

## Proportion of Households Using Wood and Coal fires as a Source of Home Heating

### HIGHLIGHTS:

- The use of wood and coal fires dropped steadily from 1996 to 2013.
- In 2013, 37% of households in New Zealand used wood fires as a source of home heating and 4% used coal fires.
- Households in the South Island were more likely to use wood or coal fires than those in the North Island.



Source: <http://www.smh.com.au/environment/wood-heaters-could-go-on-back-burner-20110615-1g3zm.html>

### Use of wood and coal fires for home heating is a major source of air pollution in New Zealand

Home heating through the use of wood and coal fires is a major source of air pollution in New Zealand (Naeher et al, 2007; Kuschel et al, 2012). Wood and coal fires emit particulate matter, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>) and other organic compounds (Fisher et al, 2007). Using wood and coal as a source of fuel for home heating can also lead to poor air quality within the households.

Air pollution can affect people's health, especially their heart and lungs – and can even lead to early death. Particulate matter causes most of the health effects from air pollution. Wood and coal fires are the largest contributor of human made particulate matter (PM<sub>10</sub>) in New Zealand (Kuschel et al, 2012).

### In 2013, 37% households in New Zealand used wood fires for home heating and 4% used coal fires

The proportion of households using wood fires dropped from almost 50% in 1996 to 37% in 2013 (Figure 1). In 2013, one in three households in the North Island used wood fires compared to nearly half of the households in the South Island (Table 1).

The use of coal fires for home heating fell from 13% of households in 1996 to 4% in 2013 (Figure 1). Coal fires were used in 10% of households in the South Island, compared with 2% of households in the North Island (Table 1).

Figure 1: Percentage of households using different fuel sources for home heating, 1996-2013

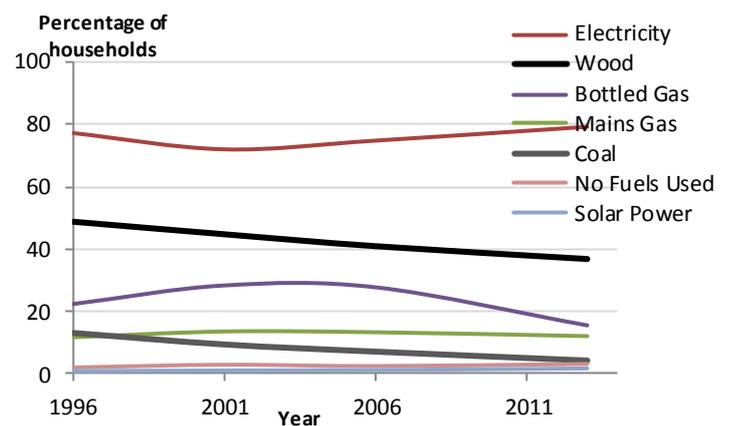


Table 1: Proportion of households using wood or coal fires as a source of home heating, 2013

Area	Wood%	Coal%
North Island	33	2
South Island	47	10
Total New Zealand	37	4

Source of Figure 1 and Table 1: Statistics New Zealand, Census (1996, 2001, 2006, 2013)

Note: The denominator was the total number of dwellings stated.

### South Island households have the highest use wood or coal fires

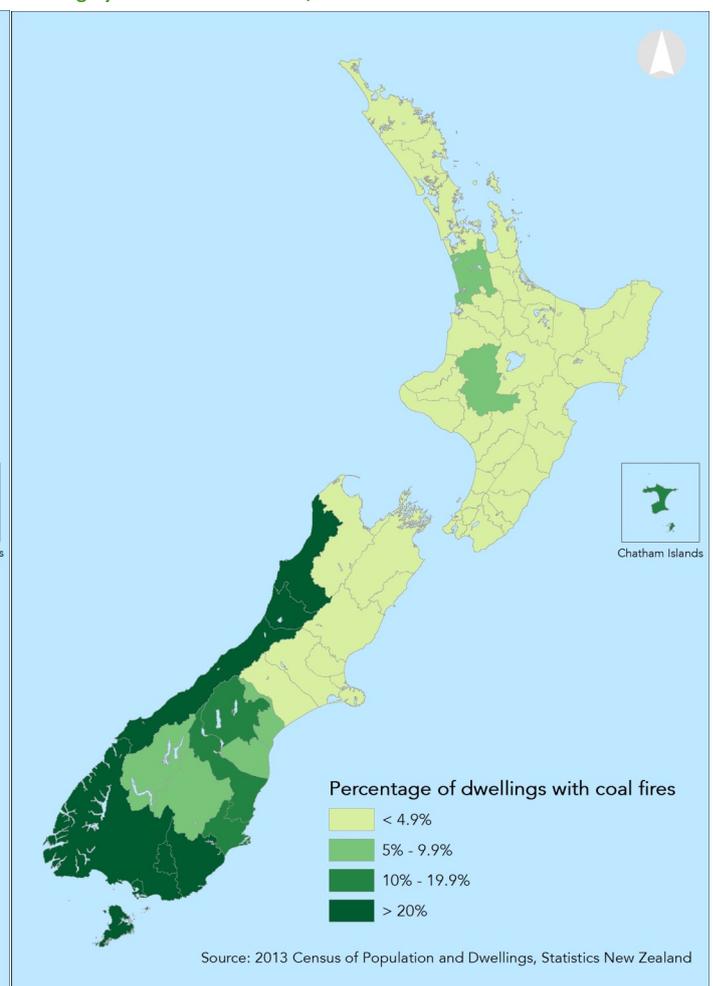
Households in the South Island were more likely to use wood or coal fires than those in the North Island. Coal fires tended to be used more in the West Coast and the Southland.

In 2013, Mackenzie District (83%), Hurunui District (82%) and South Wairarapa District (81%) had the highest proportion of households using wood fires in New Zealand. Grey District (63%), Buller District (56%) and Gore District (47%) had the highest proportion of households using coal fires.

**Figure 1: Percentage of households using wood fires as a source of home heating by territorial authorities, 2013**



**Figure 2: Percentage of households using coal fires as a source of home heating by territorial authorities, 2013**



Source: Statistics New Zealand, 2014

Note: The denominator was the total number of dwellings stated.

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#### REFERENCES

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