

ENERGY TRANSITION FRAMEWORK

Cost & Affordability Working Group

Stage 1 Report

What is underway, what it is delivering, and what we found

1. Executive summary

This report is the output of Stage 1 of the Cost & Affordability Working Group, established by the Framework Chief Executive Steering Group following its August 2025 meeting. The Working Group was asked to map current activity on system cost and affordability across New Zealand's energy system, surface the observations that flow from the mapping, and identify where further targeted analysis would add value.

This Stage 1 report is descriptive. It sets out current activity across the system, what it is intended to deliver, and what the combined picture shows. Stage 2 will take a targeted approach to deeper analysis in the priority areas this report identifies, in order to develop recommendations on cross-sector action, including where it would add value, how it would interact with work already underway, and whether the Framework should play a convening, supporting, or coordinating role.

Two jobs: system cost and affordability

Two jobs need to be done well so that New Zealand has an energy system that supports a healthy and thriving country, for households, for businesses, and for communities. The first is delivering an efficient and resilient energy system at the lowest possible cost for consumers. The second is ensuring equitable access to that system, recognising that affordability has drivers beyond energy prices and that even with a low-cost energy system some households and businesses will need support. Both jobs are necessary. Doing one well does not remove the need for the other.

Significant activity is underway across both. On the system-cost side, approximately \$18–21 billion of capital expenditure is committed through to 2030, with major programmes in train to reduce system cost across networks, generation, flexibility, regulation, and consenting reform. On the affordability side, over 49 initiatives are in operation across government, regulators, networks, generators, retailers, industry, and community sectors, with identifiable estimated annual funding of around \$677 million and substantial additional unquantified support.

What we found

Before the findings, a note on what this report is and is not arguing. This report is not arguing that investment in the energy system should be arbitrarily reduced or that affordability spending should be cut. New Zealand needs reliable and secure energy infrastructure, and underinvestment would itself drive long-term costs up. The question the report is interested in is different. It is whether the same outcomes, in reliability, security, and hardship reduction, can be delivered for less cost than the system is currently set up to produce. Where alternative approaches could deliver the same outcomes more cheaply, the cost of not capturing them is paid by every household and business through the bills they face.

Currently, there is no sector-wide approach to reviewing energy system costs and the overall impact of these costs on consumers. Similarly, no single entity within the energy system is tasked with comprehensively assessing all activities related to its cost and affordability to ensure they collectively result in an energy system that is both efficient and affordable for the consumers (households and businesses) who bear the expense.

Significant investment is being made in affordability initiatives. Approximately \$677 million per year, with substantial additional support beyond that. Hardship indicators do exist, but they lag, and the picture they show is of hardship rising rather than falling.

While individual affordability focused projects and programs do benefit consumers, what does not appear to be underway is any consideration of whether the existing measures will actually reduce hardship given how the energy system has changed and will continue to change, in how households heat their homes, fuel their transport, and use the network. The investment is being made. The question of whether it will reduce hardship over time is not.

A 16% real residential price increase is forecast through to 2029, with lines charges rising 25–35% in real terms through to 2030, a trajectory that was largely locked in through the 2024 Commerce Commission regulatory decision and was well publicised at the time. Yet there is no visible point in the system where the question is being asked: given what is going to happen to prices and how the system is changing, how will our investment in affordability initiatives reduce hardship over time? And could better-targeted structural interventions in those same households by industry and government reduce overall system cost as well as reduce hardship?

Different parts of the system are regulated differently. The Commerce Commission regulates electricity and gas network charges under Part 4 of the Commerce Act, testing investment proposals against the long-term interest of consumers and setting price paths that constrain what flows through to bills. That regulatory machinery applies to roughly the network components of an energy bill, which together make up around a third of a residential electricity bill and a similar proportion of a gas bill.

The wholesale electricity component, retail margins, generation investment decisions, and transport energy costs are subject to different regulation and competitive markets. The Electricity Authority oversees market conduct and consumer protections. The Electricity Authority is looking across all components of a consumer's electricity bill to track impacts and is working closely with the Commerce Commission on competition and policy settings.

In each part of the system, responsibility mandates (of industry participants and regulators) are largely bounded within those parts. There is no mandate for asking whether the sum of all the parts of the energy system, in the context of how the system is changing and how the economy is moving, is producing energy bills that the users exposed to them can afford. While industry participants and regulators work together through groupings of government agencies (e.g. the Council of Energy Regulators) and industry associations (e.g. ERGANZ, ENA), the action across the sector may not always be coordinated or targeted effectively.

This change in our energy system points to the growing risk of an emerging two-speed transition. Households and businesses that can invest in electrification, energy efficiency, and flexibility are gaining access to lower long-term energy costs and greater price stability. Those who cannot access the capital, suitable housing, or information required to make those investments remain exposed to legacy costs and to the risk of being locked out of the benefits the transition is producing.

