

Briefing to Incoming Minister for Energy

January 2025

This briefing sets out the role of Gas Industry Co as co-regulator, key issues affecting the industry for your attention, and our work programme priorities.

- Key issues for your attention
- The Gas Industry Co
- The New Zealand gas sector
- Our work programme priorities

Key Issues for Your Attention

- Natural gas markets are stressed. In 2024 there was a significant shortfall between production and demand leading to industrial closures. 2025 appears to be opening with improved conditions but the system remains exposed to security of supply issues.
- Gas fields declined sooner than expected in 2024, due to production issues and reduced investment. Over the next five years to 2030, substantial demand for gas appears to be uncontracted, especially if dry weather or low wind conditions reduce renewable generation, creating the need for more uncontracted coal and more demand to use gas for generation.
- De-industrialisation is occurring as some industrial gas consumers, who do not have a realistic fuel alternative, exit New Zealand. More investment is needed to avoid gas and electricity shortages.
- Gas Industry Co has been facilitating industry investigation of LNG imports. LNG imports are technically feasible at a scale to support electricity generation. Further work is needed on small-scale LNG options, the commercial model and economic effects.
- The alternatives to LNG require more scrutiny to ensure electricity security of supply risk is not being off-loaded to small and medium sized industrial gas consumers.
- Development of gas resources is the best option for security of supply. Modernised regulatory settings are recommended for carbon capture and sequestration, and field decommissioning.
- Biogas is a long-term solution for decarbonising gas supplied to residential and small commercial consumers.
- Emissions of climate changing gases are below the Climate Change Commission's Demonstration pathway for the gas sector and will remain below in all scenarios with no further intervention.

The Gas Industry Co

Gas Industry Co is the industry-owned co-regulator

The gas sector is regulated through a hybrid of self-regulation and ministerial approval. Gas Industry Co is the industry body approved under the Gas Act to work with industry on gas governance, facilitating markets, and providing trusted advice.

A government policy statement requires us to work towards safe, efficient, reliable, fair, and environmentally sustainable gas delivery.

Gas Industry Co is owned by 13 industry shareholders and is governed by a board of directors appointed by the shareholders. Our board comprises

- four independent directors: Hon Amy Adams, Andrew Brown, Sam Elder, and another to be appointed following a vacancy created when Sir Brian Roche took up his position at the Public Service Commission; and
- three industry directors: Babu Bahirathan (Nova Energy CEO), Mike Fuge (Contact Energy CEO) and Paul Goodeve (Clarus CEO).

Our work program is approved through a consultation process with the industry and government.

Each year we present for your comment and approval a Statement of Intent, which details our work programme developed in consultation with industry, and the Levy Recommendation to fund our operations.

We report to you quarterly and annually, and more often on specific workstreams as required. In the later months of 2024, we provided a weekly written update to your predecessor on progress on the industry-led LNG-import study and regular in-person briefings.

The co-regulatory model has proved to be highly successful. It is adaptable and responsive in a changing sector. The industry bears most of the costs, which are very low compared to alternative models. Regulatory proposals are practical and feature a high level of consensus and industry support.

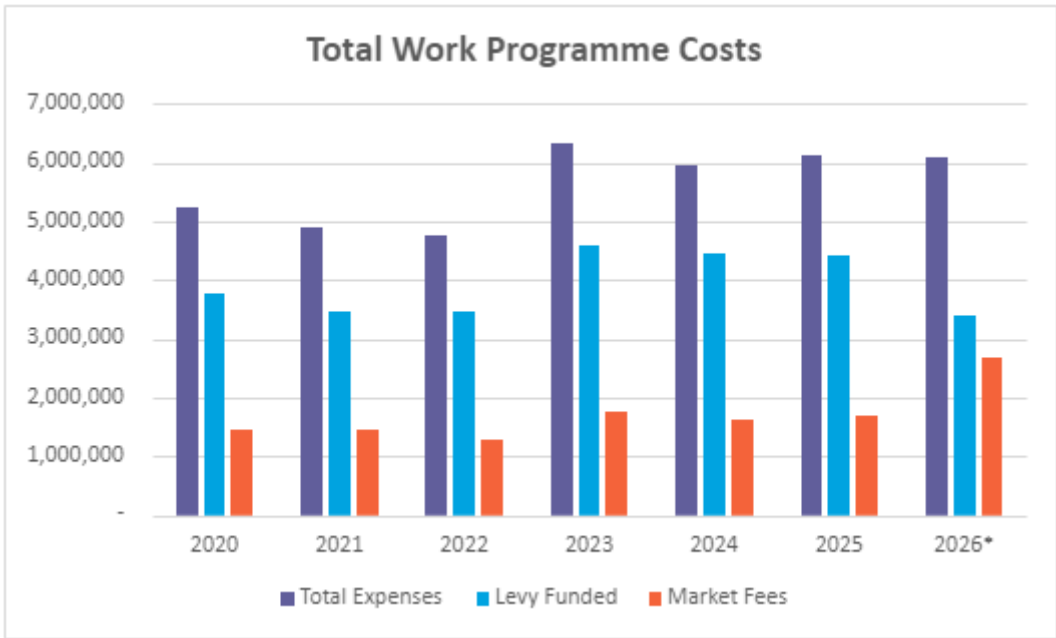
Our funding

Gas Industry Co receives no government funding. We are entirely industry-funded to deliver effective co-regulation and fulfil our statutory obligations. Funding is a combination of levy and market fees.

