



**Major Electricity
Users' Group**

2022 Wind Energy Conference



A little bit about MEUG

MEUG was established in the early 1990s to advocate for, and support, a well-functioning electricity market.

Our members:

- use 28% of all New Zealand's electricity
- pay almost \$1b per annum in electricity charges
- generate over \$30b in revenue per annum
- directly employ over 25,000 people

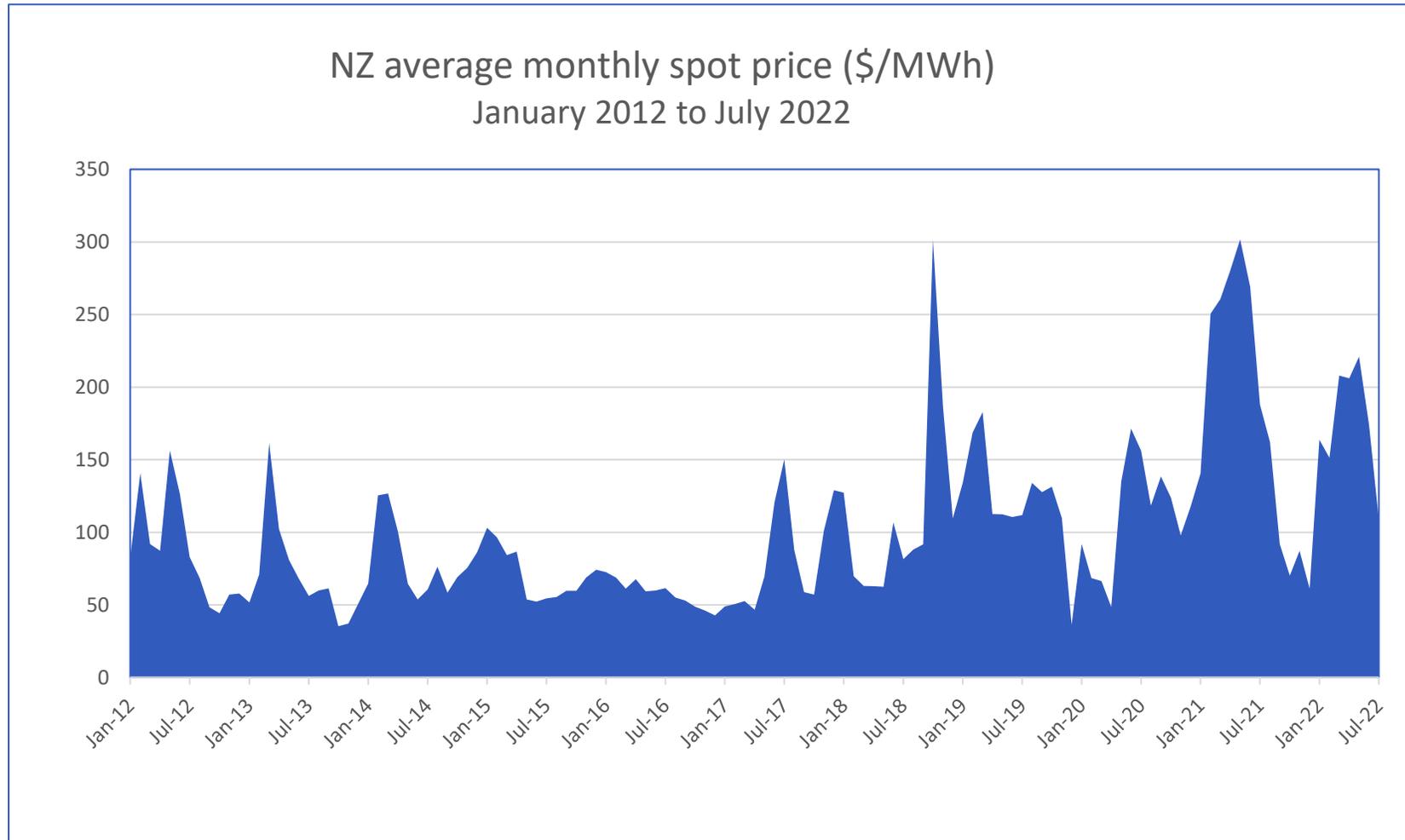


What is needed to accelerate the transition?

