



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HIKINA WHAKATUTUKI

Update on Oil and Gas Security in New Zealand

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Ministry of Business, Innovation and Employment

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New Zealand's Energy



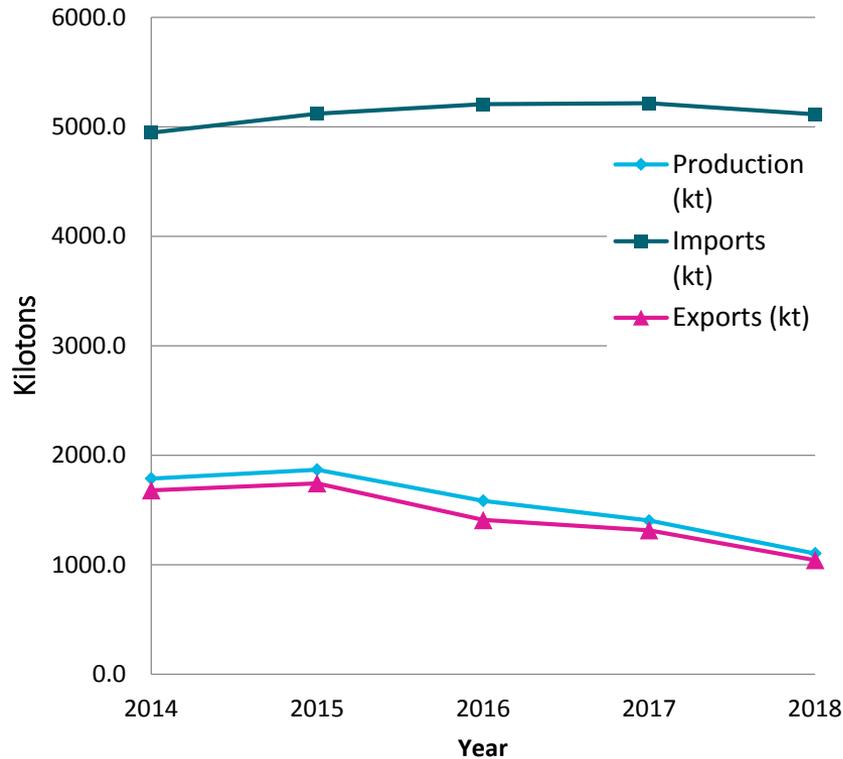
Production 40:60 / Renewable:Non-Renewable

