



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

New Zealand's Update on Oil and Gas Security

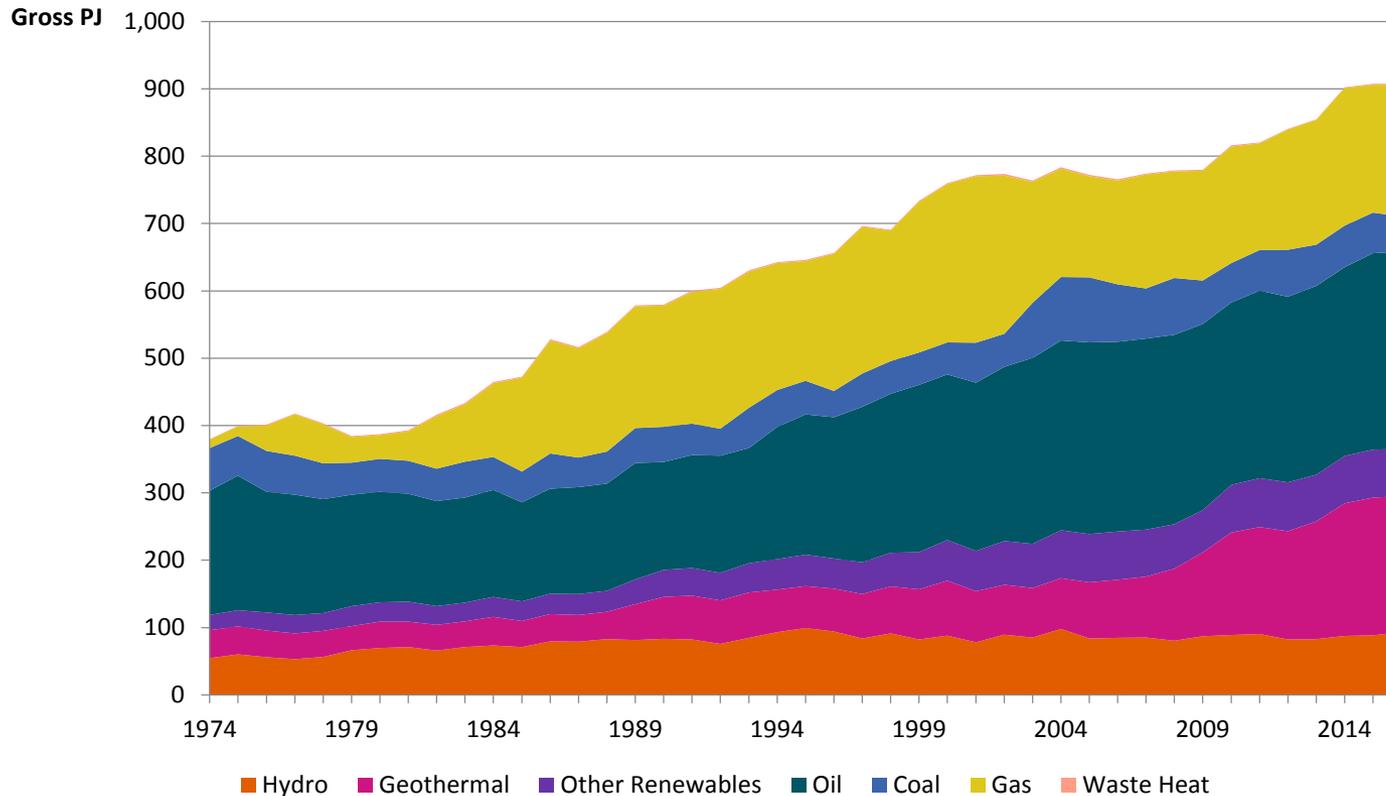
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Ministry of Business, Innovation and Employment



