



Measuring our progress: The performance of the gas industry

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AUTHOR:

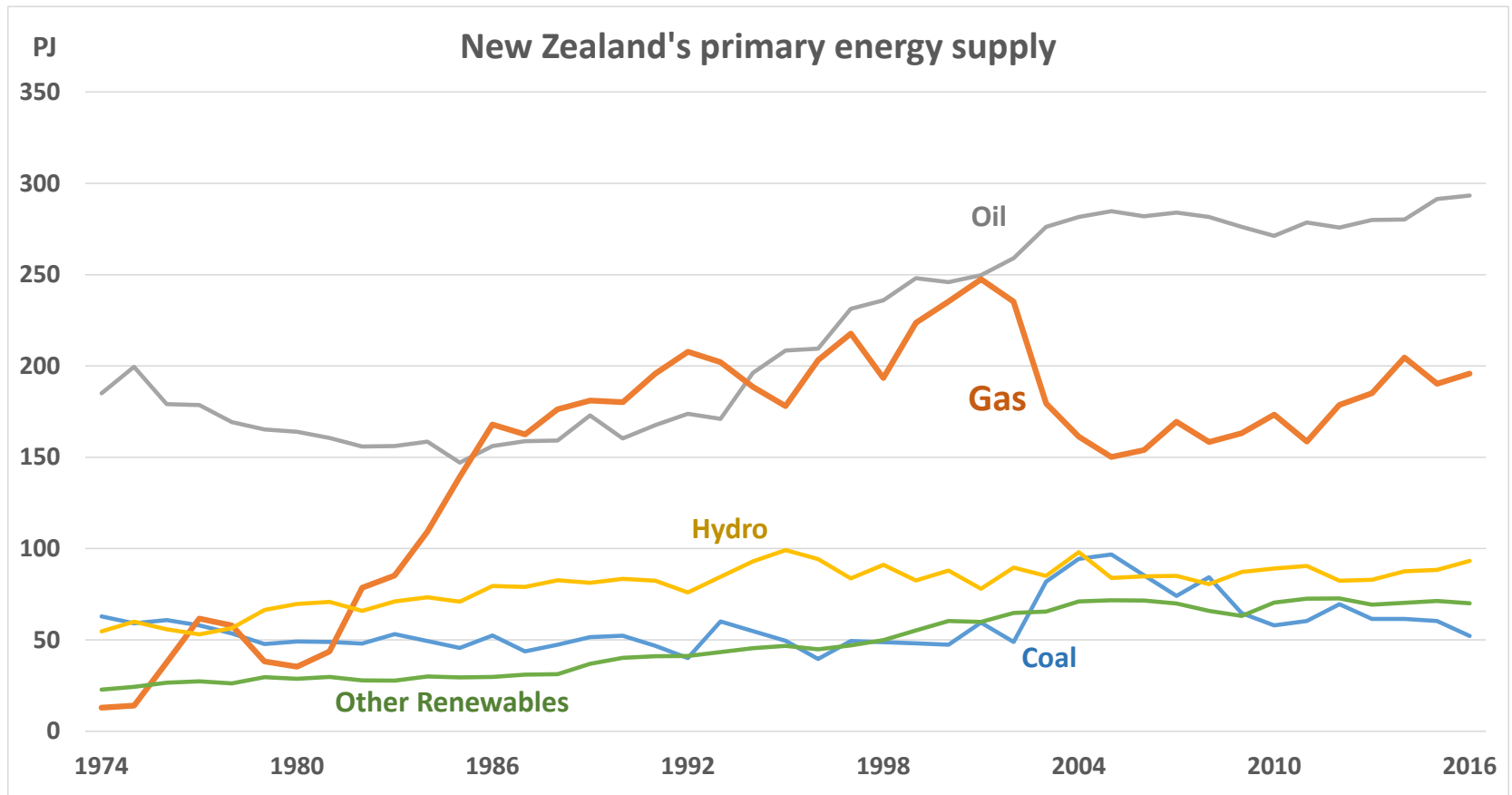
Pamela Caird



Outline

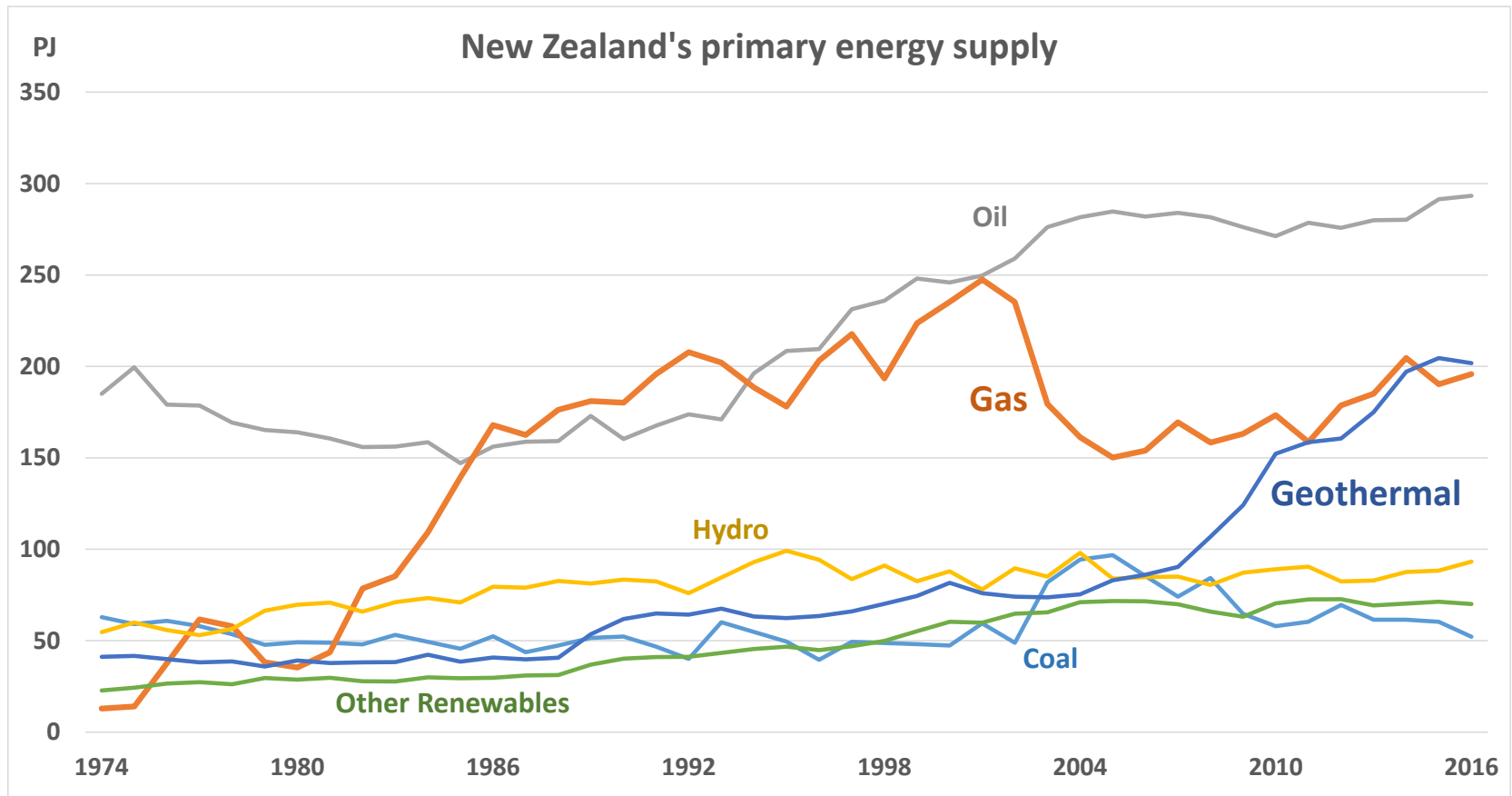
- Trends in the natural gas and LPG markets
- Gas governance arrangements leading to improved outcomes
- Summary and conclusions

Overall gas consumption is on an upward trend...



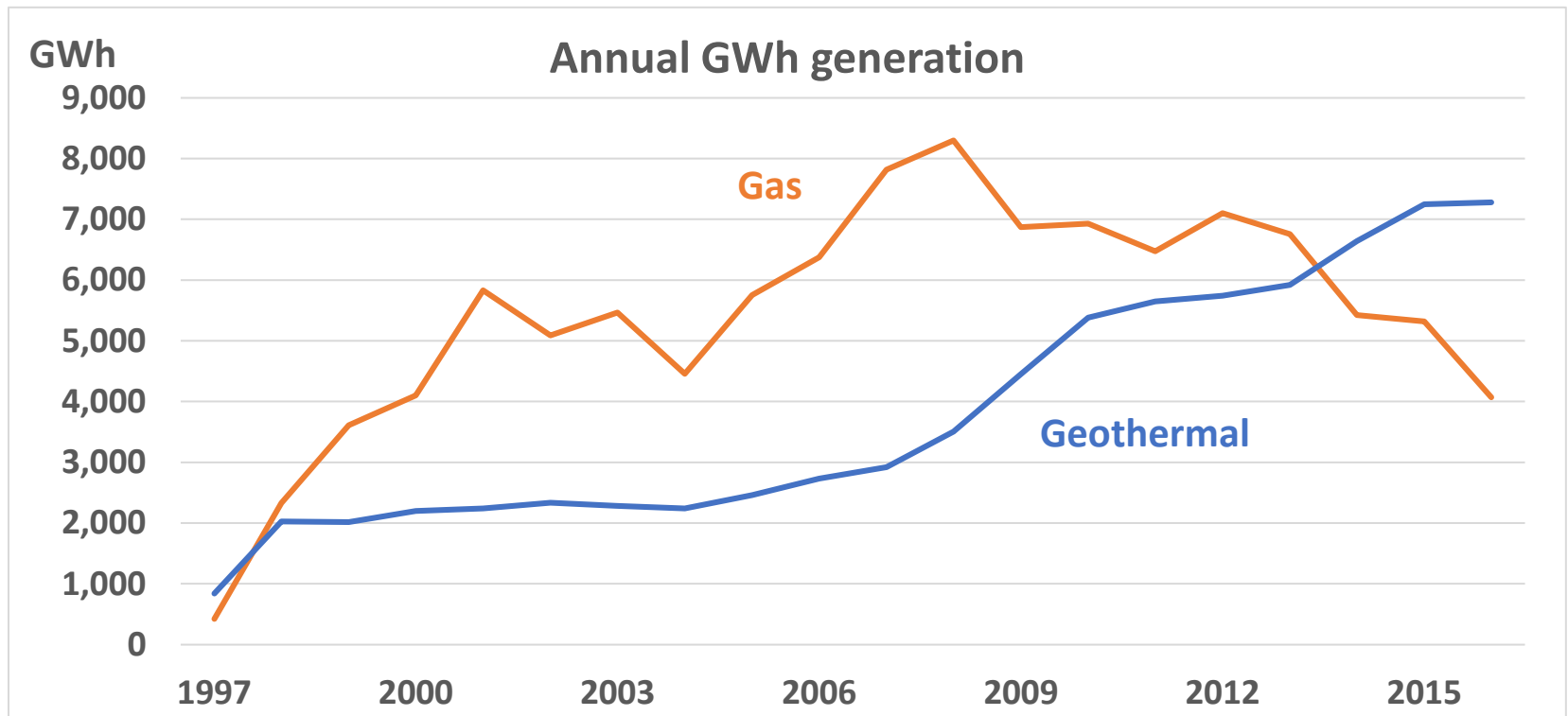
Source: MBIE, *Energy in New Zealand 2017*