The pattern is reinforced by a finance gap. Households and businesses that would benefit most from structural improvements such as insulation, efficient appliances, and electrification are often least able to access the upfront investment those improvements require. Affordability in this context is not only a question of cost. It is a question of equity, reflecting who can participate in and benefit from the transition.

The two jobs are complementary. The gains from connecting them, for households, for businesses, and for total system cost, are currently not being captured.

Specific findings

Three specific findings from the mapping demonstrate the gap.

1. Affordability investment is significant but is weighted toward recurring support rather than the structural change that would durably reduce hardship and reduce system cost. Energy hardship is deteriorating against a backdrop of broader cost-of-living pressure. Bill stress, arrears, and reported borrowing to pay bills are rising (As Kiwis battle rising electricity bills, campaigners call for change –

Power to the People, part 1, NZ Herald, 27 July 2025). An estimated 140,000 households are reported to have taken out loans to pay electricity bills (Consumer NZ, 2024); approximately 485,000 households were behind on their utility bills as at May 2025 (Centrix, June 2025 Credit Indicator Report).

Stakeholders describe a category of hidden hardship not captured in standard measures, and report that the scale of need is outpacing the system's response. At the same time, evidence is clear that structural interventions: insulation, efficient electric heating, electrified transport, and behind-the-meter solar and storage; sustainably reduce a household's total energy costs and the demand it places on the system. Approximately 85% of identifiable affordability funding is currently directed to direct financial support, and 14% to structural interventions. Direct financial support is necessary and addresses real, immediate hardship. But the current balance is weighted toward managing today's hardship rather than reducing it. Those who would benefit most from structural change are typically least able to fund it.

The opportunity is significant. Structural investment in the households facing greatest hardship would deliver three benefits at once: durably lower bills for the household, an investment in affordability initiatives that builds cumulative impact rather than perpetuating recurring cost, and a system carrying less demand at peak, which reduces the investment required and therefore the bill everyone pays. The investment to capture this opportunity already exists in the system. It is currently weighted toward recurring support. Repurposing a portion of it over time, alongside maintaining direct support for households who cannot access structural change, would close the funding gap that prevents most lower-income households from acting on their own. This balance is a system choice, not a fixed outcome.

2. The system being built may not be the lowest-cost system that meets the outcomes required. Several levers (flexibility, the level of renewal investment, and other process and regulatory settings) are not visibly being pursued with the urgency the cost trajectory warrants.

Renewal accounts for approximately \$13 billion of the roughly \$15 billion of lines investment forecast through to 2030, and is the largest single driver of system cost. Within current regulatory and asset management settings, renewal investment is closely scrutinised and significant work is underway to deliver it as efficiently as possible.

What has had less attention is the question of how the system itself drives renewal to occur in the way it does. Service standards, the architecture of supply, and the specifications to which renewed assets are built all shape the underlying volume and cost of renewal the system requires. These are system-design questions sitting above any individual network business or regulator.

On flexibility, the size of the opportunity (more than \$10 billion of system cost avoidable over time, with around 2 GW required by 2030) is documented and accepted, and flexibility is already working where it is being applied to defer specific investment (including Transpower's procurement of non-network solutions in the upper South Island and the western Bay of Plenty). The system is not yet on track to deliver the scale required, however. The policy, market rule, and pricing settings needed to convert pilots and trials into scaled deployment are not yet in place.

Beyond consenting and traffic management, other regulatory, procurement, and process settings that may be adding avoidable cost have not been systematically reviewed.

3. Transport is the largest component of household energy expenditure, and transport electrification is the largest single household-cost-reduction opportunity available. Transport currently sits outside the affordability frame.

This obscures both the picture of total household energy stress and the largest single household-cost-reduction opportunity available. Transport electrification would also reduce overall system cost through flexibility participation.

Each finding shows the same gap from a different angle: significant activity, individually sound; collectively not held to account against the outcome that matters.

Where this leads

Stage 2 should pull together existing analysis on the priority areas these findings indicate, and return advice to the CE Steering Group on (i) where cross-sector work could add value, (ii) how that work would

interact with initiatives already underway, and (iii) whether the Framework should play a convening, supporting, or coordinating role. Stage 2 will also draw on relevant international evidence, which was identified during Stage 1 and is held for the next phase of work.

The recommendation to the CE Steering Group is to note this Stage 1 report, identify any material work the Working Group should add before Stage 2 begins, and endorse progression to Stage 2 as set out in Section 7.

2. The Working Group, scope and approach

Establishment and members

The Cost & Affordability Working Group was established by the Framework Chief Executive Steering Group following its August 2025 meeting. The Steering Group asked a small group of Framework participants to review actions underway across the system related to cost and affordability and return with advice on where cross-sector work could add value, how it would interact with work already in progress, and whether the Framework should play a convening, supporting, or coordinating role.

The Working Group members are:

- Russell Shaw, Top Energy
- Greg Skelton, Wellington Electricity
- David Knight, Transpower
- Andrew Millar, Electricity Authority
- Murray Bell, Energy Efficiency and Conservation Authority
- Matt Ritchie, Genesis Energy
- Dave Karl, Rewiring Aotearoa
- Nick Haines, Electric Kiwi

Victoria Coad from the Ministry of Business, Innovation and Employment contributed to the information-gathering stage of the Group's work.

