Initial summary report and recommended next steps

Gas working group

July 2025

Completed as a workstream under the Energy Transition Framework

1 EXECUTIVE SUMMARY

New Zealand's gas supply is declining faster than expected - creating tension in both the requirements for security of electricity supply and gas markets – which is in turn, creating wider economic challenges and putting New Zealand's energy transition at risk.

Despite investment, domestic gas supply has dropped 40% in the last seven years[1] and (without significant investment and success) is projected drop another 50% in the next three years[2]. With key gas production investment, electricity generation investment and demand decisions looming over the next 6–12 months, there is an urgent need to understand what options remain to keep the system stable and affordable in the interests of the wider economy.

Gas is primarily a bilateral contracting market that transacts according to established legal principles. As gas has become more scarce, this has resulted in increased prices and contracted gas being directed to meeting existing contractual obligations and highest value uses. This may be rational in a market sense, but it's unclear whether it delivers the best outcomes for the country overall.

While some gas users may be able to shift to alternatives like LPG, LNG, coal, electricity or biomass, these come with limitations and trade-offs — and there's no joined-up view of what that could mean for risk in the whole energy system.

While significant work has been done on future scenarios, many of these are now out of date and do not fully capture the most immediate risks. Notably, there are no scenarios that address the current situation of a faster-than-forecast decline in supply — a credible outcome of which is that key users exit without substantial new investment from upstream operators to bring more gas to market.

Immediate next steps should focus on closing critical information gaps, including:

1. **Firming up supply and demand expectations** by deepening understanding of key future production decisions, large user demand, and infrastructure planning.
2. **Assessing the economic and system-wide impacts** of current gas market operations and alternative energy options — bringing together analysis that exists and specific alternatives to form a system-wide view.
3. **Identifying scenarios that better reflect near-term risks**, including low- or no-supply cases.

Filling these gaps is the first step to understanding what problems the gas system may be facing — now and in the years ahead. Without this shared understanding, efforts to develop solutions risk deploying efforts without solving the real issues - potentially making others worse and increasing overall energy system risk.

[1] https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-statistics/gas-statistics&sa=D&source=docs&ust=1753261131371058&usg=AOvVaw1J0d3TzHOQVs71V13BEEs5

[2] Enerlytica, NZ Gas Supply, 3Q 2025 supply forecast, Baeline scenario. Note that is an average scenario, there are downside scenarios where production reduces more significantly. These are possible given the uncertainty associated with oil and gas production.

2 GAS WORKING GROUP

What was the working group asked to do
In the May meeting of the Framework Chief Executive Steering Group, the situation in relation to gas supply was discussed. It was agreed that it would be valuable for a small group of Framework participants 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 (from the CE SG minutes) 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?

This initial report focuses on the first two steps - the review of current information to identify gaps and, based on the known information, whether there are any emerging problems.

Why
Currently, there is insufficient gas supply to meet demand and it is unclear whether current gas markets are maximising value for NZ inc. One hypothesis is that: *if the system is left as it currently is, this will result in a messy and inefficient transition of this system for New Zealand*.

Who
The working group was made up of representatives across the system, including:

- Paul Goodeve, Clarus
- Angela Ogier, Genesis
- David Viviers, Nova
- Mark Toner, Vector
- Tim Thompson, Mercury
- Margaret Cooney, Octopus

The group was also joined by John Kidd, Enerlytica, for the meeting to review available information.

3 INFORMATION REVIEWED

The gas working group identified key information to review across four key categories:

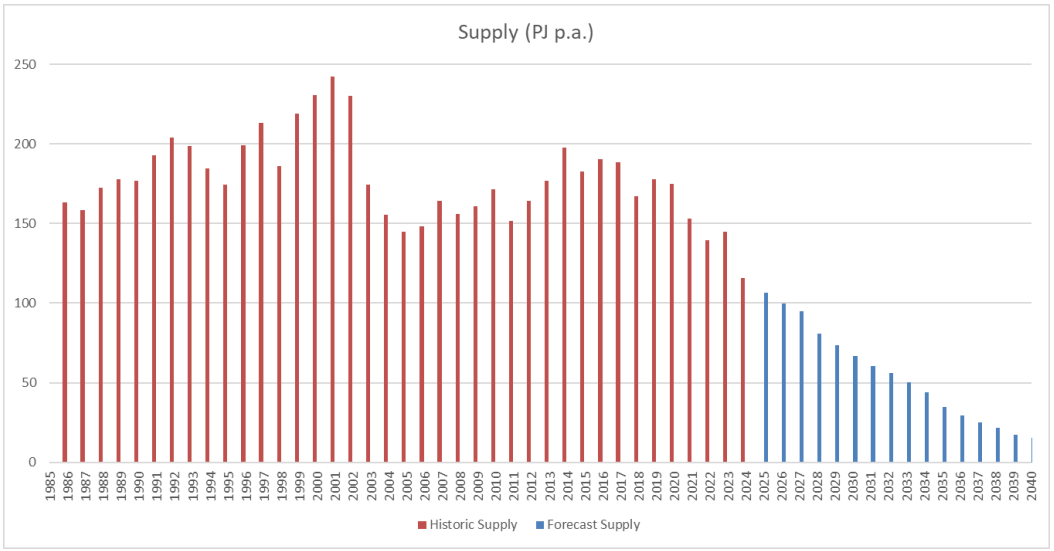
- Transparent market information (data on reserves, production and consumption)
- Current market function (what is known about current commercial arrangements, future views of that and implications)
- Broader system impacts (electricity pricing, related energy uses like LNG, LPG, coal and electrification; impacts on network and distribution infrastructure)
- Future scenarios (what has been modelled on different scenarios)