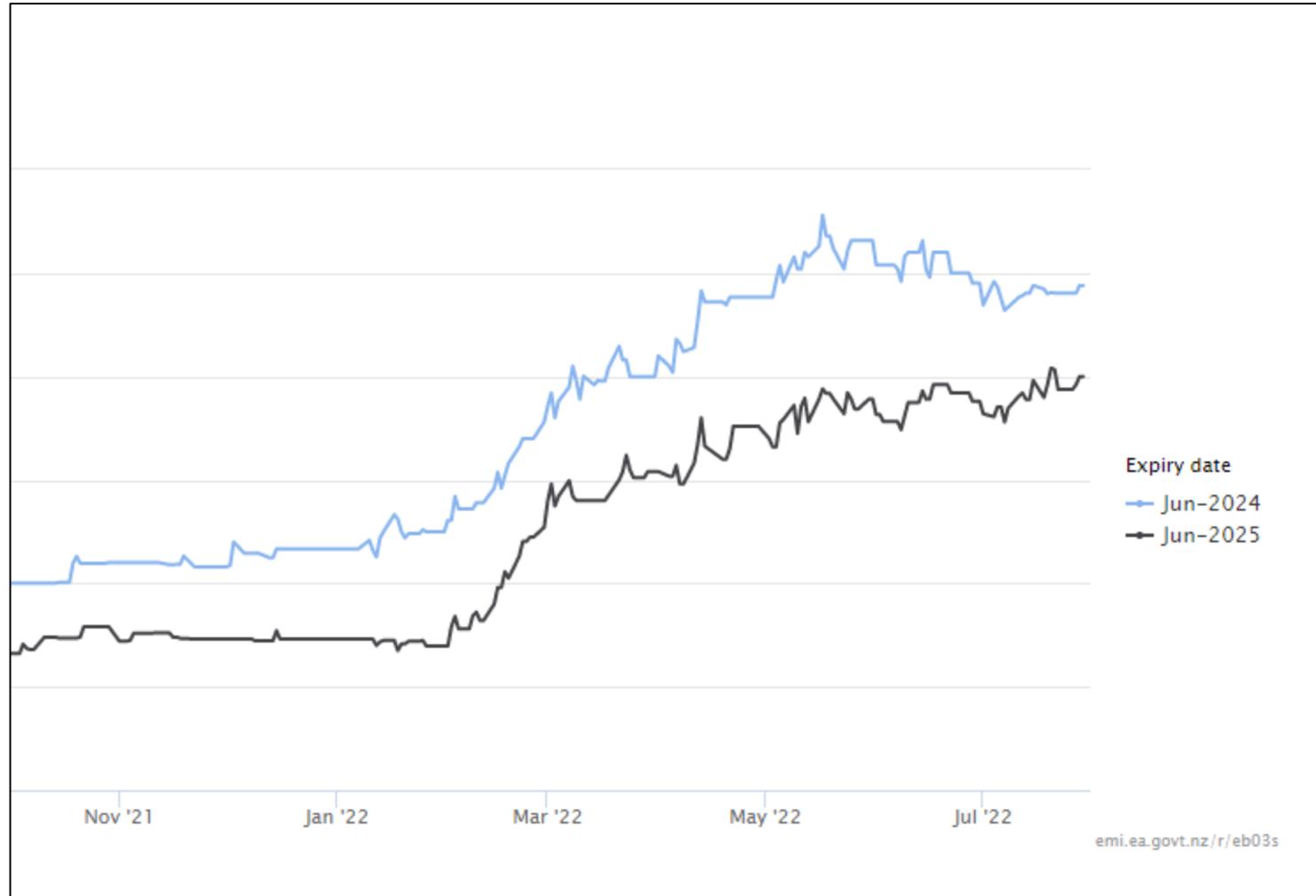
1. Generation volume is tied to load. To support build of new renewable generation, load needs to grow or generators to retire base thermal generation. For the former to happen, the wholesale electricity price needs to come down.
2. To do that, we need:
 - more cost-reflective future pricing and supplier competition
 - significant investment in new renewable generation