Scope

This report covers system cost and affordability across the New Zealand energy system. Reflecting the composition of the Working Group, the availability of data, and the central role of electricity in the transition, the analysis has a practical bias toward electricity. Gas is referenced where it materially affects electricity-system outcomes or affordability, particularly for industrial and SME users exposed to gas market transition risk. Transport energy is not formally included within current affordability frameworks; the report treats this as a material limitation in scope rather than an accepted boundary, and returns to it as one of the Stage 1 findings.

This report sits alongside, and does not duplicate, work already underway across the sector, including the Market Development Advisory Group's December 2023 recommendations on economically efficient price signals, the Review of Electricity Market Performance report from May 2025 (the Frontier Economics report), and continuing work by the Electricity Authority and others on prices through the transition. Where this report references that work, it does so to position the Working Group's mapping in a wider context, not to revisit conclusions.

Investment is necessary

This report does not argue that system cost is bad, or that reducing investment is, of itself, the goal. New Zealand needs a reliable and secure energy system to support its economy. The system is in a sustained investment cycle, and underinvestment in that cycle would itself drive system cost up over the long term,

through more frequent outages, deferred renewal that becomes more expensive, and reduced ability to integrate new generation, electrification, and resilience.

What this report is interested in is whether the same outcomes (the same reliability, security, and capability) can be delivered for less cost. That is a different question from "should we invest less." It is a question about whether the system, as it is being built, is being designed to capture the lowest cost consistent with the outcomes required. Where alternative approaches to system design, service standards, delivery models, or process settings could deliver the same outcomes more cheaply, the cost of not capturing them is paid by every household and business through the bills they face over the coming decades.

The same framing applies to affordability. The question is not whether to invest in affordability, but whether the current affordability investment is delivering the most durable hardship reduction available for the resources committed.

In both cases, the report's interest is in getting more from what is being spent, not in spending less for its own sake, and not in accepting worse outcomes for households, businesses, or the system.

Approach

In Stage 1, the Working Group's task was to map current activity occurring related to system cost and affordability. Members reviewed existing material, including published reports, technical analysis, recent regulatory and market commentary, and their own experience of the work underway. The Group also held two stakeholder sessions to draw in expertise from beyond its membership in two priority areas.

Affordability stakeholder session

Insights on household energy hardship, access barriers, and the role of community-based support were drawn from:

- Gareth Cartwright, Community Energy Network
- Kimberley O'Sullivan, Otago University
- Jake Lilley, FinCap
- Kenny Clark, ERGANZ

Flexibility and cost stakeholder session

Insights on flexibility and system cost (e.g. generation build costs, broader actions on network costs) were drawn from:

- Tracey Kai, ENA
- Josh Ellison, Rewiring Aotearoa
- Malcolm Cleland, Transpower
- Virginia Thompson, Transpower
- Buddhika Rajapakse, Concept Consulting
- Craig Evans, FlexForum
- Tim Sparks, Electricity Authority

The Working Group thanks all stakeholders who contributed their time and expertise to these sessions.

The mapping is not exhaustive. It particularly under-represents the breadth and impact of affordability work led by community organisations, iwi, and philanthropic groups, which deliver substantial support across the system but is not centrally quantified. The headline funding figure of approximately \$677 million per year captures only the very narrow subset of affordability activity for which budgetary data is available; total investment in affordability initiatives is materially higher. This report should be read with that limitation in mind, and the recommendation in Section 7 invites the Steering Group to identify any material work or perspective the Working Group should add before Stage 2 begins.

3. What is in train — system cost

Investment trajectory

The New Zealand energy system is in a sustained phase of structural investment. Cumulative capital expenditure of approximately \$18–21 billion is projected through to 2030, with around 75% concentrated in transmission and distribution networks (BCG, Energy to Grow, 2025). The investment is needed to maintain a reliable system, integrate renewable generation, support electrification, and improve resilience to more frequent and severe climate-related events.

Three drivers are converging in the network investment cycle:

- **Renewal** of network infrastructure built largely in the 1950s–1970s and reaching the end of its asset life. Of approximately \$15 billion of cumulative transmission and distribution investment through to 2030, around \$13 billion (approximately 85%) relates to renewal of existing assets rather than expansion (BCG, Energy to Grow, 2025; Joint letter to EDBs on non-network solutions).
- **Expansion** to integrate new renewable generation, support electrification of transport and heat, and accommodate new demand. Distributors forecast approximately \$2 billion in growth-related distribution capex between 2026 and 2030.
- **Resilience** upgrades to respond to more frequent and severe climate-related events. Replacing existing assets to modern resilience standards typically requires materially higher capital than the original build.

