



## **Submission**

Electricity Authority

Issues paper: Updating the Regulatory Settings for  
Distribution Networks

14 March 2023

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# 1. INTRODUCTION

1. Aurora Energy Limited (**Aurora**) welcomes the opportunity to submit its views on the Electricity Authority's (the **Authority's**) "Issues paper: Updating the Regulatory Settings for Distribution Networks" (**Issues Paper**).
2. No part of our submission is confidential.

## 2. GENERAL COMMENTS

3. We commend the Authority for continuing to engage on this important topic and for maintaining momentum to identify the key short, medium and long term issues. Given the rapid sectoral change that is expected, and the significant time that it takes to draft, model, test, consult on, and implement regulatory setting changes, it is important that this discussion continues at pace.
4. The main points raised in Aurora's submission on the 2021 Issues Paper consultation<sup>1</sup> remain relevant but we add some additional comments below around the identified specific focus areas.
5. Aurora reinforces its recommendations to the Authority, that the focus should be on an approach that is evidence-based, incremental, proportionate, and founded on a principle of 'least regrets' so as to avoid creating barriers for future development of the market. We understand that this means taking action that promotes competition and efficiency regardless of how the emerging market for flexibility services develops in the future.
6. Effective use of distributed energy resources (DER) can assist distributors to manage peak demand and defer investments in network capacity. For consumers, not only does this mean that line charges can be minimised in the short-to-medium term, but DER owners can receive a financial benefit for contributing to that deferral, alongside other benefits of DER ownership, including energy arbitrage and energy export payments.
7. Aurora agrees with the foundational policy decision areas identified by the Authority at paragraph 2.60, that need to be addressed in the next 12 months, which include:
  - regulating how and what kind of data MEPs provide to distributors and flexibility traders.
  - determining the scope of any review of Part 6 of the Code - including amendments to explicitly include DER; and
  - mandating the AS/NZS 4777.2:2020 standard for inverters in New Zealand.
8. Aurora agrees with the Authority that regulatory clarity around the above-mentioned areas will afford the sector some certainty to plan ahead and make the business decisions necessary for the continuing development of the nascent flexibility services market.
9. We do not agree that the threshold for extending the Authority's current arm's length rules is a priority in the next 12 months. We agree that monitoring distributors' use of competitive procurement practices should be undertaken in conjunction with existing competition law administered by the Commerce Commission, which third parties can turn to if they believe anti-competitive practices are emerging. This will assist in the determination of what, if any, intervention is required.

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<sup>1</sup> Updating the Regulatory Settings for Distributions Networks: Improving competition and supporting a low emissions economy 27 July – 28 Sep 2021.

## 3. SPECIFIC FOCUS AREAS

### 3.1. EQUAL ACCESS TO DATA AND INFORMATION

10. Access to metering data is key to efficiently achieving low voltage network visibility, and remains a significant barrier at present to monitoring, planning and ensuring efficient and timely capacity in low voltage networks to meet growth in solar and demand from electric vehicles and other electrification demand. Network access to appropriate advanced metering data obviates the need for alternative investments in network instrumentation, sensors and associated communications platforms which will help to maintain lower costs for all consumers. We note that metering data will provide more granular information at the individual ICP level than say, sensors attached to a distribution transformer. Aurora therefore supports the Authority's goal of achieving transparency, standardisation and equal access to electricity data .
11. The equal access to data and information will assist in:
  - determining the solar and demand hosting capacity of low voltage networks;
  - determining which networks are close to constraint and need reinforcement or flexibility services;
  - monitoring customer compliance with connection agreements;
  - informing and assessing whether EDBs are already efficiently using DER flexibility services;
  - improving visibility of DER on LV networks enabling greater ability to assess the scale, scope, and time horizons of the nascent DER flexibility market;
  - identifying the types of flexibility services and locations where increased use could be made of flexibility services to address network issues;
  - informing what DER services are most likely to be viable and of the most value in the short, medium, and long term; and
  - ultimately enabling better informed decisions from all stakeholders and better long term outcomes for customers.
12. Aurora is active in the non-network services (NNS) space, having contracted for capacity support in the Upper Clutha area and currently exploring other areas where demand flexibility will help with security of supply and voltage management. Aurora is also looking to other emerging technologies and innovative operating models (including the establishment of operating envelopes for flexibility service providers) to manage demand, particularly in areas of network congestion or constraint.
13. We therefore support the Authority's preference to *move at the speed of the fastest adopters, not the slowest, and be able to pick up pace as the market matures.*<sup>2</sup> We agree that regulatory flexibility is needed to allow participants to test and develop new services without regulatory restrictions that impede their

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<sup>2</sup> Paragraph 2.59

progress. We support the principles behind the concept of developing a “regulatory sandbox” and other mechanisms that will encourage the type of learning by doing promoted by the FlexForum.