Oil and Gas Supply and Demand Situation

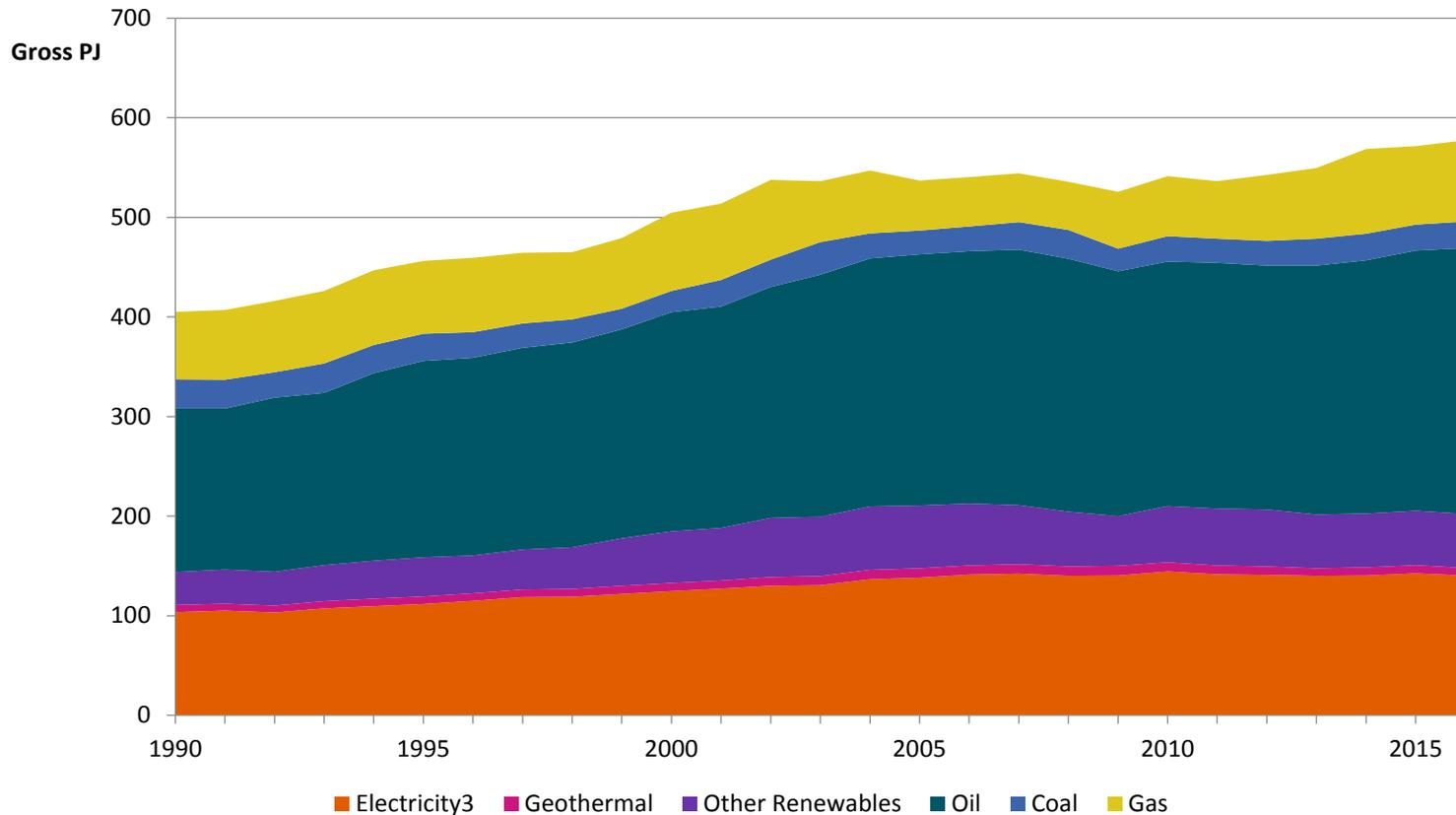
Total Primary Energy Supply by Fuel



In 2016, renewable energy was 40% of total primary energy supply

Oil and Gas Supply and Demand Situation

Consumer Energy Demand by Fuel

