

22 December 2021

James Stevenson-Wallace
Chief Executive
Electricity Authority
By email to reviewconsultation2021@ea.govt.nz

Dear James

Consultation on the Market Monitoring Review of structure, conduct and performance in the wholesale electricity market

1. This is a submission from the Major Electricity Users' Group (MEUG) on the Electricity Authority (EA) information paper "Market Monitoring Review of Structure, Conduct and Performance in the Wholesale Electricity Market, since the Pohokura outage in 2018" published 27th October 2021 along with related materials including expert reports and models.¹ This submission refers to this as the "Review paper."
2. Attached and to be read as part of this submission is an independent report by Mike Hensen, Senior Economist NZIER, titled "Wholesale electricity price setting – Comment on Electricity Authority market review" 22nd December 2021.
3. MEUG has separately submitted on the discussion paper "Inefficient Price Discrimination in the Wholesale Electricity Market – Issues and Options, an initial response to the Wholesale Market Review." This is referred to as the "Initial Issue and Options paper."
4. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Members may lodge separate submissions.
5. MEUG comments on the review process and next steps are discussed in the next section. Then the summary points from the NZIER report are highlighted. The final sections provide further context and background.

MEUG comments on the review process and next steps

6. MEUG members were optimistic the review announced by the EA in June 2021 would advance the analysis of underlying drivers of wholesale electricity market (WEM) prices since the unplanned Pohokura outage in late 2018. In this submission WEM prices refer to spot energy, ancillary service, and hedge prices where the latter includes ASX futures, CfD's and FTR's.

¹ Document <https://www.ea.govt.nz/assets/dms-assets/29/Monitoring-Review-of-structure-conduct-and-performance-in-the-wholesale-electricity-market-updated-paper.pdf> at <https://www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2021/wholesale-market-competition-review-2/>

7. MEUG has mixed views on the papers published on 27th October:
 - On the one hand the EA has undertaken a large amount of new analysis that has advanced our knowledge, the initial sorting of findings from the Structure Conduct and Performance (SCP) analysis using a traffic light measure was helpful, and we are encouraged that the EA sees the review as an ongoing iterative process.
 - On the other hand, MEUG differs from the EA in interpreting the analysis in the Review paper to decide priorities for further work. MEUG does not agree the review work to date justifies prioritising the purported inefficient price discrimination for the short-term contract between Meridian Energy, Contact Energy and Rio Tinto as the focus of further work. In our view the priority should be:
 - ~ To continue further work to unpick the drivers of the up to \$38/MWh (some commentators round this to \$40) of unexplained uplift in spot prices after September 2018.
 - ~ In parallel, and in advance of confirming if there are systemic market power issues that need to be addressed, consider what options should be considered if the work on clarifying the \$38/MWh confirms sustained market power is an issue.
 - ~ To develop further the EA thinking on how the new trading conduct rules will be implemented both by ongoing monitoring and how a claim of a breach of the Code might be analysed. The Review paper mentions this was one of the purposes of the review but there is little discussion in the paper.
8. The way forward requires more direct engagement with consumers. For example, theoretical changes in future producer and consumer surplus are important issues to analyse. However, that analysis has limitations especially when trying to forecast effects on dynamic efficiency. We recommend the next steps of the review include surveys or interviews with large end users' and a selection of other consumers to understand current and future barriers to investment and innovation, particularly in relation to meeting New Zealand's goal of net zero emissions by 2050. That work is needed because confidence in the current market has, in our view, collapsed since the unexplained high prices since late 2018 and the expectation in the futures market that unexplainable high prices will persist for another three years.
9. MEUG is realistic that the reasons behind the significant lift in WEM prices since the unplanned Pohokura outage in 2018 are many and there is unlikely to be a single silver bullet solution. A mix of policies to either augment the current policies being implemented by the EA or to replace some of them will be required. Not all solutions may be within the remit of the EA though we expect the EA to be well connected with other policy makers. While we think inter-agency co-ordination is working well, more transparency would be helpful. Most consumers don't care which decision makers sort policy out. What matters is the EA and other decision makers acknowledge there is a problem, continue to ask why prices have risen and keep trying to think outside the box as to what can be done urgently that will not have long-term unintended consequences.