Residential electricity prices are projected to rise by approximately 16% in real terms through to 2029, driven primarily by lines charges (forecast to rise 25–35% in real terms through to 2030) and partially offset by falling wholesale prices as renewable generation expands. The price uplift is largely already locked in through Commerce Commission price paths set in 2024 (BCG, Energy to Grow, 2025).¹

Activity underway to manage and reduce system cost

Substantial activity is underway across the value chain to manage and reduce system cost. The breadth of activity reflects multiple actors operating in parallel: the Commerce Commission, the Electricity Authority, EECA, MBIE, transmission and distribution operators, generators and retailers, the FlexForum, and a wide range of supporting bodies. The summary below groups the activity into four areas. Detail on individual programmes is held in the companion appendices document.

Regulatory and price-path activity

The Commerce Commission's reset of the third Default Price-quality Path for electricity distribution businesses (DPP3, 1 April 2025 to 31 March 2030) determines the maximum revenue distributors can recover and is the regulatory decision that locks in much of the projected lines charge increase through to 2030. The Commission is also considering a trailing-average approach to the regulated cost of capital, intended to smooth bill impacts from 2030 onward (noting that their draft decision rejected the trailing average approach).

The Electricity Authority has work underway to support greater competition and efficiency in the energy system that will help to lower system costs. This work includes measures to level the playing field by improving access to hedges for independent retailers and generators, improved incentives for household distributed generation, and enhancements to the network connection process.

Many of these initiatives are being delivered alongside the Commerce Commission through the Energy Competition Task Force – demonstrating the benefits of more integrated regulatory decision making.

The Electricity Authority is also focused on improving affordability measures for consumers – these are outlined later in the report.

¹ A significant portion of this real-term increase reflects the recovery of inflation that was not fully passed through in price-path period DPP3, rather than new investment.

MBIE is leading on the phase-out of the Low User Fixed Charge by 2027 and the development of an economy-wide framework for sharing data (consumer data right), including electricity data.

Recommendations from the Market Development Advisory Group's December 2023 report on economically efficient price signals are being progressively implemented across the sector.

Consenting, planning, and delivery efficiency

Soft costs (consenting, traffic management, compliance) represent approximately 5.5% of total infrastructure project costs in New Zealand, or around \$1.29 billion annually across the system (Sapere for Te Waihangā, The cost of consenting infrastructure projects in New Zealand, 2021). Reform programmes are underway across resource management, the fast-track consenting regime, and traffic management practices. Across the network sector, distribution and transmission operators are progressing programmes to share spares, standardise asset designs, improve asset health visibility, procure jointly where viable, and integrate resilience planning with renewal programmes. Risk-based design standards and standardised processes are being developed to reduce the cost per unit of delivered infrastructure.

Generation, dry-year security, and gas transition

Renewable generation is being developed at a pace estimated at around 25% above the historic 'Think Big' era. Current activity includes faster consenting and proactive planning, repowering of existing assets, co-location of storage with generation, and design optimisation to improve output and reduce capital intensity. Public-sector PPA aggregation is being developed to support firm offtake, and LNG import capability is progressing as a dry-year security mechanism. The agreement on Huntly's continued operation provides medium-term firming security. The gas transition introduces additional cost, uncertainty, and stranded-asset risk for industrial and SME users reliant on gas; more detail on this is set out in related work-streams under the Framework.

Flexibility and demand-side resources

Flexibility represents one of the most significant identified opportunities to reduce long-term system cost by deferring or avoiding investment. Analysis indicates that approximately 5.8 GW of flexible resources by 2050, with around 2 GW required by 2030, could enable more than \$10 billion in system savings (BCG, The Future is Electric, 2022; FlexForum, Flexibility Plan 2.0, 2025; Jacobs for EECA, The full potential of flexible electricity use in New Zealand, 2026). The FlexForum's Flexibility Plan 2.0 sets out a shared sector pathway.

Current activity includes the Electricity Authority's regulator correspondence and Code changes to increase the rebate for consumers supplying electricity at peak times and to increase the export limits for distributed generation; EECA's Demand Flexibility Fund and Demand Flexibility Green Paper; the FlexTalk technical workstream; the Karaka Harbourside Distribution System Operator (DSO) pilot; the Queenstown Electrification Accelerator / Rewiring Aotearoa Vehicle-to-Grid Trial; trials of demand response, hot water load control, and managed EV charging; the introduction of dynamic connection agreements and operating envelopes; and the development of time-of-use pricing roadmaps.

How activity aligns with cost drivers

The activity underway is substantial. Looking across it against the size of the cost drivers it addresses, alignment is uneven. The largest single driver of network cost, renewal, accounting for approximately 85% of network capex, is closely scrutinised within the current regulatory and asset management settings, with significant work underway to deliver it efficiently.

What has had less attention is the question of whether the system design that generates the renewal requirement could be changed to deliver the same reliability and safety outcomes at lower long-term cost. Most flexibility and non-network solution activity is currently directed at deferring growth-related investment, which is a smaller share of total network cost than renewal. Soft cost reform is progressing, but the through-flow to delivered cost is not yet visible. These observations are returned to in Section 5.

