

6 March 2023

Tony Baldwin
Chairperson
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Electricity Authority
By email to MDAG@ea.govt.nz

Dear Tony

Price discovery in a renewables-based electricity system – Options paper

1. This is a submission from the Major Electricity Users' Group (MEUG) on the Market Development Advisory Group's (MDAG) report "*Price discovery in a renewables-based electricity system – Options paper*" published for consultation on 8 December 2022¹ and the suite of supporting documents.²
2. Attached, and to be read along with this cover letter as part of the submission by MEUG, is a report by Mike Hensen, Senior Economist NZIER, dated 6 March 2023.
3. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Members may lodge separate submissions.

Overarching comments

4. MEUG welcomes the second stage of MDAG's project to understand how price discovery would work in the New Zealand wholesale electricity market under a 100% renewable electricity system, or as the MDAG correctly surmises a "renewables-based system". We support the continued open and transparent engagement with MDAG, and how the Advisory Group have positioned this work alongside the numerous other related projects underway in the electricity and broader energy sector.³
5. From our review of the Options paper, there are three key points that MEUG wishes to emphasise:
 - a. **Action is needed now to support the transition, not by 2030.** MDAG's project is centered around a comparison of today's wholesale market with that forecast for 2035 and 2050. However, the Options Paper provides evidence that clearly asserts that the transition to a "renewables-based system is well underway"⁴ and that the "market we have needs significant strengthening"⁵. We believe that this highlights the importance

¹ Price discovery in a renewables-based electricity system – Options paper, Market Development Advisory Group, 6 December 2022, <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-options-paper-final-2.pdf>

² <https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/100/consultations/#c19296>

³ For example, paragraphs 1.20 to 1.23 of the Option paper.

⁴ Paragraphs 3.6 – 3.7 of the Option paper.

⁵ Paragraph 6.2 of the Option paper.

of early intervention to address current deficiencies, and to set a base from which decarbonisation objectives can be successfully built. How MDAG's final report and recommendations are factored into the Electricity Authority's (Authority) future work programme will be key to commencing these changes.

- b. It is **important to identify and prioritise options that address the underlying competition issues** identified in the sector. The Options paper is clear that competition (and spot prices) are at heart of what is required to make the market work; yet evidence presented shows that going forward, the market may not work as well as intended.⁶ Effective competition, and confidence in the market, are also a necessary pre-requisite to investment by both supply side and demand side participants. MEUG is concerned that many of the options presented in Chapter 10 (strengthening competition) do not touch on the underlying problem and it is not clear what some of the measures will involve or achieve. This is addressed in the attached NZIER report, where it discusses how complexity, harm and benefit of the options could be quantified, and how the options need more definition.
 - c. **Targeted action required to explore how Demand Side Flexibility (DSF) can play a greater role in the market.** MDAG's papers and the supporting work from Dr. Batstone⁷ clearly sets out the key role that DSF can play in the wholesale market and prospects for increasing the offerings of DSF. However, to date there has been very limited uptake of DSF in New Zealand. We believe that a change in culture is required to drive this change, with action focused on understanding and strengthening the value proposition from the consumer-perspective (i.e., level of investment, revenue stream to feed into a business case) and understanding the barriers for consumers who have elected not to pursue this option. We believe there is a merit to commence work on option C9 (Accelerate new ancillary services for DSF uptake) now, ahead of the some of the actions identified by MDAG.
6. We expand on these points below, as well as providing comments on the several of the options presented in Chapters 7 to 11 of the Options paper.

Ensuring reliable and efficient operational coordination

7. MEUG observes that many of the options presented in Chapter 7 ("keeping the lights on") are largely business as usual (BAU) or part of the Authority's Future Security and Resilience (FSR) project. Therefore, there is a clear case for proceeding with many of these measures, ensuring that the wholesale market has access to the best available information (option A1) and robust oversight is provided for the next phase of the FSR project (option A2).
8. We consider that there may be merit in the following options:
 - a. A5 – Offer price reductions after gate closure
 - b. A7 – Remove UTS over-ride of trading conduct provisions.

The Options paper provides a summary of both options, but we believe that further analysis is required to determine the cost / benefit of these options.

⁶ Paragraph 10.13, Options paper.

⁷ *Enhancing wholesale market demand-side flexibility: Framework for Option Development*, November 2022, Stephen Batstone, <https://www.ea.govt.nz/assets/dms-assets/31/DSF-framework-paper-FINAL-1.pdf> and *Prospects for the uptake of demand-side flexibility in the New Zealand wholesale electricity market under 100% renewables*, January 2022, Dr Stephen Batstone, <https://www.ea.govt.nz/assets/dms-assets/29/03-Demand-Side-Flexibility-in-the-Wholesale-Electricity-Market-under-100-Renewables-Dr-Stephen-Batstone1341582-v2.1.pdf>.