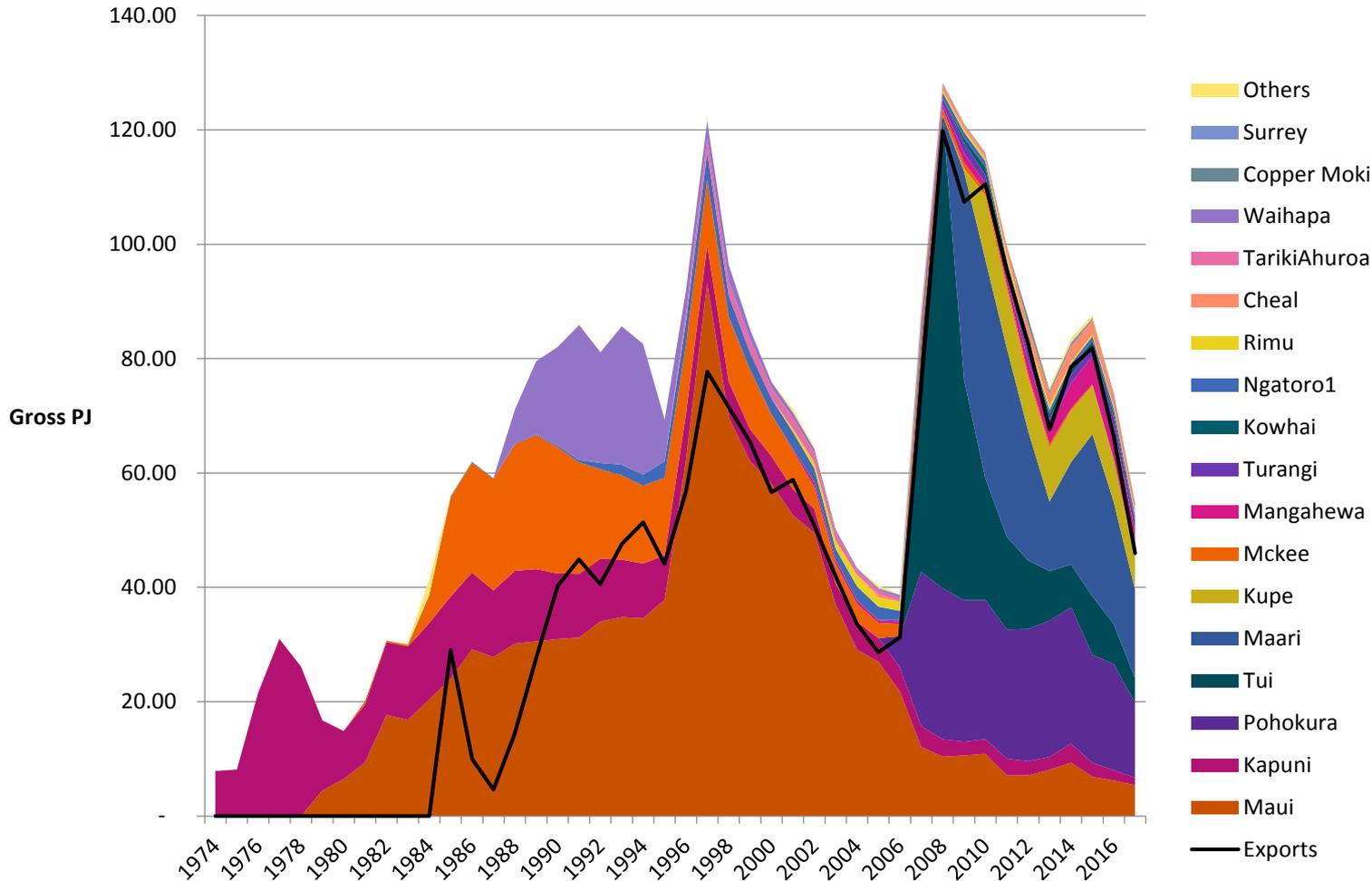


Self-sufficiency in 2016:

- Oil – 25%
- Gas – 100%
- Energy – 78%

Oil and Gas Supply and Demand Situation

Annual Crude Oil, Condensate, Naphtha and Natural Gas Liquids Production by Field

