Final report and recommended actions

Gas working group

November 2025

Completed as a workstream under the Energy Transition Framework

1 EXECUTIVE SUMMARY

New Zealand faces a growing and increasingly unavoidable whole-of-system energy security challenge. Declining natural gas supply—combined with long lead times for major industrial fuel switching and electricity system build-out—means the risk of an energy shortage is rising, and current actions are unlikely to be sufficient to manage it.

This challenge is frequently conflated with electricity system security. While related, the two problems are not the same. Electricity represents only one part of New Zealand's energy system, and gas plays multiple roles that electricity alone cannot readily substitute in the near term. In 2022, natural gas accounted for ~20% of total energy supply and ~40% of domestic energy production[1]; by 2025, supply has effectively halved[2]. Gas supply is projected to run 10PJ short of demand in 2026 and by around ~20PJ by 2027[3]. In addition to this direct shortage, Gas has been central to system flexibility—providing direct process heat for industry and indirect support for electricity generation—often acting as a buffer during periods of system stress.

Without addressing energy security risk, affordability pressures are likely to intensify.

Since August, the Gas Working Group has reviewed further supply information, scenario analysis, and market and system impacts. Across all reasonable views of supply and demand, the conclusion is clear:

New Zealand is on a trajectory where gas supply is unlikely to meet demand, the risk of an energy shortage is real, growing, urgent — and current actions are insufficient.

This report brings together updated information since the initial Working Group report. It:

- Confirms that New Zealand faces a material and time-critical energy security risk
- Recommends actions across four areas:
    1. Increasing supply and system flexibility — including upstream coordination, storage development, and progressing LNG feasibility (or rapid alternatives if LNG is not viable).
    2. Lowering demand — through accelerated C&I electrification and fuel switching, addressing structural barriers, and developing a demand-side investment mechanism.
    3. Improving market mechanisms — to strengthen system visibility, improve investment signals, and support emerging firming fuels.
    4. Strengthening clarity and consistency of message — through clearer communication of supply trajectories and risks, and establishing an integrated long-term energy strategy.
- Sets out the practical steps the Energy Transition Framework can take now, and highlights the areas requiring Government action.

What we are seeking from the CE Steering Group - Directional alignment that faster-paced action is required, and confirmation that the Framework should progress the actions within its remit.

[1] https://www.mbie.govt.nz/dmsdocument/27344-energy-in-new-zealand-2023-pdf
[2] https://www.energymix.co.nz/our-consumption/new-zealands-consumption/
[3] BCG, Energy to Grow, November 2025, page 56

2 GAS WORKING GROUP

The initial report completed by the Gas Working Group set out what the group was asked to do, why and who is in the group.

A summary of this is that this Gas Working Group was asked by the Framework Chief Executive Steering Group, to review what is currently known about the gas system and determine whether any additional actions (over and above those already underway) may be required to support New Zealand's gas system.
The proposed approach for the group was to work through:

- Is there an information gap? If so, how to fill it?
- Based on the information, is there a problem?
- Can we improve existing market mechanisms to address the problem?
- Do we need any further actions or broader transition actions to support those market mechanisms?

The initial report provided a summary of the first two steps - the review of current information to identify gaps and, based on the known information, whether there are any emerging problems. This report summarises what has been found through reviewing further information and analysis to confirm whether there is a problem, making recommendations on ways to improve existing market mechanisms and broader actions to support the market mechanisms.

3 INFORMATION REVIEWED

The initial report identified key information gaps, being:

1. More information needed on supply and demand scenarios (including downside scenarios)
2. Understanding the economic impacts of the current gas market and cost of transition
3. Creating a systems-wide view of alternatives

3.1 GATHERING MORE INFORMATION FOR THE IDENTIFIED GAPS

Following the initial report, the Gas Working Group has:

- Met with BCG who are completing work on the energy transition in New Zealand (see report Energy to Grow: Securing New Zealand's future, released on 19 November 2025). This provided a view of more information on supply and demand, and a partial view of the systems-wide view of alternatives (items 1 and 3).
- Worked with the GIC on the annual Gas Supply and Demand scenarios to be completed for 2025. This will likely provide information on items 1 and 3.
- Worked with MBIE on their procurement of economic analysis on impacts of gas shortage and LNG options (item 2).
- Participated in several conversations specifically focused on LNG.

