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Submission on Exploring Network Visibility: Costs, Benefits and Value

Introduction

1. Bluecurrent welcomes the Electricity Authority's (the Authority) discussion paper on *Exploring network visibility: costs, benefits and value* (the Discussion Paper), dated 5 September 2025.
2. We appreciate the Authority's engagement with stakeholders through a workshop on network visibility on 18 September 2025 in Wellington. This submission supplements the inputs provided by Bluecurrent representatives at the workshop.
3. We also appreciate the Authority's earlier engagements with metering service providers as part of the metering pricing review which informs its ongoing network visibility workstream, including this consultation. We discuss our feedback on the findings of the review – which we support – in our response to Questions 8 - 10 below.

Partnerships with distributors that enable network visibility

4. Bluecurrent is a vital partner in the journey electricity distributors are on to transform their networks into smarter assets that help them deliver services that meet rising consumer expectations. We have ongoing partnerships with distributors such as Orion, Aurora Energy, Northpower, and more recently with Powerco (among others) for the cost-effective provision of network operational data (NOD).
5. Our NOD service provides distributors visibility of their networks, particularly at low-voltage (LV) level. This enables distributors to deliver innovative and cost-effective solutions that help keep power prices affordable (including by enabling distributors to avoid unnecessary investment in additional infrastructure), enhance consumer mobility, ensure electricity system reliability, and support long-term emissions reduction.
6. For example, smart meter data provided by Bluecurrent has given Northpower and Aurora the confidence to say 'yes' to more solar. Northpower recently announced the doubling of solar export limits on its network to 10kW. This is a game changer for New Zealand households and small businesses in the north that are looking to maximise their solar investments and contribute more clean energy to the grid. With more real-time visibility into voltage, current, and phase angle, and consumer behaviour relating to distributed energy resources (DER), Northpower is leading the way in building a smarter, more resilient network.
7. We are also piloting a high-frequency power quality data service with Vector and Northpower, which delivers smart meter power quality data every 20 minutes (up to 72 times a day), giving these distributors unprecedented visibility of their network, and supporting real-time coordination.
8. Our submission (dated 10 July 2025) on the Authority's *Digitalisation Paper, Our future is digital*¹, describes the value of our ongoing partnerships with distributors. We seek to strengthen these

¹ https://www.ea.govt.nz/documents/7809/Bluecurrent_vyM1BiR.pdf, pages 5 - 9

partnerships and forge new ones so the value of network visibility, enabled by smart meter data, can be unlocked for more networks, the electricity system, and consumers.

Post-workshop responses to the consultation questions

Q1. Are you aware of the extent of the information currently being provided by distributors (including through disclosures)?

Q2. How do current distributor disclosures support your understanding of available capacity, constraints and opportunities on:

- a) high-voltage networks?
- b) low-voltage networks?

Q3. How are you making use of existing disclosures to support more efficient outcomes?

- 9. Yes, Bluecurrent is broadly aware of the extent of the information currently being provided by distributors mainly through their Asset Management Plans (AMPs) and AMP updates which are publicly available.
- 10. As discussed at the workshop, we support the publication of simpler, easier-to-understand network information that distributors are required to publish, alongside the original, highly technical documents. This would make it easier for a growing number of investors in DER and network access seekers, including those outside of the electricity sector, to make better investment and planning decisions.
- 11. We are also aware, through our partnerships with a growing number of distributors, that our NOD service helps them efficiently orchestrate increasingly complex processes of the modern network. It also helps enrich the information distributors provide to network access seekers and other interested parties.

Q4. Would changes to the type of data, format, regularity or granularity of distributor disclosures better support decision making? Please provide detail.

Q5: What other disclosures of network information would further inform your choices and decisions?