A summary of the advice from NZIER on the Review paper

10. The Key points from the NZIER report follow:

Key points

EA not sure if generators exercised market power

The Electricity Authority (EA) review¹ of the wholesale electricity market since the Pohokura outage in 2018 is inconclusive.

It is not possible to definitively conclude whether all of the increase in prices is due to underlying conditions, including uncertainty about future gas supply from existing fields, or if some of the increase is due to prices not being determined in a competitive environment.

However, we observed some evidence to suggest that prices may not have been determined in a competitive environment.

We observed some evidence to suggest that generators have an increased incentive and ability to exercise market power and may have been doing so over the review period.

The EA supports these findings with a detailed statistical analysis of the electricity price, generation by fuel source and fuel prices organised using the structure conduct performance framework.

Is 'gas supply uncertainty' a plausible reason for prices to rise by \$38 per MWh?

This report focuses on three questions that arise from the report:

- The emphasis on the statistical analysis of price changes establishes correlation and indicates causation but does not explain the mechanism that has made the price duration curves higher and flatter than previously. In particular, the regressions indicate the Pohokura shutdown caused a step-change in wholesale price but does not explain why the step change persisted in 2019 and 2020 despite gas and thermal generation levels returning to normal within three months
- Analysis of two key indicators of potential generator market power:
 - Generator profitability where the EA report commented on movements in generator earnings but did not clearly link this analysis to changes in wholesale prices.
 - Lack of investment in new generation capacity by new generators where the EA noted that recent levels of investment were much lower than expected given wholesale prices.
- Lack of consideration of how the expected investment in generation will affect the market power of hydro generators. Most of the proposed new generation capacity is wind followed by geothermal. The new capacity needs to replace thermal capacity which is used to 'firm' existing hydro and wind capacity as well as to meet demand growth.

11. The NZIER report should be read as part of the submission by MEUG. The NZIER report includes sections on review findings vs analysis, statistical analysis of prices and gas supply uncertainty, barrier to entry and generator profitability, and price impact of 100 percent renewables. Appendix A of the NZIER report provides feedback on the Review report, and Appendix B discusses how market power is considered in overseas electric markets.

Further context: Why consumer confidence is important and should be monitored

12. As noted in paragraph 8, from MEUG's observations of member companies and other large non-MEUG member commercial and industrial enterprises, confidence in the market providing competitively priced electricity has been set-back since the step increase in prices from late 2018. Businesses will not invest in plant and processes to switch to electricity if they lack confidence in the current electricity market and have a pessimistic view that effective changes will be made to improve outcomes to the standard of a competitive market. There is a disconnect between the optimistic forecasts of various government agencies of future lower WEM prices and recent actual prices including high near-term futures prices that has not been fully explained in the Review Paper. The lack of confidence by consumers and the expected persistence of near-term high WEM prices will impede both the level of and rate of change to achieve net zero emissions by 2050.
13. MEUG recommends the EA include surveys of market confidence in the metrics monitored in the SCP framework and use those surveys to identify barriers to consumers switching to electricity or delaying the uptake of more efficient use of electricity.

Further context: Making the new trading conduct rules effective

14. The Executive Summary of the Review paper (page v) concludes with two issues the EA will consider further. The first issue is covered in the separate EA "Initial Issue and Options paper." The second:

“... main issues arising out of this review that the Authority will consider further are ... whether the recently amended trading conduct rules will address some of the conduct issues noted in this paper.”
15. MEUG agrees this is an issue that needs consideration. The new trading conduct rules replaced the prior High Standard of Trading Conduct (HSOTC) provisions on 30th June 2021. There was much debate and uncertainty on the change and whether it would make a positive change to seller conduct and competition or create new uncertainties and transaction costs that exceed potential benefits. That uncertainty remains and hence MEUG recommends urgency to review this issue.
16. MEUG acknowledges progress has been made by the EA to implement continuous monitoring and weekly public reporting.² The review paper notes, and we agree, that monitoring and setting conduct rules is probably the most challenging part of the SCP framework.³ Offer conduct has been the subject of several high profile investigations by the EA.⁴ It would be useful to test, for example, how those prior investigations would have been implemented and concluded and what new tools would have been needed had the new trading conduct rules been in place. For example, it is unclear how the EA considers the opportunity cost of capital for the counterfactual of a competitive market when the Review Paper SCP metrics and continuous monitoring tools to date only have measures of variable short-run-marginal costs.

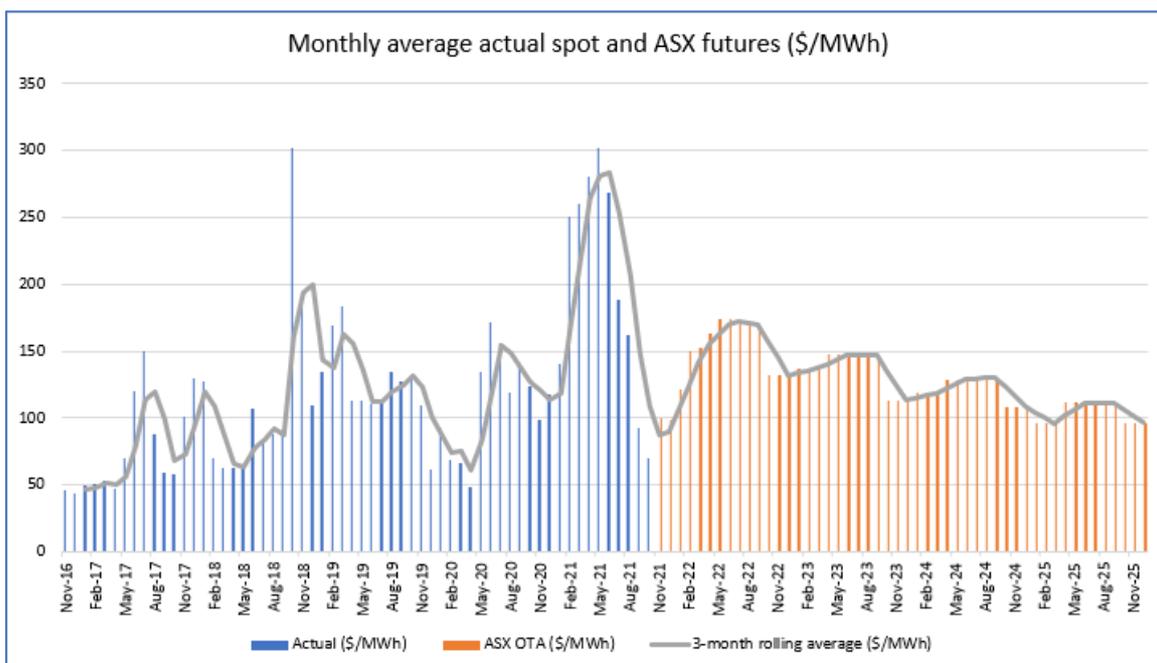
² Refer <https://www.ea.govt.nz/monitoring/market-performance-and-analysis/monitoring-trading-conduct/>

³ Review Paper paragraph [5.36].

⁴ Review Paper paragraphs [5.113] to [5.116] discuss conduct by Meridian on 2nd June 2016, Mercury on 8th December 2016 and Meridian in December 2019.

Further context: Futures prices predict high prices will persist⁵

17. Over the 2½ year review period (January 2019 to June 2021) spot prices for New Zealand averaged \$145/MWh. The average futures price at Otahuhu for the next 2½ years starting January 2022 is \$141/MWh. Monthly prices are illustrated in the following chart.



