

Total Energy Consumed by Fuel Type

HIGHLIGHTS:

- Energy consumption may affect health.
- New Zealand consumed 572 Petajoules (PJ) of energy in 2015, an increase of 0.7 percent from 2014.
- Oil continued to be the predominant type of energy consumed in New Zealand from 1990 to 2015.



Source: <http://www.med.govt.nz/sectors-industries/energy/energy-modelling/modelling/new-zealands-energy-outlook-electricity-insight>

Energy consumption may affect health

The consumption of energy is a major source of air pollution. The burning of fossil fuels releases particulate matter (such as PM₁₀) and gases, which can have negative effects on health (Kjellström, 2004). Furthermore, the use of fossil fuels adds to carbon dioxide in the atmosphere, contributing to greenhouse gases and potentially climate change, which has the potential to affect health (Kjellström, 2004).

New Zealand uses a variety of energy sources, including:

- renewable (e.g., hydro-electricity, geothermal energy, biogas, and wind and solar power)
- non-renewable sources (e.g., fossil fuels like coal, oil and gas).

New Zealand's total energy consumption increased slightly between 2014 and 2015

In 2015, New Zealand consumed 572 PJ of total energy – a 0.7 percent increase from the previous year. Forty-six percent (261 PJ) of consumed energy was from oil, followed by 25 percent (143 PJ) from electricity.

Energy consumption from natural gas and coal decreased by 7.3 percent and three percent respectively in 2015. Energy demand for the remaining fuels – coal, oil, renewables, and electricity – all rose between one and three percent in 2015 compared to 2014 (Table 1).

Table 1: Total energy consumed (PJ), by fuel type, 2014-2015

Fuel type	2014	2015	Change (%)
Oil	254	261	2.7
Electricity	140	143	2.2
Gas	85	79	-7.3
Renewables	62	62	1.2
Coal	27	26	-2.6
Total	568	572	0.7

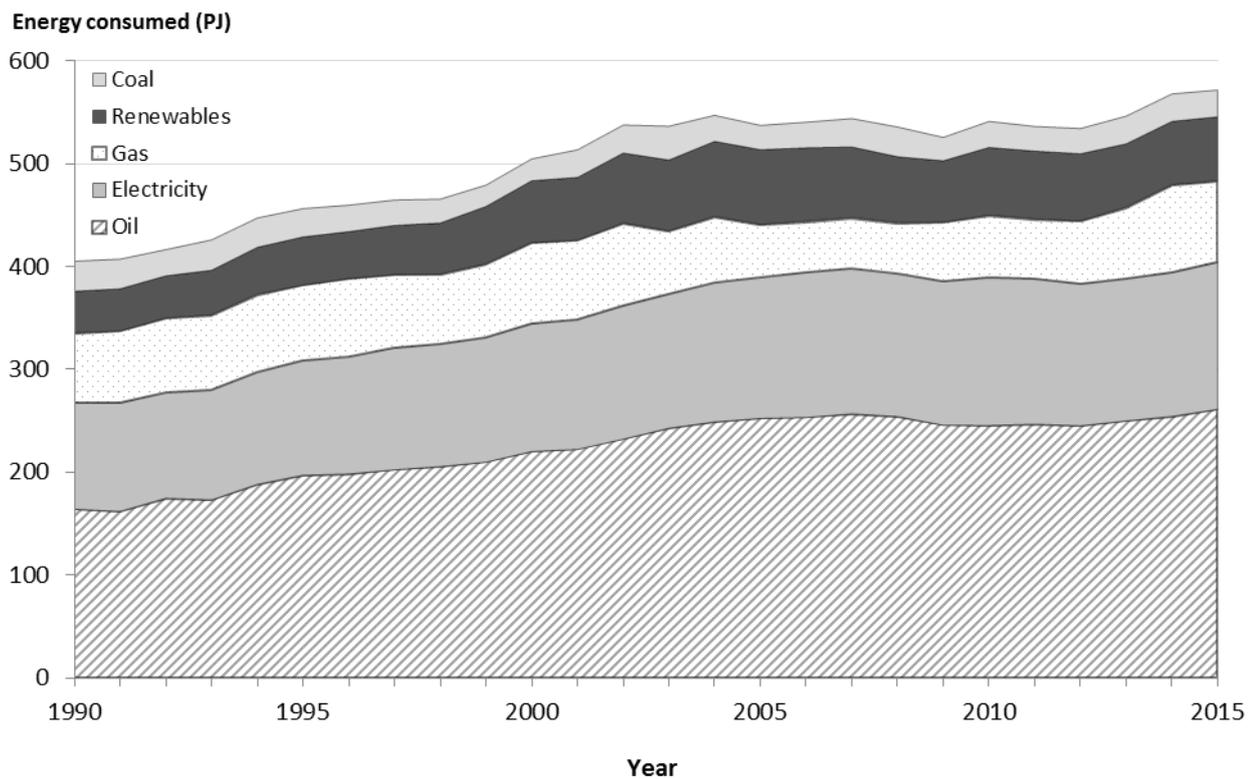
Source: Ministry of Business, Innovation & Employment (MBIE), 2016

Total Energy Consumed by Fuel Type

Oil is the predominant type of energy consumed in New Zealand

Oil has remained the predominant type of energy consumed in New Zealand since 1990, accounting for 44 percent of total energy consumption, followed by electricity (25%), gas (13%) and renewables (12%). Coal only made up five percent of consumer energy between 1990 and 2015 (Figure 1).

Figure 1: New Zealand’s total energy consumption (PJ), by fuel type, 1990-2015



Note: Industrial excludes fuel used for electricity generation, as this is counted under energy transformation.

Source: Ministry of Business, Innovation & Employment (MBIE), 2016

REFERENCES

- Kjellström T. (2004). Air Quality and Health. In: Cromar N, Cameron S, Fallowfield H. (Eds.). *Environmental Health in Australia and New Zealand* (pp. 274-92). Melbourne: Oxford University Press.
- Ministry of Business, Innovative & Employment (MBIE). (2016). *Energy in New Zealand 2016*. Retrieved from <http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand>

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