Consumption 30:30:30 / Industry:Transport:Other



Crude oil production, import and export

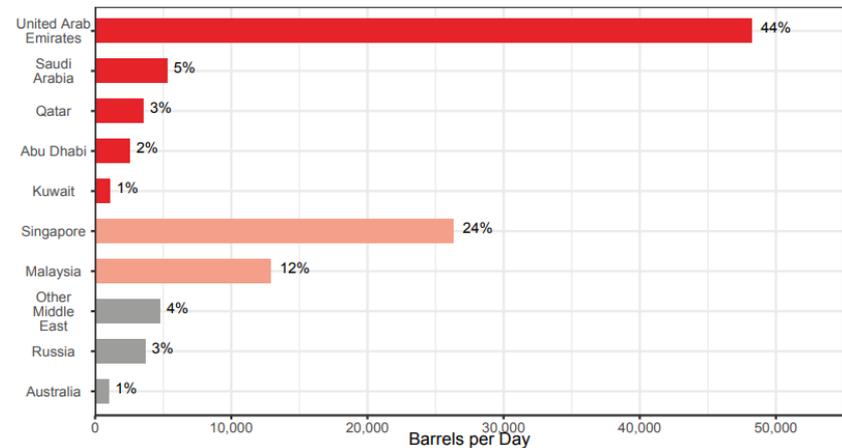
New Zealand Crude Imports and Exports



Crude Exports 2018

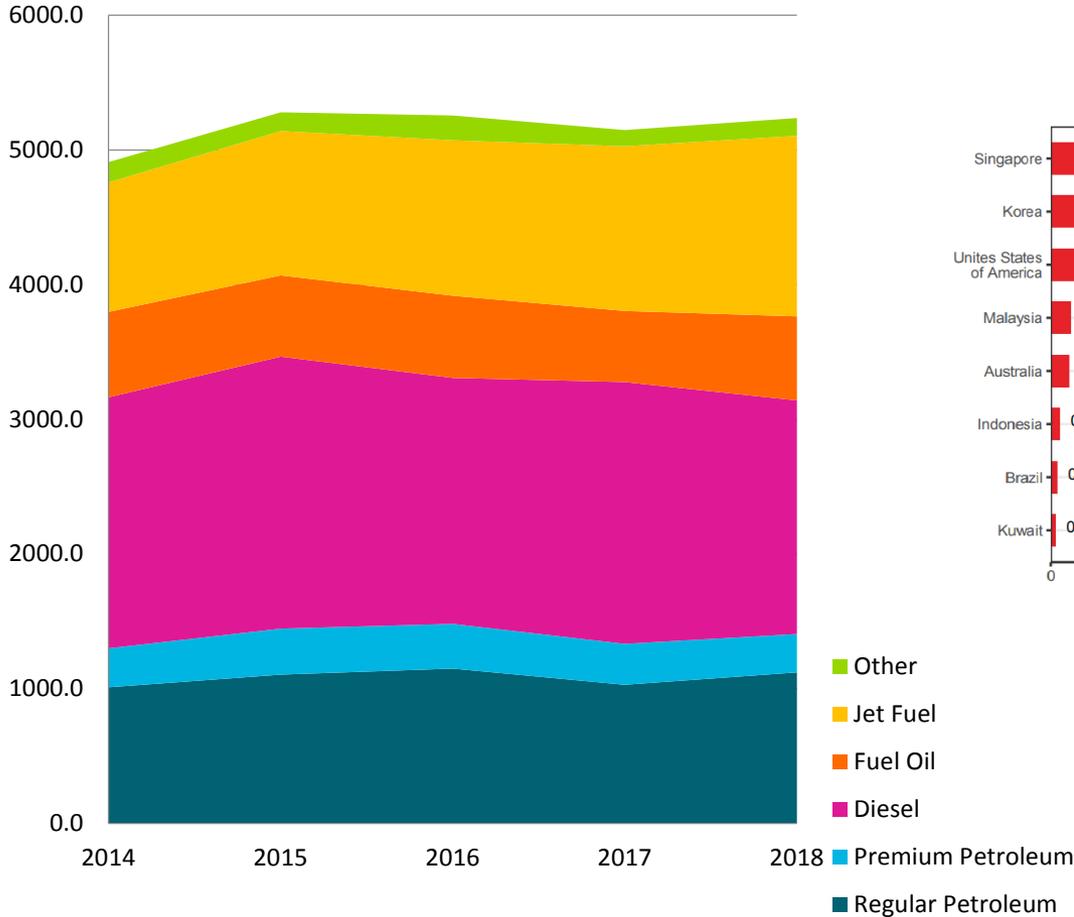
Destination	Exports (kt)	API	% Share
Australia	879.40	47.31	85%
Singapore	110.81	67.12	11%
South Korea	46.35	63.04	4%