Industry participants pay a levy to cover the costs of our policy work and market administration. The levy is based on gas volumes.

Every retailer pays a monthly fee based on their share of the total number of connections. It is cost recovery and funds activities such as Switching Rules, Reconciliation Rules, Critical Contingency Regulations, and Compliance Regulations.

Over recent years we have managed significant shortfalls in wholesale levy revenue due to actual gas volumes being less than budgeted gas volumes. This is not sustainable if we are to continue to deliver our work programme. A consultation process is underway, and a recommendation is expected to come to you for approval this year.



The New Zealand Gas Sector

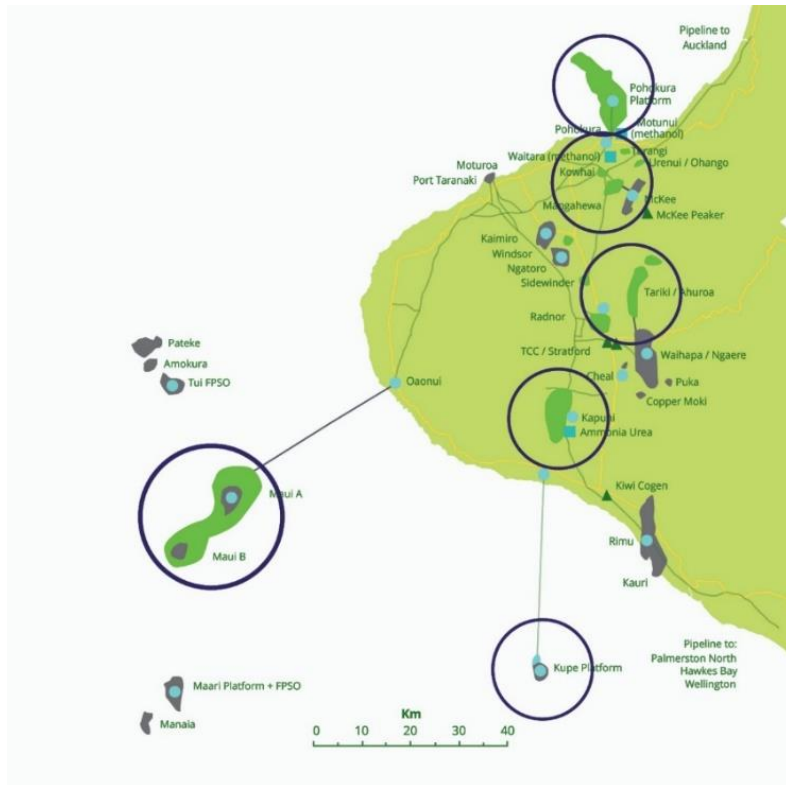
Where our gas comes from

All the natural gas in New Zealand is produced from fields in Taranaki. There are six main natural gas fields - three offshore: Pokohura, Maui and Kupe, and three onshore: Mangahewa, Turangi and Kapuni. Another twelve minor onshore fields produce gas. Pipeline gas is only in the North Island.

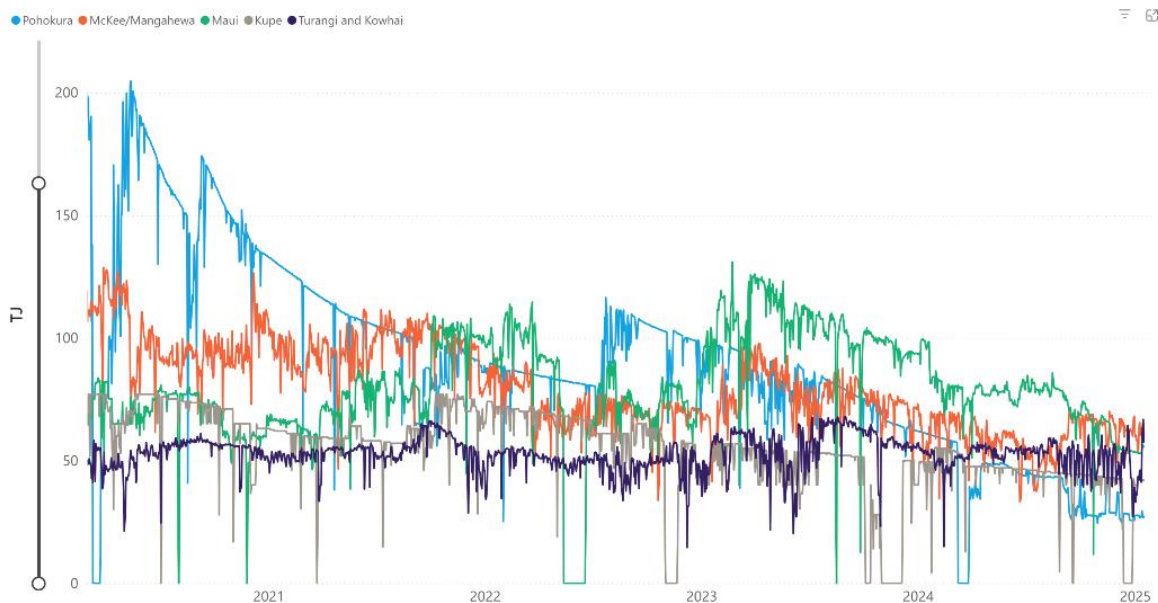
The total energy value of gas produced was down to around 135 petajoules (PJ) in 2023, and down further to 106PJ in 2024. For comparison, the entire electricity system produces around 120PJ/year. A decade ago, annual gas production was around 200PJ.

