

Via email: MDAG@ea.govt.nz

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MDAG consultation on price discovery in a renewables-based electricity system – options paper

Mercury welcomes the opportunity to provide feedback to the Market Development Advisory Group (MDAG) on the paper *Price discovery in a renewables-based electricity system: Options Paper*, 6 December 2022, (Options Paper). No part of this submission is confidential.

The Electricity Authority (Authority) asked MDAG to identify changes to the wholesale electricity market that are needed to facilitate the shift to a renewables-based electricity system.¹ The Options Paper seeks feedback on thirty-seven measures that MDAG considered and either partially or fully supports. These measures are brought together under five key areas of action that aim to either: (i) ensure reliable and efficient operational coordination; (ii) ensure effective risk management and efficient investment; (iii) lift demand side participation; (iv) strengthen competition; or (v) increase public confidence in system.

In summary, Mercury submits:

- Measures under the Options Paper codes D1, D2, D3, D4, and D5, if appropriately designed and implemented, would help support competition in the wholesale market;²
- Commencing measure D7 at a high level in 2024 as proposed, before a competition issue is clearly identified raises the risk of adverse unintended outcomes;
- Resources should be confirmed and work coordinated prior to commencing the proposed implementation of twelve measures in 2023 and a further eleven measures in 2024 out of the total of thirty-seven measures that MDAG either partially or fully supports; and
- Increasing public confidence in the system is crucial to facilitating the shift to a renewables-based electricity system.

The following submission expands on these points with further detail provided in response to the consultation questions in the annex.

Proposed measures to strengthen competition

Mercury considers that MDAG's measures D1, D2, D3, D4, and D5, if appropriately designed and implemented, would help support competition in the wholesale market.

As illustrated in Table 15 of the Options Paper, these measures are in general consistent with comparable measures proposed by the Authority in its consultation paper *Promoting competition in the wholesale electricity market in the*

¹ Options Paper, paragraph 3.1.

² The coding of measures reported in the present submission follows the coding used by MDAG in the Options Paper. See the Options Paper Table 6 for a comprehensive list of the codes and measures. With respect to the coding of the measures noted here: D1 is Develop dashboard of competition indicators for flexibility segment of wholesale market; D2 is Greater transparency of hedge info (esp non-base load) covering offers, bids+agreed prices; D3 is Develop flexibility access code (non-price elements); D4 is Extend trading conduct rules to hedge market; and D5 is Market-making for shaped contract products.

transition toward 100% renewable electricity, October 2022. Our response to the present consultation is consistent with our response to the Authority's paper.

In its consultation paper the Authority concluded that current changes in spot prices appear to be explained mostly by underlying demand and supply factors. This outcome is consistent with a real-world process of competition in the wholesale market that is effective and that enhances economic efficiency.

Careful consideration, therefore, should be given to the design and implementation of measures D1 to D5 to mitigate the risk of unintended outcomes that are detrimental to the current process of competition, which is working well. This is consistent with MDAG's rationale for proposing measures D1 to D5, which is that they have significantly lower risk of unintended harm compared with the other options considered.

Mercury also notes in relation to options D3, D4 and D5, that an OTC Working Group has been set up that is likely to progress initiatives that may address MDAG's concerns. Mercury, therefore, supports MDAG's proposal to not start work on these options until 2025, as information gained from this industry led work over the next two years could be useful for the design and implementation of these options or it may mean that these options are no longer required.

MDAG's competition analysis³ is forward looking out to 2035, focusing on the risk of increasing concentration in flexible energy supply over a period of approximately a week as a result of the decommissioning of fossil fuel thermal generation. It indicates that "... overall flexible hydro/thermal MW capacity shrinks significantly (4,984 at present vs 3,563 MW in 2035) all other things being equal."⁴

Given such circumstances in the future, MDAG considers that even with measures D1 to D5 there is a risk that some generators may have the scope and incentive to abuse market power in flexible energy supply. MDAG, therefore, propose that should such market conditions eventuate, consideration should be given to the *virtual disaggregation of the flexible generation base* – i.e. measure D7.

MDAG envisages that D7 "... would use financial contracts designed to mimic the effect of physical disaggregation, but ownership and generation dispatch rights would remain unchanged."⁵ Even though MDAG does not recommend D7 at this time, it is preferred as a back-up option and included in the timeline.⁶ MDAG proposes that work on a high-level specification of D7 would start in 2024 and completed in 2025, and if measures D1 to D5 are not sufficient then implementation of D7 would start in 2027 and be completed in 2029.⁷

Competition issues may or may not arise in the wholesale market in the future. Mercury considers that if a competition issue does arise then the Authority and the Commerce Commission have the legislated powers to address it. Furthermore, Mercury considers that measures D1 to D5, if appropriately designed and implemented, should help inform the Authority and Commerce Commission's views regarding the state of competition and inform the development of remedies if required.