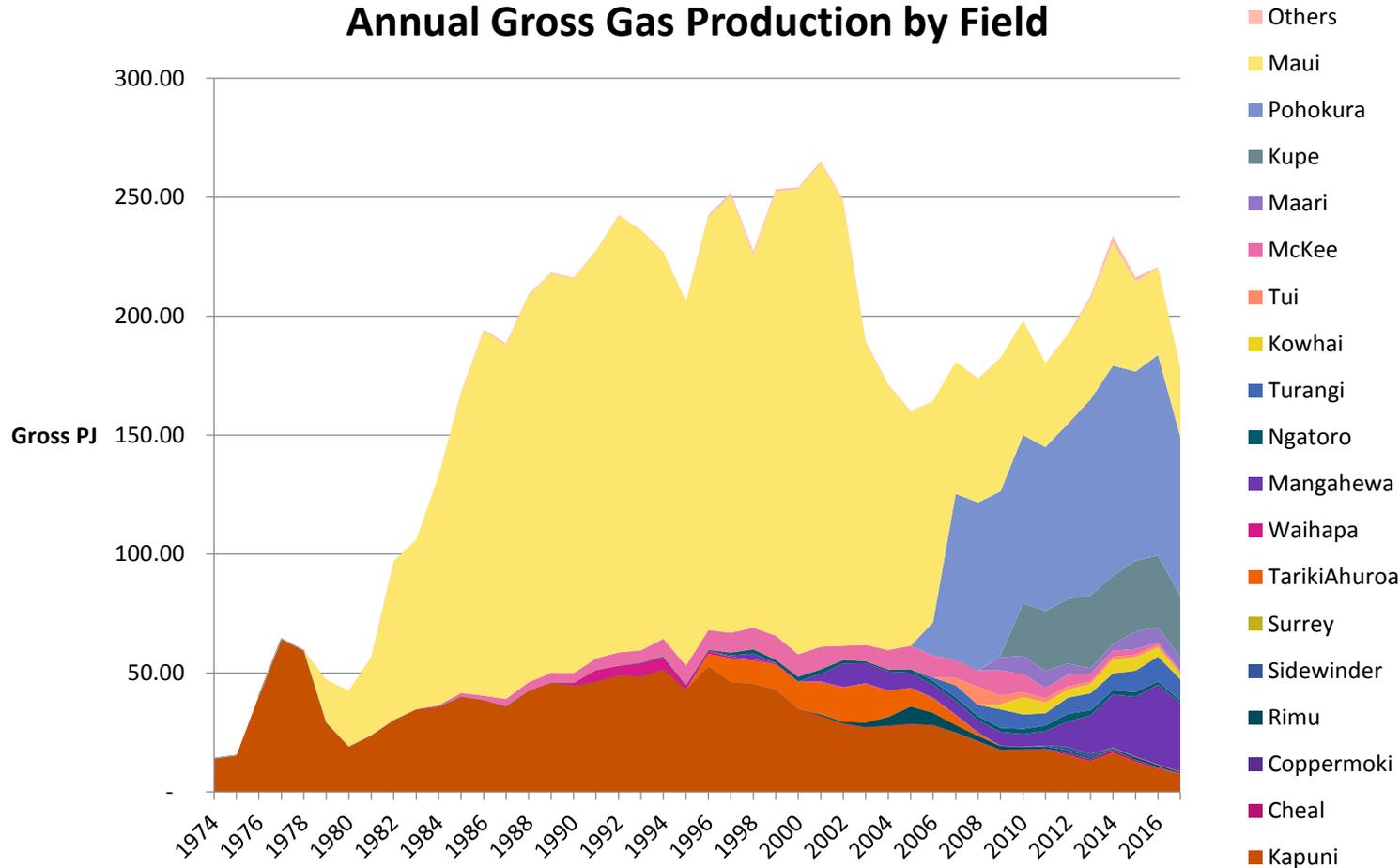


In 2016:

- most crude oil was exported to Australia
- 66% of imported crude oil came from the Middle East
- 26% of imported crude came from Asia
- Approximately 84% of imports of oil products came from Singapore and South Korea