Appendix 1 of this report provides a list of the information reviewed. Note that the working group also reviewed information from Enerlytica including the latest quarterly outlook - this is not linked in this report given it is available via subscription.

4 KEY TAKE-OUTS

4.1 *TRANSPARENT MARKET INFORMATION - SUPPLY AND DEMAND*

- Supply contracted in 2024 and has again decreased in 2025. This is a continuation of a decline seen since 2020. Supply has decreased 40% since 2018, even with considerable amounts of investment in new supply. The current trajectory is a decline of 2-3% per month.



Historic and forecast supply from the MBIE gas statistics, June 2025[3]

- To maintain supply at 2024/2025 levels, significant supply investment and drilling success is required (noting New Zealand is a high cost upstream environment).
- Without this investment and success, supply is predicted to decline rapidly - dropping another 50% from current supply levels by 2028[4]. There is the potential for supply to be lower than these levels, particularly if there are outages or other failure events.
- Fields that are already on decline could cease operation rather than rebuild in the event of unexpected plant failure due to economics.
- The range and risk associated with production forecasts is not well understood outside the upstream sector.
- Prior low supply situations (such as in 2004) were resolved but the market context has shifted substantially since that point. It is worthwhile reviewing what could be learned and whether there are any key differences with the current situation.
- Demand and supply are tightly interrelated, both for the overall system and for specific fields and users. Gas is developed based on foreseen offtake as the market is not sufficiently liquid for speculative development of fields without contracted offtake.

[3] https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-statistics/gas-statistics

[4] Enerlytica, NZ Gas Supply, 3Q 2025 supply forecast, Baseline scenario.

- The investment that OMV may make in the Maui field and the decisions Methanex may take in future plant certification, are key decisions that will impact both the timing for the Maui field and flow on impacts for system flexibility. It is likely that these investment decisions will need to be made in the next 6-12 months.
- This sits alongside decisions by electricity generators to maintain plant and procure gas for their contracted needs and to provide overall security of electricity supply.
- These types of step changes in both supply and demand have implications for both: (1) future supply and demand; and (2) overall system operation (including physical ability to supply and economic impacts to networks).
- Other changes are occurring in demand, with industrial users having converted or planning to convert from gas use. This reduction in demand and loss of key users has implications for the rest of the system in terms of physical operation and future investment.

  SUMMARY: The current trajectory of gas supply is a significant step down in supply over the next three years. Key supply and demand decisions are being made in the next 6-12 months which may further accelerate this decline. This indicates we are on a downward trajectory in terms of supply and demand dynamics and we could get into (or may already be in) a disorderly transition.

  To better dimension the pace and size of any projected shortfall we need to rapidly understand the potential likelihood of upside to this supply trajectory and what might be the demand needs over this period.

4.2 CURRENT MARKET FUNCTION

- At a high level, the highest bidder wins the supply of available gas - a significant portion of gas is contracted, often on a long term basis, and the liquidity in the market is low. There is low visibility over long term plans and the market dynamics require upstream parties to source offtake to underwrite developments rather than develop speculatively. These factors create uncertainty in the supply outlook.
- Factors over and above price, such as term and willingness to accept volatility / flexibility also play a part. These dynamics need to be taken into account when making assumptions about the transition and whether supply will be allocated to the 'highest payer'.
- In most cases, it appears the market is behaving 'rationally', and gas is being sold to the highest bidder, or is fulfilling a contracted arrangement.
- There are some anecdotes that, in some instances, even those who can pay, are struggling to get access.
- Currently New Zealand is short energy in both its electricity and gas markets. Security of supply requirements in the electricity market is resulting in a premium or high price for gas generation, which is higher than the industrial gas users can afford and hence creating gas supply stress between generators and industrial gas users. This is also putting upward pressure on wholesale electricity pricing.
- Electricity market generators have managed to elicit short term demand response from major gas users such as Methanex which has helped to rebalance intra year electricity supply constraints.