4. Affordability activity underway

The scale of activity

Affordability activity in New Zealand spans government programmes, regulator initiatives, retailer-led support, network and industry contributions, community-based delivery, and iwi-led activity. The Working Group identified over 49 initiatives currently in operation, set out in the companion appendices document. Identifiable annual funding estimates total approximately \$677 million, with explicit budgetary data available for 8 of the 49 initiatives.

Substantial additional support (including: retailer hardship programmes and debt write-offs reported as 'tens of millions' annually; iwi and community contributions; philanthropic donations of items such as bedding, curtains and heaters; and cross-agency support delivered through health, social and budgeting services) is not centrally quantified.

Total system effort is materially higher than the headline figure but is not visible at system level.

Government programmes

Government activity is led by the Winter Energy Payment (\$577 million in FY25, reaching around 774,000 recipients), Warmer Kiwi Homes (around \$85 million per year, more than 110,000 retrofits delivered), and the Healthy Homes Initiative (associated with around a 20% reduction in hospitalisations among target populations). The Healthy Homes Standards apply to more than 285,000 rental properties, with an evaluated benefit-cost ratio of 1.28–1.34. The SEEC Fund, with a benefit-cost ratio of 2.21, supports community-led energy education. MSD administers Special Needs Grants for energy hardship, alongside the Winter Energy Payment. Te Puni Kōkiri coordinates repairs to whānau homes through a kaupapa Māori-led housing repair programme.

Regulator activity

The Electricity Authority is implementing a programme of consumer-facing rules and protections, including the Consumer Care Obligations, better billing improvements taking effect from October 2026, mandated retail data monitoring, ongoing consumer sentiment surveying, and the launch of a new comparison and switching service ('Billy'). The Commerce Commission is considering a trailing-average regulatory return treatment intended to smooth bill spikes from 2030.

Industry and retailer activity

The Power Credits Scheme, backed by gentailers and networks, has been extended to 2032 and provides ongoing direct credit support to hardship-eligible households. Retailer-led hardship programmes operate across the major retailers, including Contact Energy's HandUp (\$500,000 in 2024 reaching around 3,500 households), and equivalents at Mercury, Genesis, and Meridian, with debt write-offs across the sector reported at 'tens of millions' annually. Social retailing has been progressed through Toast Electric (offering a 30% winter tariff discount to low-credit customers) and Nau Mai Ra (both organisations supported by the Generator-Retailers). The EDB Energy Hardship Forum coordinates more than 30 regional programmes across distribution networks, and ERGANZ-led referral networks provide a centralised pathway for households seeking support.

Business-targeted activity

Business-focused activity is led predominantly by EECA, including the Heat Pump Activator Initiative for industrial and SME process heat conversion, the Efficient Demand Flexibility Fund co-funding battery storage for businesses, industry-specific advice and guidance such as energy assessments for gas-dependent businesses, the Feasibility and Business Case Fund supporting technical viability assessments, the Low Emissions Heavy Vehicle Fund, and the Starting Energy Management Journey programme for SMEs. These initiatives address energy cost exposure, the gas transition, and access to capability and capital for businesses managing through the transition.

Composition of effort

Activity is not evenly distributed across mechanism types or funding.

Mechanism type	Share of initiatives	Share of identifiable funding
Advice and information	41%	<1%
Reduce or shift consumption (structural)	27%	~14%
Direct financial support	12%	~85%
Improve non-price terms (regulation)	8%	n/a
Increase or manage income	6%	(captured under direct support)
Facilitate group schemes	6%	n/a

Source: Working Group analysis of 49 mapped initiatives. Full breakdown in the companion appendices.

Approximately 85% of identifiable funding flows through direct financial support, predominantly the Winter Energy Payment (\$577 million in FY25, reaching around 774,000 households). Around 14% flows through structural interventions (insulation, efficient heating, retrofit, distributed generation), and less than 1% through advisory and information programmes. All modes are necessary. Direct financial support addresses immediate hardship and protects households from acute price exposure. Structural interventions reduce a household's underlying energy demand and the cost the household pays over time.

A developing pipeline of proposed initiatives

Alongside activity currently in operation, a pipeline of proposed initiatives has been developed but is not yet funded or in delivery. These include:

- **Community Network Initiative** — a proposed national support network to reach hidden energy hardship, with an estimated operational cost in the order of \$1 million per year for a core team. Proposed by Sea Rotmann (SEA) in research commissioned by Genesis Energy and Mercury.
- **Deep Retrofit Programme** — targeting 200,000 of the coldest homes for major thermal and energy retrofit, with indicative cost in the order of \$640 million per year if delivered at the scale identified. Proposed by the New Zealand Green Building Council in its *Existing Homes Roadmap*.
- **National Home Improvement Loans** — low-interest, government-backed finance to cover residual costs of energy efficiency upgrades not met by grants, targeting 250,000 energy-efficient homes by 2035. Proposed by the New Zealand Green Building Council.
- **Social retailing scaling** — expansion of the social retailing model currently delivered by Toast Electric and proposed as a component of the Community Network Initiative framework.
- **Energy Performance Certificates** — a national framework for transparent home energy performance ratings, proposed for trial by 2026 with target grades made mandatory for sale or rental by 2030. Proposed by the New Zealand Green Building Council, with MBIE recommended to establish the framework.
- **EECA Technology Guidance for SMEs** — expansion of practical guidance for small and medium businesses on energy management, technology upgrades, heat pump activation, and emissions reduction.