Crude Imports 2018

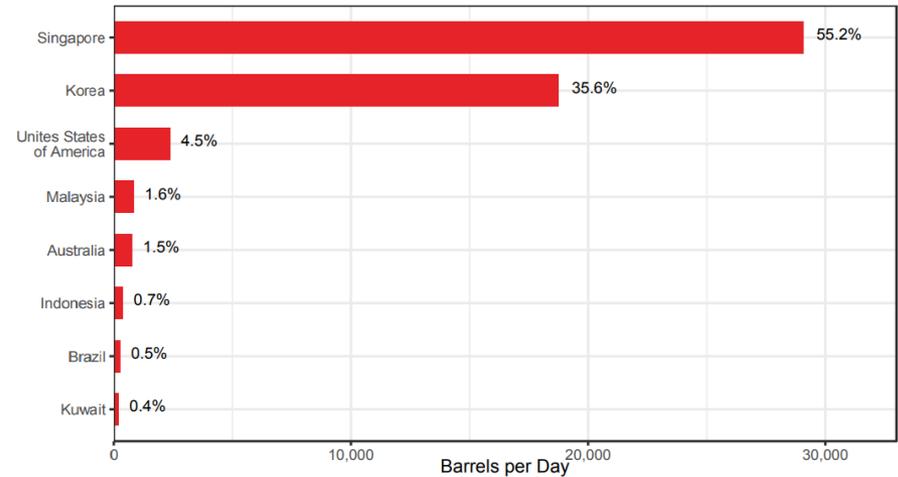


Petroleum Products Supply Security

Refinery petroleum products production

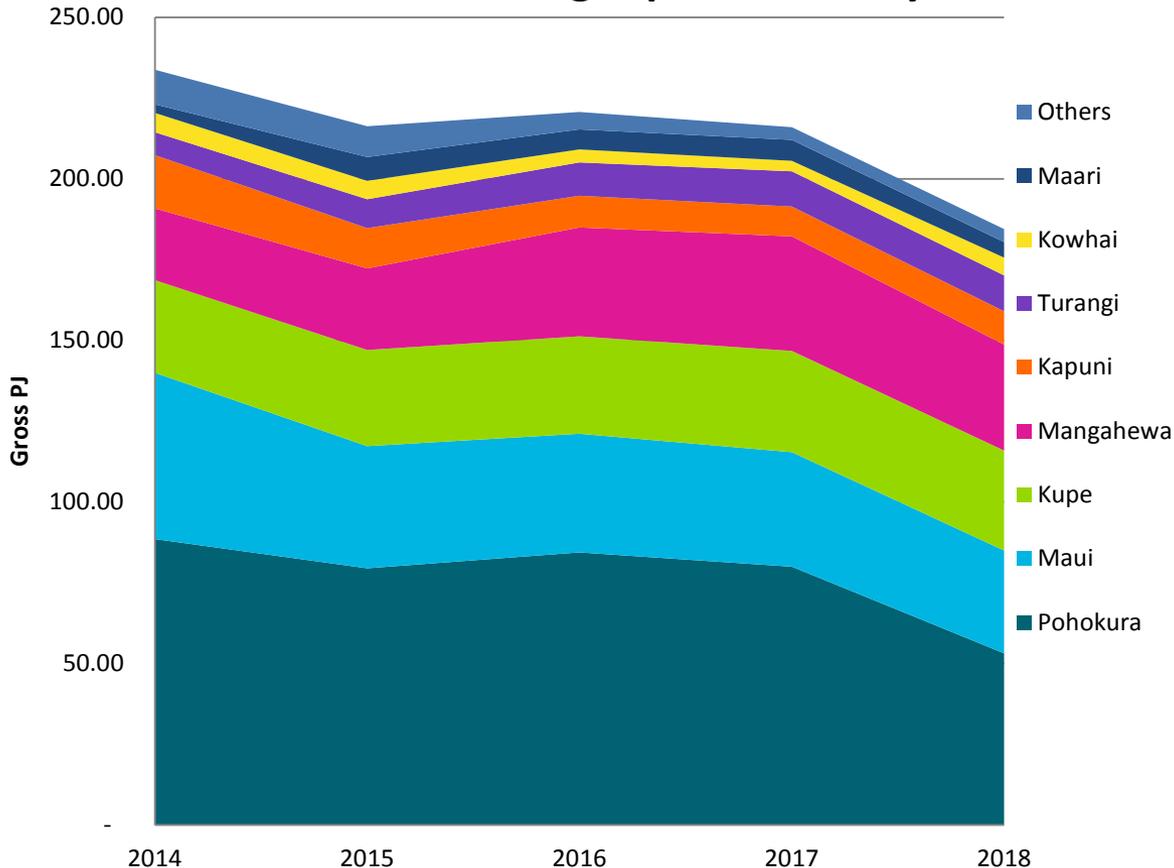


Oil product imports 2018



Natural gas supply

New Zealand natural gas production by field



Entirely reliant on domestic supply as no import of natural gas.

Historically reliant on Maui field, with offshore fields continuing to dominate production.