3.2 ADDITIONAL REPORTS

Following the initial report, there have been several announcements and further information / reports completed that are relevant to this work, including:

- the New Zealand Government announced their Energy Package, which includes a number of actions focused on security of supply. The Government also announced a broadening of the scope for this gas security fund.

- The Government has also released a Wood strategy and action plan and a Biogas strategy.
- Transpower has continued their consultations for Te Kanupu - including future scenarios, which capture a view of scenarios of C&I electrification.
- Castilia completed analysis for GIC and EECA on the potential costs related to switching off of the gas network.

4 DO WE HAVE A PROBLEM?

Yes – and current actions are not enough. We need to do more.

The information reviewed by the Gas Working Group makes clear that New Zealand faces a growing and increasingly unavoidable risk of an energy shortage. Since the group began working in August, the supply outlook has deteriorated further, reinforcing the seriousness of the situation.

Projections for 2026 provide an example of the potential deterioration. Demand is expected to be around 101 PJ, even after accounting for reductions in gas use for electricity generation. Forecast supply spans a wide range — 73 PJ to 101 PJ — reflecting uncertainty in upstream investment, field performance, and timing of key decisions. This uncertainty is material: in most scenarios, supply fails to meet expected demand, and the gap widens further through the next decade[4]. For example, BCG's Managed Transition Forecast shows demand exceeding supply in 2026 by 10PJ, with the shortage doubling to 20PJ in 2027[5]. 20PJ is about the consumption of Methanex, or all electricity generation in 2025.

The consequences of a shortfall are much more significant than the risk of oversupply. Falling short of supply brings the risk of industrial exits and broader economic disruption. While full economic analysis is still underway, the indications from industrial users and recent system behaviour suggest that the impacts of a shortage could be significant[6].

Such a shortage is likely to impact a large number of New Zealand businesses and have wide-reaching impact. To provide some sense of scale, currently there are 294 industrial users with an annual average demand of 128 TJ, 15,561 commercial users with an annual average demand of 500 GJ and 290,360 residential users with an annual average demand of 25 GJ[7]. Hence outside the six main electricity and petrochemical loads, demand is dispersed among a large number of actors and therefore coordination is difficult. Supply, on the other hand, is linked to 6 main fields, with attendant concentration risk should one field fail.

Hence, the solution options to manage a supply shortage are limited and demand cannot be reduced by changing energy sources at the flick of a switch. Evidence from users who have completed or assessed major fuel-switching (coal/gas to electricity or biomass) transitions

[4] BCG analysis, 2025, page 62, Energy to Grow: Securing New Zealand's future
[5] BCG analysis, 2025, page 60, Energy to Grow: Securing New Zealand's future
[6] For example, the responses to the BEC survey of gas users - https://businessnz.org.nz/wp-content/uploads/2025/08/250811-Industrial-and-Commercial-Gas-Consumers-Survey.pdf
[7] MBIE Gas Statistics: gas-quarterly-webtable-june-2025.xlsx, GIC gas switching statistics: Microsoft Power BI

indicates that projects typically require 3–5 years to progress from initiation to completion[8]. This means that the system lacks the flexibility required to manage a near-term tightening of supply.

SUMMARY: The working group's assessment is that New Zealand does have a problem — one that is growing, increasingly unavoidable, and urgent. While some actions are in train and a level of response is occurring, more needs to be done – NOW. Without greater clarity and coordinated action, the risk of an energy shortage will continue to rise, with significant negative outcomes for New Zealand.

5 RECOMMENDED ACTIONS

With an increasing risk of an energy shortage, taking action involves looking at ways to either: (1) create more supply; or (2) lower demand. The GWG has found that this isn't an either/or situation - to best manage this risk the GWG recommend taking action to do both.

5.1 INCREASING SUPPLY

5.1.1 Improve economics for a sub-scale upstream sector

Issue:

- Development economics are weak due to New Zealand's high-cost, sub-scale upstream environment and limited availability of rigs, specialised equipment, and skilled personnel.
- Current asset ownership and competition settings limit opportunities to coordinate upstream activities (e.g., drilling campaigns, production station rationalisation, logistics), increasing cost and constraining development.
- Offshore decommissioning costs are significant and may bring forward field closures unless coordinated, sequenced, and shared across operators.

