

## Appendix B Submission form

### Improving information on high-voltage network capacity

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Questions	Comments
Q1. Do you agree with our assessment of the current state of the information and capabilities needed to inform network hosting capacity? If not, please explain why.	Yes. There are ways to improve the visibility and usability of the LV networks without having complete smart meter data coverage. The UK experience has shown that defined LV models/profiles can be highly accurate. The benefits of also focusing on LV as well as HV is that customers can utilise this information for faster connection times as well as promoting competition of commercial offerings such as community batteries and EV charging.
Q2. Do you agree the issues identified by the Authority are worthy of attention? If not, please explain why.	Yes – visibility and access to network performance helps to unlock economic activity and improve competitive offerings. Although focusing on EDB benefits is good, it is the broader customer benefit in their interaction with the EDB that generates the greatest benefit.
Q3. Do you agree with our assessment that now is the time to regulate for network visibility? If not, when do you consider would be the right time?	Yes. With growth in DER, the need to speed connections and actively manage the utilisation of networks requires a “digital twin” approach now.
Q4. Do you agree with our assessment of the outcomes that network visibility supports? If not, why not?	Yes. The experience in the UK market of making this data available for connections assessments has greatly improved customer experience and speed to market for commercial offerings.
Q5. Do you consider the proposed amendments to Part 6 of the Code would promote the Authority’s statutory objective? If not, why not?	Yes. We would also encourage the Authority to consider that the amendment not only look at the network technical data for HV but also include LV and how the users will use/interact with it. For example, traditional network layouts are engineering centric. Consumers want certainty around connectivity, capacity etc, so we would suggest that making the data available in “customer friendly formats” is also a requirement.
Q6. Are there any matters you believe are missing from the proposed Code amendment? Please specify.	See response to Q5.
Q7. Is the indicative timeframe for implementing the proposed Code amendment likely to be adequate? If not, please provide information	Yes. There are technical solutions already in the marketplace to assist EDBs deliver on the Code amendment objectives. Delays in the

supporting a different timeframe, including identifying cost savings from a later implementation date.	amendment will create delays in delivering solutions to benefit customers.
Q8. What are your views on the proposed approach where detailed information about the data sets captured within the definition of network capacity information would be contained in technical specifications?	There is potential for EDB pushback as not all data will be available initially. From our experience with UK DNOs, having a goal around required data sets is good, but having a roadmap for compliance over a time period generally achieves a cost effective outcome.
Q9. Do you consider that the proposal to develop network visibility specifications in consultation with interested parties would be effective? If not, why not?	Yes. We would be willing to be involved in any consultation and make available our UK experience.
Q.10. Is the proposed timeframe for developing the specifications likely to be sufficient?	Yes
Q11. Do you agree with the proposal to start with high-voltage network visibility? If not, please share your perspectives on where best to start.	<p>The high voltage network has the benefit that most EDBs will have a reasonably accurate HV network model and information associated with network planning studies. However, the Low-voltage network is being tested with more DER connections, as part of the consumer energy transition to low carbon energy. BESS, PV, EV charging, Heat pumps are being added to the residential low-voltage network quicker than before.</p> <ul style="list-style-type: none"> <li>• Delays in new connections in some EDB networks are over 6 months.</li> <li>• As per your statement in Section 5.88, there are significant customer benefits to focusing on the LV network.</li> <li>• In the UK 86% of Distribution networks have built low voltage network capacity model <b>without</b> Smart meter data that has: <ul style="list-style-type: none"> <li>• Improved customer satisfaction.</li> <li>• With higher accuracy, 3-minute self-service connection quotes, not 3-6 months.</li> <li>• Increased new DER connection contracts volumes, (assisting in De carbonisation).</li> <li>• Reduced design time / costs for new feeders 90%.</li> <li>• Allowed defensible network investment plans to Ofgem for the LV network with increased multiple DER connections scenarios, asset deferment.</li> <li>• The UK networks who have used this approach are happy to talk to EA and the EDB's and share their experience.</li> <li>•</li> </ul> </li> </ul>

Q12. Do you agree with the assumptions the Authority has made? Why/Why not?	Yes. The benefits of publishing HV capacity information provides “quick wins” for larger connections. For example, UKPN used published information for London on their Medium-voltage network, with great results including network assessments for high-speed EV multi bank charging stations in minutes, not months. Self-Serve new connections in LV/ MV have provided UK networks with great benefits.
Q13. Have we correctly identified the benefits of network visibility?	There are additional benefits to the consumer by having network visibility and hosting capacity. The UK experience has shown areas such as customer connections can be vastly improved (time + cost) with this data available and the appropriate software tools.
Q14. Do you have any information that might help quantify the value of these benefits? If so, please provide this information.	Q.11 answer for MV/LV networks
Q15. Have we correctly identified the costs of network visibility?	Your paper has focused costs based on the traditional (100% visibility) methodology which has been used for HV networks and SCADA /DMS systems. It is true that there needs to be a good basis for the physical network (ie GIS) but our UK experience has shown that smart meter data is not required to achieve very accurate hosting capacity maps. This effectively allows that data for faster connections and other planning decisions with improved return on investment.
Q16. Do you have any information that might help quantify the costs? If so, please provide this information.	Our current information sets are commercial in confidence, however we are willing to discuss directly with EA from our UK experience of working with 86% of the networks.
Q17. Have we correctly identified the regulatory overlaps?	We understand the concern for regulatory overlap, however we see across multiple jurisdictions globally that there is a growing trend for more transparency in network operations and costs and network performance and utilisation. As such we believe it benefits consumers to speed up the visibility and availability of data even if there is short term regulatory duplication.
Q18. Do you agree with our assessment that there is a net benefit notwithstanding any regulatory overlap? If not, why not?	Yes
Q19. Do you have any information that might help quantify the costs and benefits associated with the regulatory overlap? If so, please provide this information.	No
Q20. Do you agree that the Authority should consider reducing the regulatory overlap as the proposed specifications are developed?	Only as long as it does not delay the overall process of making the data available.

Q21. Do you agree with our assessment that there will be net benefit from the proposed amendments? If not, why not?	Yes
Q22. Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010.	We believe you are on the right path using regulation rather than alternatives. Based upon the UK (Ofgem) experience, a regulation change has meant consistency on how the DNOs deliver new capability to customers. Otherwise, if each EDB is only required to deliver a voluntary or "best efforts" then there will be vastly different customer outcomes across NZ. Our only difference to what you have proposed is that we believe that you can also regulate on LV now and not wait until HV is implemented.
Q23. Do you agree the Authority's proposed amendments comply with section 32 of the Electricity Industry Act?	Yes
Q24. Do you have any comments on the drafting of the proposed amendment?	No
Please indicate if you wish to be consulted during the development of the technical specifications supporting the proposed Code amendment.	Yes, we would be interested in being consulted on the development of the technical specifications.