Mercury's concern, however, with measures such as D7 is that it speculatively anticipates a specific competition problem in relation to flexible energy supply that currently does not exist and that may or may not eventuate in the future.

The risk, therefore, of starting to even to specify D7 at a high level in 2024 before a competition issue is clearly identified raises the risk, firstly, that resources are wasted on speculative high-level solutions and/or, secondly, that a high-level solution is prepared that results in unintended outcomes that harm rather than promote competition in the long run. Each of these points are considered in turn.

³ MDAG slide-pack *100% renewable electricity supply – competition issues*, 24 August 2022.

⁴ Ibid, slide 13

⁵ MDAG, *Price discovery in a renewable-based electricity system: Library of Options*, 6 December, paragraph 5.21.

⁶ Options Paper, Figure 15.

⁷ Options Paper, Table 14.



Premature specification of high-level solution for flexibility contracts

Mercury considers that the potential benefit of having a contractual solution sooner rather than later to address an uncertain competition issue in the supply of flexible energy should be weighed against the risk that the solution is overtaken by market developments or the solution has an adverse effective on the incentive to invest.

Mercury is concerned that the specification of even a high-level solution, if premature, risks creating a solution that may be overtaken by market developments and become irrelevant, or more significantly it distorts incentives and ultimately investment decisions, particularly in innovative flexible energy storage, generation and demand-side flexibility, going forward.

The first outcome would result in a one-off reduction in economic efficiency attributable to the cost of specifying a high-level solution. If market developments mean that the high-level solution is no longer relevant, then any anticipated regulatory benefits would not eventuate and off-set these regulatory costs.

However, if a proposed solution distorts incentives and reduces the level of investment in innovative flexible energy storage, generation and demand-side flexibility going forward, then this could have a much more detrimental impact on economic efficiency.

Mercury considers that it is important that these risks are taken into consideration when assessing whether to specify even a high-level solution. An assessment of the costs and benefits of introducing measure D7 will therefore depend crucially on the available information at the time.

In order to mitigate the risks of unintended adverse consequences, Mercury proposes that the design and implementation of measures D1 to D5 should address questions regarding market concentration in flexible energy supply. This would include identifying metrics that would indicate that an issue was developing, and data that might inform the specification of a high-level solution in the future.

Mercury also proposes that MDAG does not fix a date to prepare a high-level specification of D7, as presently proposed, but instead monitor market conditions for issues regarding market conduct and address competition issues accordingly as they start to develop. As already noted, the Authority has recently concluded that current changes in spot prices appear to be explained mostly by underlying demand and supply factors the market. Therefore, it may be premature to set the date of 2024 for a high-level specification of D7.

Transition to flexible energy supply and demand-side flexibility

A key concern noted above is that a high-level solution for D7 that is not properly informed might distort incentives and reduce the level of investment in innovative flexible energy storage, generation and demand-side flexibility, going forward, which would have a detrimental impact on economic efficiency.

Flexible energy supply is presently provided by fossil fuel thermal generation. Looking forward, Mercury expects that there will be increasing demand for flexible energy supply as a result of the decarbonization of generation, growth in intermittent generation, and the overall electrification of the economy. Mercury recognizes that there is uncertainty about the mix of demand and supply side solutions that will enable flexible energy supply and how this will might evolve over time.

Given this uncertainty about the mix of demand and supply side solutions, Mercury considers that it is important to keep options open by maintaining regulatory settings that are technologically neutral. Mercury's concern, however, is that a high-level solution to D7 would skew demand for flexible energy supply to generators that have been determined to have significant market power.

Such a distortion at this early-stage market development has the potential adversely affect market development in the long term by creating an unintended barrier to entry for new entrants with innovative technologies.



Resources should be confirmed, and work coordinated prior to commencing implementation of measures

The Options Paper indicates MDAG either fully or partially supports the introduction of thirty-seven measures. Of these it is proposed that the implementation of twelve measures commence in 2023 and a further eleven commence in 2024.

The work required to implement each of these measures is likely to be significant. Taken together, commencing implementation of twelve measures in 2023 and a further eleven in 2024 raises a question regarding how this should be coordinated across the Authority, industry and stakeholders, and whether there are sufficient resources.

Mercury notes that the Options Paper Table 18 presents a short list of seven measures that are intended to facilitate an orderly transition, though it is unclear whether this is intended to be a priority list, highlighting the seven measures that are considered particularly important for the transition.

Mercury proposes that a comprehensive programme plan should be developed that addresses the coordination and resourcing of the design and implementation of the proposed measures. This programme plan should also address and coordinate measures proposed in the Authority's Wholesale Market Review and Boston Consulting Group's (BCG's) study 'Climate Change in New Zealand: The Future is Electric'. The Options Paper highlights that many of these measures in general are similar.⁸

Increase public confidence

Mercury supports in general proposed measures E1 through to E5, which are intended to increase public confidence in the wholesale electricity market.⁹

Keeping government and the public informed during the transition of the energy sector, particularly about the development of intermittent generation and its impact of the wholesale market will be crucial for policy, regulatory, and investment decisions.