- Major gas users group (MGUG) have also critisised MBIE for being able to supply their all of government portfolio (AOG) with gas on sold by Methanex which is a transaction that has not been available or repeatable by any industrial user to date.
- Current users face decisions of converting their energy use, changing their process or closing based on not being able to afford or access gas. In many cases the time and/or money required for conversion are impossible to deploy at the rate of gas supply decline such that closure is the only outcome.
- While each of these individual transactions are likely to be economically rational, it is not clear whether the broader economic (and societal) impacts for New Zealand are known and understood.
- The economic impacts of closure of Emissions Intensive Trade Exposed businesses has been dimensioned in terms of the % of national GDP and % of employment. It is not known whether similar analysis exists across all gas users.
- Current market prices are not yet incorporating the potential costs that might relate to network transition costs. The topics of if and how to incorporate right sizing and decommissioning costs into the systems that regulate price are currently under review by the Commerce Commission.

SUMMARY: The current market operates primarily bilaterally with gas being sold largely on the basis of price (along with term and willingness to accept volatility). While this reflects economically rational decision-making, it's unclear whether these outcomes are optimal for New Zealand's broader economic and societal interests. Key gaps remain in understanding how current allocation decisions affect employment, GDP, and overall energy system costs.

We need better visibility of the potential for and impacts from gas user closures to assess whether current allocation settings are enabling an efficient and just transition or resulting in missed opportunities and outcomes that are suboptimal for New Zealand's people, economy, and energy system.

4.3 BROADER SYSTEM IMPACTS

- Current gas users may have alternative energy sources, such as LPG, coal, biomass, biogas or electricity. LNG could be an option if an import terminal is developed.
- Some users may also have alternatives to import products they are currently producing with gas.
- For alternative energy sources, many may require investment in new equipment or technology to use an alternative energy source.
- Using these alternatives, if available, could reduce the demand on gas and support a more stable transition.
- As compared to gas, there are limitations and impacts on using each alternative energy source - the ability to import LPG into New Zealand is limited; LNG requires lead in times to develop infrastructure and may have a high cost; coal has higher cost, longer ramp up/down times and requires investment in long lived assets, making it limited in terms of flexibility; biomass and biogas have uncertain and emerging supply chains that are yet to be at scale; electricity may require connection upgrades (depending on the location, volume and level of service required for the use).

- These limitations and impacts are known in studies related to each area, but haven't been brought together into a system-wide view.
- Without this view it is unclear which uses, using which energy sources, might either (1) help support the gas system; or (2) result in the best outcomes for New Zealand.

SUMMARY: While some gas users may be able to shift to alternative energy sources (such as LPG, LNG, coal, biomass, biogas, or electricity) each of these options comes with trade-offs and limitations that will mean the overall energy system will function differently. Although standalone studies exist for fuels like LNG, biomass, and electricity, there is no integrated assessment.

Without an integrated view, it remains unclear which energy uses and fuel switches might best support gas system stability or deliver the best outcomes for New Zealand.

4.4 FUTURE SCENARIOS

- Significant work has been completed on future scenarios for gas use, gas infrastructure and the overall gas system.
- What is known about large users?
    - Methanex demand has been reducing over recent years. Current demand levels have been seen previously as Methanex has balanced their global production decisions. There is a significant decision coming up related to their plant which requires recertification in the second half of 2028. This is a significant capital investment and would require line of sight to supply to support that decision.
    - With the current supply forecast, the current focus for Methanex is on whether supply will be sufficient to operate until the 2028 turnaround.
    - Methanex has been a source of gas system flexibility.
    - Fonterra has been reducing demand, particularly through the recent electrification projects at Whareroa, Edgecumbe and Waitoa.
    - The recent supply agreement announced between Greymouth Petroleum and Contact energy suggests that Ballance will need to secure a significant gas contract by 1 October this year (noting this is not confirmed).
    - The Government contract for schools and hospitals is in train and believed to be secured for the next year at least.
    - Gas for electricity generation is a significant source of gas demand with Genesis now the largest gas yser. It is understood that gas generation will be required for the foreseeable future in an increasingly renewable grid. Coupled with gas storage it provides for stable, long-term offtake for gas fields. Asset renewal decisions for this plant are difficult to undertake in the absence of long-term gas supply prospects.
- What is known about smaller users?
    - Through the EECA Regional Energy Transition Accelerator project, there is information on smaller coal and gas users, including the gas, carbon, biomass,

electricity supply and electricity connection costs that would make conversion from coal or gas to other uses workable[5].