Electricity pricing – where it's coming from



Electricity pricing – where it's going



Cost-reflective pricing and competition

“Overall, the Commission considers there is strong prima facie evidence that each of the largest four suppliers into the wholesale market ... have a substantial degree of market power. That market power is exercised, for substantial periods, by offering into the wholesale market at prices above those that they would offer under competitive conditions.”

- Commerce Commission, Electricity Sector Investigation Report, 2009

“We have looked at many different indicators. ... However, taken as a complete picture, there appears to be some evidence that spot prices may not have been determined in a competitive environment over the review period.”

- Electricity Authority, Market Monitoring Review, 2021

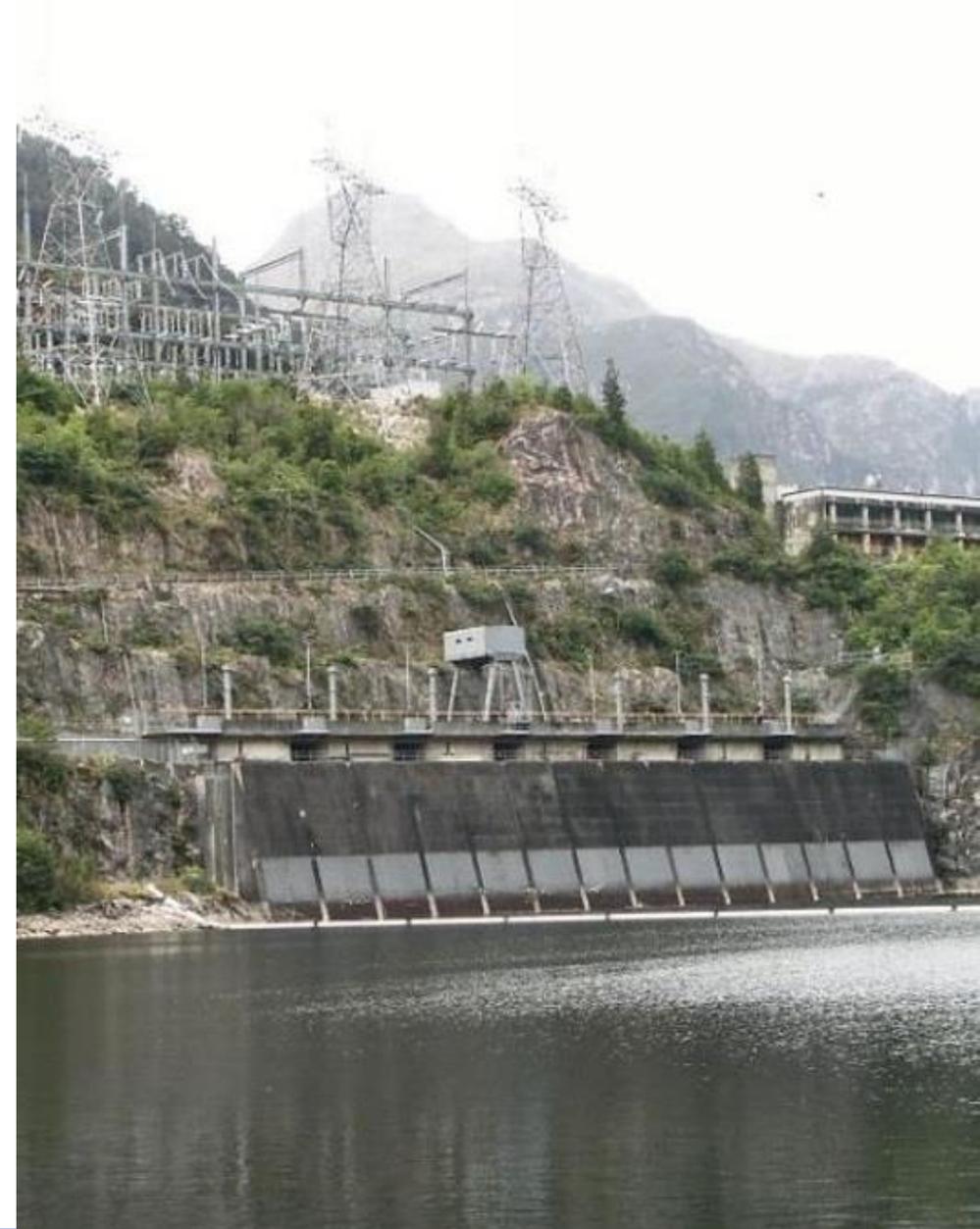
Investing in new generation

To bring price down, we need to either improve competition or increase supply – or, ideally, both. To do this, we need to:

- encourage new entrants into generation
- encourage investment in new renewable generation

Possible market solution:

- power-purchase agreements tied to new entrants and/or new renewable generation build



In summary

From a large consumer point of view the current wholesale electricity market is not supporting the transition due to high and unsustainable pricing. To address that we need to:

- Ensure future wholesale prices have a closer relationship to the cost of generation.
- Ensure genuine competition amongst electricity generators.
- Significantly increase supply, especially in new renewable generation.
- Use power purchase agreements to facilitate new entrants and build of new renewable generation.

Wind Energy Conference 2022 – Accelerating the transition. Presentation speaking notes

[Welcome and mihi]

About MEUG

1. MEUG was established in the early 1990s to advocate for, and support, a well-functioning electricity market.
2. Our members use around 28% of all of New Zealand's electricity.
3. Through electricity charges they pay, large users pay for a significant part of our infrastructure, transmission and distribution – and will pay for a lot of what we need to support the transition.
4. It is the large user perspective I will be discussing today. I'm not claiming to speak on behalf of all consumers.