- 12. Bluecurrent supports the adoption of widely agreed industry standards and protocols for the exchange and disclosure of data (e.g. data type, format, use of APIs). This lowers costs and ensures consistent and seamless delivery of data and a minimum level of service for all distributors and access seekers. Importantly, this makes it easier for distributors to utilise data services that help them unlock and deliver the benefits of network visibility to network users and consumers in a timely manner. While greater standardisation provides a valuable foundation, it is important to preserve the flexibility for parties to continue exploring innovative and customised data services through commercial agreements. This flexibility is crucial at the 'edge of the market' where new and innovative solutions can emerge and flourish.
- 13. We particularly welcome the publication by distributors of heat/opportunity maps that virtually highlight network capacity, allowing DER investors, energy service providers/aggregators, and consumers to make better investment decisions, e.g. guide capital investment or inform future planning and locational decisions. We expect distributors' heat maps to virtually provide more accurate information with the use of more granular and near real-time data, especially as more DERs are connected to the network.

Q6: What are distributors' perspectives on the value of collating and publishing network capacity information for their own businesses?

Q7. What are distributors' perspectives on how well interested parties are using the data they already publish?

14. Distributors are best placed to respond to Questions 6 and 7.

Q8. What are your perspectives on recent developments on access to smart meter data?

Q9. Is the pace of distributor progress on developing the capability needed to support work on improving network visibility appropriate? If not, what are your expectations regarding timeframes?

Q10: What are the barriers and costs to distributors in developing the capability needed to support work on improving network visibility faster?

15. A key element in improving distributors' capacity to gain network visibility faster is the procurement of data. The price-quality path set by the Commerce Commission (the Commission) for distributors for the 2025-2030 regulatory period (DPP4) anticipates an outcome for distributors to better understand their network by incentivising distributors' procurement of LV monitoring data – which we support. DPP4 allows distributors to develop or procure innovative and more cost-effective non-network solutions (e.g. demand response and dynamic load management) that help them avoid the cost of new network investment or expansion.

16. The Commission stated in its Reasons paper for DPP4:

X56 Through our application of default price-quality regulation, we expect EDBs will:

...

X56.5 Better understand their network by purchasing low voltage monitoring data in DPP4. This data is important as it will enable better asset understanding and management decisions on network capacity and consumer safety.²

17. Bluecurrent also supports the findings of the Authority's recent review of smart meter data pricing, set out in Appendix C of the Discussion Paper. The Authority concluded:³

Overall, the review did not identify any material concerns with respect to proportionality, fairness or transparency, and the observed price being charged to distributors for consumption and power quality data from smart meters. We conclude that the price being charged for this data is reasonable for now. We also observed metering equipment providers negotiating and agreeing different contract terms that appear to suit distributors' needs.

18. We are confident that the ongoing competitive dynamics within New Zealand's metering market will ensure this value is sustained and that data services will continue to be offered on reasonable terms, negating the need for future regulatory intervention.

19. We further support the additional observations made by the Authority that form part of the above review:⁴

- the range of different contractual terms relating to intellectual property rights and ownership of data, between meter equipment providers and retailers, does not appear to cause any issues with distributors accessing power quality data at present, but we would want to see continued access to data for distributors
- there were a range of opinions amongst distributors on some of the terms and conditions in the contracts, including the length of the contracts for meter data. We observed a range of contract lengths for meter data across meter equipment providers, as well as proposals for

² https://www.comcom.govt.nz/assets/pdf_file/0022/363280/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2025-Final-decision-Reasons-paper-20-November-2024.pdf, page 28

³ Discussion Paper, page 18

⁴ *Ibid.*

shorter trials. On this matter the market seems to be evolving. We want distributors to continue to be able to access data on reasonable terms

- meter equipment providers and distributors have views on the maturity and stability of the market for smart meter data. The contracts we reviewed contain exit/re-negotiation clauses in the event of regulatory change. We think these clauses should address any concerns about signing agreements for power quality data and the potential for future regulatory change making those contracts onerous
- in the contracts we reviewed, we note that the scope of the unlimited liabilities only relate[s] to losses arising from wilful breach or fraud, and breaches of confidentiality, intellectual property rights, and data use policies. We understand that some distributors believe that these liability terms impose significant costs to develop data storage environments and training systems to meet these contractual requirements. We haven't reviewed this matter in detail. However, we think that these concerns may reduce as distributors' systems and practices mature and the market for low voltage network data develops.