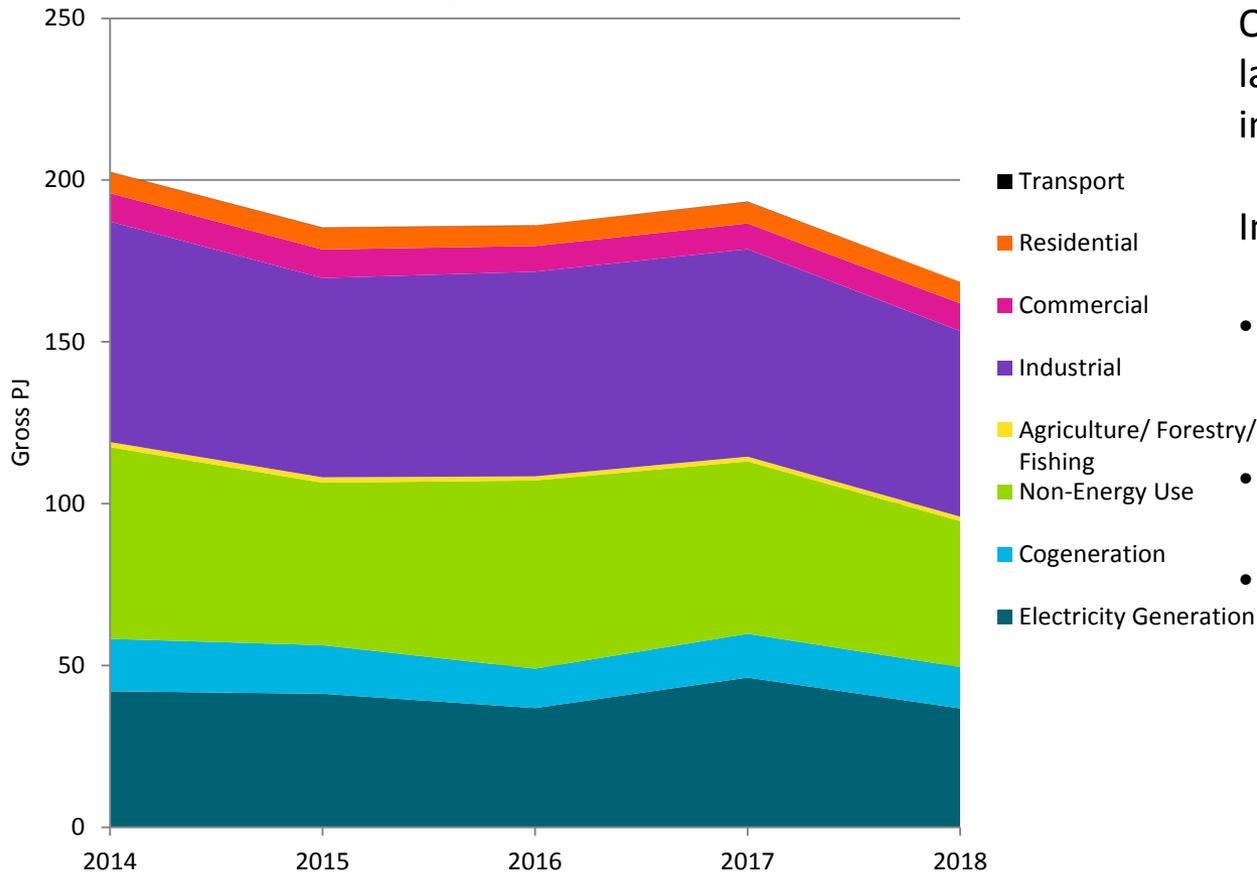
No stockpiling (one gas storage facility used by electricity sector to manage seasonal demand and renewable variability).

No import or export of natural gas



Natural gas demand

Annual Gas Consumption by Sector (2014 – 2018)



Overall gas demand is reducing, largely due to supply constraints in recent years.