Recommended actions:

- Broaden the Gas Security Fund remit to support shared rig campaigns, plant sharing, short-term development activity, and other measures that reduce the cost of bringing supply to market.
- Establish safe-harbour processes or facilitated coordination environments to enable operators to explore shared infrastructure and development opportunities without breaching competition law.
- Support coordinated offshore decommissioning campaigns to reduce cost, improve field viability, and avoid premature closure.

Owners:

Lead: MBIE; others - Government (Gas Security Fund governance), Commerce Commission and upstream operators.

[8] For example, Fonterra have a sophisticated programme to transition its fossil fuel facilities and experience in implementation to date. This has shown that for an large, experienced organization project timeframes of 2-3 years are likely.

5.1.2 Unlock gas storage and system flexibility

Issue:

- New Zealand has limited gas storage capacity, reducing system flexibility (particularly if Methanex closes[9]) and increasing exposure to seasonal variability and supply shocks.
- The Crown Minerals Act and royalty settings — including upfront royalties for converting production licence facilities (PMP) into storage facilities — may inhibit the development of new gas storage options, such as conversion of depleted fields.
- Permitting and investment barriers slow the development of underground storage or LNG storage options that could support winter energy security and smooth intra-year volatility.

Recommended actions:

- Support development of additional gas storage through streamlined permitting and access to the Gas Security Fund for storage-related investment.
- Remove Crown Minerals Act/royalty barriers that restrict storage development.

Owners:
Lead: MBIE; others - Government (Gas Security Fund governance), Treasury, upstream operators.

5.1.3 Progress LNG feasibility and prepare for alternative pathways

Issue:

- LNG may provide an additional source of supply to support domestic demand, system resilience, and gas system flexibility.
- LNG infrastructure costs (import terminals, storage, shipping) may increase domestic gas prices unless costs are managed system-wide, which could further challenge affordability for industrial users.
- Work to understand feasibility, sizing, cost impacts, and system integration will reduce uncertainties.
- If LNG is assessed as non-viable — whether due to cost, timing, scale, or system impacts — New Zealand will require alternative supply-security actions at pace.

Recommended actions:

- We support the Government-led work on LNG under the Energy Package to clarify feasibility, optimal sizing, cost impacts, commercial constructs, and system-wide consequences (beyond electricity security alone).
- If LNG is identified as a viable option, the commercial constructs to enable it should:
    - incentivise a time-limited role aligned with transition objectives,
    - avoid creating long-term dependence on LNG, and
    - socialise infrastructure costs where appropriate to minimise market distortions and maintain affordability.
- If Government analysis concludes that LNG is not suitable or cannot be delivered in time, alternative supply and resilience actions need to be pursued at pace (ideally in parallel), including accelerated gas storage development, enhanced upstream

[9] BCG analysis, 2025, page 56, Energy to Grow: Securing New Zealand's future

coordination, alternative energy sources and other measures identified through this work programme.

Owners:

Lead: MBIE, others: Government (Cabinet), upstream operators, system transmission provider, gas system experts.

5.2 LOWERING DEMAND

Issue:

- Reducing demand is a critical counterpart to increasing supply if New Zealand is to manage the widening supply–demand gap and avoid disorderly outcomes. Demand-side reduction reduces system-wide risk just as effectively as additional supply.
- It is expected that, with the increase in renewable electricity generation in the pipeline, gas use for electricity generation will decrease significantly, helping to manage the impact of the shortage. For example, the 23 PJ of gas used for electricity in 2025 is expected to step down to 15PJ in 2026 and 9PJ by 2030[10].
- Unlike the upstream sector, the demand side is highly fragmented, involving a large number of commercial and industrial decision-makers, each with different technical, financial and operational constraints. This makes coordinated investment inherently more complex than supply-side actions.
- Some C&I users can already convert to alternative fuels, with the potential to reduce gas demand by 1 PJ in 2026, 3 PJ in 2027, and 5 PJ in 2028, but decision lead-times of 3–5 years mean these opportunities will be lost without early action.
- Electricity supply contracts are evolving to incorporate more innovative commercial constructs that recognise the system-level benefits of industrial heat decarbonisation. Further evolution of these constructs is required to accelerate adoption.
- Network upgrade requirements can introduce major cost and timing barriers to electrification. The EECA RETA reports identified that in many cases, battery storage can be a practical and lower-cost alternative to network upgrades — particularly when considering different levels of connection security (e.g., N vs N-1).
- These and other technical, engineering, financing, and network-connection barriers are being addressed through the Framework's workstream on removing finance-related barriers to C&I electrification.
- Some domestic gas users may be able to easily convert to LPG as an alternative. While domestic LPG supply will decline alongside domestic gas, it is also currently imported with existing import and storage structures. Depending on the use case, the increased price may be acceptable. A consolidated view of energy supply alternatives (across biomass, electricity, biogas and LPG) could help show whether existing import and storage facilities require expansion.
- There is general risk aversion and scepticism toward new technologies, with most users preferring proven solutions. This makes technology demonstration projects essential to build confidence, validate performance, and demonstrate that technical complexities can be managed. Momentum and learning-by-doing are critical: adoption is slower when early projects proceed in isolation, with many users wanting to see a fully implemented, operational project before committing capital.

[10] BCG analysis, 2025, page 62, Energy to Grow: Securing New Zealand's future

- Current Government settings provide investment mechanisms on the supply side (e.g., Gas Security Fund) but there is no equivalent mechanism on the demand side, despite both being necessary to address the system-level risk from declining supply.
- Given the projected supply trajectory, demand-side reduction is as important as supply-side investment in maintaining system stability — but requires tailored, more complex investment approaches.

Recommended actions:

- Develop a Government-led demand-side investment mechanism calibrated to the complexity and scale of C&I decision-making, providing a structured pathway for businesses to transition in line with the projected supply decline. This should stand as the natural counterpart to the existing supply-side fund, recognising that managing system risk requires investment on both sides of the equation.
- This mechanism can leverage the solutions being developed within the Framework's Finance-Related Barriers to C&I Electrification workstream, which will enable coordinated action across business case development, contract structuring, finance access, and network connection solutions.
- Prioritise technical and barrier removal support for conversions that are already commercially viable but stalled by coordination, information, or timing barriers — enabling early, system-impactful reductions in demand.
- Government to play a role in support of demonstration projects that can be used strategically to accelerate learning, reduce user risk aversion, and build confidence in new technologies across the wider sector.

Owners:

- Lead: EECA; others, Government (MBIE, Treasury), Framework participants (particularly workstream leads in the C&I conversion workstream), industrial gas users.

5.3 MARKET IMPROVEMENTS

5.3.1 Establish consistent, system-wide visibility of energy security

Issue:

- New Zealand does not currently have a single, enduring mechanism responsible for providing clear, regular, system-wide visibility of energy security across gas, electricity, and emerging fuels.
- The work to improve transparency of information on gas under the Government Energy Package is a good start, but it does not yet constitute a sustained oversight function with accountability for monitoring long-term supply–demand balance or signalling emerging risks.
- Forecasts of future gas supply, electricity generation, and infrastructure readiness are fragmented and provide a view on only parts of the overall energy system. New Zealand lacks a consistent process for scanning, stress-testing, and communicating overall energy system risks.
- As gas supply declines, the timely delivery of new electricity generation and enabling infrastructure becomes increasingly important for overall energy security. However, uncertainty remains about whether current planning, consenting, and connection processes will deliver the required build-out on time.

- Without clear, integrated visibility of projected supply, demand, and build trajectories, market participants face higher uncertainty, and investment signals may be weaker or delayed.