Oil and Gas Supply and Demand Situation

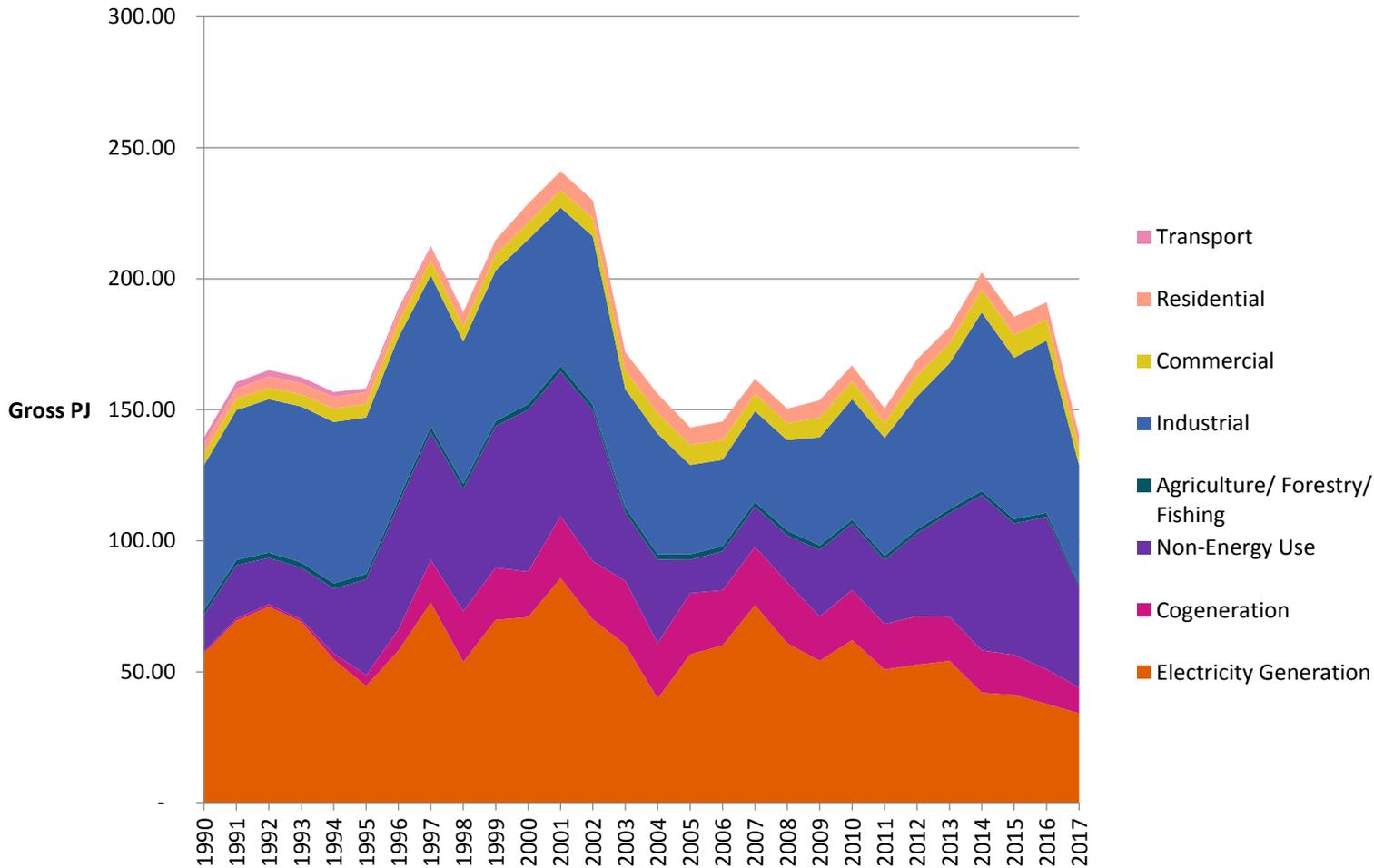
Annual Gross Gas Production by Field



- The Maui field has historically dominated gas production
- No import or export of natural gas

Oil and Gas Supply and Demand Situation

Annual Gas Consumption by Sector



In 2016:

- 27% of gas was used for electricity generation
- 35% of gas was used in industry

Oil Security Policy

- 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
 - In 2016, the average monthly stock holding level was **99 days**
 - Main stockholders include the major fuel companies and the oil refinery
 - Government purchases additional stock to meet the 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

