

REPORT SUMMARY

FUELLING THE ENERGY TRANSITION

Across the world there is a growing realisation that we all need to play our part to mitigate the effects of climate change. In New Zealand, we have legislated to achieve net zero carbon dioxide emissions by 2050.

The key question is how we get there, and what trade-offs we are willing to make. The journey to net zero can be orderly and affordable for New Zealand's households and businesses if it is managed well, and the Emissions Trading Scheme is used to deliver net zero at the lowest cost to New Zealanders. If mishandled, it could be destructive and costly. At worst, high costs and heavy regulation could imperil the transition to net zero carbon altogether and undermine New Zealand's economic prosperity.

The reality is that New Zealand's economy needs natural gas. Our research shows that a rapid phasing out of natural gas could impose additional energy costs of \$6.3 billion across industrial, commercial, and residential consumers by 2036 and result in a disorderly transition. This will lead to higher energy prices (including electricity); undermine our energy security and reliability; and lead to slower decarbonisation of the economy. These consequences are inconsistent with a prosperous society that values its economic, social, and environmental wellbeing.

IF NATURAL GAS WERE PHASED OUT OF THE ELECTRICITY SYSTEM BY 2030, AN ADDITIONAL 4GW OF RENEWABLE GENERATION CAPACITY WOULD BE REQUIRED BY 2030, AND AN ADDITIONAL 16GW BY 2050.

FOR CONTEXT, NEW ZEALAND CURRENTLY HAS ABOUT 9GW OF GENERATION CAPACITY

There is no doubt New Zealand's renewable electricity generation capacity will need to grow significantly as we transition to a low emissions economy – increasing its capacity by 50% in the next seven years would be a huge and costly feat.

A disorderly transition in the absence of suitable economic renewable alternatives at scale would also undermine certainty of gas supply for key industrial users in New Zealand, which currently provide significant economic and employment benefits in our regions. Their premature departure, in the event this uncertainty becomes too much, would likely increase global emissions as their activities are moved to higher-emissions sites offshore.

In contrast, an orderly market and technology-led transition would allow us to explore all options to progressively reduce the emissions intensity of natural gas – including carbon capture, utilisation, and storage; forestry; and blending of renewable gases such as biomethane and hydrogen.

It is important for policymakers to appreciate the need to keep a broad mix of energy at our disposal in order to maintain a resilient, responsive energy system. Natural gas use will decline over time, but it will play a critical and enduring role through 2050 by supporting the electricity system, assisting in the decarbonisation of transport, and providing significant continued regional economic activity and employment. Investment confidence and certainty will be key to enable this.

The decisions and commitments that companies, industries, and policymakers make in the coming years will determine the costs and benefits of New Zealand's transition to net zero carbon emissions, and where those costs and benefits fall. It is in everybody's interests to keep our options open and pursue an orderly, well-managed transition that recognises the role of natural gas (and technological opportunities to reduce its emissions intensity) in balancing energy security, affordability, and sustainability.

New Zealand has choices about how it transitions to a net zero carbon emissions economy by 2050. By keeping as many options open as possible through an orderly transition, we can chart a lower-cost pathway that is in the best interests of New Zealand's households and businesses.

Net Zero by 2050

Multiple pathways get us to net zero by 2050 - the question is at what cost

Opportunity:
Net zero by 2050 in an affordable way

Risk:
A more expensive path to net zero by 2050. A disorderly transition could cost consumers \$6.3 billion by 2036

Opportunity:

94-97% renewable electricity by 2030, with gas peaking. Lower cost electricity means faster electrification of transport and process heat

Risk:

We phase out natural gas peaking and need an extra 4GW of renewable capacity by 2030 and 16GW by 2050

Renewable electricity

New Zealand currently has ~9GW of renewable electricity generation capacity

Oil and gas emissions

Between 2010 and 2019, New Zealand's oil and gas sector reduced Scope 1 & 2 emissions by 34%

Opportunity:

Oil and gas companies commit to continue reducing emissions with a voluntary sector accord. Natural gas replaces higher-emissions coal and supports lower-emissions manufacturing

Risk:

Natural gas is phased out, meaning higher-emissions solutions for peaking may be required, and some manufacturers may shift overseas (increasing global emissions)

Economic value

Oil and gas contribute around \$2.5 billion to the New Zealand economy every year

Opportunity:

The industry continues to play a significant role in New Zealand's economy

Risk:

New Zealand is a less prosperous place, with key exporters and employers significantly affected

High-value employment

Around 7,300 people are employed by the sector, mostly in Taranaki

Opportunity:

Investment confidence supports ongoing employment, with some people retrained and redeployed to support renewables like offshore wind

Risk:

A rapid phase-out of natural gas could leave this important regional workforce dislocated or force them to move overseas



Industry Commitment

The energy resources sector wants to play its part. New Zealand's leading natural gas producers have committed to an Energy Resources Sector Net Zero Accord to reduce emissions. Operators in the sector have pledged to significantly reduce their Scope 1 & 2 emissions as part of a managed, affordable, and durable transition to national net zero emissions by 2050.

The sector will reduce its direct (Scope 1) emissions (which arise from fugitive emissions, flaring, and other aspects of their operations) and their indirect (Scope 2) emissions (which arise from sources such as their electricity use and heat).

This Accord aligns New Zealand's oil and gas sector with New Zealand's legislated 2050 net zero emissions goal, as well as international commitments such as the 2016 Paris Agreement.

The initial signatories to this Accord are Beach Energy, OMV, Tamarind Resources, and Todd Energy, the leading producers of natural gas in New Zealand. Together their operations represent over 85% of New Zealand's oil and gas production.

New Zealand's upstream oil and natural gas industry has already significantly reduced its own Scope 1 & 2 emissions. Between 2010 and 2019, the sector's emissions profile reduced by 34%. The Accord underpins the sector's commitment to continue to build upon this success. It provides a foundation for future collaboration with not only other energy resources sector participants, but also with government.

Getting to net zero

New Zealand's natural gas resources are an advantage to help us get to net zero carbon emission by 2050. We should not squander it.

Investment confidence will be key to ensuring New Zealand can produce enough natural gas to help us to 2050, as the Climate Change Commission envisions.

A desirable transition to net zero should not constrain or phase out supply of certain forms of energy. Rather, it should ensure the demand side has the right price signals, via the Emissions Trading Scheme (ETS), to transition to lower emissions at the lowest cost to New Zealanders. The supply side can then provision the right mix of fuels for consumers based on these demand signals and can also reduce production emissions based on the carbon price signal.

Technology is playing a large role in other countries' transitions to lower emissions. For a successful transition, New Zealand ought to also develop a regulatory regime for carbon capture, utilisation and storage. This would allow the use of technologies to remove and store carbon at source and/or from the atmosphere to reduce and offset emissions from hard to abate activities such as manufacturing.

It should also continue to explore the role of renewable gas (including biomethane and hydrogen) in the transition, with blending offering an opportunity to reduce the emissions intensity of gas and extend the useful life of existing gas infrastructure.

New Zealand has already begun its journey to transition to a low emissions economy by 2050.

We are pleased to contribute this report to the national conversation, which shows the critical role that natural gas will play in that future economy and our transition to it.



About us

Energy Resources Aotearoa represents energy intensive businesses, from explorers and producers to distributors, sellers, and users, of energy resources like oil, LPG, natural gas, refined products, and hydrogen.

Our mission is to create a successful and sustainable energy resources sector that makes New Zealand a better place, through and beyond the transition to lower emissions.



**POWERING A BETTER
NEW ZEALAND TOGETHER**

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