

Submission by



to the

Electricity Authority

on the

**Market Development Advisory Group's (MDAG) options paper
on price discovery in a renewable based system**

6 March 2023

MDAG OPTIONS PAPER ON PRICE DISCOVERY IN A RENEWABLE BASED SYSTEM – SUBMISSION BY BUSINESSNZ ENERGY COUNCIL–

GENERAL AND OVERARCHING COMMENTS

1. BusinessNZ Energy Council (BEC)¹ welcomes the opportunity to provide feedback to the Electricity Authority on the Market Development Advisory Group's (MDAG or 'the group') [options paper](#) on price discovery in a renewable based system referred to as 'the paper'.²
2. Members have been consulted in preparing this submission. Given the wide diversity of our membership, some members will have specific issues that they wish to comment on in more detail – especially commentary on specific options.
3. Firstly, the BEC would like to acknowledge the substantial work the group has undertaken putting together the options paper to better understand how price discovery could work in New Zealand's wholesale electricity market under a 100% renewable electricity system.
4. BEC highlights MDAG's commitment to ensuring an open and collaborative process throughout the project. This includes its initial paper describing problems with the wholesale market design that create obstacles for New Zealand's transition to 100% renewable electricity. And this current paper, outlining potential options that could alleviate such obstacles. MDAG has ensured stakeholders from across the sector have been thoughtfully consulted and included. MDAG has also prioritised engagement with a range of international experts to glean relevant learnings from other jurisdictions.
5. The paper reflects a wide-ranging analysis exploring potential options – including the costs and benefits of such options, and the desired timeframe for implementing each preferred option. MDAG has considered and analysed 47 possible options. The group has concluded that 34 options are preferred.
6. Overall, BEC believes the options outlined in the paper strike a good balance in acknowledging potential trade-offs, while also exploring problems with certain interventions displayed overseas, and why some should not be pursued in New Zealand – at least not now.
7. The paper notes the speed of which New Zealand's electricity system is changing. Progress towards additional renewable sources amongst New Zealand's energy mix is evolving rapidly, with renewable generation projected to reach around 95% by 2025, as mentioned in the paper. We agree that this will likely involve action earlier than initially anticipated. More volatile renewable sources entering the system has increased concerns about coordination and the supply of adequate firming capacity, especially during peak demand.
8. BEC agrees New Zealand's energy-only market has served its purpose, incentivised incremental improvements and provided price signals to invest in new generation. Yet, the latter has become more difficult and more expensive over the past four years due to several factors. For instance, the supply constraint of materials, equipment, and skills, worsening costs and lengthy consenting requirements, combined with policy uncertainty surrounding Lake Onslow and the 100% R.E target. However, we reiterate MDAG's emphasis about the importance of accurate price signals and how the spot market is, and will be, the heartbeat for co-ordinating decisions. Price signals are vital to ensuring the balance between demand and supply, while doing so at the least cost for consumers. This is important, as among many factors, affordable electricity ensures the decarbonisation of various industries and businesses through electrification.
9. Nevertheless, New Zealand's energy-only market might need to evolve to ensure there are sufficient incentives to supply adequate flexible capacity. The combination of high coal and carbon prices, as well

¹ Background information on the BusinessNZ Energy Council is attached as Appendix One.

as growing intermittent renewable generation has weakened the incentive of operating thermal capacity. However, thermal generation continues to play an important role in firming New Zealand's energy system. There is considerable concern that thermal assets will retire earlier than initially anticipated, and desired.

10. A myriad of potential options have been touted across the sector. The two main mechanisms aimed at supporting resource adequacy investigated in the paper were strategic reserves and capacity mechanisms. We reiterate MDAG's view that both could improve resource adequacy, but both have shown to unleash many expensive and inefficient unintended consequences.³ The paper has carefully considered capacity contracting and has ruled it out due to cogent reasons, while making a persuasive case for maintaining the current spot market's marginal clearing price. Every electricity system around the world, whether it is an energy-only market, or whether they contain a capacity mechanism, or possibly an emergence reserve, each exist with inherent trade-offs. The paper has acknowledged these trade-offs, and outlined why moving away from the current spot market structure may not be beneficial for consumers in the long-term.
11. In BEC's previous submission, dated March 2022,⁴ we mentioned that it would be beneficial to see a set of options outlining the least regrets, least cost and least unintended consequences first, before contemplating large structural changes to New Zealand's wholesale market. We agree with MDAG's conclusion that sudden, ad hoc, and reactive changes to the market structure could exacerbate uncertainty and create a chilling effect on investment in new generation – possibly slowing New Zealand's energy transition.
12. However, this acknowledgement does not justify the assertion for business as usual. The prospect of unintended consequences should not rule out some interventions. Action is required, as the transition to a renewable-based system is underway. The paper notes that the market will require a degree of strengthening, and some interventions are needed earlier to set the stage for a successful transition.
13. One example explored in the paper is demand-side flexibility (DSF). Dr Batstone's report accompanied in MDAG's work, sets out the important role of DSF.⁵ BEC agrees that with new technologies, through smart devices and automation, consumers will be able to react more proactively to price signals, curtailing their demand, improving their participation in the market, and reducing the overall system cost. Yet, as mentioned, DSF in New Zealand is limited, and has experienced little progress over the past two decades, with the main tool being ripple control. The paper outlines several options aimed at improving the optionality and value of DSF. A few options stand-out.
14. Option C5 – providing funding for trails/pilots – could provide value through 'learning by doing,' identifying insights into what works, and what does not work. However, as noted in the library of options paper, such funding should proceed with a degree of caution.⁶ DSF is still relatively in its infancy. Considerations for funding specific trails should outline the length of such trails, who will benefit from them, how they will be funded, and whether it could unintentionally 'pick-winners' in a space which is constantly evolving. Option C11 – distribution pricing reflects network needs – could provide more transparency to where the value of DSF might be, improving the efficiency of deploying DSF across the network.