The pipeline shows that significant thinking has been done on structural interventions that would reduce household and business energy costs durably. The components are proposals, not commitments. None is currently in delivery at the scale identified, and several rely on funding mechanisms that have not yet been established.

Access, funding, and the finance gap

Access to affordability initiatives is uneven. Households with the greatest need often face the greatest barriers to participation, including lack of upfront capital, poor-quality or rental housing, limited access to trusted information or delivery channels, and digital or administrative friction.

A funding gap is evident: households and businesses that would benefit most from structural improvements (insulation, efficient heating, electrification, distributed generation) are typically least able to fund the upfront investment.

A finance gap sits alongside the funding gap. Funding (grants and direct support) will continue to be needed for the households with no realistic path to structural investment on their own. For a much larger group, what is missing is access to affordable, long-term finance for upfront investment in things like efficient hot water systems, heat pumps, insulation, solar, and batteries.

Unlocking finance access for this wider group matters both for affordability (lower bills over time for participating households) and for system cost (lower peak demand and deferred network investment for all customers).

This dynamic also affects a proportion of small and medium businesses, which lack the tools and capability to manage energy price risk or to identify viable pathways to electrification, and which face step changes in cost when contracts are renewed. Larger commercial and industrial users, even where they can access brokering services, can find it challenging to secure affordable long-term electricity supply, particularly when the market is stressed. For users reliant on gas, the transition introduces additional cost, uncertainty, and the risk of stranded investment.

Hidden hardship

Stakeholders consistently describe a category of hardship not visible in standard measures. Some households restrict energy use or prioritise energy payments over other essentials (food, healthcare, transport), and so do not appear in disconnection or arrears data.

Recent regulator and stakeholder evidence indicates that standard measures may understate the scale of the issue (Electricity Authority Consumer Sentiment Survey, 2025; FinCap stakeholder evidence). This means the headline hardship indicators in this report (bill stress, arrears, borrowing, disconnections) are likely a partial picture.

5. What we found

Three specific findings from the mapping demonstrate the gap identified in the executive summary. Each is a finding about the pattern of activity at system level, not a reflection on individual programmes or actors.

Finding 1 — Affordability investment is significant, but is weighted toward recurring support rather than the structural change that would durably reduce hardship — and reduce system cost

Energy hardship indicators are deteriorating, against a backdrop of broader cost-of-living pressure. New Zealand households have been navigating sustained increases in food, housing, transport, and other essentials through the post-pandemic period, with disposable income compressed across much of the income distribution. For many households, energy is one pressure among several rather than the only pressure, and the visible indicators on energy reflect both the energy bill itself and the household's reduced capacity to absorb pressure of any kind. The households facing the greatest cost-of-living pressure are also typically the households for whom the projected energy price trajectory will compound that pressure most directly.

Within that context, energy-specific indicators are moving the wrong way. Bill stress, arrears, and reported borrowing to pay bills are rising. An estimated 140,000 households are reported to have taken out loans to pay electricity bills (Consumer NZ, 2024); approximately 485,000 households were behind on their utility bills as at May 2025 (Centrix, June 2025 Credit Indicator Report). Stakeholders describe a category

of hidden hardship not captured in standard measures and report that the scale of need is outpacing the system's response. The projected price trajectory through to 2029 (a 16% real residential price rise, with lines charges rising 25–35% in real terms) will increase pressure further, not ease it. The trajectory is largely already locked in.

At the same time, evidence is clear that structural interventions sustainably reduce a household's total energy costs and the demand it places on the system. Insulation, efficient electric heating, electrified transport, and behind-the-meter solar and storage are documented to deliver durable household savings. Warmer Kiwi Homes households report sustained energy cost reductions of \$1,000 or more per year (Rewiring Aotearoa, Electric Homes, 2024). The mechanism for changing a household's underlying energy position is established, evidenced, and operating, but at small scale relative to need.

Approximately 85% of identifiable affordability funding is currently directed to direct financial support, and 14% to structural interventions. Direct financial support is necessary and addresses real, immediate hardship; it cannot be removed without harm. However, with different actors supporting consumers – including government, retailers, networks, and NGOs – there is a risk of duplication. Equally, consumer confusion and a lack of alignment between actors mean that consumers may not gain the maximum benefit from this spend.

