

Voltage quality and constraints disclosure

August 2024

Electricity distribution information disclosure determination 2012

Customer service is important to us at PowerNet. If for any reason, we do not meet your expectations we would like the opportunity to work through a solution with you, please call our office on 03 2111899. If we are unable to resolve your concern, there is a free and independent resolution service available through Utilities Disputes Limited www.udl.co.nz

Introduction

This Asset Management Plan disclosure covers the additional narrative requirements prescribed in the Commerce Commission’s Targeted Information Disclosure Review (February 2024 decision). These requirements are specified in Clause 2.6.1B and Clause 17.2.2 of Attachment A in the Amendment Determination. The requirements are as follows:

“**2.6.1B** Each EDB is also required to publicly disclose qualitative information in narrative form that describes its practices in a manner that complies with clause 17.2.2 of Attachment A by 31 August 2024 in a standalone document.”

- 1) **A description of any policies or practices for:
providing sufficient information on current and forecast constraints (including LV network constraints where known) to inform the decision-making of potential consumers connecting to the network and potential providers of non-network solutions, and regarding load and injection constraints on LV networks.**

All known constraints are listed in Table 53 of the EIL AMP 24/25. Relevant parts of the table are reproduced here for ease of reference.

Table 53: Network Constraints and Intended Remedy

Constraint	Description	Management Approach
MV Cables	Some MV cables operate near full capacity and would be unable to supply load in backup scenarios.	When cables are replaced, the capacity is reviewed to ensure new cables have capacity for forecast growth and load transfers. Operational measures ensure cables are not overloaded and smaller MV cables are protected with fuses.
MV Transformers	Some transformers are near full capacity.	Maximum Demand Indicators (MDIs) are monitored, and transformers will be upsized or supplemented with additional units as appropriate. MDIs will be upgraded in the medium term to provide improved data for transformer loading and LV network analysis. Underutilised transformers may be relocated before purchasing new.
LV Switching in CBD	Limited locations are available for above ground equipment.	Communication with the Council to determine appropriate locations for above ground link boxes has worked well.
Overhead Lines	The District Plan prohibits new overhead lines in the Invercargill City area.	Underground cables have been utilised throughout Invercargill. (Bluff is still supplied through an overhead network)

Where we have known or forecast injection constraints on the LV network, these are published in map format on our website with the constrained locations indicated.

<https://powernet.co.nz/future-energy/generation-and-storage/get-connected/>

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2) A description of

- any challenges, and progress, towards collecting or procuring data required to inform the EDB of current and forecast constraints on its LV network, including historical consumption data; and
- any analysis and modelling (including limitations and assumptions) the EDB undertakes, or intends to undertake, with that constraint-related Data.

It is recognised that as the uptake of EVs and other technologies increases, some parts of EIL's LV network may become constrained. EIL has fortunately invested in smart meters across its network, completed the deployment and is seeing the benefits of data availability of Low voltage (LV) network visibility. This is further enhanced due to EIL's relationship with SmartCo (of which EIL is a shareholder). That has enabled the development of electronic tools to provide this greater visibility of the LV network, providing valuable information for PowerNet as network manager to monitor network loading and congestion and forecast future growth, including use of wider data analytics. Having this insight will enable us to seek the most efficient solution to LV congestion, which may be either a network upgrade or a non-network solution.

PowerNet is currently developing load forecasting and scenario planning tools to allow constraint mapping and modelling of the LV growth. This will allow better forecasting of LV and MV constraints with the forecast constraints identified and published, and solutions sought.

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Certificate for year-end disclosures

We, Simon Venn Young and Peter James Heenan, being directors of Electricity Invercargill Limited certify that, having made all reasonable enquiry, to the best of our knowledge-

- a) the information prepared for the purposes of clauses 2.6.1B of the Electricity Distribution Information Disclosure Determination 2012 and Clause 17.2.2 of Attachment A in the Amendment Determination (Feb 2024) in all material respects complies with that determination.



Simon Venn Young
Director

Dated: 20 September 2024



Peter James Heenan
Director

Dated: 20 September 2024

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