...but it is no longer the second largest source of energy in New Zealand



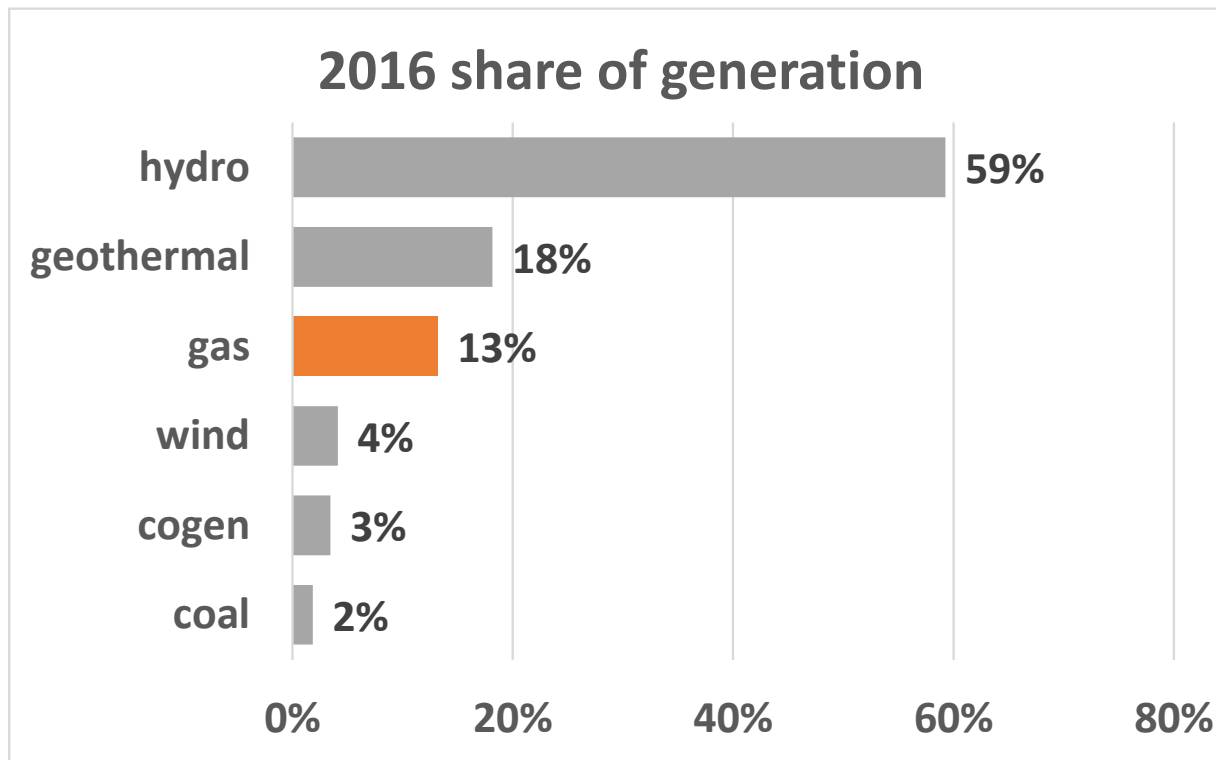
Source: MBIE, *Energy in New Zealand 2017*

There is a similar crossover in electricity generation



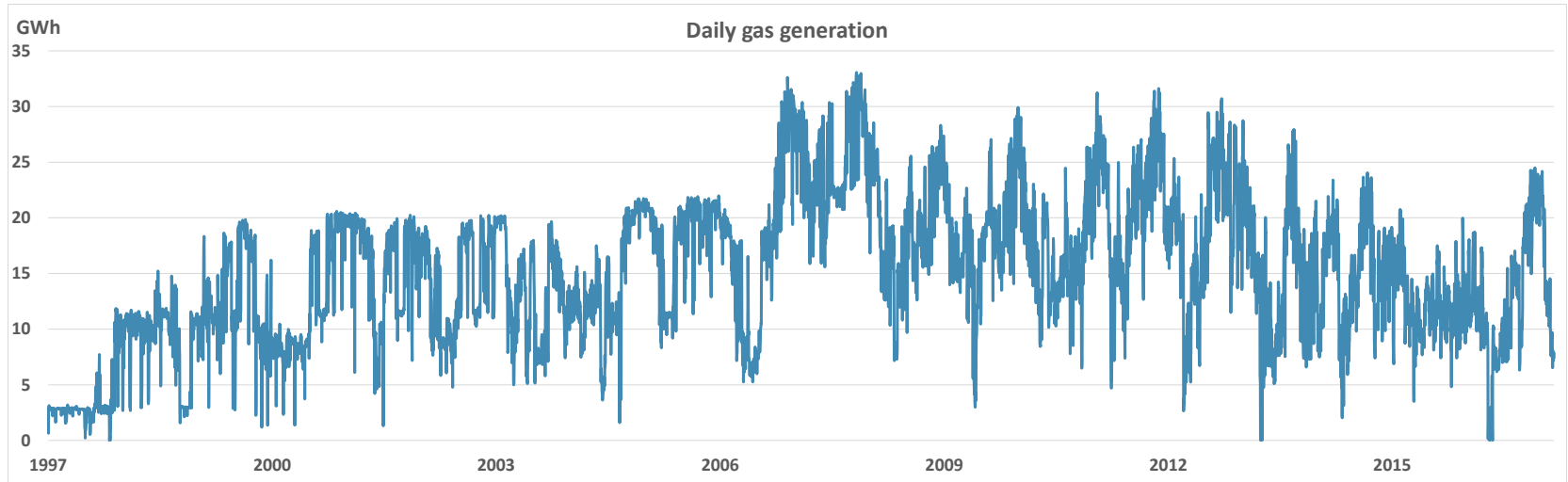
Source: Electricity Authority, wholesale generation dataset

... and gas generation is now the third largest contributor to electricity generation



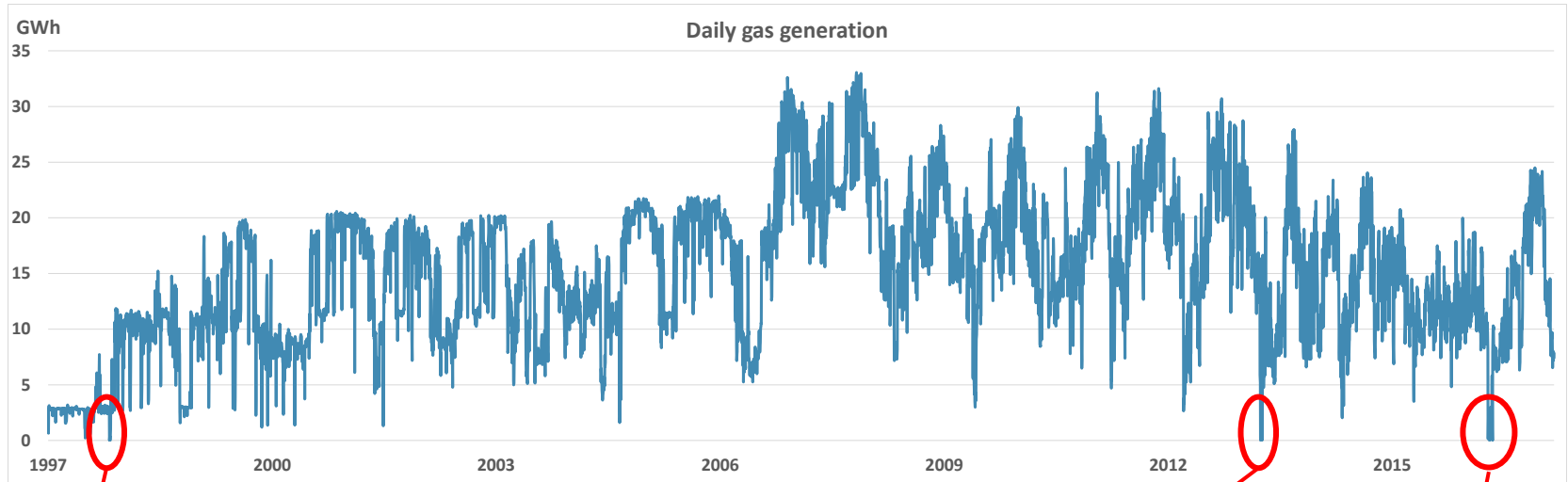
Source: Electricity Authority, wholesale generation dataset

Q: How many days has gas generation not run?



Source: Electricity Authority, wholesale generation dataset

Q: How many days has gas generation not run?