All major New Zealand gas fields are in decline and production is expected to become uneconomic in some of them over the next ten years. A major new domestic field discovery could replace those. The earliest a new field could be discovered and come into production would be the early to mid-2030s.

More 'contingent' resource is available in existing fields and sufficient to get New Zealand through the energy transition. That gas is currently not produced for technical or economic reasons. Changes in conditions could include carbon capture and storage.



Daily Gas Production by Major Fields

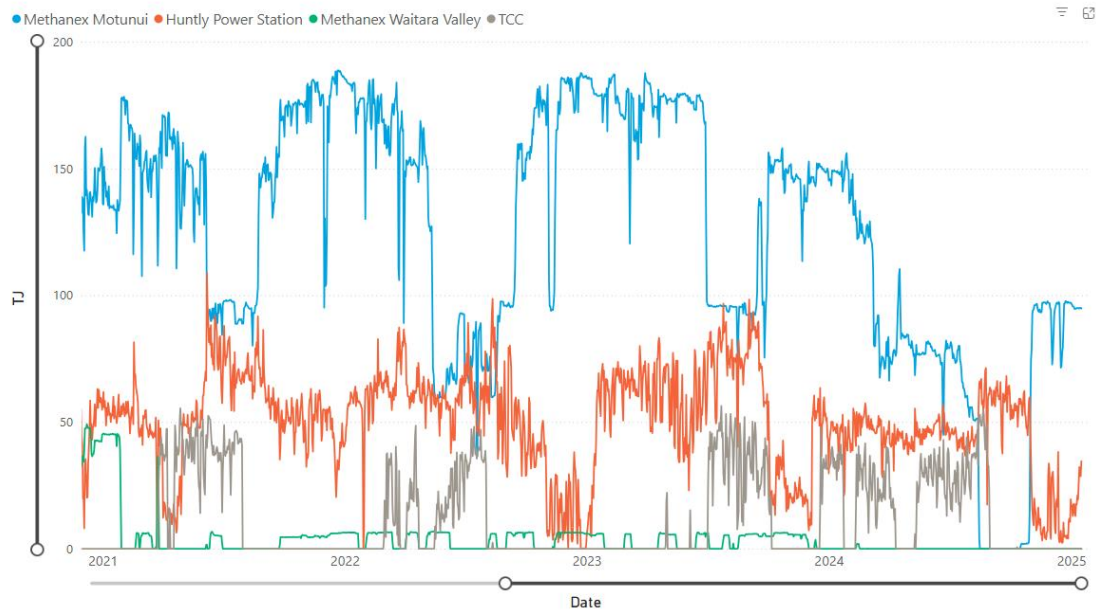


Gas is also held in storage at a converted former producing field in Taranaki called Ahuroa, owned by pipeline owner FirstGas/Clarus. It mainly supplies Contact Energy and Nova Energy.

In addition to natural gas, LPG is used by nearly 300,000 homes and businesses, who use around 9PJ each year. Most LPG consumed in the North Island is produced in Taranaki. Most LPG consumed in the South Island comes from Australia. New Zealand exports a small amount of LPG to the Pacific.

Who uses our gas

Daily Consumption by Largest Users



Methanex



Methanex is the largest consumer of energy in New Zealand. It turns gas into methanol, 95% of which is exported to Asia Pacific, for use in plastics and chemicals, or combusted in industrial processes.

Demand from Methanex underwrites most field development since producers do not invest in new production without sales contracts.

Methanex closed its operation for a period in 2024 to make its gas available and resumed production in December. It also gave up gas (at a high price) in 2021.

Methanex is crucial to the security of supply of gas (and therefore electricity and other large crucial industries) because of its dominant role in gas consumption. As the 2024 EY Gas Supply and Demand study for Gas Industry Co stated,

"Methanex is currently the only "firm and term" consumer (meaning they require a long-term contract for a constant supply of gas) in the market. Such "firm and term" contracts are necessary to de-risk supply-side development. Furthermore, because Methanex has historically been prepared to flex its demand, the absence of Methanex may limit the gas sector's ability to support electricity generation, particularly for peaking and dry year demand.

Electricity

The next largest use of gas is electricity generation, which uses 25-30% of gas each year. Gas generation mostly plays a security of supply role to support renewable generation. Genesis uses gas alongside coal at Huntly. Nova, owned by Todd Energy, and Contact operate gas peaking stations in Taranaki, which can start up quickly to meet intra-day demand peaks.

Gas fields cannot easily vary production in response to changes in electricity demand or price. When more gas is required for electricity generation another gas user has to reduce consumption.

Industrial and Commercial

Another major petrochemical consumer is Balance, which uses gas to produce fertiliser.

Around 300 large industrial consumers include steel manufacturing at Glenbrook, wood processors and Fonterra dairy plants. The Fonterra demand is seasonal and tends to align with patterns of demand for gas to generate electricity.

About 5000 large commercial gas consumers use gas in activities such as space heating and hot water for hotels.

11,000 small commercial consumers use gas in precision manufacturing where precise, rapid, high temperature control is needed, and as medium temperature space heating, in greenhouses, and in restaurant cooking.