³ [BEC's previous submission](#) on the EA's paper on promoting competition in the wholesale electricity market in the transition toward 100% renewable electricity (note page 8 and 9 outlining capacity mechanisms), as shown below.

⁴ [BEC's previous submission](#) on Price discovery under 100% renewable electricity supply issues discussion paper (2022).

⁵ *Enhancing wholesale market demand-side flexibility: Framework for Option Development*, Stephen Batstone, (November 2022) <https://www.ea.govt.nz/assets/dms-assets/31/DSF-framework-paper-FINAL-1.pdf>

⁶ *Price discovery in a renewables-based electricity system, Library of Options*, the Electricity Authority, December (2022) <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-Library-of-options-FINAL-1.pdf>

15. BEC believes that for DSF to work well, the whole sector must work together to enable its success. This may require a significant cultural change. It cannot happen successfully without EDBs, Transpower, retailers and consumers working together. A common industry framework of demand-side standards and protocols would be a significant stride in the right direction, improving consumer confidence and reducing costs. Moreover, identifying the reasons why consumers do not elect DSF, why retailers are not active in DSF, and what needs to happen more generally to enable DSF is essential. Hence why the work of FlexForum, testing ideas and engaging in learning by doing, is vital.
16. BEC also emphasises the importance MDAG has attached to maintaining consumer confidence during the transition. Competition is undoubtedly one piece of this puzzle. It's a vital ingredient of an efficient and dynamic energy system. BEC supports a more competitive and nimble market, and a more competitive New Zealand more generally, as it sparks innovation and forces downward pressure on prices, benefiting all consumers. The amount of competition, and subsequently consumers' confidence in the market, heavily influences political confidence. A lack of consumer and political confidence intensifies the risk of short-sighted, inefficient, and sudden policy decisions that could slow the transition – while possibly unleashing unintended consequences upon New Zealand's energy trilemma.
17. To protect public confidence, we agree with MDAG that focusing on conduct-based measures are preferred over the structural measures analysed. Structural changes, for instance in the form of disaggregation, come with significant costs and consequences, while at the same time being largely disruptive. If any structural changes do take place, based on the premise of shrinking anti-competitive behaviour, there must be substantive evidence that the problem exists – or at least the extent of the problem justifies the significant intervention. The Authority's recent paper on competition in the wholesale market, expressed the lack of definitive evidence to confidently justify the claim that elevated prices were due to anti-competitive behaviour.⁷
18. MDAG's paper outlines 19 preferred options to be started in 2023 and 2024. BEC is aware that four of the 19 options are already underway or planned: option A1, A2, A3 and A4. Nevertheless, the BEC questions the Authority's capacity to sufficiently manage, and then implement, 19 options in a relatively short period of time, whilst also balancing the Authority's current workstream and requirements as the market regulator. Therefore, the Authority's constraints may limit the extent to which these options could be implemented out to 2025 and beyond. The group has outlined a timeframe for starting and implementing each option, from options A to E – including the potential benefits, and unintended consequences caused by intervening. BEC believes this is a sensible way of conceptualising each option.
19. BEC recognises that for several issues raised, it is difficult to accurately predict when they will exactly occur, and when they require attention. Considering the large number of potential options, BEC suggests that it could be beneficial to rank each option by priority. For instance, identifying and ranking what *must* happen now in 2023 to ensure New Zealand is on the path to 100% R.E, and what could occur later, once we witness the full extent of more renewable penetration.⁸ Do all 19 options need to start in 2023/2024? Which options take priority over each other, considering the Authority's limited capacity? Yet the answer to both questions could be that prioritisation is already ranked by the potential net benefit – outlined in the library of options – in combination with the time it could take to implement each option. But again, BEC is concerned to whether the Authority can realistically start 19 options over the next two years and implement the rest of MDAG's preferred options out to 2027 and beyond.
20. While the MDAG group provides an extensive explanation for the preferred options, it does not reflect on the set of measures that must happen to run a 100% renewable electricity market. It is not clear from the paper if all preferred options must be implemented to run a 100% renewable electricity market or what bundle of measures should be taken. Therefore, MDAG should provide a clear understanding on what bundles of different option combinations, i.e., bundle of options 1, 2 or 3, ranked by the benefits,