14. We therefore welcome the Authority’s proposal, at para 2.20, that there will be additional consultation held with the sector before any option is implemented, which will include an options assessment and a cost-benefit analysis. This collaborative approach will ensure that, as issues arise, they can be addressed in a timely and open manner.

## 3.2. DATA TEMPLATE

15. Aurora considers that the Authority has proposed some common sense changes to the data exchange template to remove some of the current barriers to information exchange. However the data template is useful for static, historic data only and will become irrelevant as EDBs push for access to near real-time data.
16. We agree that changes are required to the Code to enable EDB’s to contract directly with MEPs for access to consumption data. In our view, this will provide a more enduring, efficient and sustainable approach to meeting data needs and requirements.
17. MEP pricing for the provision of ICP data is not currently transparent and we agree this would be assisted by standardisation of transaction costs (implementing IPAG’s Input Services recommendations) to simplify and ease the data access process. We consider this will assist in addressing the current market power held by MEPs .

### 3.2.1. Authority Questions - Equal access to data and information

*Q1: Do you see value in the Authority commissioning two separate reviews to look into the merit and practicalities of implementing the recommendations of the UK’s Energy Data Taskforce around unlocking the value of customer actions and assets and setting up a “digital spine” in a New Zealand setting. The Authority will consult on the findings and recommendations of the reviews as appropriate.*

18. Aurora supports the reviews in principle, on the basis that NZ should take learnings from overseas jurisdictions where relevant and useful, and where such learning might allow accelerated development or the identification of quick wins.

*Q2: Does this capture the key data needs for distributors to make informed business decisions that will unlock the potential of DER for the long-term benefit of consumers? If not, what data is missing and what would it be used for?*

19. We agree that the key data needs for distributors are captured in this section. We agree with the suggestion in the ENA submission that meter status data (e.g. last gasp, first breath); be separated out from the general power quality data and considered in its own category of operational data.
20. We also note that power quality data can also be used by distributors to improve their LV connectivity/phase connectivity information, thereby supporting improvement to demand/solar phase balancing, leading to greater hosting of demand and distributed generation on the LV network.

*Q6: Do you agree that the Authority should amend the Data Template to address the above issues to improve its workability? If not, why not?*

21. We agree that the Authority should amend the Data Template to incorporate the ENA/ERANZ variation. We would be interested to understand from the Authority how such an amendment to the Data Template in the Code can be introduced into the existing DDAs that EDBs and retailers have already agreed to.

*Q7: Are there other changes to the Data Template that would improve it and assist it to be a useful mechanism for open access to data?*

22. We believe that relevant non-consumption data should be added. However, as we have noted above, the data template is useful for static, historic data only, and will become irrelevant as EDBs push for access to near-real-time data.

*Q8: Do you agree that this is an issue? If not, why not?*

23. Yes. The ability to contract directly would be more efficient.

*Q9: Should the Authority amend the Code to clarify that MEPs must contract directly with distributors and flexibility traders to provide ICP data for permitted purposes? If not, why not?*

24. Yes we agree that the Authority should amend the Code. The ability to contract directly would be more efficient.

*Q10: Should the DDA Data Template be updated to include Power Quality Data? If not, why not?*

25. Yes. Power quality data will become more important, and access via existing metering equipment is the most efficient source. Note that the absence of appropriate standards for advanced meters means that not all 'smart' meters will be able to provide this information (largely older meters).

*Q11: Do you think that the transaction costs associated with negotiating the terms of access to ICP data held by MEPs is a problem that the Authority should prioritise? If no, why not? If yes, do you think there is merit in developing a default template to help reduce transaction costs?*

26. Standardised terms would be useful. While there is limited competition for metering services, and market power is concentrated, it is likely that terms of access will become largely standardised over time; however each EDB still has to negotiate with the relevant MEP at significant overall cost. Further, there is limited protection against unreasonable terms.

*Q12: Do you agree that MEP pricing for ICP data (including Power Quality Data) and related data services is reasonable at this stage? If not, why not?*

27. The incremental cost to MEPs when providing network data to Distributors is not clear to us and therefore it is not possible to assess whether the indicative price for emerging services is reasonable. In absence of long term contracts, there is also a possibility that MEPs data pricing is front loaded to de risk the development cost.

*Q13: Do you agree that MEP pricing for the provision of ICP data to distributors (and other parties) could be more transparent? If not, why not?*

28. Yes. Those costs are not currently transparent.

*Q14: To support the transparency of pricing, standardisation, and equal access to data, do you think that the Authority should consider further implementing IPAG's Input Services recommendation that MEPs publish standard 'pay-as-you-go' terms open to all parties? If yes, why, and what do you think this could cover? If not, why not?*

29. Yes. Aurora supports IPAG's recommendation as they will provide enhanced options to better meet customer and industry participant needs.