28 & 30 May 1998

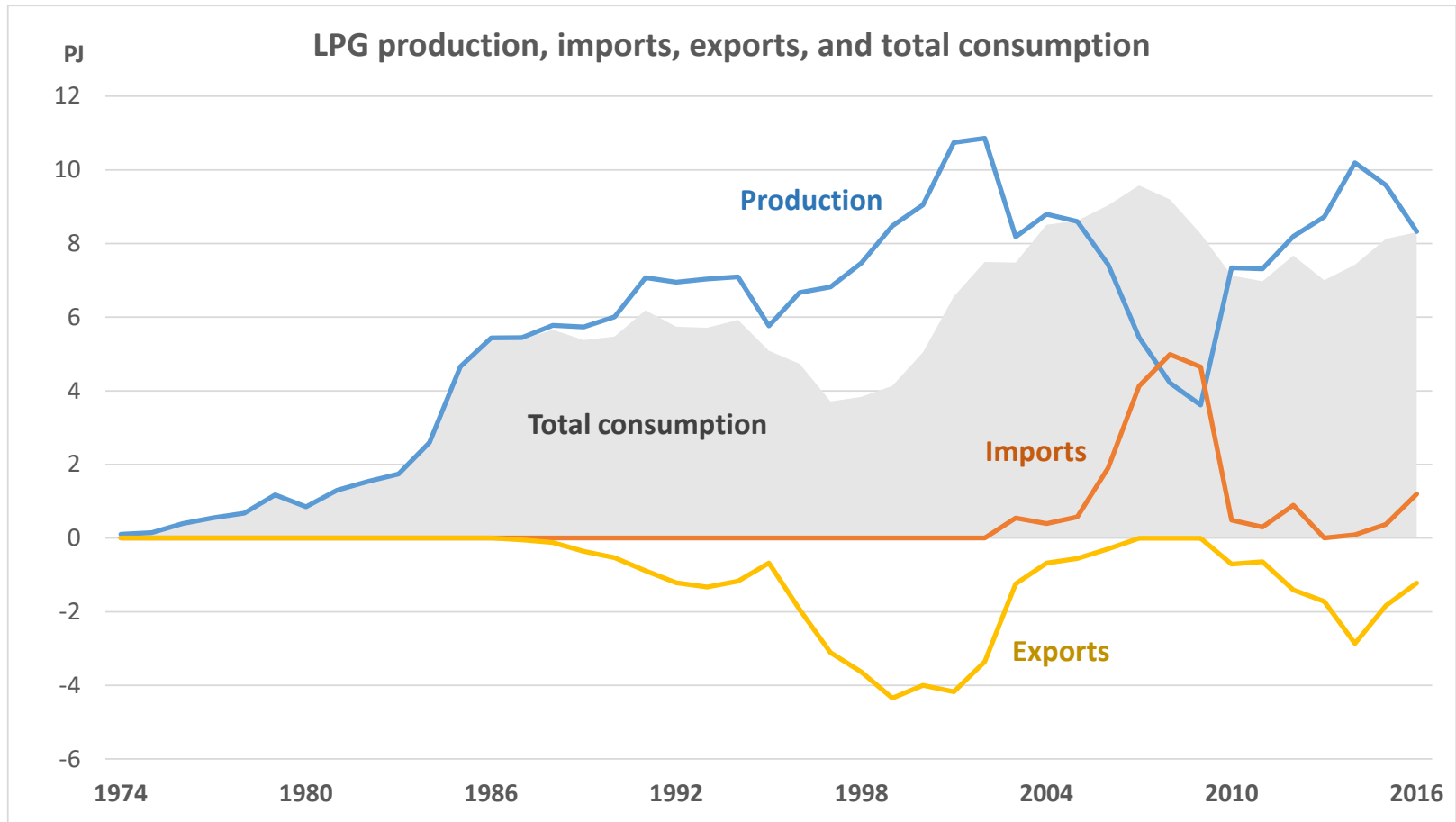
27 Oct 2013

19 & 20 Nov 2016
4 Dec 2016

A: 6 out of 7,366 days

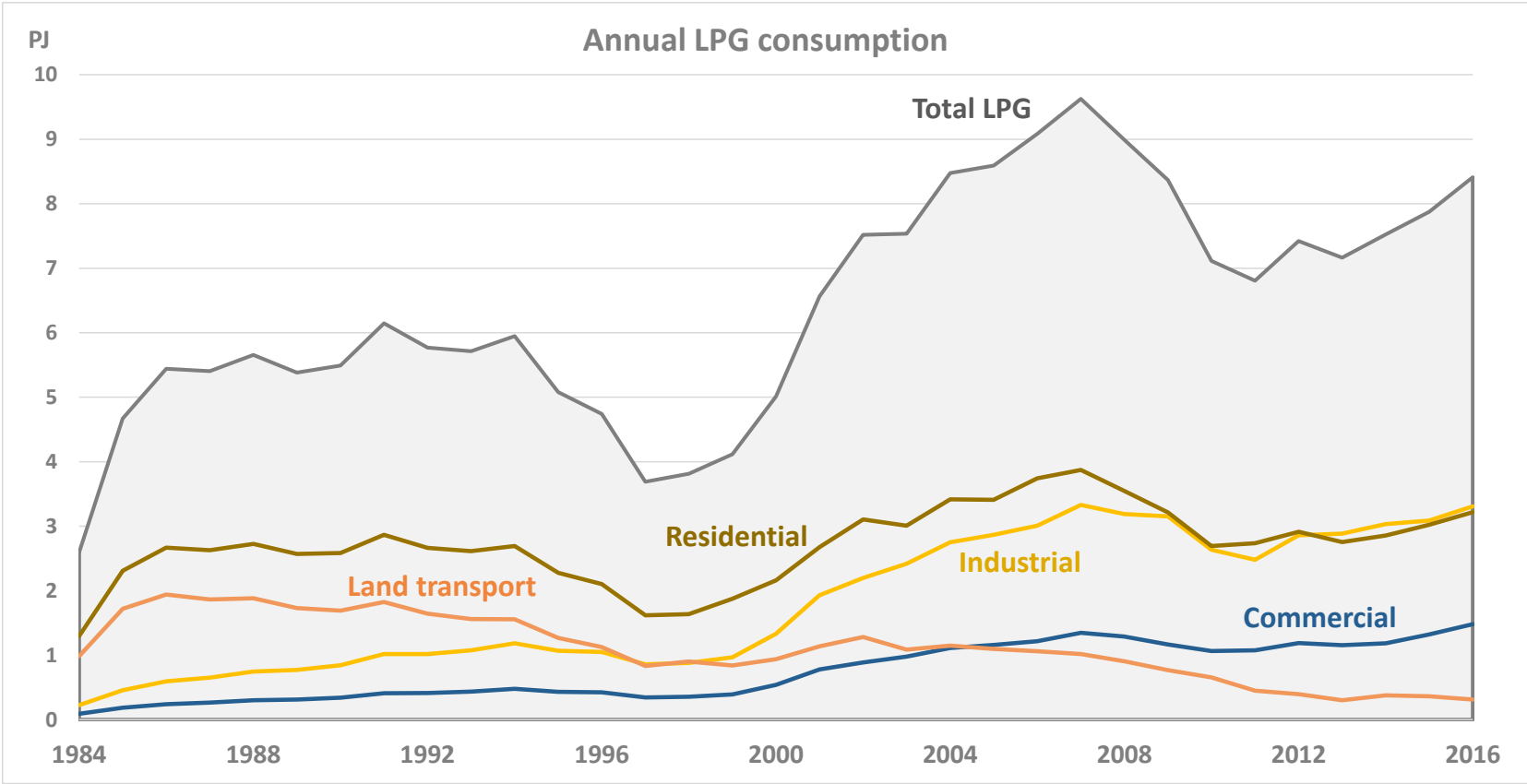
Source: Electricity Authority, wholesale generation dataset

LPG consumption has also increased in recent years



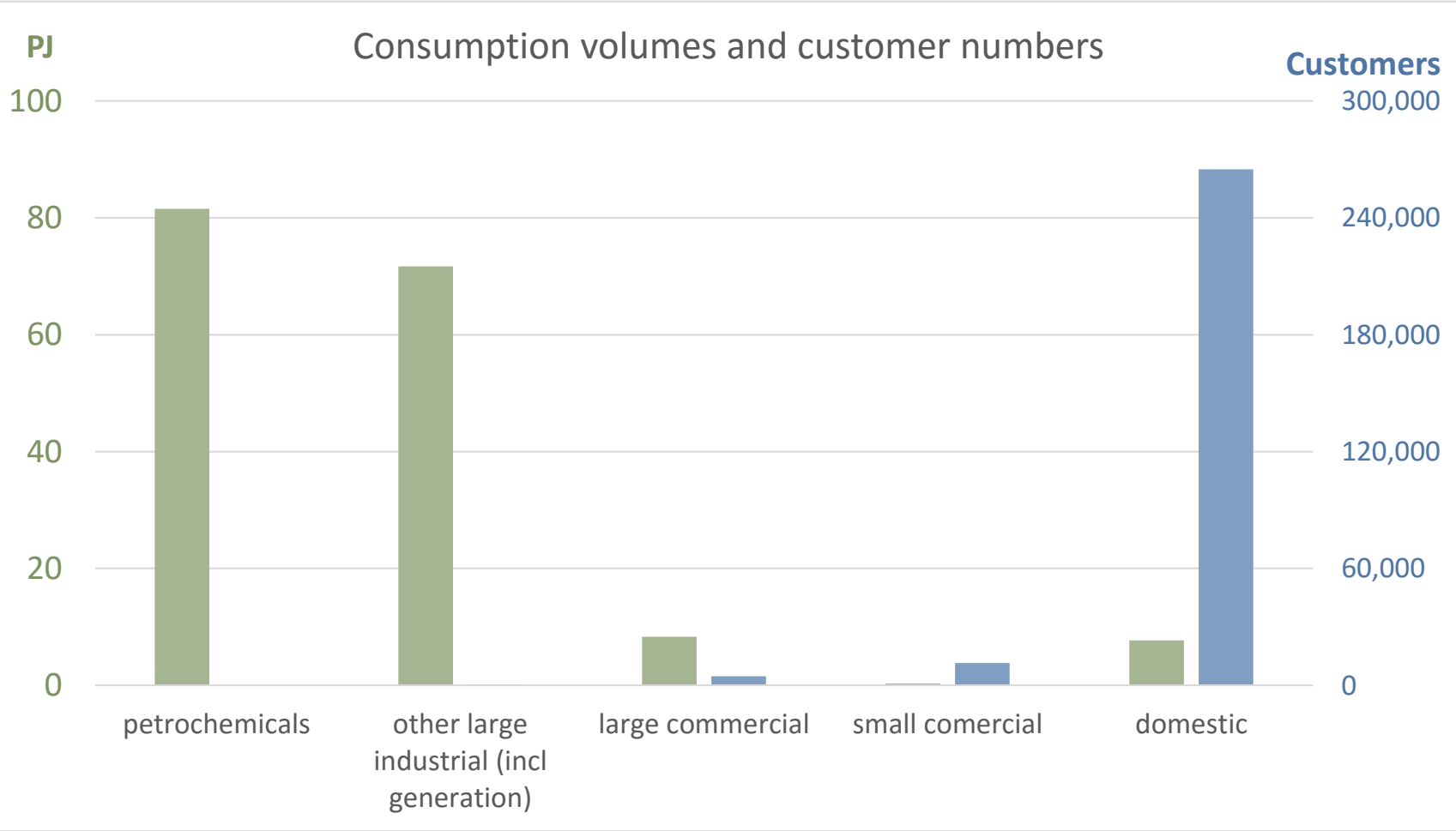
Source: MBIE, *Energy in New Zealand 2017*

Residential, industrial, and commercial use of LPG is increasing

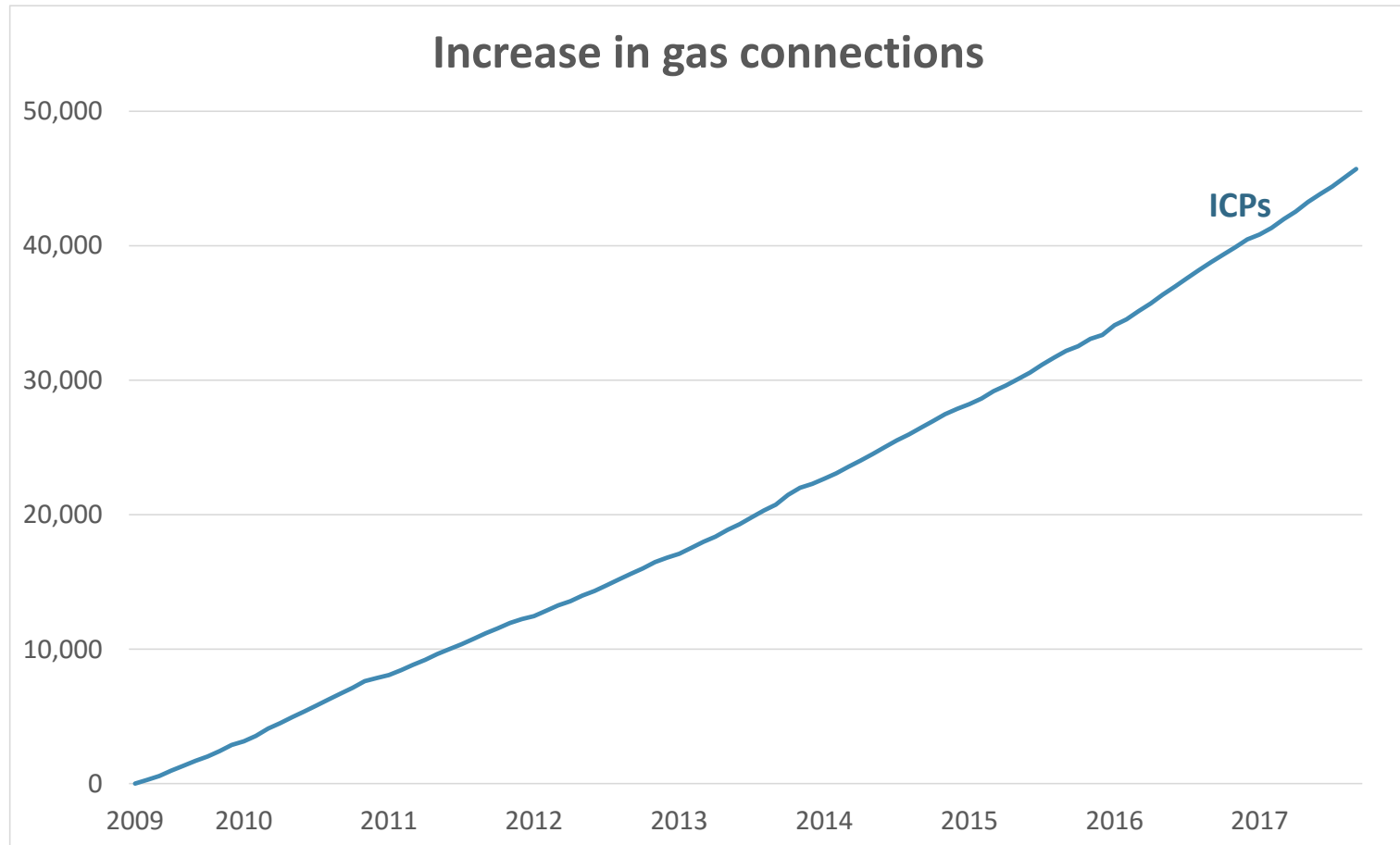


Source: MBIE, *Energy in New Zealand 2017*

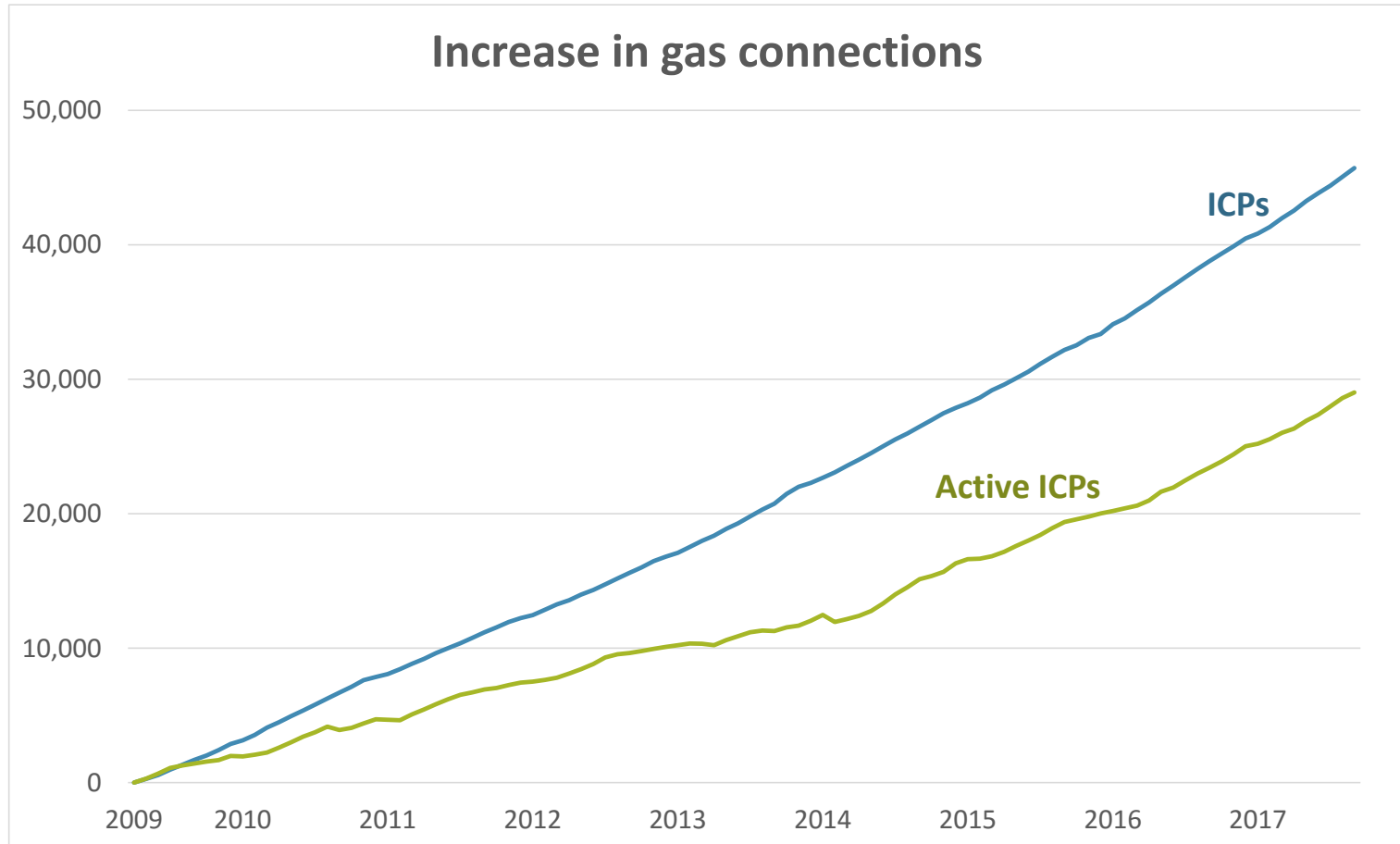
Downstream gas market characterised by extremes