Recommended actions:

- Establish a system-wide energy security oversight function, building on the gas transparency work underway in the Government Energy Package, with responsibility for:
    - monitoring long-term supply–demand balance across gas, electricity, and emerging fuels;
    - providing regular public updates (e.g., an annual "Energy Security Statement of Opportunities" covering electricity, gas, and firming fuels);
    - signalling emerging shortfalls early, allowing industry and Government to respond proactively.
- Ensure that expectations for RM reform and connection processes translate into measurable improvements in the timeframes and certainty for new generation and infrastructure delivery.
- Stress-test New Zealand's generation and infrastructure pipeline against plausible demand and gas-decline scenarios to determine whether build-out is on track to maintain system adequacy over the next 5–10 years.
- Integrate these insights into regular, transparent reporting so investors, developers, and large users can make informed decisions.

Owners:

Lead: MBIE, others, Transpower.

5.3.2 Support market mechanisms that enable continuation of supply and development of emerging firming fuels

Issue:

- Existing market settings do not provide clear, long-term signals that support the continuation of marginal gas supply or the emergence of alternative firming fuels such as biogas and biomass.
- Declining gas supply increases the importance of alternative firming options for system security, yet early-stage fuels face higher costs, uncertain revenue paths, and limited offtake certainty.
- Without mechanisms that recognise the system-level value of firming fuels during the transition, private investment is likely to remain slow, even where technologies have clear long-term potential.
- International experience (e.g., the UK and Denmark) demonstrates that structured, technology-neutral mechanisms can stimulate new fuel industries while delivering environmental and reliability benefits.
- Work underway through the Government's Energy Package on market design for firming presents a timely opportunity to integrate emerging fuels into future market structures, rather than pursuing bespoke programmes for each technology.

Recommended actions:

- Through the Energy Package market design work, develop mechanisms that:

    - provide long-term revenue or offtake certainty for emerging firming fuels (such as biogas and biomass), enabling early investment despite higher initial costs;
    - recognise system-wide resilience benefits of diversified firming options during the transition period; and
    - are as technology-neutral as practicable, avoiding the need for multiple bespoke interventions and enabling new fuels to scale as their costs fall.
- Work with sector participants to identify scalable, cost-effective bridging mechanisms (noting several models could be used) that provide confidence to investors while maintaining competitive market outcomes.
- Ensure the design of firming market mechanisms complements the system-wide oversight function in Section 3.1, using consistent assumptions about gas decline, emerging fuel potential, and future electricity system needs.

Owners:

Lead: Electricity Authority, others MBIE, GIC, Transpower, sector participants.

5.4 CONSISTENCY AND CLARITY OF MESSAGE

5.4.1 Provide clear, consistent, and audience-specific messaging on energy security

Issue:

- There is currently insufficient clarity across the sector — particularly among gas users — about the scale and immediacy of New Zealand's emerging energy shortage. This uncertainty is delaying fuel-switching, slowing business planning, and constraining investment decisions.
- Different user groups (households, businesses, and industrial users) have distinct concerns and decision-making horizons. Messaging that is not tailored can create confusion, undermine confidence, or prompt premature or unnecessary consumer responses.
- Households, in particular, require clarity on the continued availability of gas for home use and the expected price trajectory. Lack of information can create self-reinforcing anxiety, amplified by media coverage, even where no credible risk to household gas availability exists.
- Businesses and industrial users require more detailed visibility on supply trajectories and price paths to determine the timing, sequencing, and feasibility of major energy-related investments.
- Without clear, targeted messaging aligned with system-wide oversight, users cannot respond efficiently to the risks posed by the declining gas supply.

Recommended actions:

- Provide clear, timely communication on the emerging supply–demand imbalance, the plausible range of gas supply trajectories, and implications for different user groups.
- Develop tailored messaging for households, businesses, and industrial users that reflects:
    - the specific risks and timeframes relevant to each group;
    - any reassurance that can credibly be provided (e.g., where household access to gas is not at risk);
    - consistent system-wide signals for investment planning.

- Align all messaging with the system-wide energy security oversight function recommended earlier in this report, ensuring information is accurate, consistent, and regularly updated.

Owners:

Lead: Framework participants (through Powering Change); others, BEC, MBIE, consumer agencies, EECA, sector bodies (e.g. MUEG).