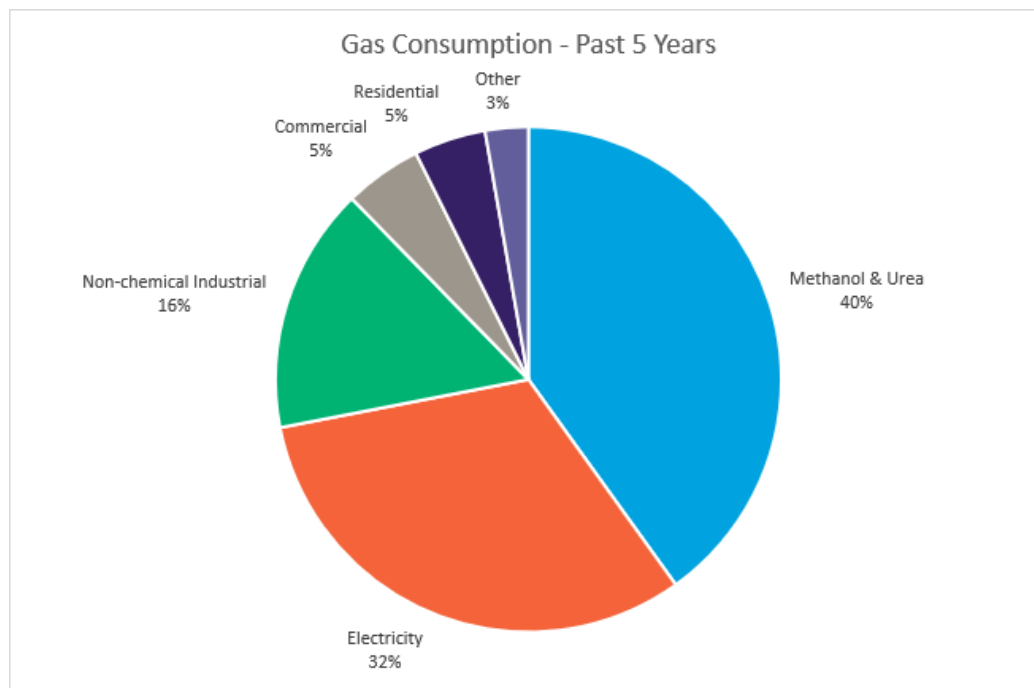
Residential

Around 290,000 residential customers comprise approximately 5% of our natural gas consumption.

The number of residential gas connections is continuing to increase, however the volume of gas supplied to residential consumers is stable or declining slightly. It's possible that consumers value gas for use such as heating water and cooking but are switching to electric heat pumps for space heating.

Gas pipeline pressure can be varied to accommodate morning and evening peaks unlike electricity which requires the network to enable supply for the maximum load. For this reason, residential gas networks can reduce the need for capital investment to upgrade electricity networks.

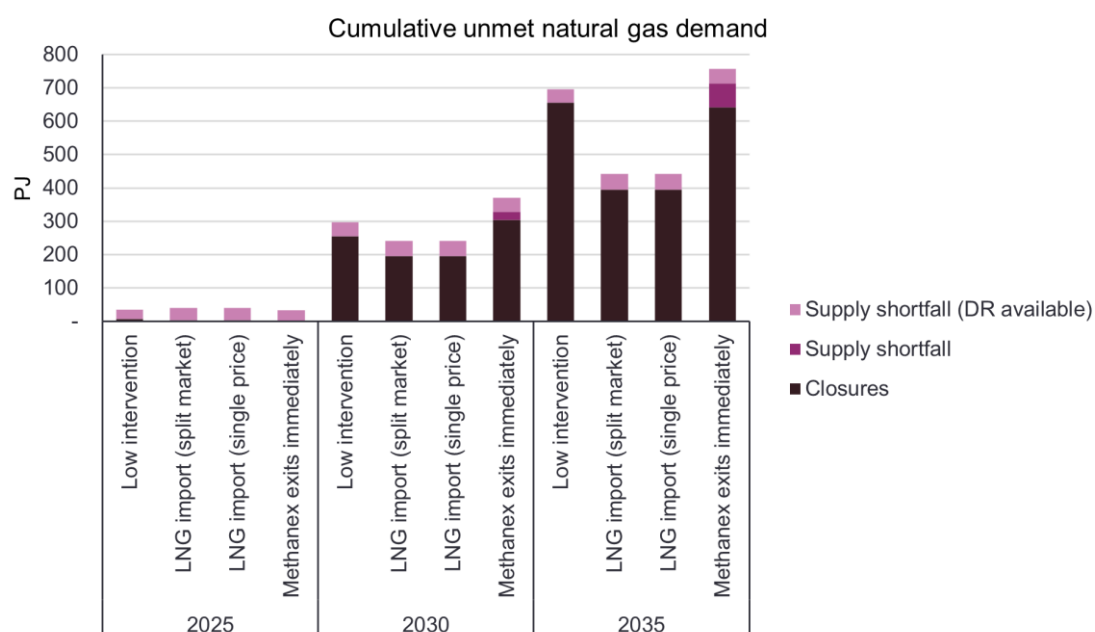
Gas Industry Co is working with industry to help support the uptake of the biogas market. Research conducted by consultants Wood Beca Ltd found that if half the feasible biogas (1.5PJ) were to be available for residential customers, up to a quarter of residential gas demand could be decarbonised in the 2020's at feasible prices.



