

COMMERCE COMMISSION INFORMATION DISCLOSURE REQUEST – AUGUST 2024

NETWORK TASMAN – PRACTISES FOR MONITORING LOAD AND INJECTION CONSTRAINTS

17.2.2 monitoring load and injection constraints, including:

(a) any challenges, and progress, towards collecting or procuring data required to inform the EDB of current and forecast constraints on its low voltage network, including historical consumption data

Network Tasman is a member of Smartco and has completed a rollout of advanced electronic meters across its network. Approx 75% of consumers connected to NTL's network have a Smartco meter. Through Smartco, Network Tasman has full access to voltage data from these meters in real time. It utilises software tools to analyse real time data, to identifying voltage issues and their likely causes.

NTL also has access to consumption data from these meters and this has been used as in b) below.

(b) any analysis and modelling (including any assumptions and limitations) the EDB undertakes, or intends to undertake, with the data described in clause 17.2.2(a).

Consumption and voltage data from advanced electronic meters has been used in network studies in a number of instances. Examples include:

Capacity of LV networks:

Identification of LV networks that may become congested as new loads such as EV charging are added to them. As part of this, identification of the likely components in these LV networks that will become constraining factors first e.g end of circuit voltage, thermal limits of conductors, nameplate ratings of distribution transformers etc.

Verification of load diversity design formulae and prediction of future design formulae

Load profile data from consumers in residential subdivisions has been analysed to determine the current after diversity maximum demands of consumers in typical residential subdivisions. Formulae fitting the diversity found have been compared with existing formulae used for the design of the low voltage reticulation in the LV network.

Perturbing the data with additional EV charging load profiles has determined an updated design diversity formulae for future subdivisions capable of supporting vehicle charging of up to 7kW single phase. These will be future ready subdivisions.

The process has identified the need for a new capacity of connection in urban subdivisions which is 80A single phase. This has been incorporated into our line pricing as an option.

Schedule 18

Certification for Disclosures

Clauses 2.9.2

We, Sarah Louise SMITH and Anthony Page REILLY, being directors of Network Tasman Limited certify that, having made all reasonable enquiry, to the best of our knowledge, the information prepared for the purposes of clause 2.6.1B of the Electricity Distribution Information Disclosure Determination 2012 in all material respects complies with that determination.



Sarah Louise SMITH



Anthony Page REILLY

30 August 2024