5.4.2 Establish clear Government direction on New Zealand's energy transition

Issue:

- New Zealand lacks an integrated, long-term energy strategy that clarifies the role of gas and other fuels across the transition period.
- Current workstreams (e.g., the Government Energy Package, wood strategy, geothermal strategy, biogas statement) remain fragmented and do not provide a coherent view of the overall transition pathway.
- Regulators and asset owners—such as the Commerce Commission and pipeline operators—require overarching policy direction to make prudent decisions on key elements like right-sizing, decommissioning, and new connection cost recovery for gas infrastructure. These decisions cannot be made efficiently without clear Government expectations for the transition.
- Most comparable countries publish long-term energy strategies that guide infrastructure planning, attract capital, and reduce investor uncertainty. New Zealand's absence of such a strategic framework limits timely decision-making across the energy system.

Recommended actions:

- Develop an integrated, long-term energy strategy (as seen in the UK and Australia and other countries) that sets out:
    - the expected role of gas in the short, medium, and long term;
    - the sequencing of fuel shifts and emerging technologies;
    - system-level expectations for resilience, firming, and infrastructure development.
- Provide the overarching policy direction required for regulators and asset owners to progress long-term infrastructure planning decisions.
- Seek bipartisan support where possible to reduce policy uncertainty and strengthen investment confidence.

Owners:

Lead: Government (noting the Framework can be used as a mechanism to gather expertise and input from across the energy system)

6 NEXT STEPS

The Gas Working Group has concluded that New Zealand faces a material and time-critical energy security risk due to declining gas supply and a widening supply–demand gap. Addressing this risk will require coordinated effort across Government, industry, and system operators.

For the Framework, the immediate next step is for the CE Steering Group to align on the overarching finding:

New Zealand is facing a significant energy security challenge, and greater pace of action is required across supply, demand, market settings, and clarity of information.

Beyond this alignment, the Framework can progress a set of actions that are within our direct influence, while engaging with Government and system agencies on those that sit outside our remit.

6.1 ACTIONS THE FRAMEWORK CAN TAKE NOW

6.1.1 Communicate the key finding of this report with Government – that this is a critical area where more action is required, urgently.

6.1.2 Accelerate work to remove barriers to C&I electrification

To reduce gas demand to a level that better supports a managed transition alongside the projected supply decline:

- Prioritise and scale up the work already underway under the Framework workstream "Removing finance-related barriers to C&I electrification"; ramp up engagement with EECA to focus support on users who can reduce demand soonest.
- More Framework participants need to contribute to this workstream and make this a priority area for collective effort ensuring greater action across electricity providers, distribution networks, finance providers, technology providers, and industrial users.
- Supporting emerging technology demonstration projects that build confidence and momentum

6.1.3 Use Powering Change to improve the clarity and consistency of message

To ensure all actors have the information they need to make timely decisions:

- developing clear, audience-specific messages on gas supply trajectories and near-term risks;
- coordinating with Government to ensure consistent public messaging;
- supporting the development of a joined-up narrative on New Zealand's energy security challenge.

6.1.4 Begin drafting elements of an integrated transition strategy

- if this does not emerge through Government work, to support clarity of direction across the sector.
- This would draw on international examples, existing domestic workstreams (wood, geothermal, biogas, etc) and existing research, reports or publications (e.g. BCG report, BEC strategy work, Rewiring Aotearoa reports, GIC reports and others).

6.1.5 Continue engagement with MBIE and relevant agencies

- To ensure that the full suite of recommended actions — including those requiring policy or regulatory changes — are visible, understood, and considered within Government work programmes.

6.2 WHAT WE ARE SEEKING FROM THE CE STEERING GROUP

To support a coordinated response to the risks identified, the CE Steering Group is asked to:

1. **Endorse -** the finding that additional, faster-paced action is required to address New Zealand's emerging energy shortage, beyond what is currently underway across supply, demand, market settings, and system information.
2. **Confirm -** that the Framework should take forward the actions described in Section 6.1, reflecting the areas where the Framework can lead or materially influence near-term outcomes.
3. Recommend strengthened collective participation, particularly in the workstream on C&I electrification and ensuring clear, consistent system-wide messaging through Powering Change.
4. Support continued engagement with Government, ensuring the system-level risks and recommended actions are visible within policy and regulatory work programmes.

Establishing a common direction of travel—even amid diverse views—will enable faster and more coordinated action where it is most needed.