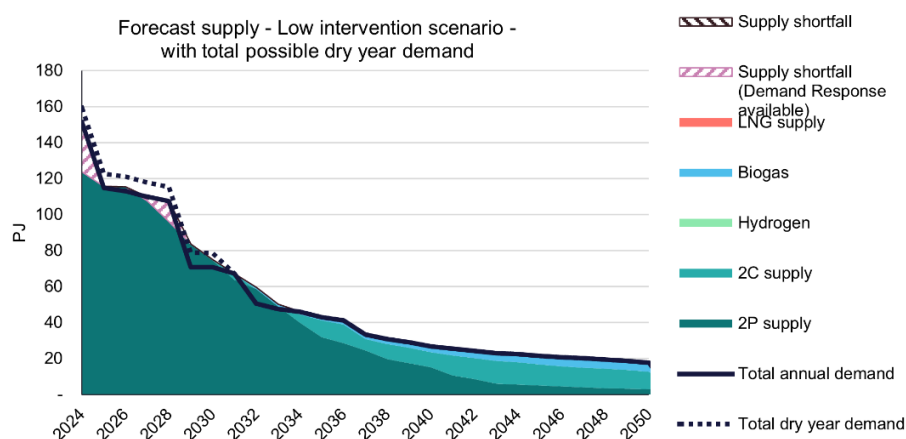
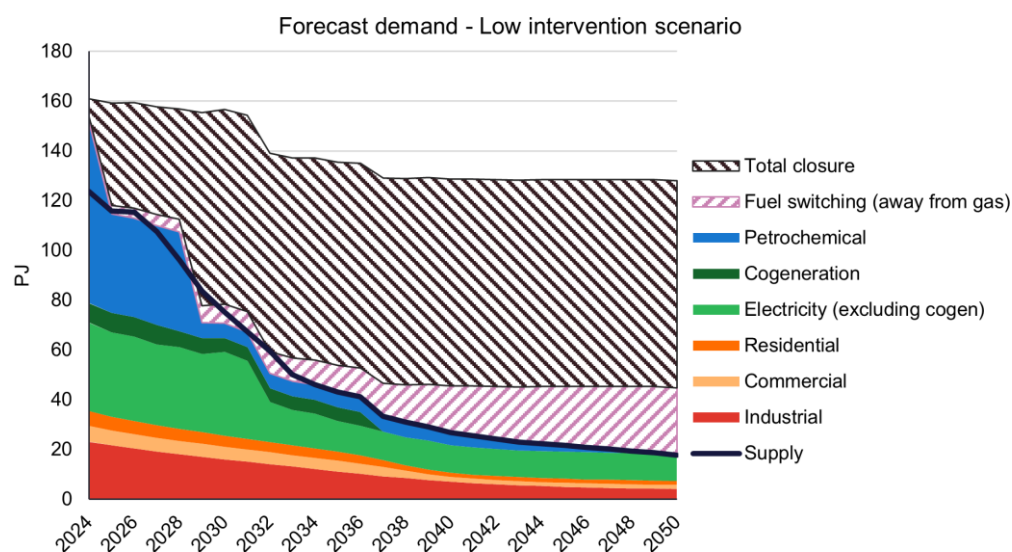
Gas Supply and Demand

Demand for gas is likely to exceed contracted volumes for supply by 2030. Sufficient gas is available in gas fields today, but it needs investment to produce it. Market conditions do not currently support sufficient investment in security of supply.

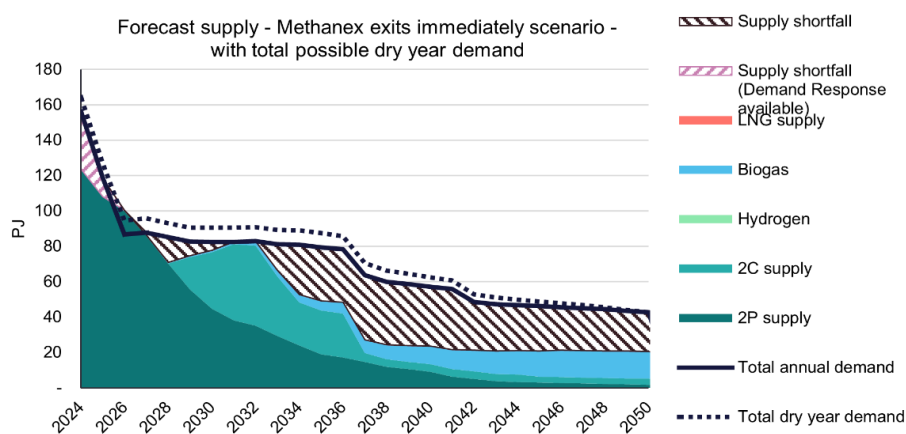
In 2024, Gas Industry Co commissioned EY to conduct its annual gas supply and demand study. The study considered four scenarios and shows shortfalls in demand and supply in all scenarios for the future.



1. In a 'low intervention' scenario (where policy results in low investment for the sector), shortfalls occur from 2028.



2. If 'Methanex leaves early', there is no clear mechanism for providing demand response should electricity need further gas.



3. The demand and supply study also looked at an 'LNG import' scenario, which is discussed below.

4. The study also analysed a 'high renewables future' and reported,

"Regulations and restrictions on the upstream gas sector is effective only if natural gas consumers have a technically and commercially viable renewable alternative. Switching must be coordinated with supply of alternative energy sources."

