

10 July 2025
Electricity Authority
Via email
digitalisation@ea.govt.nz

Digitalisation - “Our future is digital” discussion paper

Thank you for the opportunity to submit on the “Our future is digital” discussion paper (Paper). Mercury strongly supports the Electricity Authority’s (the Authority) initiative to develop a digitalisation roadmap because to realise a smart system, we need to digitalise.

In their 2022 report “The future is electric”¹ the Boston Consulting Group identified that a smarter more flexible electricity system will save ~\$10 billion on a net present value basis to 2050. To achieve these savings, and ensure affordable electricity for consumers, a continual focus on solving clearly defined problems with least cost initiatives is required.

We believe the first step in the Authority’s digitalisation roadmap should be to clearly define the problem to solve followed by the development of a framework that will enable innovators to unlock the flexible solutions value stack and guide decision making.

We look forward to working with the Authority as it undertakes this important work programme. We expand on our views below and our responses to the Authority’s specific questions are found in Appendix A.

1. Problem to solve

We support the Authority in fully exploring the problem(s) to be resolved via digitalisation. A clear problem definition would help the Authority to:

- > Ensure that initiatives are directed at the right issues, in the most targeted and effective way;
- > Establish a basis for evaluating the success of any measures taken;
- > Enable resource allocation in priority order to maximise impact of any measures;
- > Encourage the use of data to make evidence-based decisions;
- > Avoid unnecessary compliance costs that ultimately are passed on to consumers.

We think there is a good case during this early problem identification process to work closely with the sector, via a series of workshops to ensure that the right foundations are laid and there is a common understanding of the direction of travel and why. This could include further developing the draft data principles we have shared at Appendix B.

Our initial thinking is that the core problem to solve is one of access to data. Access to data for industry participants and consumers is essential to support modern services and has the potential to deliver significant long-term benefits. Participants and other service providers are often seeking improved access to data and digital services to support their business and improve their outcomes. Regulatory bodies are often asked to take action to grant data access.

Digitalisation is the desired end state that will enable data access. Digitisation of processes is however an expensive undertaking, and the regulator needs to ensure prudent investment when mandating any arrangements and be careful not to lead the market. Having a clear understanding of the problem will help the Authority to focus on solutions that target the issue in the most cost-effective way.

¹ [the-future-is-electric-full-report-october-2022.pdf](#), page 181

2. Develop framework with access to regulatory sandbox

Decisions to mandate digitalisation must support the long-term benefit of consumers. One way to achieve this would be to develop a framework to guide the decision-making process for this workstream.

A framework could:

- > Have a mechanism to capture and maintain change requests from parties seeking improved data access to provide new or improved services to consumers.
- > Prioritise digitalisation investments that support multiple use cases across a range of stakeholders. Investments that respond to broad, shared demand reduce the risk of binary outcomes and increase the likelihood of delivering system-wide benefits, even if individual applications are not successful.
- > Have a set of principles to guide design of solutions.
- > Publish a clear, robust, and transparent investment case open to scrutiny showing how it contributes to achieving the Authority's primary role of ensuring a competitive, reliable, and efficient electricity industry for the long-term benefit of consumers.
- > Use transparent and robust stage gates and prioritisation to maintain a road map and program of work.
- > Monitor and publish outcomes. Feedback the learnings to improve processes and decision making.

A framework could provide access to a regulatory sandbox to enable participants requesting Code changes to test innovative concepts with real consumers under relaxed regulatory requirements. The Innovation Pathway would be the ideal vehicle to enable this whilst allowing the Authority to gather evidence for cost benefit analyses and consumer appeal. Sandbox findings could be augmented by surveys to gauge probable market uptake. Together these measures will provide evidence that an initiative will benefit consumers, is likely to be adopted at scale and investment in digitalisation is a justifiable cost.

Whilst the Innovation Pathway already offers a mechanism for regulatory support, including access to the Code exemptions process, we understand that obtaining regulatory exemptions remains a time-consuming and resource-intensive process for both the Authority and trial participants.² Now could be an opportune time to define a regulatory sandbox where the Authority could support innovators of any potential new service to test use cases and gather data to help inform policy decisions. We note that a similar pilot has recently been started by the Financial Markets Authority to gain greater insights into the benefits and risks of financial innovation and new technologies³.