9. We agree with the EA and MDAG’s view that options A8, A9 and A10 are not preferred at this stage.

Ensuring effective risk management and efficient investment

10. Many of the options discussed in Chapter 8 overlap with the options presented in chapter 10 (strengthen competition) - D2, D3, D4 and D5 respectively. We outline our views on those options in the section below on Chapter 10, with the supporting analysis from NZIER.

11. MEUG has queries about options B2, B3, and B4. We are unconvinced that these should be preferred actions, as outlined in the table below.

Table 1: Options for effective risk management and efficient investment

Options		MDAG proposal	MEUG comment
B2	Market-making for longer dated futures (for price discovery)	Preferred	We consider that this option should be left up to the market to deliver. There are risks from forcing parties to contract for longer periods, if this is not an option already being pursued by the individual parties. More information is needed to understand why parties are not already contracting for longer periods.
B3	Publish aggregated information on pipeline of new developments, energy and capacity adequacy	Preferred	We query whether this information isn’t already available through: <ul style="list-style-type: none"> • The System Operator’s (SO) annual security of supply assessment, and • Transpower’s Connection Enquiry Dashboard.⁸ It would be helpful to understand the additional resourcing required to develop the Australian NEM approach that is referenced by MDAG in its library of options. ⁹
B4	Enhance stress testing regime	Preferred	We question whether there is a robust case for this, particularly whether the costs for impacted parties outweigh the possible benefits from enhanced requirements.

12. MEUG agrees with the EA view and MDAG’s proposal that options B9 and B10 are not preferred at this stage.

Lifting demand-side participation

13. Considerable work has been undertaken by the electricity sector on the merits and benefits for greater demand side participation in the wholesale market. MDAG and Dr Batstone’s reports⁷ add to this body of knowledge, outlining the increase in demand-side flexibility (DSF) that could be enabled through improvements in smart controls and technology, and quantifying the scale of potential benefits to the wholesale market.¹⁰

⁸ <https://www.transpower.co.nz/connect-grid/connection-enquiry-information>

⁹ Paragraphs 3.13 and 3.14, *Price discovery in a renewables-based electricity system: Library of Options*, MDAG, 6 December 2022, <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-Library-of-options-FINAL-1.pdf>

¹⁰ See pages 11 – 13, *Enhancing wholesale market demand-side flexibility: Framework for Option Development*, November 2022, Stephen Batstone, <https://www.ea.govt.nz/assets/dms-assets/31/DSF-framework-paper-FINAL-1.pdf>

14. However, despite the insight we have into DSF and potential benefits, it is clear that very little progress has been made over the last 20 years. As outlined by Dr Batsone, Norske Skog was the only participant to have registered as a “dispatch capable load station” in the New Zealand market¹¹ and ripple control of hot water, although reduced in scale, is our only significant demand-side tool used across the country.
15. We do not consider that providing more information to large users and consumers is the best option (as set out in Options C13 and C14). These options come at a cost, it is not clear who the beneficiaries of this will be and how these options will be funded. Rather, MEUG considers that a change of culture (referenced in section 1.4 of Dr Badstone’s report) is required to drive this change, with action focused on understanding and strengthening the value proposition from the consumer-perspective:
 - What is the level of investment and revenue streams that feed into a business case for engaging in DSF?
 - What barriers have consumers faced when investigating this option, and subsequently electing not to pursue it?
 - Why are retailers still not active in this space? What are the underlying reasons for this?

This implies that work needs to be done via one-on-one interviews or market research, to gain information from consumers, rather than provide information.

16. MEUG observes that many consumers, including our members, would actively respond to the regional coincident peak demand (RCPD) signals under the previous Transmission Pricing Methodology, and reduce demand. The RCPD process provided a clear signal, where costs were known in advance, with Transpower previously estimating that responses to RCPD signals contributed to approximately 2% reduction in gross demand.¹² In contrast, when considering offering DSF into the wholesale market, consumers do not have visibility of the spot price beyond that of the first trading period where an offer is made. This makes it difficult for a possible participant to estimate the impact on a consumer or business over multiple trading periods.

Support for Option C11 – key proposal in this area

17. A key element to lifting demand side participation is option C11 – Ensuring distribution pricing reflects network needs, and ensuring this is passed through to the end-consumer. The Options paper and supporting Library of Options report provides a concise overview of this option, clearly articulating the rationale, costs, and benefits, and how it fits within the Authority’s distribution pricing workstream. MEUG considers that improvements here will be extremely beneficial, ensuring demand side participants have transparency of network congestion and better insight into the value of DSF at their location.
18. We do not support direct funding for trials to kick start dynamic tariff use (Option C5). Like with options C13 and C14 above, this option comes at a cost, with a lack of clarity about who the beneficiaries will be and how these options will be funded. Pushing to have distribution pricing reflect network needs would more directly incentivise the behaviour sought from the market.
19. MEUG agrees with MDAG’s view that options C6 (customer compensation scheme) and C7 (negawatt scheme) do not have merit at this point.

