated. Any unintended outcomes will also be looked for and explanations sought. The analysis will seek to identify project design and delivery improvements in order to enhance alignment with the intended project outcomes.

Reporting structure and deliverables – A report structure will be agreed with ERANZ before report drafting commences, but the report is expected to be structured around key evaluation questions as outlined in section 3.2.

A **draft report** will be delivered to ERANZ for comment and review in an agreed format (e.g. a single set of combined feedback). Evaluation findings will be presented at an ERANZ Board meeting. Revisions will be discussed with EnergyMate project managers. A **final report** which incorporates ERANZ feedback will then be submitted.