The time period when the relevant renewable alternatives can be available is outside the period when gas supply shortfalls begin to occur.

Outlook

Conditions seem to be improved this year.

The market is confident about the outlook for 2025, although energy traders are demonstrating caution with high 2025 futures prices for electricity and high values for stored energy. Coal stockpiles are reasonable, and hydro lakes are fuller than the long-term average, which is expected to reduce demand for uncontracted volumes of gas to be diverted from industry for electricity generation. However, a supply event or a dry and still weather period could stress markets, increasing prices and impacting economic efficiency.

However, security of supply concerns loom.

The supply outlook in 2026 and towards the end of the decade remains difficult.

Drilling is underway in the Pohokura and Mangahewa fields and new production has entered the system from the small Tariki field. We expect this drilling to reduce the production declines and potentially provide a small increase in reserves. However, these increments only make a difference for the short to medium term

Genesis has progressed a coal-based model to meet its own security of supply needs, including sale of coal-backed hedge products to competing generators. This model still requires some gas. Contact and Nova have also secured gas volumes likely to be sufficient for their expected needs.

Gas Industry Co is concerned whether some of the risk of a dry hydro/calm wind year is adequately 'insured' by the Huntly coal stockpile, or is being offloaded to other gas users as, effectively, a free hedge.

There is uncertainty whether sufficient gas has been optioned for dry/calm weather conditions as occurred in 2024 and 2021.

Storage volumes are currently limited. More could be made available, but there is an unwillingness to contract for more as generators believe they will be able to buy more on-market if they need it.

Any extra flexible supply would have to come from Methanex or other industrials. Methanex closed its operation for a period in 2024 to make its gas available. It now operates a single train and has less flexibility available.

In 2024 we saw prices rise to a level beyond the economic ability of medium industrial users (including schools and hospitals) to purchase fuel. Electricity is able to outcompete major industrials for dry year requirements because it can pass through most of the cost to customers, while industrial users cannot.

LNG feasibility study

Owing to conditions in 2024, the government established a Gas Security Response Group of regulators and major gas producers and consumers.

Work quickly identified that fuel supply was the ultimate driver of security. LNG was identified as a potential source of flexible supply.

Gas Industry Co facilitated an industry assessment of options to import LNG by May 2026. Clarus/Firstgas and the electricity gentailers, Contact, Genesis, Mercury, and Meridian, commissioned an assessment of location, import volumes, and infrastructure requirements, by UK LNG consultants Gas Strategies and Wood Beca. Gas Industry Co appointed an expert consultant to provide guidance and quality assurance in the feasibility process.

The study was delivered on 20 December 2024. It is covered by a strict confidentiality agreement. Gas Industry Co is able to brief you on its contents, but details are commercially confidential and not for public release.

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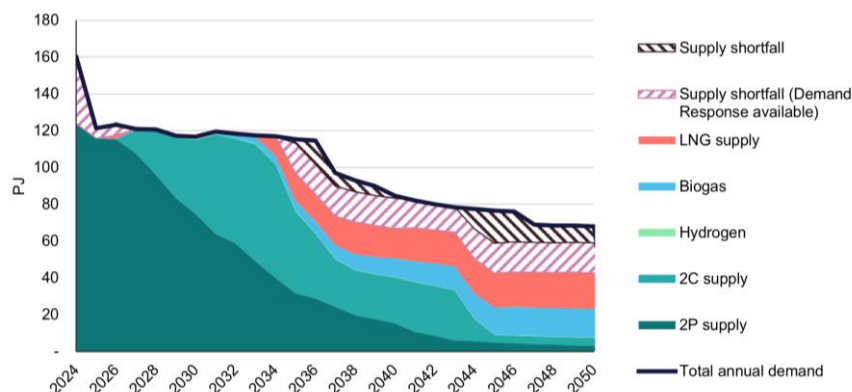
The report excluded analysis of some of the unsolicited proposals that have been promoted to government.

This month the parties have agreed to continue further work to identify whether a lower cost alternative can be feasible.

An in-person discussion is preferable to provide more context around the options and risks of LNG. It would be helpful to understand the government's current appetite for managing risks to security of supply and the various options available.

Gas Supply and Demand study in an LNG import scenario

Importing LNG has the potential to support security of supply for both electricity and industrial gas consumers at higher energy costs than domestic gas.



"Depending on the market settings, the high gas prices could stimulate higher domestic gas production and bring resources that are currently uneconomic into the market, and potentially also encourage activity in exploration. However, the high prices may also create a risk of closure to industrial players, particularly those who are unable to pass the higher costs through to their consumers, for example those competing in international markets where competitors can access cheaper gas," the study found.

Demand issues

Major industrial consumption is exiting:

- New Zealand's largest energy user (by far), Methanex, has reduced its production capacity from three trains to one, roughly halving its output of valuable exported methanol over the past four years.
- Oji Paper is closing Kinleith and the other major wood processor, Norske Skog, has left.
- Fonterra has announced its intention to accelerate conversion of its gas boilers, rather than coal, because of its concern about the supply outlook.
- Large retailers, including Genesis-owned Frank, are declining new residential and commercial connections because of long-term concerns about supply contracts.
- Many large gas consumers were presented with very steep energy price increases into 2024 and some encountered issues in securing new supply contracts. Some will be seeking alternatives, including relocating in other markets.