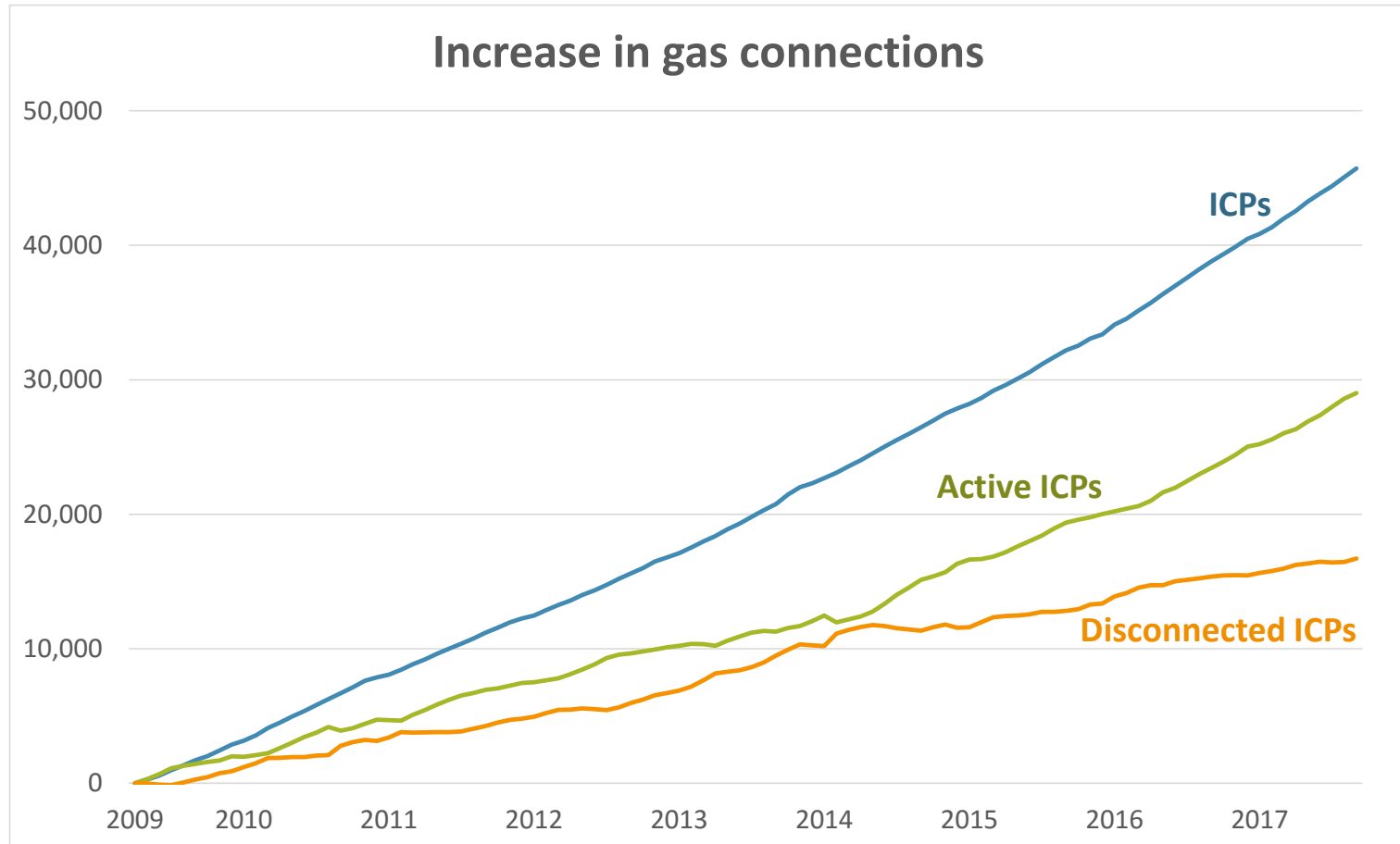
Customer connections have been increasing since the start of the gas registry...



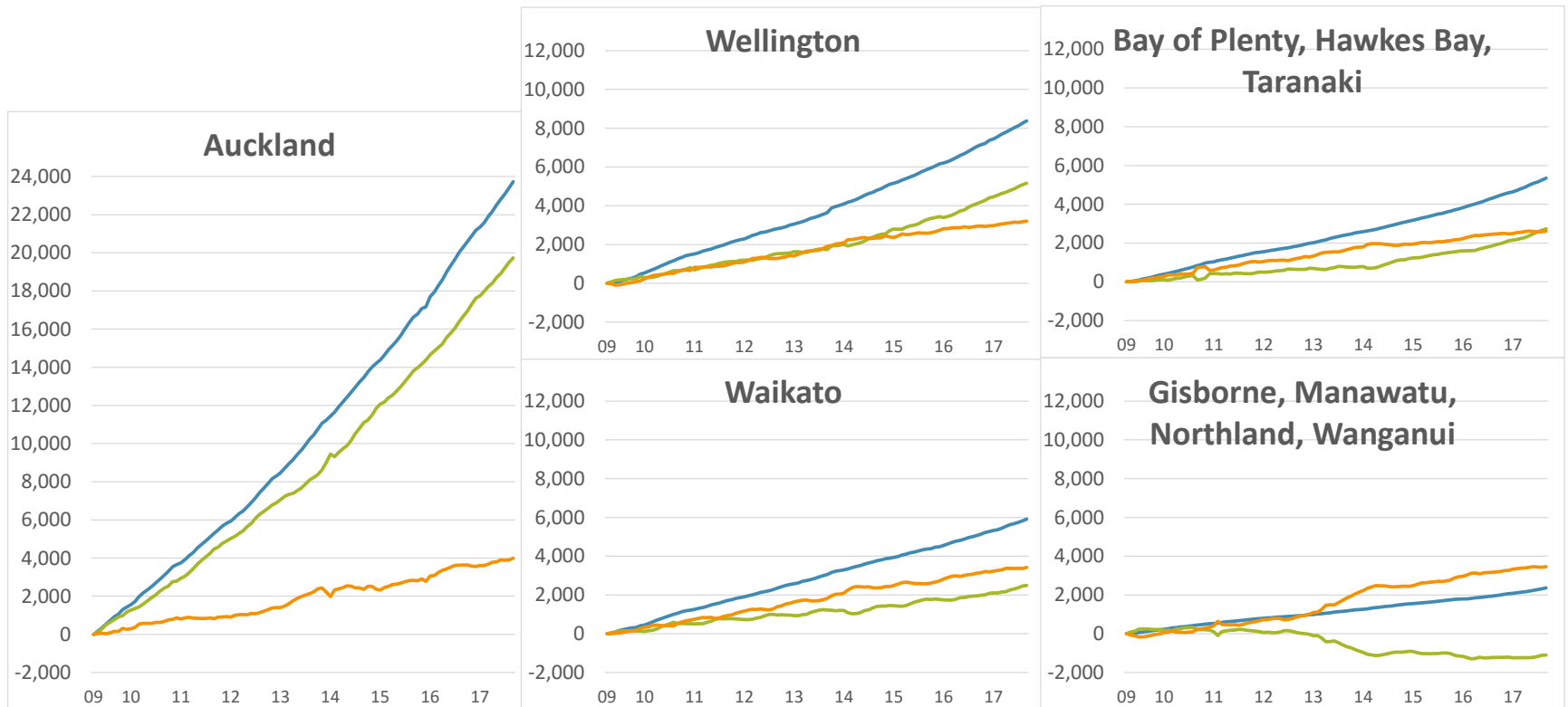
... but the numbers of active customers have been increasing more slowly