Mercury would be pleased to support the Authority and other stakeholders in the development of a regulatory sandbox to ensure the right outcomes as we move towards a digitalised future.

3. Digitalisation also applies to existing processes

Digitalisation is not just for new services. The digitisation of industry interactions designed and implemented decades ago would also benefit the sector. For example:

- > Sharing customer data: at present every retailer has its own process for complying with customer or customer agent requests for electricity consumption data. Significant efficiencies could be gained if there were standardised interfaces between agents and retailers to provide digital authentication and verification processes. This would ensure a seamless transition to a Consumer Data Right.
- > Sharing industry data: most industry data sharing is currently file based with time lapses e.g. switching files. Digitalisation could mean that half hourly data made available by metering equipment providers using near real time approaches could be made available to customer agents and retailers via the same mechanism.

Changes to existing processes would need to prove their investment case in the same manner as any other change requested under our framework suggestion.

Mercury welcomes the opportunity to continue to engage with Authority in the development of a digitalisation roadmap and look forward to continuing to work with you on this important initiative.

If you have any questions about this submission, please contact [REDACTED]

² [Are Ake - Decentralisation green paper submission 91Aylxd.pdf](#)

³ [FMA Outcome focused regulation](#)



Appendix A: Mercury Submission

Question	Response
Q1. What could stop or slow digitalisation of the electricity system? What would make it successful? How far should digitalisation go?	<p>In our view lack of consumer desire will be the biggest barrier to digitalisation.</p> <p>There is currently limited evidence that consumers want to be as engaged with their electricity consumption and generation as the Paper would suggest. We are on the cusp of seeing a wave of innovation in distributed energy resources, demand response, digital services and other smart technologies that may bring about the type of consumer mobility that the Authority envisions. It is too early however to assume that levels of demand for these technologies will revolutionise the way consumers interact with their electricity provider and the electricity market. There is a risk that the regulator leads the market in progressing with its digitalisation workstream, rather than enabling it to more organically evolve. This needs to be carefully balanced to ensure that innovation is not accidentally stifled, for example through picking solutions now that lock in particular technologies, structures etc.</p> <p>As we have mentioned in our cover letter, the Authority should first focus on developing a framework that will enable innovators to access the data they need to unlock value. Where there is consumer appeal, there will be a revenue stream. This can only be determined by market forces, not by regulation.</p>
Q2. Do you agree with how we have defined 'data' and 'information', especially in the context of making data more visible?	<p>Yes, we agree with the foundational definitions of 'data' and 'information' as presented. The distinction between raw 'data' and processed 'information' is a clear and useful framework for discussing the goal of increased visibility. However, while the high-level definition of 'data' is sound, we caution that its practical application must be nuanced. The paper identifies several categories of data, from static asset details to dynamic usage patterns, each with vastly different implications for privacy, security, and commercial sensitivity. We recommend that any regulatory initiatives avoid a one size fits all approach to "data," and that the specific business case, risks, and benefits for making each distinct data type visible are evaluated independently.</p>