Key issue – paying for security of supply

The current funding mechanism is bilateral contracting between producers and consumers, with a secondary market for risk-based products.

It is not clear that flexible gas demand (dry year cover) is fully contracted. That may mean that medium-sized gas industrial consumers are bearing the risk that electricity has not contracted enough gas and could lead to further severe price and gas availability issues for them, as seen in 2024.

Funding for security of supply can incentivise the optimal mix of flexibility, storage, development of currently uneconomic resource, and fuel imports.

Gas Transition

The previous government requested that Gas Industry Co and MBIE work together to produce a Gas Transition Plan. Although ‘phase out of fossil gas’ is no longer government policy, the Gas Industry Co draft transition plan identified a viable pathway into a future in which emissions from natural gas reduce in line with national commitments and the government’s ambition.

The infographic sets out the broad steps required:



Renewable gases

Opportunities are available today to decarbonise more of the gas sector through biomethane. Subsidies are not required, and the market should choose the highest value use of biogases.

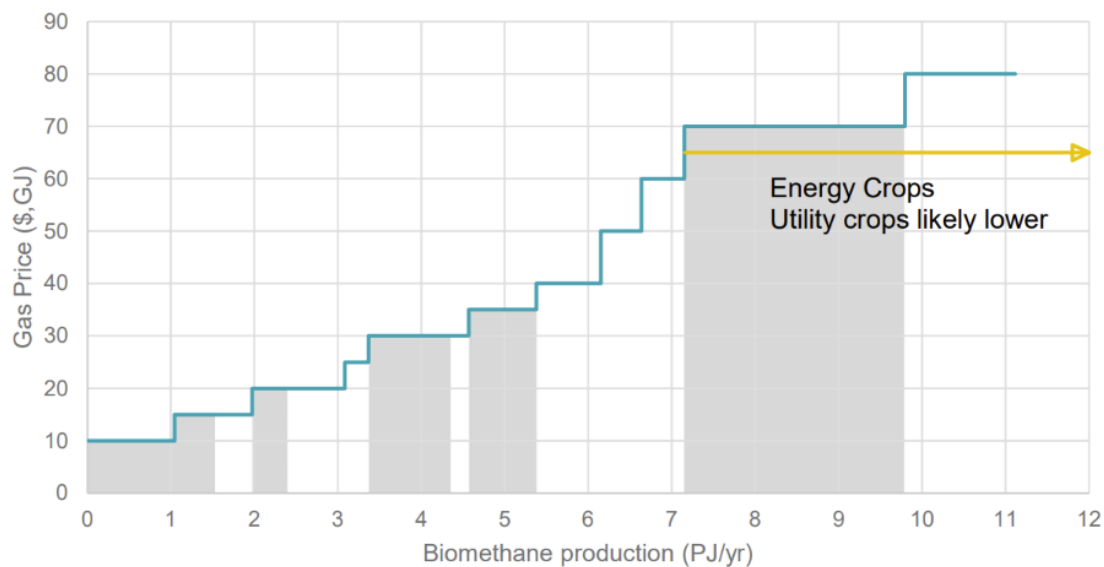
Biogas

Gas Industry Co is actively working with industry on regulations to support the emerging biogas market.

Gas Industry Co commissioned engineering consultants Wood Beca Ltd to complete research on the supply potential of biogas and renewable LPG production.

The graph below sets out the volumes of biogas that could become available at various price points.

If half of the feasible biogas (1.5PJ) were to be available for residential consumers, then up to a quarter of residential gas demand could be decarbonised in the 2020s at feasible prices.



Note: grey columns indicated the quantities based on the case studies

Hydrogen

Gas Industry Co commissioned consultants Castalia to provide expert economic analysis and modelling of likely hydrogen scenarios. It found that, while hydrogen could play an important role in decarbonising hard-to-abate sectors such as heavy transport, hydrogen is unlikely to be deployed at scale in existing natural gas infrastructure prior to 2035.

Gas Industry Co recommends that you support initiatives that remove barriers to hydrogen, but policy should not rely on hydrogen replacing natural gas as a decarbonisation strategy.

Carbon Capture, Utilization and Storage (CCS and CCUS)

- Emissions capture is technically and economically viable and is ready to begin in the mid-2020s.
- CCS is crucial to unlocking contingent resources, which are the best option for accessing domestic gas supply.
- Emissions capture technology is mature, safe, and stores carbon better than alternatives such as forests.

- Significant emissions reductions can be achieved.

GIC supports the government's establishment of a clear regulatory landscape for CCUS and urges prompt passage of the relevant legislation.

Currently, rules and regulations around CCUS are inconsistent and undermine investment certainty.