20. To ensure the benefits from network visibility are delivered in a timely manner, we suggest that the Authority explore regulatory settings that reward distributors for delivering specified consumer outcomes, e.g. improved reliability, hosting capacity for DER, network efficiency. This could involve setting clear expectations on the outcomes to be achieved within specific timeframes, with the flexibility to procure the most cost-effective services.
21. The above approach would put immediate focus on utilising existing power quality data services, avoiding the need for costly 'poles and wires' investment and physical monitoring infrastructure. This would also accelerate the identification and enhance the management of network constraints (e.g. outages), ensuring reliability of electricity supply and network resilience.
22. Importantly, stronger incentives and clearer expectations and timeframes would accelerate distributors' transformation into distribution system operators (DSOs) of the future. Smart meter data provides the foundation necessary for the development of dynamic network pricing (e.g. time-varying tariffs), dynamic load management, and flexibility services and markets that are important elements of a smarter, highly digitalised electricity system.

Q11: Do you agree that distributors having a better understanding of network capacity/constraints and publishing this information in an easily accessible way is in the long-term interest of consumers?

23. Bluecurrent agrees that distributors having a better understanding of network capacity constraints and publishing this information in an easily accessible way is in the long-term interest of consumers. This information enables investors in DER, network users, energy service providers/aggregators, and consumers to make more informed investment and energy consumption decisions.
24. As indicated in our response to Questions 4 - 5, we welcome distributors publishing heat/opportunity maps which provide network access seekers granular and timely information for decision making.

Q12: Do you consider that there is a case for further regulatory intervention to further improve progress and the quality (e.g. timeliness, granularity, format standardisation) of disclosures that improve network visibility?

Q13: Do you consider that measures are needed to improve awareness of and encourage use of network visibility disclosures by interested parties?

Q14: If further work is required to support the development and use of network visibility, which approach do you prefer?

- a) developing industry guidance or standards
- b) introducing a regulatory backstop that would codify the industry guidance or standards

- c) developing regulatory standards and timeframes for improving network visibility
- d) something else.

25. As indicated in our response to Questions 8 - 10, the Authority could explore regulatory settings that reward distributors for delivering specified consumer outcomes enabled by network visibility, e.g. improved reliability, hosting capacity for DERs, network efficiency. This – together with the DPP4 incentives for the procurement of LV network data – would drive comprehensive distributor use of smart meter data. This would ensure that network and consumer benefits from network visibility are realised in a timely manner across all distribution network areas.
26. On the exchange of data, the Authority could consider setting clear expectations (potentially with a target date) by which all network data exchanges/transfers should be API-enabled. This would provide greater certainty to data holders, data access seekers, third-party providers, and consumers who will need to make investment decisions for the digital transition. This could include investments in digital tools and AI that could bridge the gap between data access/collection and actionable insights, allowing stakeholders to transform raw data into valuable information for decision making.

Q15: Do you support an approach that focuses on high-voltage networks first, or do you have another preference?

27. It would make sense for any new/additional disclosure requirements on distributors to initially focus on high-voltage network information which is more readily available (the 'low-hanging fruit') compared to LV network information. This would facilitate early and low-cost implementation that can then be extended into LV networks later, if still deemed necessary.
28. A staged approach, however, should not preclude any voluntary/commercially agreed initiatives that disclose network information in other/innovative ways. We note that multiple new services and pilots that enable visibility at LV network level are already underway or in distributors' investment pipelines, and their progress should not be stifled by highly prescriptive arrangements.

Q16: What other aspects of international developments relating to network visibility should we be looking at for lessons that could be considered in the New Zealand context?