*Q15: Do you agree that distributors' visibility of the location, size and functionality of DER should be improved within the next 3–7 years to support network planning? If not, why not?*

30. Yes, and probably closer to 3 years than 7.

*Q16: Do you have any views on the type and size of DER that need more visibility?*

31. Electric vehicle batteries, fast chargers, 'smart' appliances like water heaters, etc. Note that we expect the current requirement to notify of all inverter network synchronised connected batteries to remain in place. While there is an expectation that an aggregated/VPP view of DER will be available from flexibility service providers, ICP level information is highly valuable when determining the DER penetration and future growth forecasts on LV networks.

*Q18: Do you agree that access to 'real-time' consumption and Power Quality Data won't be needed for at least five years?*

32. Not an immediate requirement but potentially will be in 3 years rather than 5, especially for areas of DER clustering.

*Q28: Do you agree that model privacy disclosure terms are appropriate? If not, why not?*



33. Aurora considers that model terms for distributors and MEPs that reflect existing terms that apply to retailers are likely to be supported.

*Q31: Should the Authority create model terms for distributors and MEPs as well given the range of data being collected through smart meters? If not, why not?*

34. It is anticipated that any model terms for distributors and MEPs would be reflective of existing terms which apply to retailers and would be supported.

*Q32: Would the industry find it helpful for the Authority to conduct workshops on privacy preserving/minimisation techniques?*

35. Yes, it would be helpful if the Authority facilitates workshops on privacy preserving/minimisation techniques.

### 3.3. MARKET SETTINGS FOR EQUAL ACCESS

36. Aurora agrees with and supports the Authority's desired outcomes relating to market settings which should:
- ensure both network investments and NNS are considered for increasing the capacity of a distribution network, so the most efficient option is pursued.
  - ensure the benefits of market competition are realised by encouraging distributors to procure NNS by competitive tender (although not necessarily tendering where previous tender results could be applied to new constraints; and
  - promote a level playing field for competitors in the market for NNS, so that flexibility services can be offered to all buyers in the value stack where there is no conflict in the timing of the flexibility service.
37. However, it is important to re-iterate that the flexibility services market is still in its infancy. As such, there may not always be suitable flexibility provider support for a particular network capacity constraint, and that the transactional costs of procuring third party support are still relatively high, in comparison to the avoided capital cost of using a NNS. As such, there may be situations where it is more effective and cost-efficient for EDBs to self-supply NNS. This may remain the case until the flexibility market develops and matures.
38. Aurora agrees with the Authority's view that market settings for equal access is not a major issue now but potentially will become a problem as the market develops. Early movement on regulation could stifle the innovation that the Authority seeks to promote. Aurora supports the proposal to analyse and evaluate the information collected from distributors by the Commerce Commission and monitor those results over time, to assess whether distributors are making sufficient use of DER.
39. Any new regulatory requirements should be well-aligned with existing arrangements and not create inconsistent or duplicative requirements.

### 3.3.1. Authority Questions - Market settings for equal access

*Q31: What are your views on the three options presented above, to deal with Issue 1 (that distributors might prefer network investments to NNS)? What alternative option/s would you favour, if any?*

40. This is an area regulated by the Commerce Commission and Aurora supports the Authority working collaboratively with the Commission in this space.

*Q33: Do you think there are circumstances in which the Authority should extend the Arm's-Length Rules? If not, why not?*

41. We do not agree that the threshold for extending the Authority's current arm's length rules is a priority in the next 12 months. We agree that monitoring distributors' use of competitive procurement practices should be undertaken in conjunction with existing processes undertaken by the Commerce Commission.

*Q34: Do you agree with the Authority that Option 1 should be implemented, and that Option 2 should only be considered in the event of allegations of, or instances of anti-competitive harm in contestable markets (Issue 3)? If not, what alternative option/s would you favour, if any?*

42. Option 2 would be appropriate only in the event of probable instances of anti-competitive behaviour.

## 3.4. CAPABILITY AND CAPACITY

43. There are significant cross-sector collaborations occurring through a range of forums and joint ventures across the energy sector. We discussed the various collaborations and groups in our response to the Authority's 2021 Discussion Paper. We note a key development since the Authority's 2021 consultation process has been the release of the work undertaken by the FlexForum<sup>3</sup> - *A Flexibility Plan 1.0: what we need to do and how we can do it* - 31 August 2022. This identifies a set of actions to integrate DER into the electricity system and markets to maximise the benefits for Aotearoa New Zealand.
44. This type of cross sector collaboration is key to:
- identifying the minimum specifications of the services that DER can provide, to who, when, where, how and for how much
  - identifying the practical, scalable, and no regrets steps to use the services that DER can provide
  - support ongoing learning and collaboration across the electricity sector on real world deployment of solutions to realise the benefits of DER, including identifying and resolving barriers.