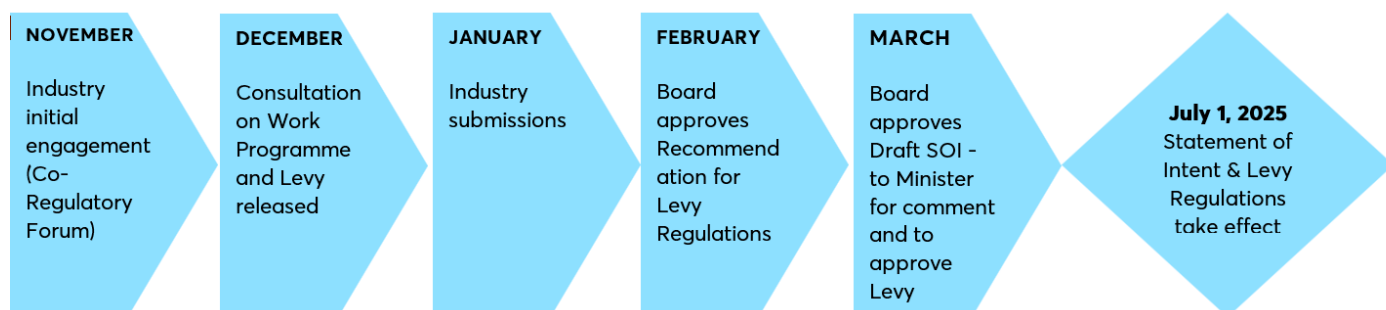
An important component of reform is that a developer undertaking carbon sequestration should be able to access the economic advantages of the ETS - that is, if carbon is not emitted because it is 'captured', then no carbon charge should occur. The decommissioning regime also needs to support investment.

Gas Industry Co Work Programme Priorities

Our proposed work programme priorities are out for consultation until Friday 7 February 2025.

We expect to present you with the FY2026-28 Statement of Intent detailing the FY2026 work programme and related matters for comment, and the Levy Recommendation for Ministerial/Cabinet approval, in March 2025.

The following outlines the process undertaken to develop the work programme and levy:



FY2026 Work programme

Role	Comprising
Gas Governance	<ul style="list-style-type: none"> • Critical Contingency Management • Retail Gas Contracts Oversight Scheme • Gas Distribution Contracts Oversight Scheme • Gas Governance Arrangements • Gas Governance arrangements recommendation to the Minister • Consultation on Levy Methodology • Statement of Intent and Annual Report • Other Reporting

Facilitating industry systems and processes	<ul style="list-style-type: none"> • emsTradepoint • Guidelines to Enhance Consumer Outcomes • Gas Transmission arrangements
Trusted advisor to government and industry	<ul style="list-style-type: none"> • Security of Supply • Consumer voice

Examples of Gas Governance

Critical Contingency Management (CCM)

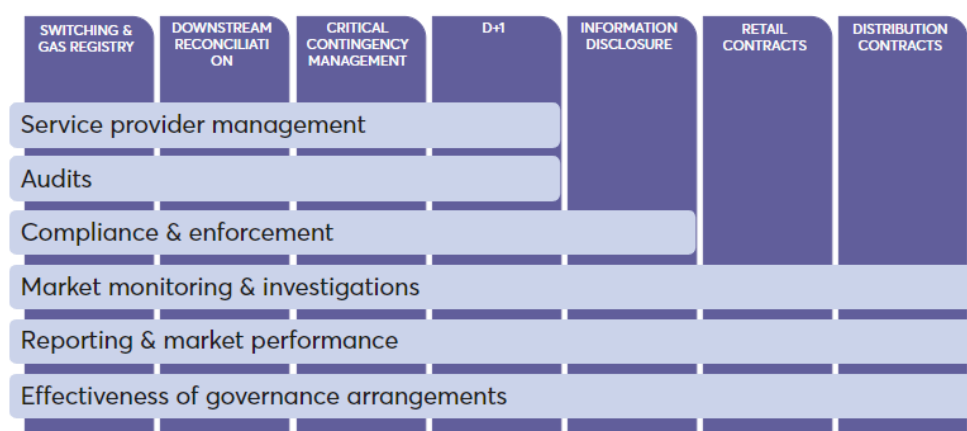
We are currently supporting MBIE through the legislative change process to progress amendments to the CCM Regulations. In FY2026 we intend to implement proposed changes to the CCM Regulations including consequential changes to existing industry processes.

Retail Gas Contracts Oversight Scheme

We monitor industry alignment with Gas Industry Co's guidelines to enhance consumer outcomes.

The next full assessment of retailer alignment with the Retail Gas Contracts Oversight Scheme is scheduled for FY2027. In FY2026 we will provide information to new entrant retailers to help them understand their obligations and the governance processes.

Gas Governance Arrangements



Downstream Reconciliation

The Reconciliation Rules establish a set of uniform processes that enable the fair, efficient, and reliable downstream allocation and reconciliation of downstream gas quantities.

In November 2024 we made a Recommendation to the Minister to amend the Gas (Downstream Reconciliation) Rules 2008 (Reconciliation Rules), the Gas (Switching Arrangements) Rules 2008 (Switching Rules), and associated systems, to make provision for advanced gas meters, injection of renewable gases and D+1 (daily allocations). In FY 2026 we will engage with industry on rule drafting and detailed specifications, consulting on and publishing guidelines and information exchange protocols, go-live of new arrangements and monitoring of new processes.

Examples of Facilitating Industry Systems and Processes

emsTradepoint

Transpower's most recent statement on emsTradepoint has the system continuing until September 2025. Given the importance of a trading platform, we are assuming a role in managing the transition of emsTradepoint after September 2025, including consulting on a range of options, which may include Gas Industry Co purchasing the gas trading platform if necessary to ensure security of supply.

Guidelines to Enhance Consumer Outcomes

Following the release of the final electricity Consumer Care Guidelines, we will undertake a scheduled assessment on the alignment of dual-fuel retailers with the gas industry guidelines. In FY2026, we expect to review retailer feedback on the guidelines and consider whether any changes are appropriate and assess retailer and distributor alignment with the guidelines.