Major Electricity Users' Group

Promoting a robust electricity market

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Sent via email: taskforce@ea.govt.nz

Dear Andrew

Rewarding Industrial Demand Flexibility

1. This is a submission from the Major Electricity Users' Group (MEUG) on the Electricity Authority's (Authority) issues and options paper "*Rewarding industrial demand flexibility*"[1] published on 28 May 2025.

2. MEUG members have been consulted on the approach to this submission. This submission does not contain any confidential information and can be published on the Authority's website unaltered. Members may lodge separate submissions.

Welcome exploration of industrial demand flexibility

3. MEUG welcomed the inclusion of initiative 2D – "*Rewarding industrial consumers for providing short-term demand flexibility*" – as one of the eight key initiatives to be investigated by the Energy Competition Task Force (ECTF) when it was set up in 2024. Industrial demand-side response or demand flexibility is of particular interest to MEUG, and we have worked with the Authority and broader electricity sector over many years to examine how:

   - Demand response can play an effective role in the electricity market, and
   - How we can ensure that any demand response mechanisms or arrangements are beneficial for the parties involved, as well as providing positive benefits for the country as a whole ("NZ Inc") – or at a minimum, not eroding business production and economic growth.

4. Several MEUG members have taken part or have considered involvement in demand response, be it through historic market mechanisms or now, as they look to future energy procurement, cost reductions and electrification of processes within their business. As canvassed in prior papers, Norske Skog[2] was the only participant to have registered as a "dispatch capable load station" in the New Zealand market under the prior arrangements. Many businesses would also actively manage their load in response to the Regional Coincident Peak Demand (RCPD) charges under the previous Transmission Pricing Methodolgoy (TPM).

[1] https://www.ea.govt.nz/documents/7491/Rewarding_industrial_demand_flexibility_-_Issues_and_options_paper.pdf
[2] Was a MEUG member until it exited the New Zealand market.

5. Over winter 2024, the demand response agreement between NZAS and Meridian played a key role in ensuring that New Zealand had sufficient electricity through the winter months. Transpower, in its role as System Operator,[3] has continued to call for greater demand response, to help the system manage security, be it intraday peaks as well as longer-dry periods when lakes are low.

6. MEUG welcomed the introduction of real time pricing (RTP) in 2023, which enabled the introduction of two new market mechanisms for load, dispatchable demand and dispatch notification. We understand that there are currently only two market participants involved with this mechanism, but no large industrials. From recent MEUG discussions, members view the cost of disruption to production as exceeding any potential financial incentives from the current scheme, despite many discussions with Authority and System Operator staff over the last two years.

7. Given the increased interest and calls for greater demand response, MEUG produced a series of case studies[4] exploring the barriers and opportunities for large electricity users to participate in demand-side response. The case studies provided insights from Fonterra, Woolworths, Oji Fibre Solutions, and the Rio Tinto-owned Tiwai Point Aluminium Smelter (NZAS), as well as commentary from the Authority and the System Operator. These case studies helped progress discussion with a range of stakeholders on the next steps to enable demand response and helped inform discussions at the Downstream conference in March 2025, where MEUG and Simply Energy led a roundtable discussion on large user demand flexibility.[5]

8. MEUG appreciated the opportunity to engage with the Authority in late 2024 as this initiative was being scoped and subsequently welcomed the chance to discuss this issues and options paper in depth with Authority staff in June 2025.

9. We consider that the Authority has produced a good paper that captured the range of feedback and discussion it has had in recent months, including the numerous discussions with MEUG. We support the more strategic approach to the issue, endorsing the Authority's focus on "*providing net benefits to consumers*" which therefore keeps the Authority "*agnostic to how industrial demand flexibility is provided*."[6]

10. We are heartened to read of the Authority's shift in thinking regarding compensation for industrial flexibility, given the conclusion that incentives at present (through mechanisms such as dispatchable demand) are not strong enough to encourage involvement from a broad range of industries. We support the statement that "*this could involve payments to industrial demand flexibility providers, additional to avoided energy costs – if there is a clear benefit for consumers*".[7]

Development of vision sets the scene for developing the roadmap

11. MEUG support's the Authority developing a vision for industrial demand flexibility and guiding principles to help shape the roadmap actions. However, we encourage the Authority to take a step back and first review the role that demand response, be it by industrials, commercials or households, could play within the electricity system. From our perspective:

    - Demand response is simply one of the many options available to the System Operator to balance supply and demand, in the short term and over the long term. Ideally the system should be agnostic to participation between supply and demand side resources, if the technical requirements are met to ensure security of supply.