29. We note the New Zealand Government's recent announcement to further advance regulatory and standards alignment between Standards New Zealand and Standards Australia as part of an agreement to fast track a Single Economic Market.⁵ Greater harmonisation of technology and technical standards in both markets would make it easier for trans-Tasman businesses such as Bluecurrent to deliver cost-effective data solutions to our customers, including distributors, which ultimately benefit electricity consumers in both markets.

Q17: Do you consider that metering equipment providers should be required to publish schedules of available data and prices to improve transparency and reduce transaction costs?

30. We believe the current market-led approach, based on direct commercial engagement, is delivering significant value and innovation for distributors and consumers. We are concerned that mandating the publication of price schedules could inadvertently slow this progress by creating a compliance-focused environment, rather than one geared towards collaborative problem-solving and the development of customised data solutions. Interested parties can already access information on smart meter data and pricing directly from metering service providers. Bluecurrent has established and will keep forging partnerships with distributors (and other interested parties) to meet their data needs.

⁵ <https://www.beehive.govt.nz/release/cer-trade-ministers-agree-fast-track-single-economic-market-agenda>

31. The Authority's recent metering pricing review concluded that the prices being charged to distributors for consumption and power quality data are reasonable (Appendix C of the Discussion Paper). This – coupled with the increasing number of data agreements between distributors and metering service providers, including for innovative trials – shows an emerging dynamic market for smart meter data services for distributors. More prescriptive arrangements would stifle innovation that is much needed by the market, including future product development in critical areas like network outage management and high-frequency data.
32. Non-prescriptive arrangements are consistent with the competitive nature of the New Zealand metering market. Competitive metering service providers can deliver more value to the market by focusing on becoming better innovators by providing new services to retain and attract customers, rather than focusing on regulatory compliance such as mandated information disclosure.

Q18: Do you consider that elements of Part 12A of the Code relating to default distributor agreements should be reinforced or extended to ensure consistent access to both consumption data and other types of data, e.g. power quality from smart meters or other devices (such as inverters)?

33. The market is already demonstrating its ability to solve for distributor data access needs through the direct and innovative commercial agreements discussed in this submission. These partnerships are delivering significant value outside of the default distributor agreement (DDA) framework and highlight the benefits of a flexible, commercial approach.
34. As indicated in our response to Question 17, the Authority's recent metering pricing review, which concluded that prices charged to distributors for smart meter data are reasonable – and the increasing number of data agreements – suggest that the New Zealand metering market is working. More prescriptive arrangements would be administratively costly and will only stifle innovation, including in data service delivery.
35. At this stage of market development, we do not believe negotiating a DDA template update would be the best use of the limited resources of metering service providers, distributors, and the Authority. The relevant parties can simply amend existing data agreements between themselves when required. The market is already solving this problem through direct and flexible commercial agreements.
36. Bluecurrent is already delivering a significant amount of data outside of the DDA framework. Our previous and ongoing commercial discussions with distributors have posed no barriers to what has been agreed by parties, so far, or what could be agreed in future negotiations. As such, we believe the need for the DDA Data Template has been diminished; it is mainly becoming a form for data request.
37. We suggest that data access seekers be given the flexibility and opportunity to request the data they need and to define/specify the frequency and mechanism for the delivery of their requested data – via commercial negotiations. This flexibility would help ensure that market competition, which underpins the delivery of metering services in New Zealand, and innovation, are not stifled.

Concluding comments

38. We are happy to further discuss with the Authority our existing partnerships with distributors that help unlock the value of network visibility for networks, the electricity system, and customers – and other such partnerships 'in the pipeline'.
39. Please contact Luz Rose (Senior Regulatory and Policy Partner) if you have any questions or require further information at [REDACTED]

40. We are happy for the Authority to publish this submission in its entirety.

Yours sincerely

A solid black rectangular box used to redact the signature of Matt Bostwick.

Matt Bostwick
Chief Customer Officer NZ