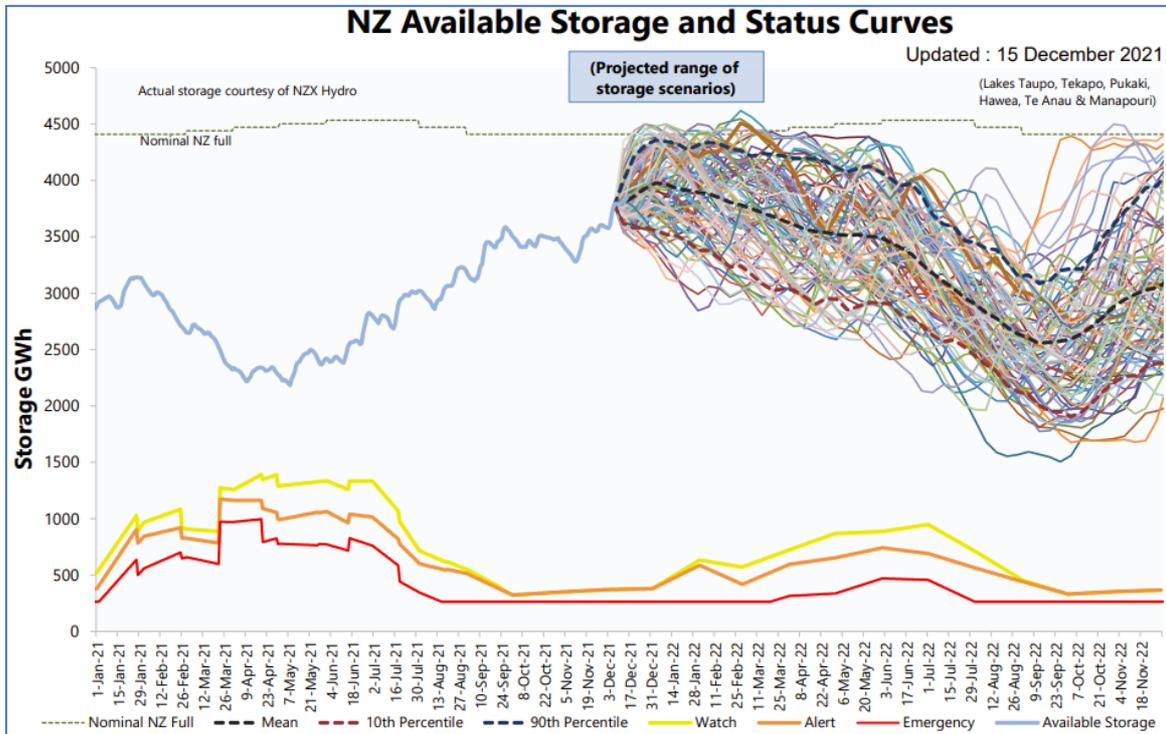
18. We acknowledge comparing New Zealand to date with future Otahuhu prices will understate the expected decrease from prices to date. Nevertheless, the above graph helps give an order of magnitude view of the trend. In summary the market is signalling that on average high prices are expected to persist with a slow decline.
19. Ongoing average spot prices around \$140/MWh for the next 2½ years when there is an unexplained component to date of up to \$38/MWh in prices, which is around 27% of spot prices, reinforces MEUG’s view that further work to understand that unexplained \$38/MWh component should be the priority of the review.
20. Taking a narrower look at near-term Otahuhu futures, the average price for calendar year 2022 is around \$153/MWh. If the unexplained component of up to \$38/MWh is part of next calendar year futures price, then that represents 25% of the futures price in 2022.

Further context: Forecast security of supply risks do not support sustained high futures prices

21. The system Operator publishes a range of data and information on near-term and longer-term future security of supply. In our view the indication of relatively low physical security of supply risks in the following two forecasts do not support sustained high futures prices:
- Lake storage scenarios for the next 12-months based on all prior historic inflows.
 - The NZ Generation Balance 6-monthly rolling forecast of security of supply published at the start of each month that has a more granular daily forecast.