[3] Security of Supply Assessment 2025, System Operator, 9 May 2025
[4] *Large electricity users keen to assist NZ with security of supply, but market settings must improve*, MEUG press release, 15 November 2024.
[5] *The many flavours of demand flexibility for large energy users*, Downstream 2025 conference.
[6] Page 3 of the options and issues paper.
[7] Page 3 of the options and issues paper.

- There is a broad range of action that falls within the area of demand response, from involvement in the ancillary markets through to detailed and long-term bilateral agreements. There is no "one size fits all" approach to encouraging and enabling demand response.

- **All demand response must be voluntary and fairly-compensated** – whether this is through market mechanisms or bilateral arrangements. There may be many customers who do not want to partake in demand response (as discussed in paragraph 4.6) or not have the technical expertise and resources to manage demand response on a frequent basis.

- Demand response is an effective tool when it is the most cost-effective option available to the market and can help put downward pressure on wholesale prices. Demand response should not inadvertently disincentivise other options, such as building new generation, when that is in the longer-term interest of the system and consumers.

- When considering the benefits and impact of demand response, the Authority needs to look beyond simply the impact on the electricity system. It is important to understand how demand response could impact business productivity, growth, exports, and overall GDP for the country. The benefits enabled in the electricity system should not erode the overall economic direction of the country and broader government goals. Analysis of last winter by Enerlytica[8] highlighted that the demand response actions of last winter, while getting us through the immediate fuel crisis, cost the economy $300 million in lost exports.

12. MEUG suggest that the Authority look to set a vision for demand response that centres around the customer – i.e. what are the benefits to the customer, and how does it help the broader electricity system. This is covered in paragraph 6.6 of the issues and options paper, and we would support this being more prominent. We also welcome the discussion around how this work interacts with electricity hedging, where the Authority state that "*enabling more industrial demand flexibility should* [not] *occur at the expense of industrials' willingness and ability to hedge*."[9] We are still in the process of reviewing the guiding principles and their application to future work– at a high level, we support principles that are technology and provider agnostic, while focused on ensuring the lowest cost delivered electricity costs to all consumers. We would welcome further engagement on this aspect of the paper.

Concern that scope of proposed road map is too narrow and misses opportunities

13. While the paper provides a good overview of the existing uses, barriers and potential for demand flexibility, MEUG considers that the paper falls short of recommending actions that will drive real change. The paper underestimates the size of potential demand response that could be brought to market and focuses primarily on short term actions that we consider will have limited benefits. We consider that there is appetite amongst the sector to work with the Authority and investigate and deploy a broader range of measures than those initial signalled in the proposed road map.

Scale of demand response appears understated

14. MEUG was surprised and somewhat disappointed by the low level of demand response potential found in the report from Sense Partners, which indicates the *"scale of potential industrial demand ranges from 190 MW to 300 MW, accounting for technical feasibility and organisational capabilities of industries*."[10] We consider that this underestimates the scale of

[8] [Power crisis cost the economy $300 million this year, expert says](), 13 December 2024, RNZ
[9] Paragraph 4.18 of the issues and options paper.
[10] Page iii of the Sense Partners report.

demand response that could be possible in New Zealand and therefore mutes the scale of actions that the Authority may look to develop going forward.

15. MEUG's view is driven by our reflections firstly of the demand response that was possible under the previous TPM through the RCPD charges. We refer the Authority back to its 2022 report that found that estimated that "*removing the RCPD charge increased daily peak consumption by around 150MW during the top 300 consumption periods in 2022*."[11] We also refer to the expected growth in industrial electrification, and discussions with parties such as EECA and industry load aggregators, who have forecast much greater potential.

16. We do acknowledge the statement by Sense Partners that "*most firms in most industries do not have strong incentives to invest in closely managing electricity costs*".[12] However, with the significant increase in electricity costs over the last five years, electricity costs are now more front of mind for businesses. From our discussion with members, demand response is now discussed as a key component of all new electricity contracts, and the recent business survey run by the Northern Infrastructure Forum[13] highlighted the range of actions that businesses are having to take to manage electricity costs.