... due to the rate at which customers are disconnecting

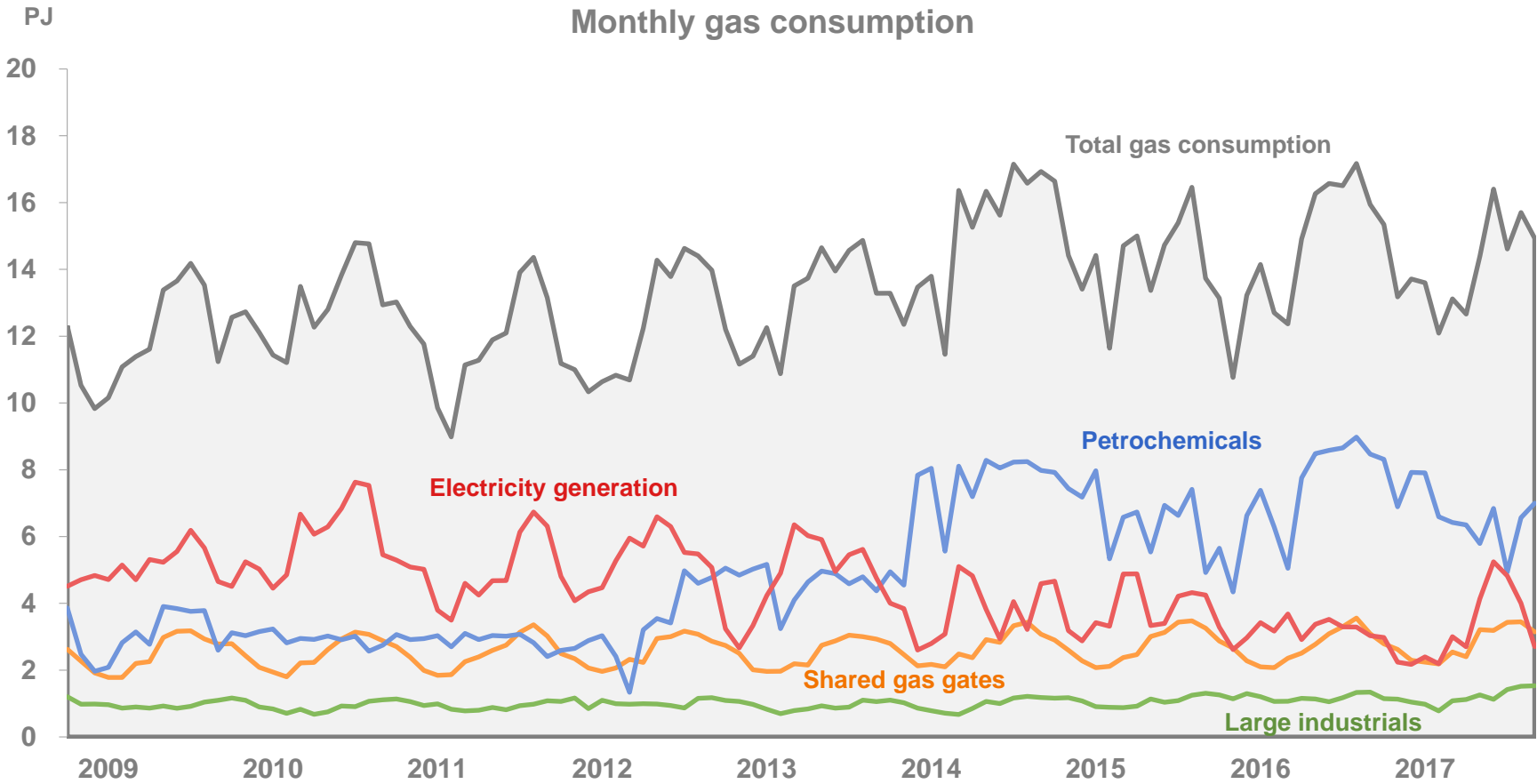


There are significant differences between the regions

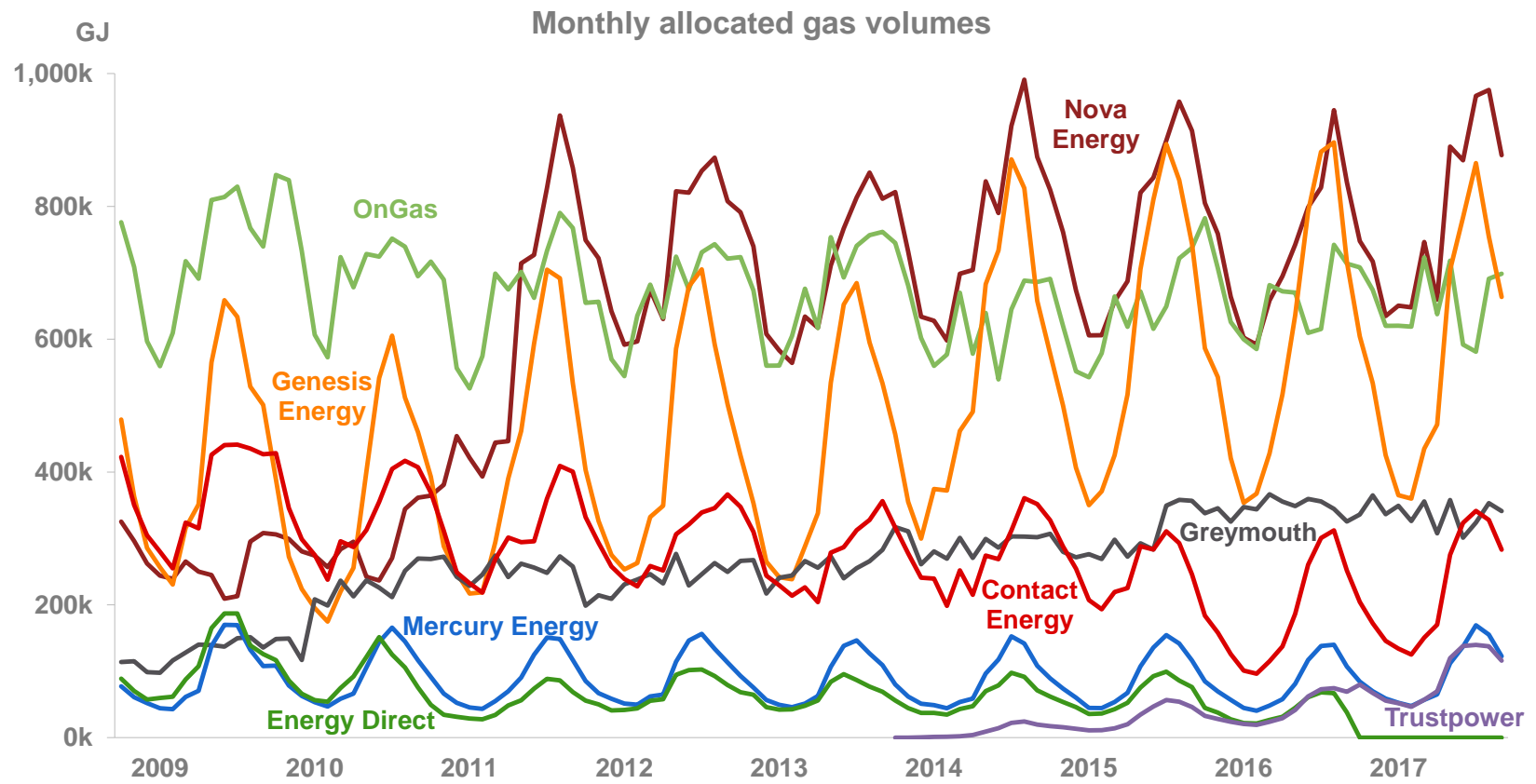


— ICPs — Active ICPs — Disconnected ICPs

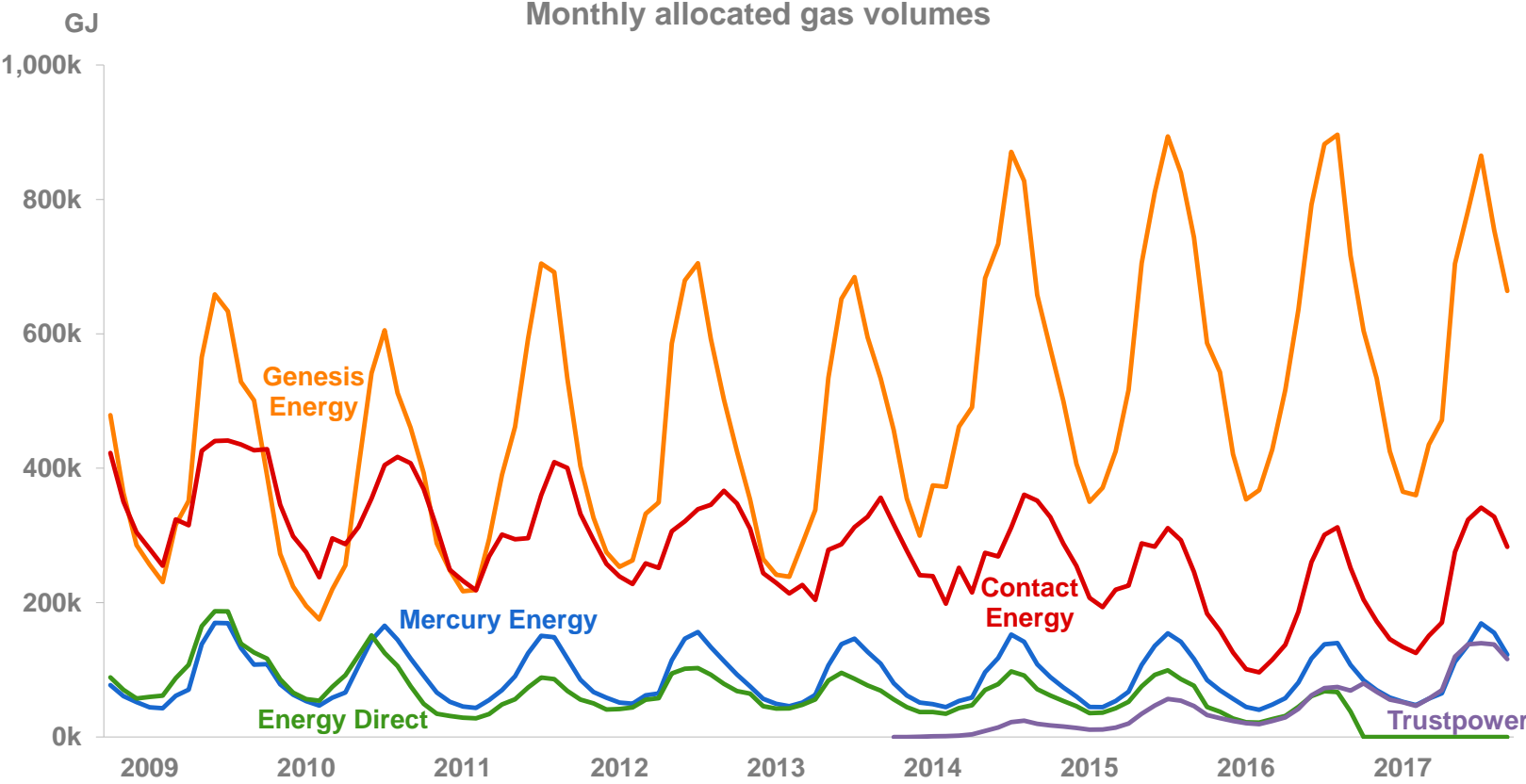
Natural gas use is dominated by petrochemicals manufacturing



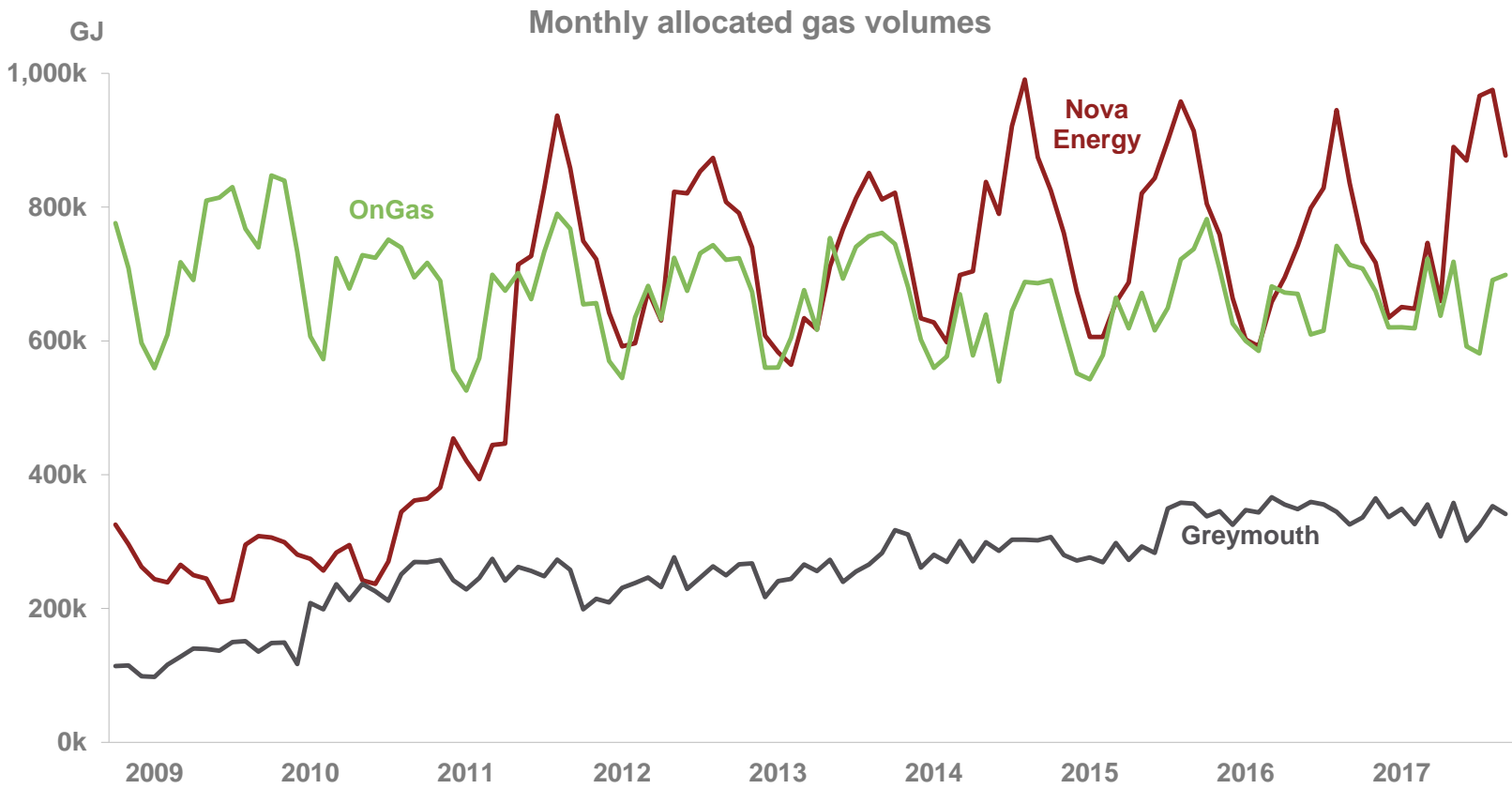
Allocated market shares show differences in customer segments