⁷ *Promoting competition in the wholesale electricity market in the transition toward 100% renewable energy, the Electricity Authority, November 2022.* <https://www.ea.govt.nz/assets/4-Monitoring/Issues-Paper-Promoting-competition-in-the-wholesale-electricity-market-in-the-transition-toward-100-renewable-electricity.pdf>

⁸ We note that to whether the 100% renewable electricity target is desired, or realistic, does not sit within the scope of the paper.

costs, effort, and risks could be implemented to facilitate a 100% renewable electricity system. This could potentially ensure a more workable and realistic workstream for the Authority.

21. Notwithstanding, BEC appreciates the thought and work that has already gone into compiling an internally consistent and coherent set of actions that need to be undertaken, and are confident this will flow through to MDAG's final recommendations. We would therefore encourage the Authority to adopt MDAG's final recommendations as its priority work programme for wholesale market design for the next five years, as well as influencing related activities of the Authority's Market Monitoring team.
22. Given our concerns above, we are generally pleased to see the Authority recently consult on increasing its appropriation, in part to respond to the need to ensure the market design continued to deliver as it neared 100% renewables. With this increased resourcing, the Authority's constraints could be alleviated, increasing the chance of MDAG's recommendations to be fully implemented. BEC believes that it would be a shame if such a thorough, high-quality piece of work, informed by quality engagement with the industry and international experts, simply "gathered dust on the shelf", in preference to other, less material projects.

SUMMARY

- I. The options outlined in the paper are largely pragmatic and balance competing trade-offs well.
- II. The paper extensively, and rigorously, outlines the main issues facing the wholesale market.
- III. Considering the large number of preferred options and the limited capacity of the Authority, there are several considerations that could be beneficial:
 - Outline several bundles of potential options to pursue, i.e., outlining multiple combinations, and weigh each bundle based on their cost, benefit, risks, and efforts. A bundle could include several options from across the identified areas, from say, options on increasing demand-side flexibility to measures improving risk management and investment. Slimming down the options into bundles could improve the option value of waiting for some issues to fully emerge. Yet we acknowledge that doing additional quantitative work on conceptualising the costs and benefits of each bundle may impact MDAG's timeframe, and the Authority's capacity.
 - Again, considering the large number of options, rank each option outlined by priority – what must happen to reach 100% renewable energy.
 - Once MDAG's final recommendations are complete, the Authority should then adopt these recommendations as its formal work programme on the wholesale market design for the next five years.

APPENDIX ONE – BACKGROUND INFORMATION ON THE BUSINESSNZ ENERGY COUNCIL

The [BusinessNZ Energy Council \(BEC\)](#) is a group of leading energy-sector business, government and research organisations taking a leading role in creating a sustainable, equitable and secure energy future.

BEC is a brand of BusinessNZ and represents the [World Energy Council](#) in New Zealand. Together with its members, BEC is shaping the energy agenda for New Zealand and globally.



BusinessNZ is New Zealand’s largest business advocacy body, representing:

- Regional business groups: [EMA](#), [Business Central](#), [Canterbury Employers’ Chamber of Commerce](#), and [Business South](#)
- [Major Companies Group](#) of New Zealand’s largest businesses
- [Gold Group](#) of medium sized businesses
- [Affiliated Industries Group](#) of national industry associations
- [ExportNZ](#) representing New Zealand exporting enterprises
- [ManufacturingNZ](#) representing New Zealand manufacturing enterprises
- [Sustainable Business Council](#) of enterprises leading sustainable business practice
- [BusinessNZ Energy Council](#) of enterprises leading sustainable energy production and use
- [Buy NZ Made](#) representing producers, retailers, consumers of NZ-made goods

BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy.

In addition to advocacy and services for enterprise, BusinessNZ contributes to Government, tripartite working parties and international bodies including the International Labour Organisation ([ILO](#)), the International Organisation of Employers ([IOE](#)) and the Business and Industry Advisory Council ([BIAC](#)) to the Organisation for Economic Cooperation and Development ([OECD](#)).