Generators, retailers and distributors have shown their support for increasing public confidence by providing better information through initiatives such as the BCG study, and looking forward, actively working on an energy sector commitment. Mercury envisages that an energy sector commitment would increase public confidence and should be coordinated with measures such as those proposed by MDAG to ensure that there is not duplication of effort nor information gaps.

Mercury looks forward to engaging with MDAG and industry on progressing the measures proposed in the Options Report.

Yours sincerely,



Tim Thompson
Head of Wholesale Markets

⁸ Options Paper, Table 20.

⁹ Measures are: E1 is Structured information programme for wider stakeholders; E2 is Regular briefings for Ministers and officials on current and expected conditions; E3 is Increase inter-change with international experts; E4 is Enhance monitoring with more autonomy; and E5 is Periodic warrant of fitness review for independent regulatory agencies.



Annex: MDAG Options Paper consultation questions with Mercury's responses

Options Paper consultation question	Mercury response
Chapter 7: Keeping the lights on – how to ensure reliable and efficient operational coordination	
1. Do you agree that, weighing costs and benefits, our preferred options in Table 7 above [<i>Proposed measures to strengthen operational coordination</i>] are likely to best address the operational coordination issues described in that chapter? If not, why not?	Mercury supports in general options A1, A2, A3, A4, A5, A6 and A7. The efficacy of these options, however, will depend on the detail of their design and implementation, which is not provided in the present consultation.
2. What is your view of the proposed sequencing and timing of measures to strengthen operational coordination?	Mercury's response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures.</i>
3. What, if any, other options should be considered to strengthen operational coordination?	No comment.
Chapter 8: Ensuring effective risk management and efficient investment	
4. Do you agree that, weighing costs and benefits, our preferred options in Table 10 above [<i>Proposed measures to improve risk management and investment</i>] are likely to best address the risk management and investment issues described in that chapter? If not, why not?	Mercury supports in general options B1, B2, B3, B4, B5, B6 B7 and B8. The efficacy of these options, however, will depend on the detail of their design and implementation, which is not provided in the present consultation.
5. What is your view of the proposed sequencing and timing of measures to improve risk management and investment?	Mercury's response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures.</i>
6. What, if any, other options should be considered to improve risk management and investment?	No comment.
Chapter 9: Lift participation of demand-side flexibility (DSF)	
7. Do you agree that, weighing costs and benefits, our preferred options in Table 12 above [<i>Proposed measures to increase DCF</i>] are likely to best address the demand side flexibility issues described in that chapter? If not, why not?	Mercury supports in general options C1, C2, C3, C4, C5, C8, C10, C11, C12, C13, and C14. The efficacy of these options, however, will depend on the detail of their design and implementation, which is not provided in the present consultation.
8. What is your view of the proposed sequencing and timing of measures to improve demand side flexibility?	Mercury's general response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures.</i>
9. What, if any, other options should be considered to improve demand side flexibility?	No comment.



Options Paper consultation question	Mercury response
Chapter 10: Strengthen competition	
10. Do you agree that, weighing costs and benefits, our preferred options in Table 14 above [<i>Proposed measures to strengthen competition</i>] are likely to best address the competition issues described in that chapter? If not, why not?	Mercury's response to this question is provided above under the heading <i>Proposed measures to strengthen competition</i> .
11. What is your view of the proposed sequencing and timing of measures to strengthen competition?	Mercury's general response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures</i> .
12. What, if any, other options should be considered to strengthen competition?	No comment.
Chapter 11: Increase public confidence	
13. Do you agree that, weighing costs and benefits, our preferred options in Table 16 above [<i>Proposed measures to increase public confidence</i>] are likely to best address the public confidence issues described in that chapter? If not, why not?	Mercury supports in general options E1, E2, E3, E4, and E5. The efficacy of these options, however, will depend on the detail of their design and implementation, which is not provided in the present consultation.
14. What is your view of the proposed sequencing and timing of measures to increase public confidence?	Mercury's response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures</i> .
15. What, if any, other options should be considered to increase public confidence?	No comment.
Chapter 12: Navigating the transition	
16. Do you agree the measures in Table 18 [<i>Proposed measure to facilitate orderly transition</i>] should be prioritised to help ensure a smooth transition to a renewables-based system? If not, why?	Mercury's response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures</i> .
17. What, if any, other measures should be considered to facilitate a smooth transition to a renewables-based system?	No comment.
Chapter 13: Getting the work done	
18. Do you agree with the proposed categorisation of how measures should be progressed between Code-processes, market facilitation and hybrid approaches in Table 20 [<i>Proposed measures and process for implementation</i>]? If not, why?	Mercury's response to this question is provided above under the heading <i>Resources should be confirmed, and work coordinated prior to commencing implementation of measures</i> .