⁵ This analysis was undertaken in late November 2021. There have been small changes in recent and futures prices.

22. The latest lake storages scenarios dated 15th December 2021 follows (often called the “spaghetti diagram”):⁶



23. Two observations from the above graph:
- No forecast scenarios come within 1,000 GWh of the “Watch” level over 2022.⁷
 - In several scenarios between December 2021 and March 2022 spill is forecast to occur.

24. The NZ Generation Balance Executive Summary forecast dated 1st December 2021 states:⁸

“This month’s New Zealand Generation Balance Report forecasts no N-1-G generation shortfalls for the base scenario in the next six months. When the low gas and low gas, no wind assumptions are applied, shortfalls are seen in the first two weeks of May. Generation balances have generally remained stable since the November Report.”

25. The underlined text in the quote above is by MEUG to emphasise that in the base case there are no expected security of supply risks. That expectation for the base case has been unchanged since December 2019.

⁶ Refer <https://www.transpower.co.nz/sites/default/files/bulk-upload/documents/Simulated%20Storage%20Trajectories.pdf> at <https://www.transpower.co.nz/system-operator/security-supply-and-ercs>.

⁷ The “Watch” level is the forecast date 8-weeks before an Official Conservation Campaign (OCC) will need to be triggered. An OCC commences when there is a forecast 10% probability of a supply shortage (10% Electricity Risk Curve). Refer <https://www.transpower.co.nz/system-operator/security-supply/security-supply-forecasting-and-information-policy>.

⁸ https://nzgb.redspider.co.nz/download_report/77 at <https://nzgb.redspider.co.nz/>.

Further context: Economic Profits earned by the large suppliers

26. Sections 3.1 and 3.1.2 of the NZIER report discuss generator profitability and whether the EA analysis of EBITDAF is linked to wholesale prices. Table 9 of the NZIER report considers the profitability dimension of market performance in the EA's SCP analysis and notes:
- “The EA analysis of ‘gentailer’ profit does not answer the EA question of whether generators are making supernormal profits but focuses on the lack of change in gentailer earnings over a short period of time.”
27. MEUG submitted to the Electricity Price Review (EPR) in 2019 on concerns on use of accounting metrics, such as EBITDAF, as a proxy for estimating economic profits over time. The final EPR report agreed the EPR analysis of economic profits over time was not robust. No further action or decisions were taken by MBIE to implement a robust measure and monitoring of economic profits of large electricity suppliers. The question remained unanswered, in our view, if there had been sustained excess economic profits.
28. MEUG decided in early 2020 to pro-actively conduct a pilot Economic Profit Analysis (EPA) to evaluate if techniques used by the Commerce Commission to assess economic profits in market studies and for monitoring economic profits by and setting ex ante regulated price paths for line monopolies could be applied to large electricity suppliers. The first pilot study was undertaken for Meridian Energy. The latest pilot EPA results for Meridian Energy for the last two decades to the year ending 30th June 2021 were published in September 2021 using the audited financial statements published 25th August 2021. The results of the latest pilot EPA are attached to this submission.⁹
29. The pilot study for Meridian Energy confirmed the analytical techniques could be applied to large electricity suppliers. MEUG has since commenced a pilot EPA for Contact Energy. We have truncated that analysis to 10 years in the hope of meeting the deadline of this consultation round; though as it turns out we will not complete that work until early 2022. Setting up the initial historic record is complex, as we also found with Meridian Energy, whereas undertaking annual updates is relatively quick once the EPA template for a company is in place.

Yours sincerely



Ralph Matthes
Executive Director

⁹ A copy of the latest pilot EPA for Meridian Energy is also available on the MEUG web site at <http://www.meug.co.nz/node/1157>. MEUG also published detailed Meridian Energy Limited Financial performance summary and data summaries 1999 to 2021, Base Model 2021 at 15 September 2021 in .pdf (<http://www.meug.co.nz/node/1159>) and.xls formats (<http://www.meug.co.nz/node/1160>).