Refinery to Auckland Pipeline Outage, September 2017

- 170km pipeline – from refinery in Whangarei to Auckland
- Supplies all jet fuel and most ground fuel for Auckland
- Loss of pressure detected – pipeline shut down on 14 September 2017
- Pipeline returned to service after 10 days, at lower operating pressure

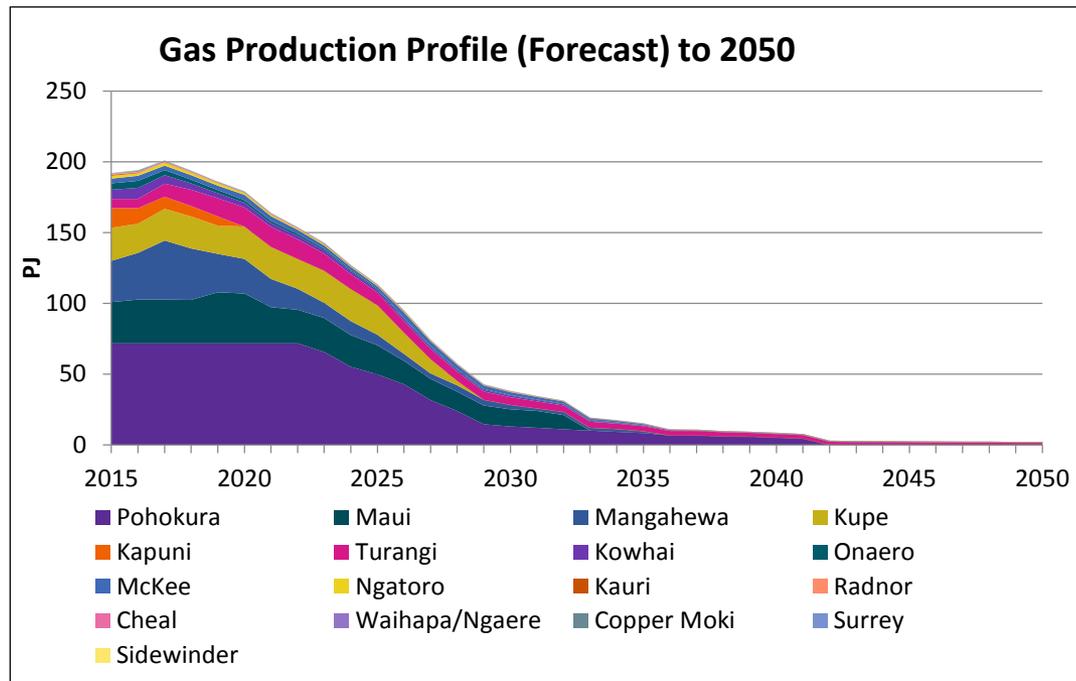


Refinery to Auckland Pipeline Outage, September 2017

- Jet fuel rationing for airlines operating at Auckland Airport
- Little impact on ground fuels in Auckland
- Fuel companies maintained supply by trucking fuel from the refinery and other terminals
- Government assisted fuel companies to maintain supply; for example, easing weight restrictions on trucks supplying fuel
- Government intends to commission an independent inquiry into the pipeline outage

Gas Supply Security Policy

- Reliance on competitive domestic market
- Competitive royalty and tax regime to promote exploration and production
- No stockpiling (but one gas storage facility used by electricity sector to manage hydro and wind power variability)
- Critical contingency management regulations ensure demand is rationed if there is an unexpected loss of production or transmission capacity



Oil and Gas Security Policy Gaps

- As a net oil importer, with long supply routes, New Zealand supports development of regional oil storage and trading hubs
- While New Zealand is currently self-sufficient in natural gas, a deep and liquid regional gas market would promote long-term supply security
- New Zealand is also interested in the resilience of critical national infrastructure, which includes the national fuel supply system
- Given the seismic and volcanic activity in the region, it is important to consider the resilience of critical oil and gas infrastructure, and its role in any response to a natural disaster

Further information:

[Energy in New Zealand \(MBIE, 2017\)](#)

<http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand>

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