- What is known about the network infrastructure?
    - There is an increasing challenge, recognised by the Commerce Commission, that the regulatory model overseeing regulated gas pipe infrastructure may need to adjust.
    - The ComCom, which usually permits recovery of costs over extended 50 year asset lifetimes, has already permitted accelerated depreciation in an attempt to mitigate the risk of future stranded assets - the risk of which undermines ongoing investment in the network infrastructure.
    - Currently the ComCom provides no allowance for decommissioning costs, so were this to occur, no one is funded to undertake that significant work.
    - In relation to residential and small commercial users, there is the potential that a very rapid transition of these users onto electricity would cause issues with the electricity network infrastructure.
- The scenarios do not currently cover the situation of supply falling faster than the current forecasts.

SUMMARY: Significant work has been done to explore the future of the gas system, including supply and demand, infrastructure, and user profiles. However, near-term decisions by large users like Methanex and Ballance now loom large, making immediate outlooks more consequential than long-range scenarios.

No scenarios currently model a faster-than-forecast decline in gas supply or demand—despite this being a plausible outcome given recent trends and upcoming user decisions.

5 INFORMATION GAPS

5.1 TRANSPARENT MARKET INFORMATION – SUPPLY AND DEMAND

- What might be known that could reduce the uncertainty on supply and demand?
- Large user intentions on continued use of gas?
- Capture of disconnecting customer reasons for disconnecting

5.2 CURRENT MARKET FUNCTION

- What analysis exists on the economic impacts of closure of gas users (in terms of the % of national GDP and % of employment)?
- Does it reveal true willingness to pay?

5.3 BROADER SYSTEM IMPACTS

- What does bringing together the studies completed on LPG, LNG, coal, biomass, biogas and electrification show us as a systems-wide view?

[5] Refer to the Framework workstream – Removing finance barriers to C&I electrification for further information on cross-system barriers to electrification and work underway on proposed solutions.

5.4 FUTURE SCENARIOS

- What downside scenarios exist for gas allocation or system operation if there are further declines in supply?
- Any learnings or precedent of gas transmission pipeline interruption from years ago?

6 NEXT STEPS

Get more information on supply and demand scenarios

- Review the supply and demand situation in the last cycle of low demand (in 2004) to understand what similarities or differences apply to how to view the current supply and demand outlook.
- Supply side:
    - Engage with OMV, Todd, Greymouth and Beach to get confidential views on the likelihood/feasibility of supply being maintained at 2025 levels.
- Demand side - outlook analysis to understand and factor committed & likely exits/switches, including:
    - Engage with Methanex/Ballance to understand their plans.
    - Gather an outlook on electricity generation use of gas.
    - Work with EECA to summarise the known information (e.g. using their RETA work) on: (1) which gas users may have alternative energy options, (2) the potential pace that they could use those options; and (3) which current users may be hard to transition.
- Understand the impact of the projected supply decline on system operations and economics - e.g. flexible supply limitations, network economic operations

Understand the impacts of current gas market

- Pull together existing or consider commissioning economic analysis of the broader impacts of the current gas market settings, particularly to assess the implications for GDP, employment, and sector-wide energy costs.

Create a systems-wide view of alternatives

- Synthesise existing work on alternative fuels (LPG, LNG, biomass, biogas, electrification) into a systems-wide view, evaluating their role in supporting gas system stability and national energy resilience.

Include downside scenarios

- Develop downside scenarios to model what happens if supply falls faster than forecast—capturing physical, economic, and social consequences. Clarify how existing contingency plans will apply.

Path to completion:

GIC may be well placed to look to cover some or all of these items in the upcoming 2025 Supply and Demand scenarios. A verbal update on whether and to what extent the information gaps identified could be covered will be provided during the August meeting.

We welcome input from the CE Steering Group on whether there are any alternative bodies or organisations that might be appropriate to complete this work, noting the pace with which it will need to be completed.

Appendix 1 – Information reviewed

- Petroleum reserves data | Ministry of Business, Innovation & Employment
- Supply and demand - Gas Industry (latest) and previous studies
- Quarterly Reports - Gas Industry
- Production and consumption
- Gas Transition Plan - Gas Industry
- Letter to the Minister and attached report 'NZ Gas Infrastructure Future' - specifically section 6 Understanding Gas Consumers and section 8 Implications of Winding Down Gas Infrastructure
- Sapere research on the impacts on emissions intensive, trade-exposed businesses - including estimates of "the potential economic loss, should EITE businesses be induced to change the level of their production in the future"
- Retail competition in the LPG market
- Commerce Commission paper from June 2025 on network infrastructure risks
- Gas NZ report on future gas scenarios
- Report on gas infrastructure scenarios
- Report on the future of NZ gas infrastructure
- Example of analysis of industrial users and ability to transfer to other energy sources - from EECA RETA programme