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<sup>3</sup> The FlexForum is an industry led association of organisations across the electricity eco-system, formed to identify a set of actions to integrate DER into the electricity system and markets.

45. With such a clear understanding on the importance of collaboration, it is unnecessary for the Authority to expend resources to create guidance on how distributors should collaborate.

### 3.5. OPERATING AGREEMENTS

46. Aurora agrees with the Authority's conclusion at para 7.36 of the Issues Paper, "*that there is no issue to address now in relation to operating agreements*". It is too early in the process to try and develop standardised terms when a significant amount of uncertainty remains. Streamlining the engagement of flexibility services through common contracting agreements will make it easier to supply flexibility by reducing cost and enabling transactions with multiple counterparts in multiple locations. However, while common terms of trade should be the goal, they should evolve over time through collaboration and experience driven process. The focus for now should remain on maximising flexibility.
47. Aurora therefore agrees that the Authority will not mandate operating agreements.
48. We are aware that the Flexforum is currently finalising some insight work on contracting arrangements. This includes consideration of risk management as a key issue to resolve, both in terms of contracting in general and specifically around the ability to obtain buy-in associated with non-performance, particularly in the pre-commercialisation phase of flexibility when there is little opportunity to manage risk through diversity. This insight is due to be published in April 2023 and will provide a useful resource to inform the wider discussion around operating agreements.
49. As the Authority has noted, Aurora has contracted for flexibility services in the upper Clutha region of its network. In doing so, we have had to develop contract documents to govern arrangements. Aurora has been sharing its flexibility services contract documents with other distributors and, as successive changes occur, the core document is moving, in our view, toward a best practice example. We remain open to sharing that agreement, on a similar basis, with other distributors that are contemplating procuring flexibility services.
50. Aurora welcomes the opportunity to continue to work on a collaborative basis in this space.

### 3.6. DER STANDARDS

51. Aurora agree that Part 6 of the Code is long overdue for a significant review. The areas requiring review were heavily canvassed in response to the Authority's 2021 Discussion Paper. We therefore restate what Aurora sees as the key areas for review, noting that arriving at a final proposition will require ongoing discussions with the sector.
52. Key areas include:
- reviewing the scope to ensure that energy storage systems, EVs and demand response are captured and to cover flexibility service providers to ensure they have the same rights and obligations as other industry participants;
  - reconsidering restrictions on distributor-owned generation, which can help improve local resilience and reduce dependence on additional transmission and generation at a national level;

- connection rules for DER, including timing for and queuing of large-scale connection applications and cost recovery for these types of connections, including the costs for assessing the network impacts of a new connection;
- the need for a DER registry which could record information on energy storage systems and batteries;
- reviewing the DG pricing principles which may not be fit for purpose for flexibility services, e.g. reconsideration of the incremental cost approach and move to a more cost reflective methodology e.g. signalling future costs
- reviewing the processes, timings, and fees for connection applications.

### 3.6.1. Authority Questions: DER standards

*Q40: What are your thoughts on the proposed scope for the Part 6 review? What, if anything, would you include or exclude, and why?*

53. We agree that Part 6 of the Code is overdue for review. Any review should not divorce consideration of pricing principles into a separate workstream with unclear timelines. This creates a risk of creating unnecessary compartmentalisation and disjointedness.
54. Pricing, in particularly the incremental cost rule, is a key determinant of what, where and how DER and DG is incorporated into the New Zealand electricity system. The review of Part 6 pricing principles should be conducted in conjunction with the issues listed in the issues paper.

*Q50: What are your thoughts on reviewing the priority of applications clause in Part 6?*

55. The current prioritisation process is not clear. Development of clearer principles for prioritisation would be helpful.

*Q51: Should the AS/NZS 4777.2:2020 Standard be mandated for inverters in New Zealand? If so, how should this be accomplished?*

56. Yes. Mandating has better effect than voluntary adoption of the standard through inclusion in distributors' connection and operation standards. Aurora has faced lengthy arguments in the past, from contractors wanting to install non-complying equipment, that Aurora is over-specifying requirements, or has no legal right to make those specifications if they are not mandated in regulation.
57. However Aurora would caution around mandating a single standard as this can end up being restrictive. The drafting of any mandate should permit a minimum of AZ/NZS 4777.2:2020 or a modern equivalent or updated equipment which exceeds the requirements of the standard.

*Q52: What are your thoughts on the Authority reviewing the prescribed maximum fees in Part 6?*

58. The Authority should review the prescribed maximum fees. Aurora considers that Schedule 6.5 should also be amended to include an inflation adjustment mechanism.