The current balance is weighted toward managing today's hardship rather than reducing it. Households who would benefit most from structural change are typically least able to fund it on their own, so without targeted support they remain exposed to the price trajectory. The pipeline of proposed structural initiatives identified in Section 4 is a sign that further action has been designed; it is not yet in delivery.

The opportunity to capture more from the same investment is significant. Structural investment in the households facing greatest hardship would deliver three benefits at once:

- durably lower bills for the household, through better warmth, better health outcomes, lower exposure to future price rises;
- an affordability budget that builds cumulative impact rather than carrying recurring cost, so the same household does not return to the support system every year; and
- a system carrying less demand at peak, which reduces the investment required and therefore the bill everyone pays.

The investment to capture this opportunity already exists in the system. It is currently weighted toward recurring support. Repurposing a portion of it over time, alongside maintaining direct support for households who cannot access structural change, would close the funding gap that currently prevents most lower-income households from acting on their own. This balance is a system choice, not a fixed outcome.

Finding 2 — Major opportunities to lower system cost are documented but not yet being pursued at the scale or pace the evidence supports

Three specific instances stand out from the mapping.

Renewal — the largest single driver of system cost

Renewal of existing network assets accounts for approximately \$13 billion of the roughly \$15 billion of lines investment forecast through to 2030, and is the largest single driver of system cost over the period. Within the current regulatory and asset management settings, this investment is closely scrutinised. Asset management plans set out condition-based and risk-based replacement priorities, the Commerce Commission tests proposed expenditure against the long-term interest of consumers through DPP and CPP processes, and the regulator routinely constrains what is allowed to flow through to bills. Significant work is in train to deliver renewal as efficiently as possible, through standardised designs, shared spares, joint procurement, and improved asset health data.

What has had less attention is the prior question of how the system itself drives renewal to occur in the way it does. Service standards, reliability targets, demand and electrification assumptions, the architecture of supply (including the role of customer-side investment, flexibility, and alternative supply

models in some parts of the network), and the specifications to which renewed assets are built, all shape the underlying volume and cost of renewal that the system requires.

These are system-design questions, not asset-by-asset questions, and they sit above any individual network business or regulator. The opportunity is not to defer or underspend on renewal within current settings, which would carry real safety and reliability risks. It is to ask whether changes to the underlying system design could deliver the same or better reliability and safety outcomes at lower long-term cost. That question has not yet had the systemic synthesis it warrants.

Self-imposed cost drivers beyond consenting and traffic management

Reform programmes are underway on consenting and traffic management, addressing soft costs that are well-documented and well-named. Beyond these, there is no equivalent system-wide review of other regulatory, procurement, planning, or process settings that may be adding avoidable cost across the value chain. The drivers that have been examined are those that have been named; drivers that haven't been named haven't been examined.

Whether other settings, across regulatory determination processes, supply chain coordination, standards interpretation, sequencing of investment programmes, or internal investment in systems and processes (e.g. billing systems), are adding avoidable cost is not currently visible at system level.

Flexibility at scale

Flexibility represents one of the most significant identified opportunities to reduce long-term system cost. Capable of avoiding more than \$10 billion of system cost over time, with around 2 GW required by 2030 to stay on that trajectory, flexibility at scale would defer or displace investment in network capacity that would otherwise need to be built.

Activity is underway across networks, retailers, the Electricity Authority, and FlexForum to develop the products, market arrangements, and consumer offerings that flexibility at scale requires. Where flexibility is already being applied to defer specific investment, it is working. Transpower is using competitive procurement of non-network solutions in the upper South Island and the western Bay of Plenty, with promising early outcomes. Several distribution businesses are using flexibility to defer specific capex.

Despite this, the system is not on track to deliver the scale required. The policy, market rules, and pricing settings needed to convert pilots and trials into scaled deployment are not yet in place. Cost-reflective pricing signals are not consistently reaching customers. Flexible trading relationship arrangements that would allow customers, retailers, and networks to share the value of flexibility are not yet enabled at scale, though there are ongoing questions about the level of consumer demand.

The timing of when constraints emerge differs across networks, which creates a coordination problem no single actor can solve. Without the scaffolding to bridge these gaps, the default outcome is that investment will occur to keep the lights on, and the cost savings flexibility offers will not be captured. This is a system-level problem that warrants targeted attention in Stage 2.

Finding 3 — Transport sits outside the affordability frame

Transport is the largest single component of household energy expenditure for most New Zealand households. Transport energy costs have shown significant volatility, with recent fuel price shocks demonstrating the scale of exposure. The electrification of transport represents the largest single household-cost-reduction opportunity available, in the order of thousands of dollars per year per household where transport energy can be shifted from petrol or diesel to electricity, with substantial co-benefits at system level through flexibility participation.

Despite this, transport energy is not formally included within current affordability frameworks. The 49 mapped initiatives are predominantly electricity-focused, with limited consideration of transport. The result is that:

- the picture of total household energy stress is partial. It captures electricity bills but not the transport energy spend that is, for many households, larger;

- the largest single household-cost-reduction opportunity available is not visible to affordability policy or programme design; and
- the system benefits available from EV flexibility participation are not being captured by affordability policy that could otherwise help direct EV uptake into the households that would benefit most.

