Wholesale electricity prices - is more government intervention the solution or the problem?

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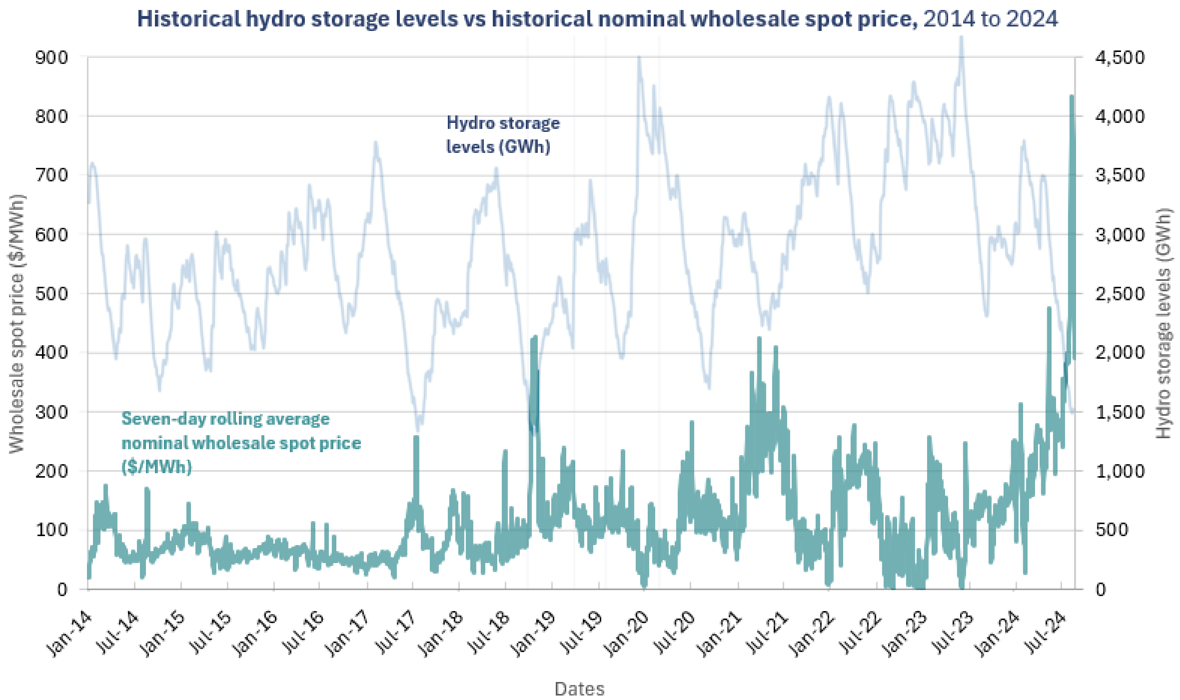
NZ is currently experiencing high wholesale electricity prices. With spot prices averaging up to $800/MWh, prices have been at their highest level in the last decade. The high prices are causing those exposed to the prices – mainly large industrial users who didn't hedge their position or who are having to roll over existing hedges at higher prices – to cut back their operations and even close.

Low hydro inflows are behind much of the increase in prices. Lake storage levels are around 50% of what they are normally at this time of year. But storage levels have been this low or lower before. As the graph below shows, in the winters of 2017, 2018 and 2020, lake levels were at a similar low level. But weekly prices then didn't go over $450/MWh.

What's different this time? Some pundits point to the structure of the market, with the four big generator/retailers dominating the market. But that's nothing new, with the big four or five companies accounting for over 80% of the generation and retail markets since the early 2000s.



Source: Electricity Market Information (2024).

In many ways the wholesale market in fact is working the way it is intended. With water and gas short, prices rise telling customers on the demand side to cut back their consumption. Major uses like NZ Aluminium Smelter have reduced their loads substantially, easing the pressures on supply.

On the supply side, higher prices are signalling to investors the increased returns from investing in new generation. Transpower lists around 15,000 MW of new grid connection enquiries at present (compared to current installed nationwide capacity of around 10,000 MW). While many of these projects may never come to pass, the number of enquiries has increased more than fivefold over the last four years.

Unsurprisingly, given the high prices, there have also been calls for government intervention. These calls arise even though a significant cause of the high electricity prices is gas shortages, a result in part of former Prime Minister Ardern's infamous "captain's call" to ban oil and gas exploration.

The pumped hydro scheme at Lake Onslow was another government-sponsored solution but that project was highly costly. If anything the project, which has now been canned, exacerbated the supply shortage by discouraging private investment in hydro-firming and peaking capacity.

New Zealand's energy markets are already highly regulated and subject to numerous government interventions. For example:

- entry to the sector is heavily controlled by the Resource Management Act, with new projects taking years and costing millions to be consented;

- the government is the majority owner of three of the four major generator/retailers and the sole owner of the national grid company, Transpower;

- Transpower and most electricity distributors (the local lines companies) are heavily regulated by the Commerce Commission. It is not clear however that those regulations are working in consumers' interests. A recent Commission-sponsored study estimated productivity in the distribution sector has fallen by around 1.4% on average in each of the last fifteen years – a cumulative decline of approximately 20%;

- distributors, potentially the natural owners of local generation, are not allowed to own more than 50 MW connected to their own network (and more than 250 MW nationally) without putting the generation on an arms-length basis. Distributed generation however has the potential to defer investment by the distributors in their networks in the face of rising electricity demand as the economy decarbonises; and

- likewise, distributors, despite having direct connections with the end users, are only allowed to retail a maximum of 75 GWh p.a. on their own grid regardless of whether they are Auckland-based Vector supplying almost 8,500 GWh or Buller Electricity delivering 49 GWh.

Despite these extensive interventions, it's possible some well-directed adjustments to the Electricity Authority's rules could improve the sector's competitiveness. However, any government interventions need to be carefully evaluated and subject to rigorous cost-benefit analysis. They should not be just a panicked response to the immediate situation. It would be more than ironic if today's high prices - that are the result in part of well-intentioned but misguided interventions by the previous government - lead to further misguided interventions by the current or future governments.

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