5. Large users can have a different perspective to others in the wider sector. I was reflecting on this when our facilitator this morning, when reflecting on the first generation of wind energy, discussed that at the company they worked at, at the time, the possibility of wind generation crashing prices as a problem that needed to be solved. From a consumer perspective, the possibility wind generation might lead to lower prices is one thing that makes new wind generation so attractive.

What is need to accelerate the transition?

6. Generation volume is tied to load. To support build of new generation and the transition, either load needs to grow or generators need to accelerate retirement of base load thermal.
7. For the former to happen in heavy industrial processes, the wholesale electricity price needs to come down.
8. Or, put another way, wholesale electricity in NZ is too expensive to support electrification of heavy industry.
9. To bring electricity prices down and facilitate the transition, we need 3 things:
 - Near-term wholesale prices need to reflect expected lower long-run new renewable generation costs.
 - Significant investment in new renewable generation
 - Clarity on the pathway forward for thermal generation, especially gas, as part of a low-cost transition.
10. I'll come back to those in a moment, but first I'll put some context around wholesale electricity prices.

Where wholesale electricity pricing is coming from

11. From the beginning of 2012 through to September 2018, the wholesale price averaged \$75/MWh.

12. In September 2018 the Pohokura gas field had an unexpected outage, which flowed through into high wholesale electricity prices. The following month, in October 2018, the wholesale price averaged over \$300/MWh.
13. Prices have not returned to pre-Pohokura outage levels. For the last two years the price has averaged \$166/MWh. In four different months within that period, prices have averaged between \$261/MWh and \$302/MWh.
14. This year the wholesale prices has averaged \$176/MWh – and that's despite the heavy rainfall we've had recently which has seen lower prices.
15. When you pay tens of millions of dollars a year for electricity and that cost then more than doubles – and in some months quadruples – in some cases that can put your whole business at risk. In almost every case it undermines confidence in making investment decisions to electrify existing thermal load.
16. To put it into context, the Interim Climate Change Committee, the precursor to our Climate Change Commission, found that a wholesale electricity price of \$115 MWh was unaffordable for our economy to function in the longer term without significant loss of businesses and jobs.
17. Expecting industrial companies to significantly increase their load while the price remains so elevated is unrealistic.