As gas transition continues to reduce one fuel option for industrial users, and as electrification of transport accelerates, the cost of leaving transport outside the affordability frame increases.

6. Stage 2 priority areas

Stage 2 will pull together existing analysis on the priority areas below to set out a clear view in each, and return advice to the Steering Group on (i) where cross-sector work could add value, (ii) how it would interact with work already underway, and (iii) whether the Framework should play a convening, supporting, or coordinating role.

Stage 2 is synthesis, not new analysis. The Working Group's value-add is looking across analysis being done in different places against the questions identified in this report, and arriving at findings that no individual existing piece of work reaches on its own.

Priority area A — Designing affordability action against the changing system

From Finding 1.

Pull together what is already known about how the current allocation between recurring support and structural intervention is likely to perform, given how prices and the system are changing. Look at how a different balance over time, while keeping direct support for households who cannot access structural change, could reduce hardship more durably, reduce peak demand, and lower long-run system cost. Identify what work has already been done on closing the funding gap that prevents lower-income households acting on their own, and where the gaps in the evidence still sit.

This priority area should also explicitly include the gas transition. As gas costs rise and supply contracts, the affordability impacts on remaining users (households and SMEs unable to electrify quickly, including those without access to upfront capital) will concentrate on those least able to absorb them. Wellington is a useful case study, with significant numbers of gas-connected households facing decisions on conversion against a backdrop of network and supply changes. Priority area A should pull together what is already known about how the gas transition will play out for households and businesses, what affordability supports are available or planned, and where the gaps sit.

This priority area will also draw on the pipeline of proposed initiatives identified in Section 4, several of which (deep retrofit, home improvement loans, energy performance certificates) are direct candidates for the structural interventions Finding 1 identifies as undersupplied.

Priority area B — Capturing the opportunities to lower system cost

From Finding 2.

Pull together existing analysis on three areas where the size of the opportunity is well documented but the visible effort across the system is below what the evidence supports:

- **Renewal** — what is already known about whether and where the level of renewal investment can be reduced, alongside delivering it efficiently — including alternative system design, service standards, and delivery models.
- **Process and regulatory cost drivers beyond consenting and traffic management** — what other settings, across the value chain, may be adding avoidable cost.
- **Flexibility at scale** — drawing on the FlexForum plan, regulator correspondence, current pilots, and participant views, to set out clearly what it will take to deliver around 2 GW of flexibility by 2030, and where the Framework can help build the shared urgency required.

Priority area C — Bringing transport into the affordability frame

From Finding 3.

Pull together existing work on household and business transport energy spend, the economics of transport electrification, and the system benefits of EV flexibility, to set out what including transport in the affordability frame would change. Identify what is already known and where, and what changes to scope, data, and institutional arrangements would be needed to address transport alongside electricity and gas.

International evidence

Stage 2 will also draw on relevant international evidence on coordinated approaches to system cost and affordability. International examples were identified during Stage 1 and have been held for the next phase of work, alongside the priority areas above.

7. Recommendation to the CE Steering Group

The CE Steering Group is invited to:

- **(i) Note** the Stage 1 mapping and findings set out in this report.
- **(ii) Identify** any material activity or evidence the Working Group should add before Stage 2 begins, particularly work the Steering Group is aware of that is not visible in this report.
- **(iii) Endorse** the Stage 2 priority areas in Section 6, on the basis that Stage 2 will pull together existing analysis to set out a clear view in each area, and return advice to the Steering Group on (a) where cross-sector work could add value, (b) how it would interact with work already underway, and (c) whether the Framework should play a convening, supporting, or coordinating role.
- **(iv) Direct** the Working Group to report back to the next quarterly Steering Group meeting in August/September 2026.
- **(v) Note** that the Government has signalled a review of Part 4 of the Commerce Act. The Working Group's findings on system cost, regulated investment, and the coordination gaps identified in this report should be considered as part of the scope of that review.

This report reflects activity and analysis visible to the Working Group at the time of writing. The Working Group welcomes input from the Steering Group on any material initiatives, perspectives, or gaps not captured, to inform the design and scope of Stage 2.

Appendices

Supporting material is provided in a separate document, Cost & Affordability Working Group — Stage 1 Report: Appendices. The appendices comprise:

- **Appendix 1** — Framework for understanding household energy hardship (MBIE energy wellbeing framework)
- **Appendix 2** — Mechanism-type framework used to classify affordability initiatives
- **Appendix 3** — Register of mapped affordability initiatives (n=49)
- **Appendix 4** — Pipeline of proposed initiatives identified during Stage 1
- **Appendix 5** — System cost projections and component breakdowns
- **Appendix 6** — Detailed analysis of affordability initiatives by mechanism type and funding allocation
- **Appendix 7** — Analysis of cost-reduction actions by alignment with material drivers
- **Appendix 8** — Sources and references