

Total Energy Consumed by Fuel Type

HIGHLIGHTS:

- Energy consumption may affect health
- New Zealand consumed 544 PJ of energy in 2013, an increase of 1% from 2012.
- Oil was the predominant type of energy consumed in New Zealand from 2000 to 2013.



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.

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 1% between 2012 and 2013

In 2013, New Zealand consumed 544 PJ of total energy. 46% of consumed energy was from coal, followed by 25% from electricity. Compared to 2012, the energy consumed from coal and gas has increased by 9% and 5% respectively. Energy consumption from renewables and electricity has decreased by 2% and 1% respectively (Table 1).

Table 1: Total energy consumed (PJ), by fuel type, 2012 -2013

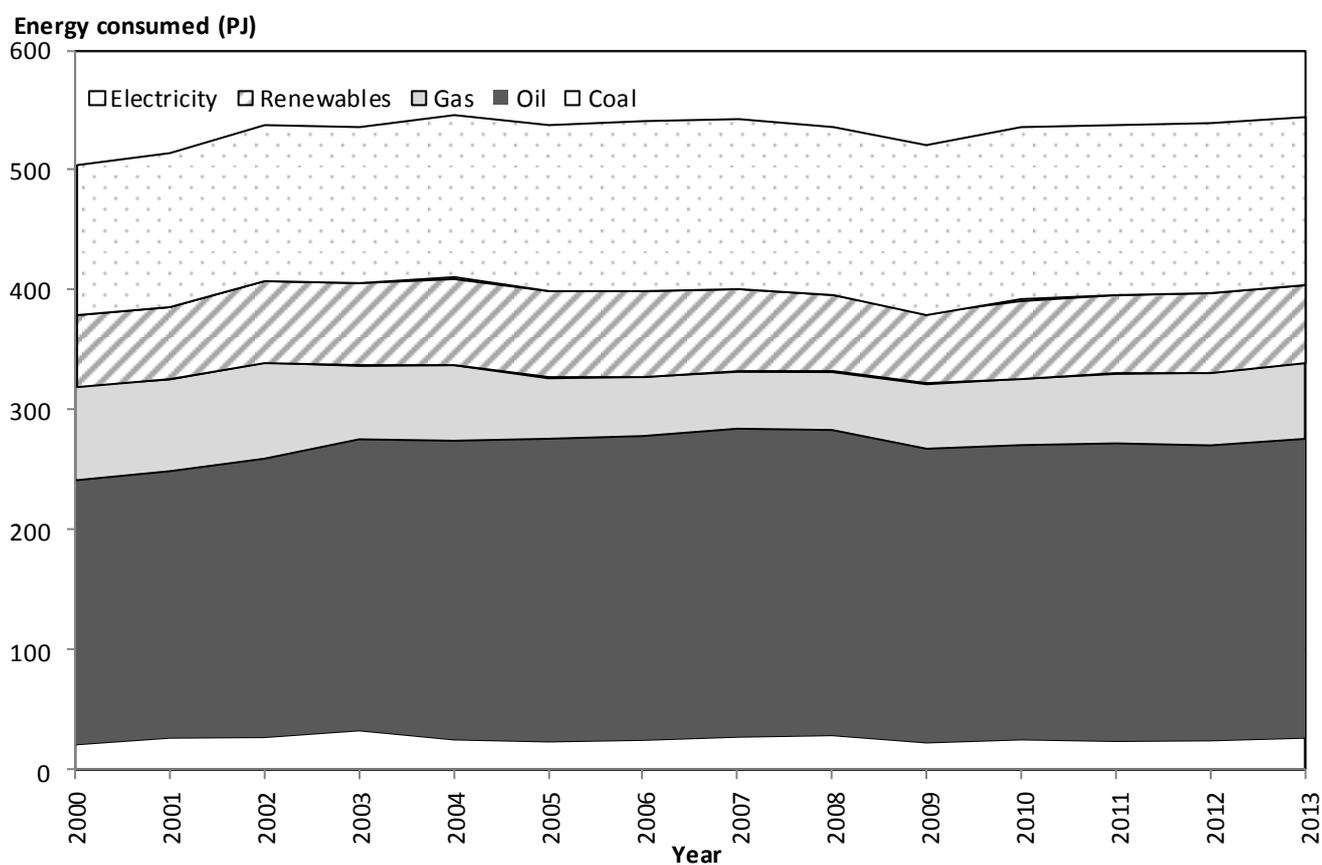
Fuel Type	2012	2013	Change %
Coal	25	27	9 ↑
Oil	246	249	1 ↑
Gas	61	63	5 ↑
Renewables	66	64	2 ↓
Electricity	141	140	1 ↓
Total	538	544	1 ↑

Source: Ministry of Business, Innovation & Employment (MBIE), 2014

Oil is the predominant type of energy consumed in New Zealand

Oil has remained the predominant type of energy consumed in New Zealand since 2000, accounting for 46% of total energy consumption, followed by electricity (26%). During the 2000-2004 period, the total energy consumed increased by 8%. However in the subsequent nine years, there have been fluctuations in the total energy consumption. Since 2003, the renewables has replaced gas and become the third popular energy consumed in New Zealand (Figure 1).

Figure 1: New Zealand's total energy consumption (PJ), by fuel type, 2000-2013



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

Source: Ministry of Business, Innovation & Employment (MBIE), 2014

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REFERENCES

- Kjellström T. (2004). Air Quality and Health. In: Cromar N, Cameron S, Fallowfield H. (eds.). Environmental Health in Australia and New Zealand. Melbourne: Oxford University Press:274-92.
- Ministry of Business, Innovative & Employment (MBIE). (2014). Energy in New Zealand 2014