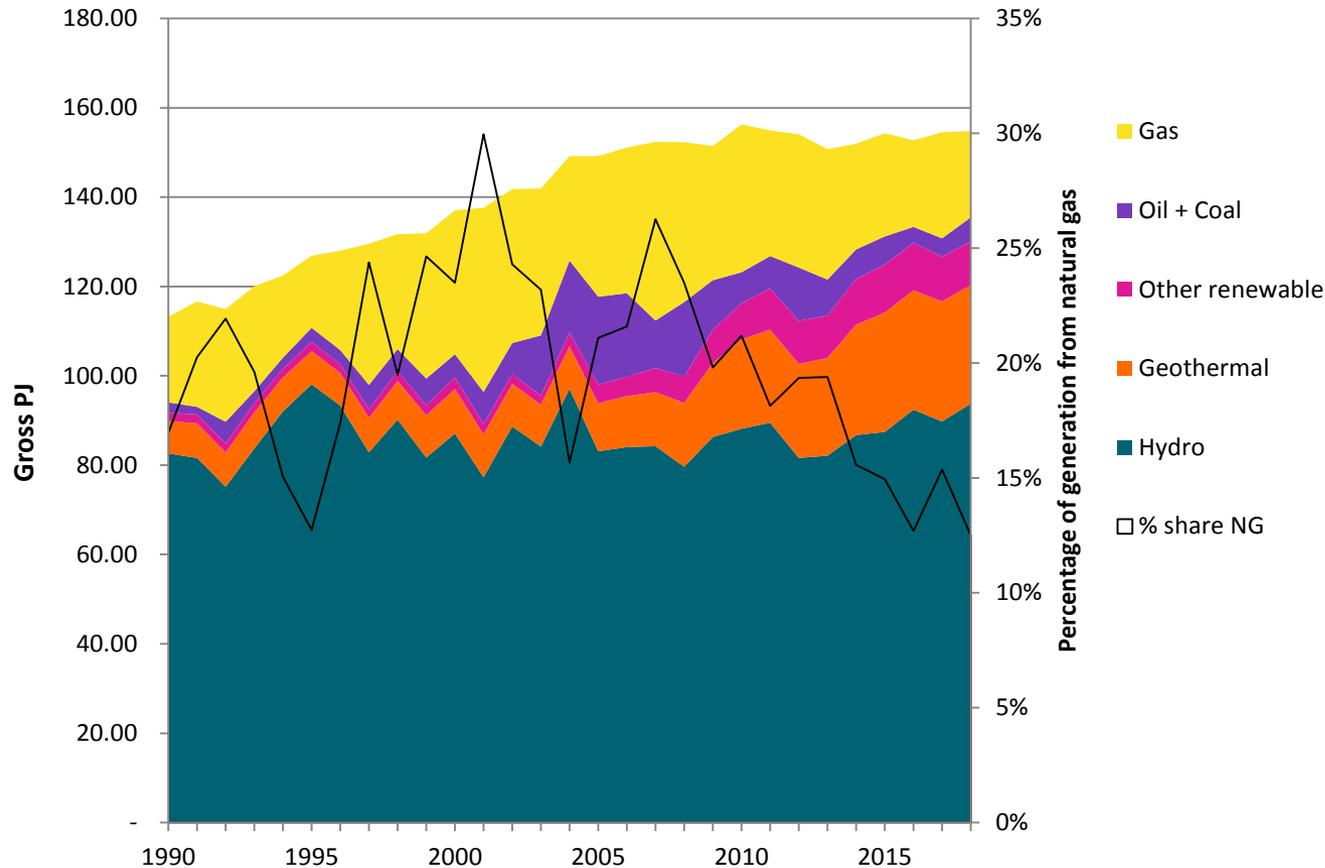
In 2018:

- 30.4 per cent used for power generation
- 33.2 per cent used in industry
- 27.1 per cent used for non-energy purposes

Source: Ministry of Business, Innovation and Employment

Electricity generation mix

New Zealand Electricity Mix and Natural Gas share



Mostly renewable electricity generation ~82% in 2017

Thermal generation used to cover peak demand (daily and seasonal).

New Zealand peak demand in winter.

Power demand relatively flat, but projected to greatly increase with more EVs and greater process electrification

Gas Supply

- New Zealand has not had any significant petroleum discoveries since the mid 2000s and the Government is no longer granting offshore exploration permits.
- An outage at the Pohokura production station (40 per cent of supply) during 2018 and early 2019) of the natural gas supply has highlighted the tightness of the gas supply.
- This will affect the medium to long-term security of supply for natural gas.
- Regulations in place to ensure demand is rationed if there is unexpected loss of production or transmission capacity.
- Government priorities are to shift to greater electrification or renewable energy sources in the medium to long term



Oil security framework

- Reliance on competitive global and domestic markets for supply
- Industry leads response to supply disruptions
- Oil Emergency Response Strategy
 - framework for Government's response to a severe national fuel shortage
 - Stockholding equivalent to at least 90 days of net import demand
- 2016 average monthly stock holding level was 99 days
 - Stockholders include the major fuel companies and the oil refinery
 - Government purchases additional stock to meet 90 day requirement
 - All emergency stock currently held off-shore through tickets (in IEA member states)
 - Previous reviews of oil security used a cost-benefit framework, factoring in probabilities of potential supply disruptions, to determine the appropriate level of domestic oil stockpiling

Further information:

[Energy in New Zealand \(MBIE,2018\)](#)

<https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-publications-and-technical-papers/energy-in-new-zealand/>

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