Recommended Authority take a longer-term view, while pursuing some short-term improvements

17. MEUG is concerned that the Authority has elected to pursue short-term, narrowly focused actions, at the expense of developing more in-depth measures that could address the underlying barriers to demand response and encourage greater participation by industry. We recognise that shorter term measures will have less cost and less potential disruption to business operations. However, the type of measures proposed will not sufficiently encourage the broad range of demand response that could be made available across industry and bring the substantial benefits that are possible. We have the following comments and observations on the proposed actions set out in the roadmap:

    - We would encourage the Authority to include actions on seasonal demand response agreements, alongside the intraday mechanisms discussed in the paper. New Zealand needs to address the market concerns resulting from a lack of energy storage and the risk of dry years. This is an area where all options should be canvassed.

    - We had expected the issues and options paper to scope the full range of options that are available for industrial businesses (and likely other participants). Narrowing the scope doesn't provide for a comprehensive roadmap – we set out several suggestions below that could be added to the roadmap.

    - The actions proposed do not appear to address the barriers to demand response, as raised in this paper, in MEUG's case studies, and in discussions with businesses. The options don't address technical issues such as ramp up / ramp down times with equipment, which are one reason many MEUG members have not participated in the dispatchable demand regime.

    - The paper is also completely silent on next steps with the dispatchable demand mechanism. We had hoped the Authority would investigate further improvements to help incentivise participation by industry.

    - The paper does not discuss how new flexibility mechanisms could assist businesses with the investment case for considering demand response. The benefits possible from the proposed actions (particularly the Emergency Reserve Scheme) would appear to be infrequent and not of the scale to incentivise involvement.

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[11] Page 2, The impact of the RCPD charge removal on peak demand, Electricity Authority, 21 March 2023,
[12] Page ii of the Sense Partners report.
[13] *Survey reveals businesses fear upsetting gentailers if they complain about high energy costs*, 29 May 2025, RNZ.

- The Authority acknowledges that it does not "*have visibility of the full extent to which industrial demand flexibility is already currently activated via bilateral arrangements in New Zealand*".[14] Yet, the paper does not explore options to get greater insight into bilateral arrangements and assess the effectiveness of these arrangements.
- There isn't a sufficient focus on how you could incentivise industrial consumers who are on fixed price variable volume contracts (FPVV) to take part.
- The paper does not quantify the level of load aggregators operating in the New Zealand market, and whether more could be done in this space.
- The paper doesn't provide a clear insight as to how this workstream interacts with the Authority's broader work programme, and the development of the electricity generation pipeline and deployment of batters and broader demand response.

18. Without addressing some of these key areas and questions, the road map may be viewed as incomplete, and more of a short-term action list that is being set without the broader strategic context.

Establishing an Emergency Reserve Scheme

19. Notwithstanding the concerns above, MEUG considers there may be some merit in exploring an Emergency Reserve Scheme. It could assist with management of peak capacity issues and does involve some level of compensation. However, we are unclear on how often it may actually be triggered, and based on initial discussions with members, there was limited interest in partaking until further detail was confirmed. It would be useful to understand when the Authority plans to review the value of lost load (VoLL), given its interlinkages with this scheme.

Developing a standardised product for demand flexibility

20. The Authority has proposed to develop a standardised product for demand flexibility, following the approach as was taken for the 'super-peak' flexibility product introduced in January 2025, as part of the Energy Competition Task Force work programme. MEUG is unclear about the benefits of this proposal and whether it would be of assistance to large industrials, such as MEUG's members.

21. To date, MEUG members have not shown interest in the super-peak flexibility product, as it is misaligned with the general baseload profile of many large industrials with 24/7 operations. It is unclear how this standardised product would provide better outcomes over other options, such as working directly with a load aggregator or negotiating a bilateral agreement. This proposed option may be more beneficial in the medium term, rather in the coming year, but does merit further discussion for inclusion in the roadmap.