Where is wholesale pricing going?

18. The elevated prices are not coming down any time soon.
19. In fact, the futures market tells us the price is going to get even more unaffordable for the peak June ending and September ending quarters.
20. This slide is a graph of Otahuhu quarterly futures prices ending June 2024 and June 2025.
21. The same futures at the end of last year were \$133/MWh.
22. Over the last 7-months those futures have increased 48%.
23. Longer-dated futures have lower prices.
24. At the end of last month, quarterly Otahuhu futures for June 2025 were \$175/MWh.
25. However, compared, that price was 57% higher than the equivalent end of 2021 price of \$112/MWh, so it still represents an upwards step-change in price.

More cost-reflective pricing and competition

26. Near-term prices need to reflect lower new renewable generation costs.
27. We also need meaningful competition to put downward pressure on current wholesale prices.
28. The Electricity Authority, which is responsible for regulating the wholesale market, cannot explain how the wholesale electricity price is being determined beyond noting we do not have a competitive environment in which prices are determined.

29. Even after they take into account all known factors such as the cost of generation, constraints on gas supply, hydro lake levels, and rising carbon costs, the Authority cannot explain almost \$40/MWh out of the average \$166/MWh prices we've seen over the last 2 years.
30. Investment advisors Jardin, with their sophisticated models, have quantified the discrepancy at \$52/MWh.
31. Take that \$40 - \$50/MWh out of future prices and you get closer to the affordable electricity needed for an accelerated transition.
32. We need greater clarity on what is causing that price discrepancy, so we can remedy it and support the transition.

Investing in new renewable generation

33. To bring price down, we need to either increase competition or to increase supply – or, ideally, both.
34. We need more renewable generation to support electrification and our emissions reductions efforts.
35. But we're not increasing supply, we're potentially going backwards. It is not clear that confirmed new generation by existing generators is sufficient to keep pace with known thermal retirements, let alone increase supply to support a transition.
36. If you want the transition on anything approaching current timeframes, then you need to build renewable generation at a much greater rate than is currently being done.
37. But it's not a simple picture for new entrants.
38. One way to give prospective new entrants the confidence to invest is to provide certainty of income, so that they can see their investment will pay off in the longer term.
39. This is where long term power purchase agreements can play a role, similar to the agreements OJI Fibre Solutions and Pan Pac Forest Products recently entered into with Contact Energy to ensure an early as possible start to the Tauhara geothermal investment.
40. I'd like to acknowledge Contact Energy for the role they played in making this happen, as well as all the other generators who participated in the process. There is no lack of interest and willingness out there.
41. Here government can also play a role, beyond government's usual role as regulator or setting policy.
42. The government itself is one of the largest electricity users in the country.
43. If government bundled up some of its demand into a long-term power purchase agreement tied to renewable generation in a trial – then the lessons from that trial could lead to widespread adoption by government entities and thereby facilitate new entrants and boost renewable generation, significantly assisting the transition.
44. I'd like to acknowledge the leadership of the Minister here, who has the procurement team at MBIE looking at this.

In summary

45. In summary, from a large consumer point of view the current wholesale electricity market is not supporting the transition due to high and unsustainable pricing. To address that we need to:

- Ensure future wholesale prices have a closer relationship to the cost of generation.
- Ensure genuine competition amongst electricity generators to put downward pressure on prices.
- Significantly increase supply, especially in new renewable generation, and be cognisant of the important role gas-fired generation could play in a low-price transition path.
- Use power purchase agreements to facilitate new renewable generation entrants and build into the market.

Thank you.

John Harbord

MEUG Chair