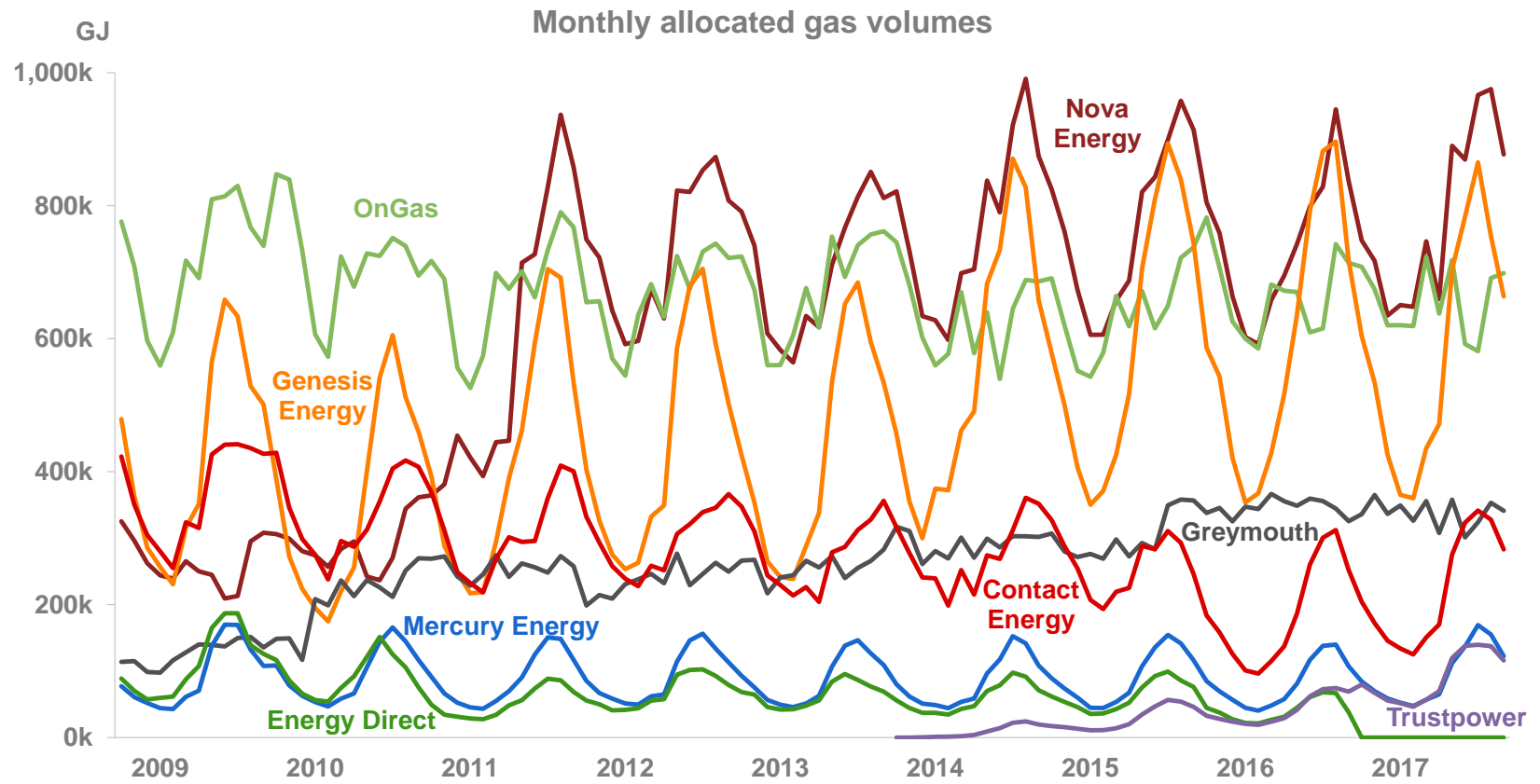
Mass market retailers show pronounced seasonal trends



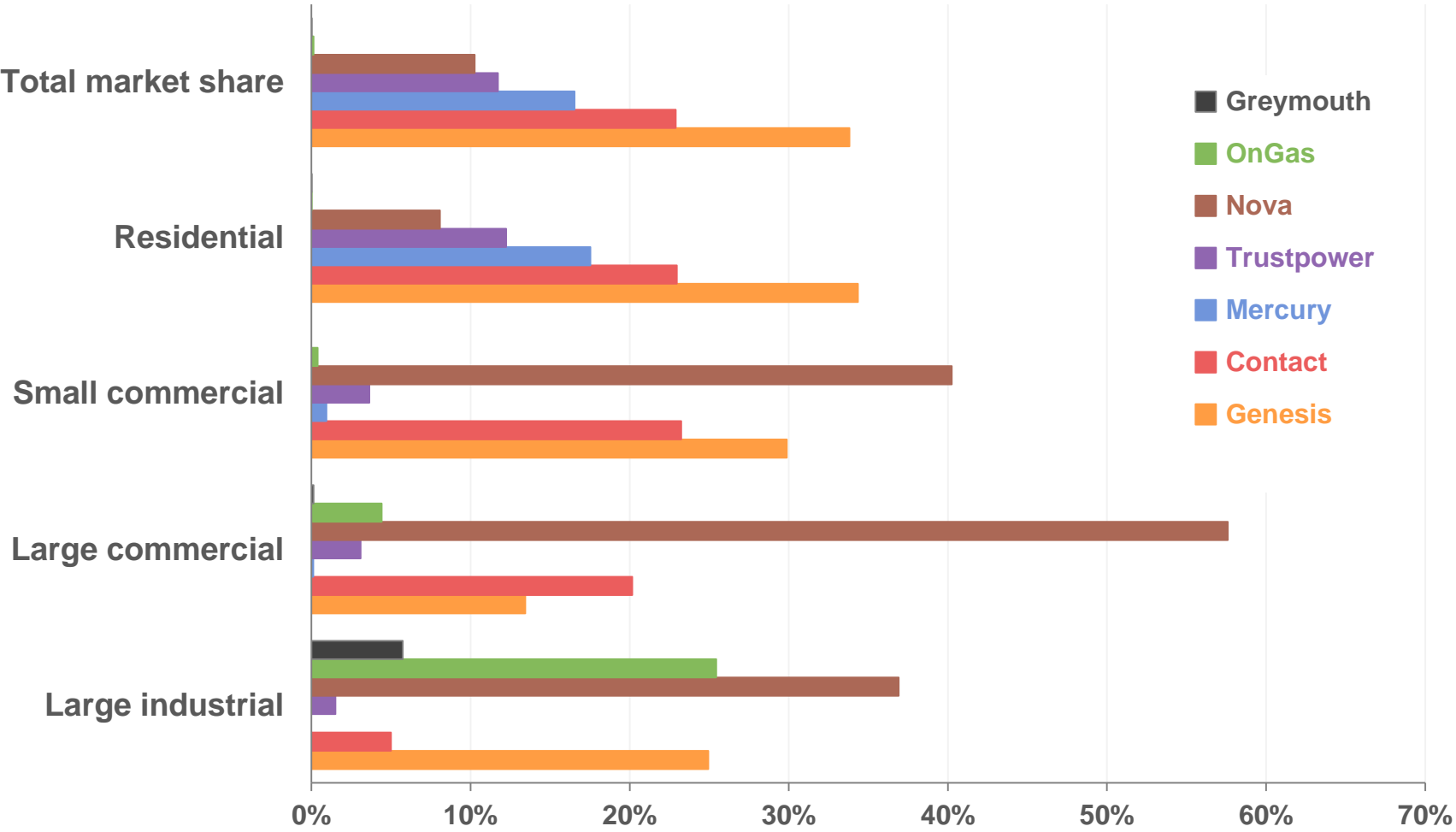
... industrial load follows its own patterns



Another look



Genesis and Nova are also the largest retailers by customer number



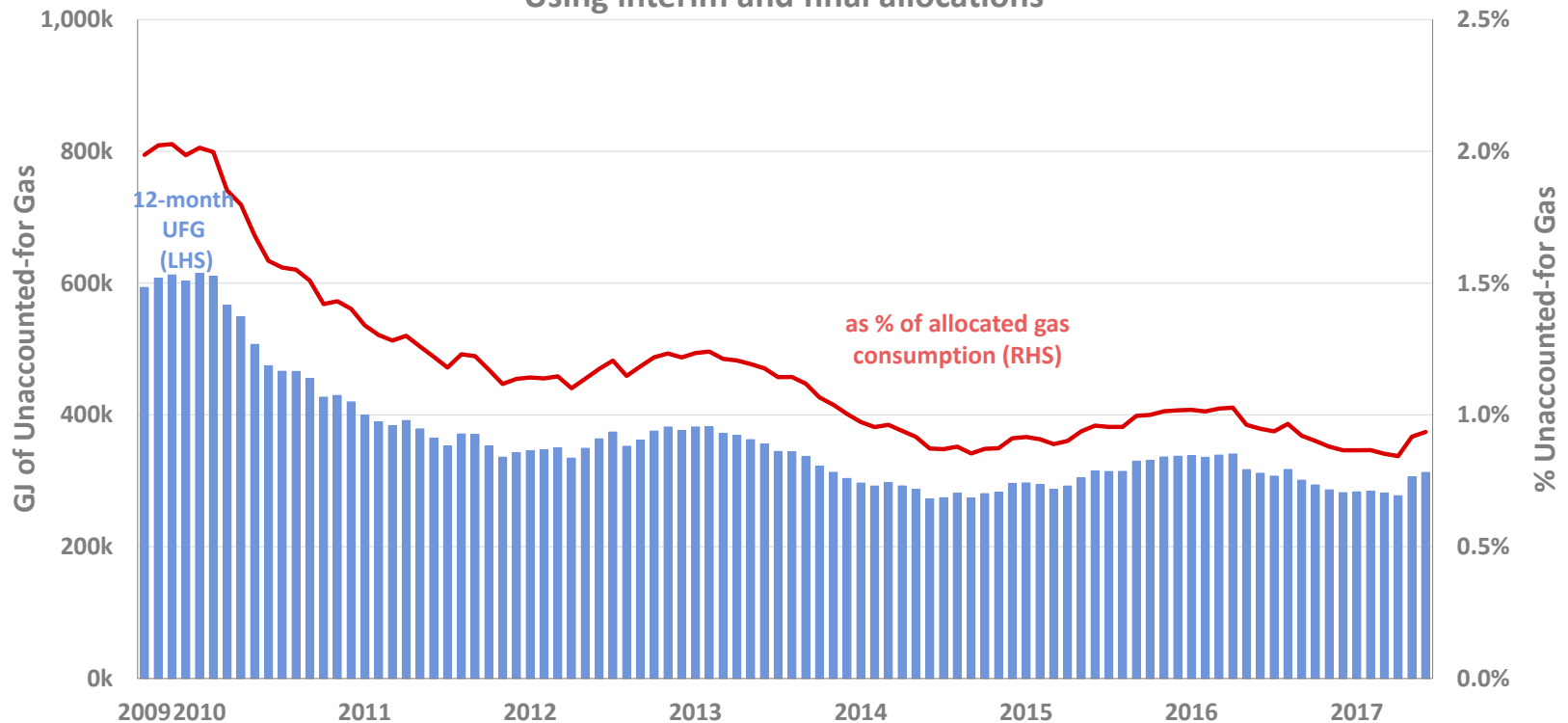
Downstream reconciliation rules have been in effect since 2008

Provide for:

- Provision of gas injection and consumption information
- Allocation by the allocation agent of daily gas quantities to retailers at allocated gas gates
- Regular performance audits
- Event audits as necessary

Under the DR Rules, UFG has dropped from 2% to under 1%

Annual unaccounted-for gas by volume and percentage
Using interim and final allocations