¹¹ Paragraph 1.32,

¹² Paragraph 13, Oji Fibre Solutions submission on Proposed Transmission Pricing Methodology, 2 December 2021, <https://www.ea.govt.nz/assets/dms-assets/29/Oji-Fibre-Solutions-TPM-submission-2021.pdf>

Need to prioritise work on Option C9 now

20. MEUG considers that there is merit to commence work on option C9 (Accelerate new ancillary services for DSF uptake) now, ahead of some of the actions identified by MDAG. There will be challenges to avoid cutting across the wholesale electricity market and the current reserves market. However, given 20 plus years of little attempt within the current industry structure, it is difficult to see sufficient traction to build demand side participation at the pace that will be required without new market mechanisms being introduced.

Strengthening competition

21. As outlined above, MEUG considers that competition is at heart of what is required to make the market work; yet the evidence presented shows that the market in the future is not likely to work as well as intended. This is hampering decisions on both the supply side and demand-side of the wholesale market.
22. MEUG commissioned Mike Hensen, from NZIER, to prepare a report on the implications for wholesale electricity price-setting and the effectiveness and efficiency of the competition strengthening measures proposed by MDAG in “Chapter 10 Strengthen competition” the Options paper. This report is attached alongside this cover letter.
23. Our overarching comments, as supported by the NZIER report are that:
- The majority of the options presented in this chapter do not touch on the underlying problem – the need to deter or mitigate the exercise of market power, and to address undue market power at its source. For example, how would the introduction of market-making for shaped contract products (Option D5) address issues with a high level of intermittency renewable fleet and the anticipated “significant thinning of competition in the provision of longer-term flexibility services”.¹³ The MDAG have usefully opined on this further in sections 10.13 to 10.16 of the Options paper.
 - Greater detail on the options would help parties form a stronger view of the merits of the options. For example, what measures would be on the competition dashboard (option D1) and who would be expected to provide the shaped contract products and what would they involve (option D5)
 - There is disappointingly far less evidence by way of modelling, compared to the prior MDAG consultation paper. Ideally, policy makers need to know the discrete incremental change of each option and if collectively there are any multiplier or offsetting effects. The bubble chart (Figure 14) , while useful for simplistic comparison, is subjective.
24. As MDAG moves to prepare its final report, we believe it would be beneficial to:
- a. Share detailed modelling of the options with the sector
 - b. Provide greater commentary on the options, so readers can review the merits of these options, and the ability for these options to address the underlying issue(s).
25. We believe that submissions and discussions on this additional information, would better inform MDAG’s findings, as it prepares its final report by July 2023. We would welcome the opportunity for MEUG and its members to engage directly with MDAG on comments made through this submission and any further analysis provided to the sector.
26. MEUG agrees with MDAG and the EA that options D6 and D8 are not preferred.

¹³ Paragraph 10.8, Option paper.

Chapter 11: Increasing public confidence

27. MEUG strongly believes that if competition in the wholesale market can be improved, then public (and political) confidence in the electricity sector will consequently increase. What is needed is clear evidence of change, rather than additional explanation of the complexity of change.

Not convinced of case for Options E1 to E4

Options		MDAG proposal	MEUG's comments
E1	Structured information programme for wider stakeholders	Preferred	MEUG is not convinced there is a market failure in this area, to support action over and above the status quo. Therefore, we do not support pursuing these options at present. We believe further information is required on these options to: <ul style="list-style-type: none">○ Explain how the status quo falls short in this space○ Examples of international examples that are successful.○ Who the beneficiaries are○ Stakeholders desire to receive and engage with additional information (level of receptiveness)○ How these options will be funded.
E2	Regular briefings for Ministers and officials on current and expected conditions	Preferred	
E3	Increase inter-change with international experts	Preferred	
E4	Enhance monitoring with more autonomy	Preferred	

Option E5: Periodic warrant off fitness

We believe there may be merit in introducing a periodic “warrant of fitness” for the independent regulatory agencies in the sector. This would support a culture of continuous improvement and hold agencies accountable to the public, for their progress against key deliverables. However, we would not want the introduction of this option to thwart opportunities for any ad-hoc reviews sought by Government, for example, consolidation of functions into a central agency.

If you have any questions regarding this submission or would like to discuss any aspect, please contact MEUG on 027 472 7798 or via email at karen@meug.co.nz.

Yours sincerely



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