What MEUG would like to see to get value out of industrial flexibility

22. While MEUG has concerns with the proposed actions in the road map and the short-term nature of the approach, we would welcome the opportunity to work further with the Authority and industry stakeholders to further explore how industrial flexibility can be encouraged. It is a complex area (with an already complex market), but we believe that there is appetite to come up with viable solutions that can rewards all types of consumers for the role they play in supporting an affordable, secure and highly renewable electricity market.

[14] Paragraph 4.30, page 23, issues and options paper.

23. We would welcome discussion and inclusion of the following areas within an updated roadmap to guide this workstream:

- **Improvements to dispatchable demand**: We recommend that the Authority prioritise work on this measure in the near-term, rather than addressing it outside of this workstream. In our submission on peak electricity capacity issues,[15] MEUG set out several comments on the barriers with the current mechanism, given operating conditions of many businesses. We reiterate our recommendation that the Authority undertake a piece of analysis on a trading model for demand response that offers demand response for blocks of 2 to 4 hours, to provide more demand certainty around the costs and benefits of demand response. This would help to rank the cost of demand response against other alternatives such as BESS or firming generation

- **Utilising the knowledge of EECA and load aggregators**: We consider that these parties hold considerable knowledge and insight that can help shape the road map and are well placed to undertake future work on demand response.

- **Get insight into size and state of bilateral agreements**: Given many of the largest demand response agreements have been established through bilateral agreements, we encourage the Authority to look at how it gains insight into the scale of these agreements, while acknowledging the commercial nature of this information. Anecdotally, there is a current view that demand response is being undervalued in contracts and being set as mandatory, rather than a voluntary provision. We would encourage work in this area to ensure the benefits are being shared with the consumers.

- **Carry out detailed analysis of demand response being bid into the wholesale market, alongside generation.** This is an idea that was raised through our case study with Fonterra,[16] and we believe there is merit in exploring this option further, to fully understand how it could work and assessing its against the Authority's criteria. We are also aware that Energy Link[17] has recently submitted a proposal to the Authority for the implementation of balancing demand as a new type of generation. We believe this option also has merit and should be included within this workstream for consideration. We welcome any update on the status of this Code proposal.

- **Day ahead markets:** As outlined in our submission on peak electricity capacity issues,[18] MEUG recommends (further) investigation into the benefits of a day ahead market to signal and greater incentivise the use of demand response, as well as battery storage and firming generation. This mechanism could provide financial security to:

  - Demand response participants to alter production, utilise alternative fuel supplies and ready equipment for multiple periods of being dispatched off.

  - Encourage BESS owners to charge up their infrastructure in the periods prior to being dispatched.

  - Slow start thermal plants to warm assets to be ready for dispatch (although noting the expected decrease in these types of plants).

  We also consider that there may be merit in demand-side response agreements being incorporated into pricing schedules to provide greater visibility

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[15] *Potential solutions for peak electricity capacity issues*, MEUG submission to the Electricity Authority, 1 March 2024.
[16] *Fonterra case study*, MEUG website.
[17] LinkedIn post from Greg Sise, Energy Link.
[18] *Potential solutions for peak electricity capacity issues*, MEUG submission to the Electricity Authority, 1 March 2024.

- **Consideration of a mechanism with similar incentives/structure to the RCPD charges under the previous TPM**: The removal of the RCPD charge has led to an observable increase on peak demand and impacted the deployment of demand side response. This warrants serious reconsideration of the decision and the underlying assumptions made when approving the current TPM. There may be an opportunity to find a new solution going forward, that works in with the current TPM and/or distribution pricing approaches.

Next steps

24. MEUG welcomes the release of this options and issues paper and believe it provides a good foundation to start discussion around rewarding industrial demand flexibility. However, we consider that this workstream would benefit from a cross-submission period and further discussion with the broader sector. This would enable stakeholders the chance to review ideas presented by other submitters and understand the full potential list of options that could be made targeted for implementation with industrial participants.

25. As discussed with Authority staff, we would welcome a workshop on this workstream. We believe bringing together a cross sector of participants would enable the Authority to flesh out a more robust and broader roadmap of options that will have tangible benefits for both consumers and the market. We understand that this option may be explored in August 2025, but we strongly encourage that this be undertaken ahead of any decisions on this workstream and subsequent consultations.

26. If you have any questions regarding our submission, please contact MEUG on 027 472 7798 or via email at karen@meug.co.nz.

Yours sincerely

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