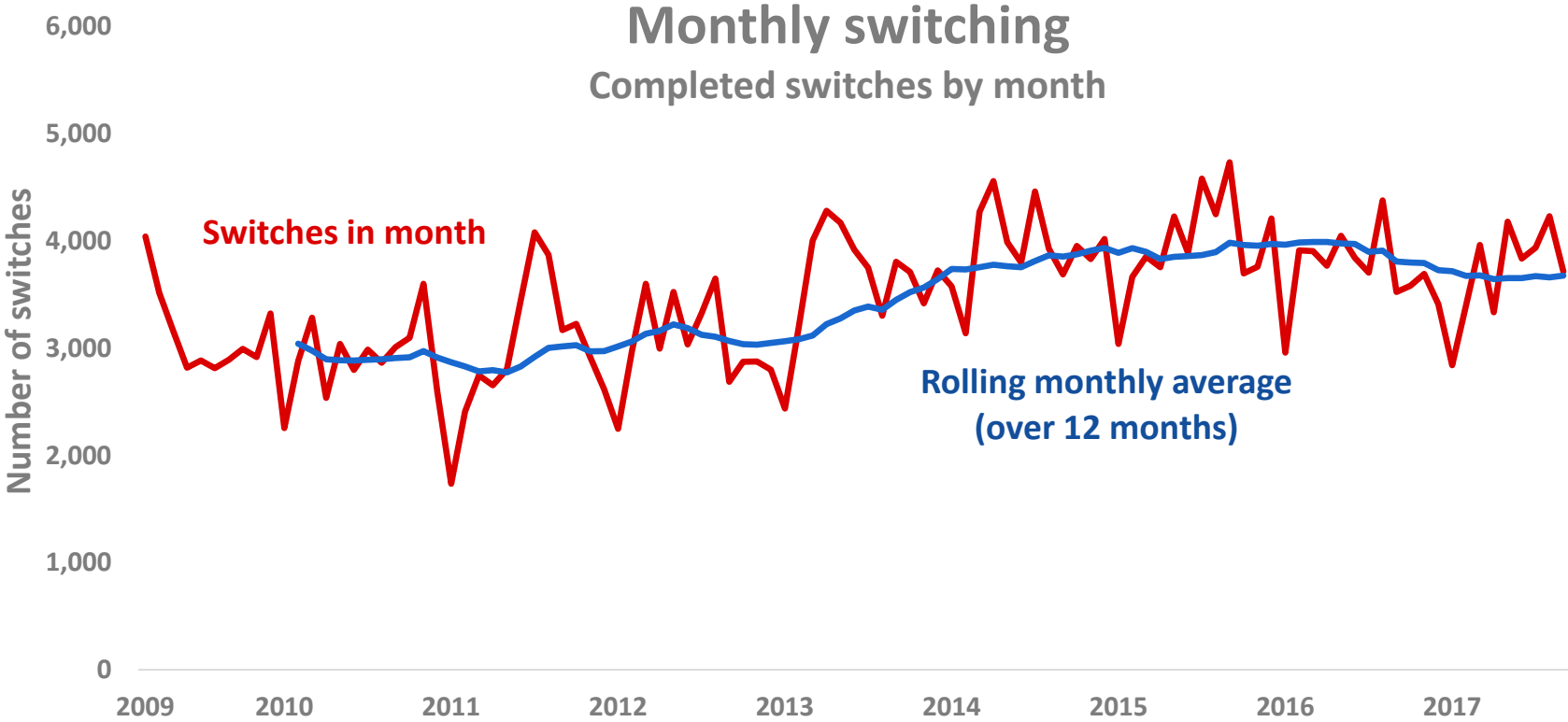


Switching Rules also came into effect in 2008

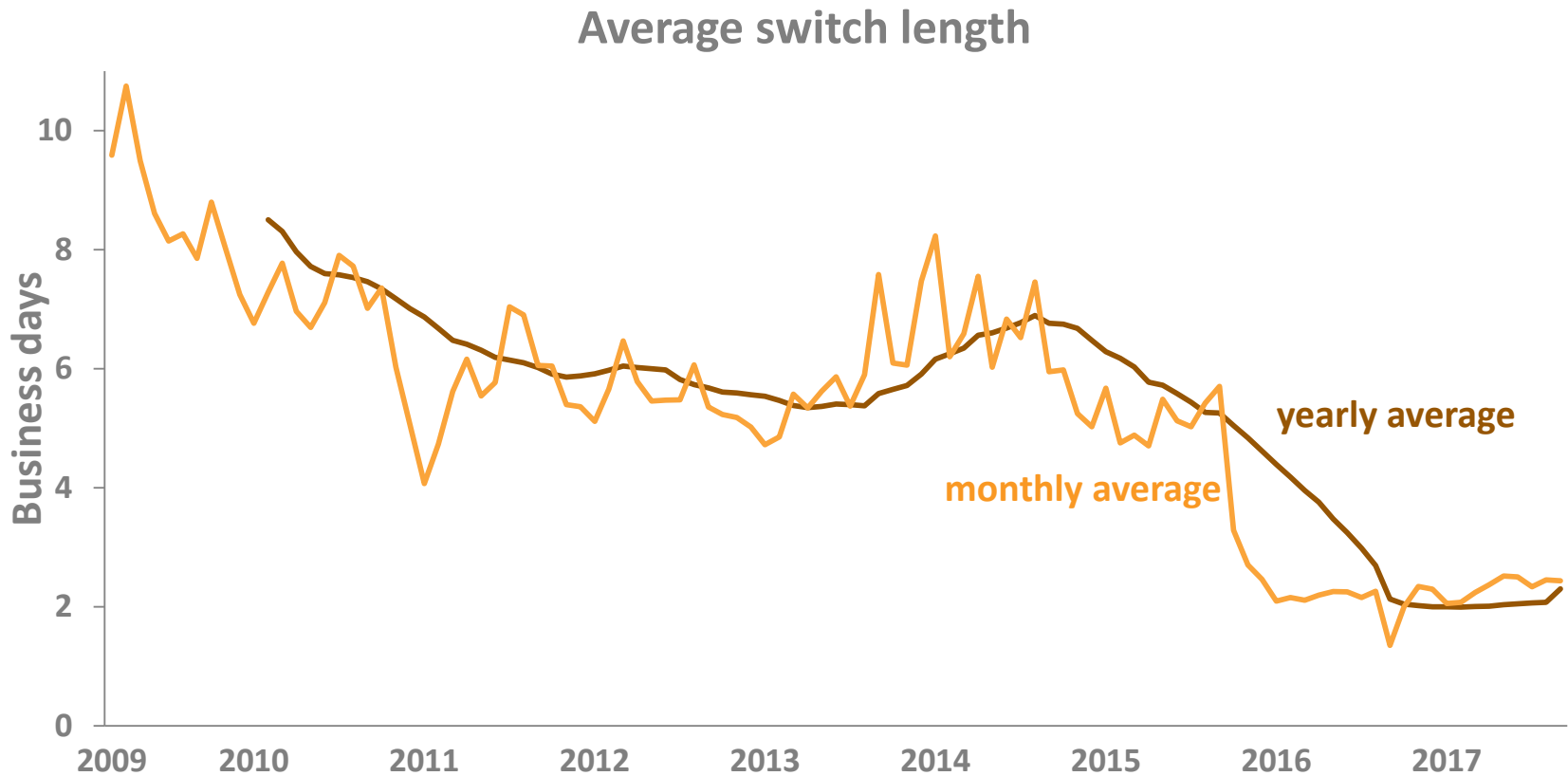
Provide for:

- Registry of gas connections
- Process for switching consumers between retailers
- Performance audits of registry participants

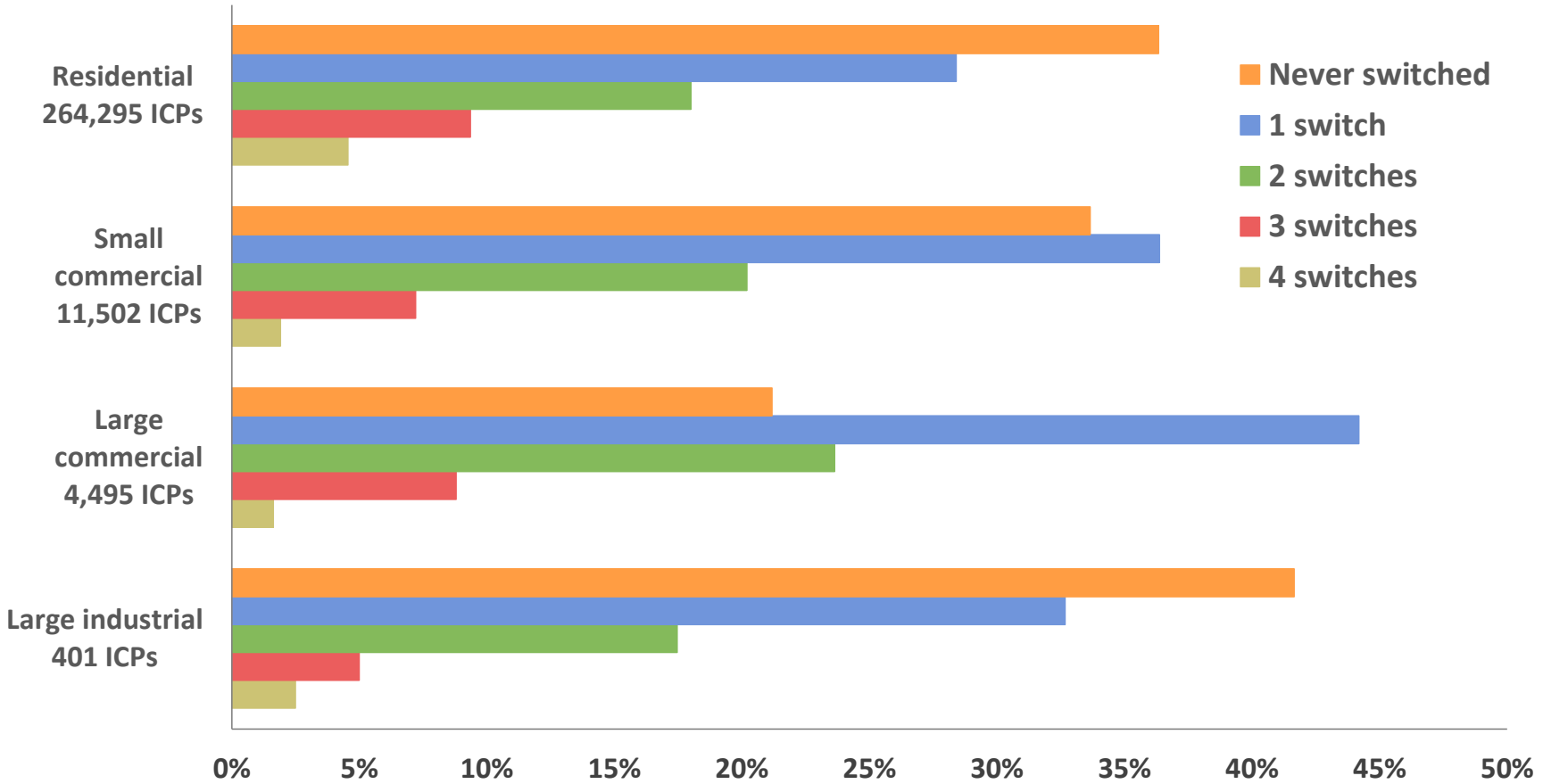
Under the Switching Rules, switching rates have nearly quadrupled



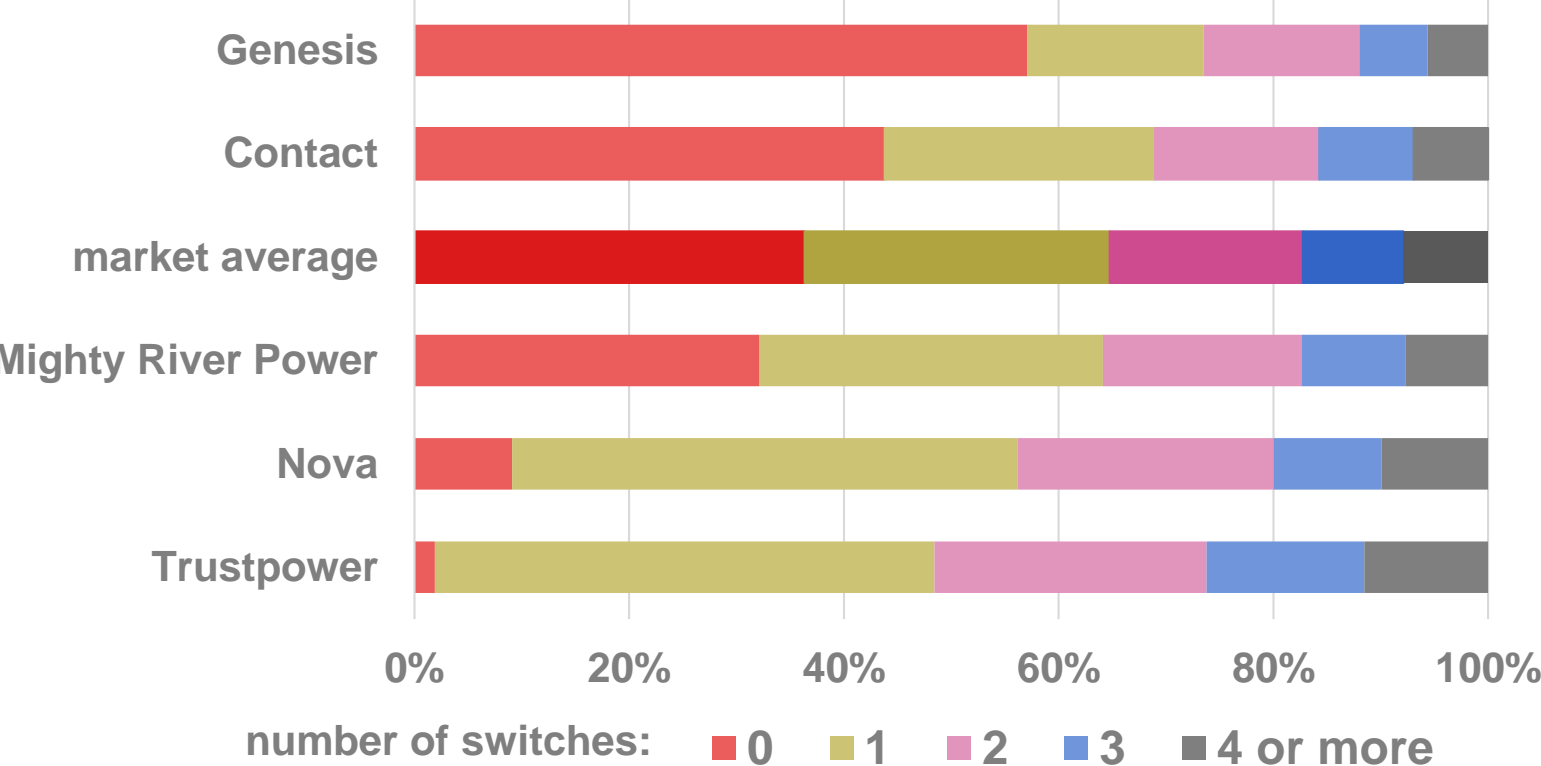
At the same time, the time to switch has dropped significantly