Question	Response
<p>Q3. What data do you think needs to be more visible?</p>	<p>The priority should be enabling greater access to industry data for those parties that need the data to fulfil their industry role, for example, network companies need access to low voltage network data to identify constraints.</p> <p>There are questions surrounding the access to this data that need to be resolved such as:</p> <ul style="list-style-type: none"> • How are the benefits of data access quantified? • Who has the licence to sell the data? • Who pays for data transfer? • How do you determine who “needs” data? • Is access to the data centralised? Multilateral? • Would benefits of digitalisation outweigh the costs? <p>To test these questions, and to assist the development of an appropriate framework we recommend the Authority create a regulatory sandbox where participants can safely and responsibly test new business models, technologies and policies with real-world consumers.</p>
<p>Q4. What challenges do you think we might face trying to improve visibility? What considerations need to be given to data privacy or cybersecurity? How could increasing visibility create more opportunities for consumers, participants and innovators?</p>	<p>We believe the greatest challenge the Authority will face in trying to improve visibility will be protecting consumer privacy.</p> <p>There are multiple issues to be considered when it comes to sharing personal information and there will be costs associated with dealing with these issues e.g. setting up mechanisms for sharing data and implementing new data security and consent handling measures. Retailers will not accept liability for any breach of privacy that occurs once data is no longer under their control. If data is passing through or being held by the Authority it will need to cover its own risks. Costs associated with these risks that will inevitably be passed on to consumers, so the cost/benefit analysis is very important.</p>
<p>Q5. What work are you planning or doing to increase visibility within the electricity system? Are you aware of any work that contributes to this goal?</p>	<p>We actively participate in FlexForum and would suggest the Authority engage with the Forum in the further development of this roadmap.</p>
<p>Q6. What challenges do you think we might face in increasing interoperability? What other opportunities do you think greater interoperability will bring?</p>	<p>The challenge with increasing interoperability will be the underlying and inherent complexities of the electricity system. It would be unrealistic to expect consumers to understand these complexities, and this is why retailers have always provided a simplified outer layer for consumers to interact with.</p> <p>We are not convinced that increasing interoperability in relation to flexibility services will lead to consumer demand for the multiple interactions with the electricity system that the Paper envisions in a digital future e.g. where a consumer provides demand response to their distribution system operator, ancillary services to the system operator and/or flexibility to their retailer.⁴ A regulatory sandbox as discussed in our cover letter and in response to question 3 above would be a good way to test consumer desirability for multiple offerings by different parties.</p>

⁴ [OS250074 EA Digital Future Consultation FA5-WEB.pdf](#), page 13

Question	Response
Q7. What work are you planning or doing to increase interoperability within the electricity system? Are you aware of any work or research that contributes to this goal?	We are working with network companies to ensure consistency in information exchange and approach for flexibility services.
Q8. What challenges do you think we might face in simplification? How could simplifying create more opportunities?	We urge caution in over-simplifying retailer offerings to increase comparability for consumers. Price is not the sole determinant of desirability and oversimplification of retail plans would stifle innovation and have a negative impact on competition.
Q9. What work are you planning or doing to increase simplification within the electricity system? Are you aware of any work that contributes to this goal?	No comment.

Appendix B: Data principles - discussion starter

Introduction

Access to data for industry participants and consumers is essential to support modern digitised services. Participants⁵ are often seeking improved access to data to support their business processes and improve outcomes. Regulatory bodies are often asked to take action to enable data access and data access is increasingly becoming a priority pillar of policy/regulatory work programmes, including introducing the consumer data right legislation. This document outlines an initial set of principles relating to industry and consumer data to act as a starter for ten for sector discussions to establish a consistent, principled approach around industry data access matters.

Customer Data

- > **Customer data is provided by the customer directly to the participant that they contract with or is generated by the customer's use of the service.** The nature of this data and consent for its use is covered by the contract between them.
- > **Customers should access all their customer data through the participants they contract with.** Customers will choose suppliers that meet their individual data needs.
- > **The customer will choose who they give their data to.** The customer may gather and hand on any of their data that they choose to. Customers may grant an agent access to specific data through direct contact with their supplier.
- > **Participants should not be expected to release customer data (except industry data) without the express and direct permission of the customer.** To release customer data may breach the customer's privacy rights, express and direct permission is always required.

Industry Data

- > **Industry data is needed to make the industry function or when multiple participants need the same data to fulfil their role and it makes sense for participants to share data.**
- > **Participants should have efficient access to the industry data required to fulfil their role.** This data should only be used for the specified purpose. E.g. distributors should have access to some amount of smart meter data to help manage the network.
- > **The regulator is responsible for determining the recognised roles and what industry data is needed to effectively fulfil that role.** Data needs are part of market design and operation.
- > **Only registered participants can access industry data for the intended purposes.** The regulator will vet and register parties with access to industry data. The regulator will monitor and enforce appropriate industry data use.
- > **Any adverse outcome related to industry data lies with the participant that breached the rules and regulator.** Innocent parties should be indemnified or protected by law.
- > **Industry data sharing should follow good design principals.** E.g. secure standard-based exchange, accessed from the source (smart meter data is sourced from metering equipment providers not via retailers).

⁵ This term is used in a loose sense and includes anyone that participates or wants to participate in the provision of direct or associated services.