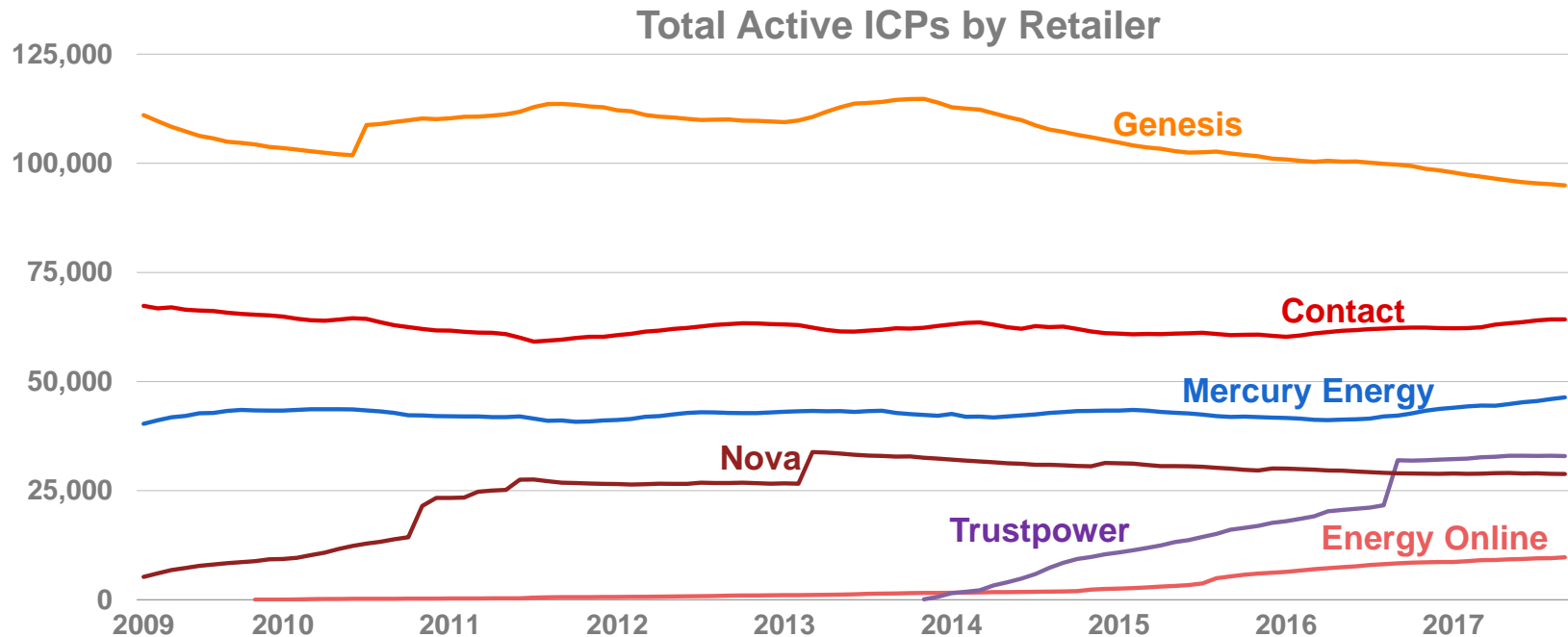
Despite high rates of switching, there are many customers that have never switched



Genesis has particularly sticky residential consumers



There are now 10 retail gas brands

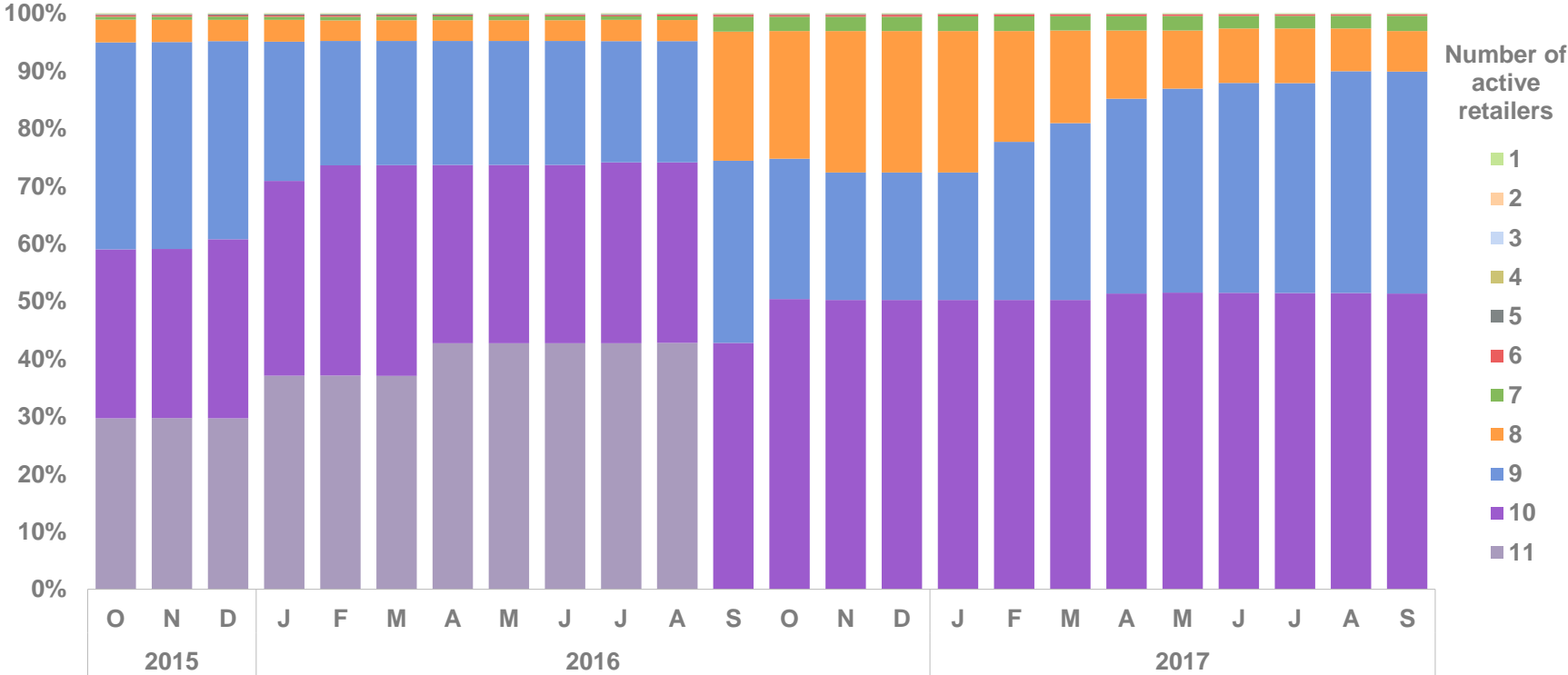


Retailers with less than 5,000 customers

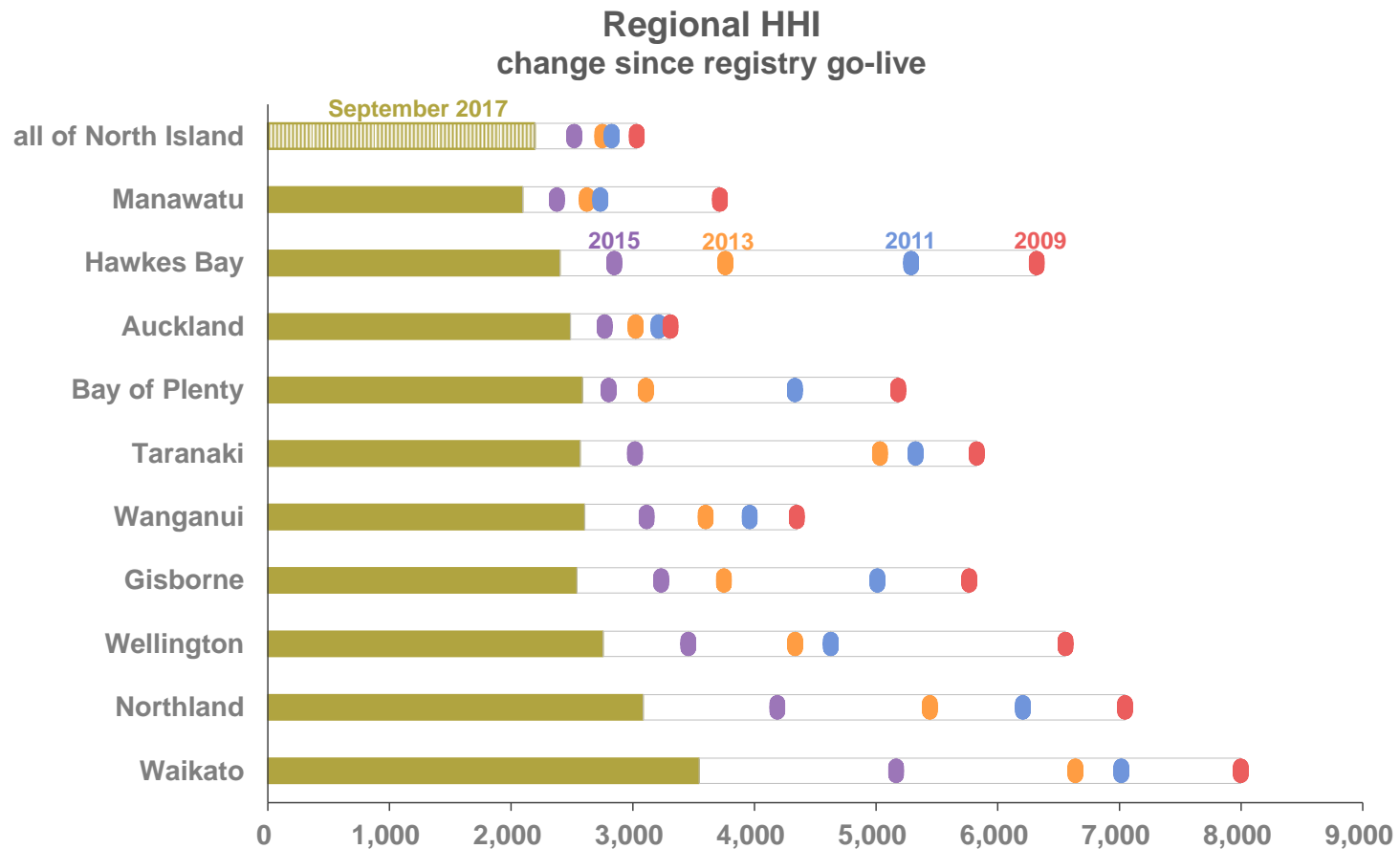
- Pulse Energy
- OnGas
- Switch Utilities
- Greymouth

Over 99% of customers have a choice of at least seven gas retailers

Connections served at multiple retailer gas gates



Switching arrangements have facilitated competitive outcomes in all regions



Summary

- Natural gas and LPG volumes have had ups and downs historically
- Regional and sector differences in growth rates
- Gas still has a strong role in electricity generation
- Gas policies and arrangements need to consider all gas consumers
- There is increasing efficiency in the downstream gas market, evidenced by lower UFG, faster switching, and more competitive outcomes