Capacity costing approach for connection charge reconciliation

(Applicable from 1 April 2026)

Purpose

From 1 April 2026, Network Waitaki must undertake connection charge reconciliation in accordance with clause 6B.5 of the Electricity Industry Participation Code. As part of this process, indicative network capacity costs are required to compare connection charges with the incremental cost of providing capacity.

Until posted capacity rates are formally introduced (intended from 1 April 2027), Network Waitaki will use the capacity rates outlined below for reconciliation purposes only. These rates do not change current connection charges.

Current charging approach

Network Waitaki currently applies **connection levies** for upstream capacity investment in accordance with the Connection Pricing Policy. These levies remain in place until the planned transition to capacity-based charges.

For reconciliation purposes under Part 6B, indicative capacity costs are required to assess whether connection charges are broadly aligned with the incremental cost of providing capacity.

Methodology

Capacity costs have been estimated using a top-down engineering and financial approach based on network investment required to provide additional capacity at each major network tier.

The calculation:

1. **Investment basis**
    - High-level capital cost estimates for typical capacity-driven upgrades were derived from asset management planning and recent project data.
    - Costs were grouped by network tier:
        - Low-voltage mains[1]
        - Distribution substations
        - High-voltage feeders
        - Zone substations
        - Sub-transmission

2. **Nominal capacity increments**
   For each tier, the typical additional capacity provided by a standard upgrade was identified.
   Capacity cost per kVA was then calculated by dividing upgrade cost by the nominal capacity added.

3. **Overhead/underground considerations**
   Capital costs for overhead and underground network configurations were assessed separately as part of the capacity costing exercise. For reconciliation purposes, these have been combined into an average cost to produce a single capacity rate for each network tier.

4. **Default customer capacity assumptions**
   After Diversity Maximum Demand (ADMD) values were derived from local network data

[1] low voltage mains are fittings owned by NWL and operating at **standard low voltage** connecting to the **point of supply**

and Information Disclosure demand data to establish default capacity requirements by pricing group.

Sensitivity testing

A cross-check was undertaken using a Regulatory Asset Base (RAB) approach based on Information Disclosure data.

This involved:

- using disclosed RAB values by asset class
- adjusting for inflation to approximate replacement cost
- Disclosed transformer ratings to determine total capacity at each network tier
- deriving an indicative cost per kVA

The RAB-based results were broadly consistent with the engineering-based estimates and provide confidence that the resulting capacity rates are reasonable for reconciliation purposes.

Indicative capacity rates (for reconciliation only)

	Capacity rates	Nominal capacity increment
Low-voltage mains	$233.82	60
Distribution substations	$165.01	50
High-voltage feeders	$168.11	1,500
Zone substations	$128.31	10,000
Sub-transmission lines	$178.21	10,000

These rates will be used in connection charge reconciliation calculations from 1 April 2026 until formal posted capacity rates are introduced.

Default demand assumptions

Default demand assumptions by pricing group are based on derived ADMD values from local network data and Information Disclosure reporting. These values provide a consistent basis for estimating capacity requirements for standard connections. Where a connection's expected demand differs materially from these defaults, connection-specific values will be applied.

		Low-voltage mains	Distribution substations	High-voltage feeders	Zone substations	Sub-transmission lines
RLU	kVA	4.0	4.0	4.0	2.0	2.0
RLC	kVA	4.0	4.0	4.0	2.0	2.0
15U	kVA	4.0	4.0	4.0	2.0	2.0
15C	kVA	4.0	4.0	4.0	2.0	2.0
30U	kVA	8.0	8.0	8.0	4.0	4.0
30C	kVA	8.0	8.0	8.0	4.0	4.0
30U 3phase	kVA	8.0	8.0	8.0	4.0	4.0
30C 3phase	kVA	8.0	8.0	8.0	4.0	4.0
50U	kVA	22.0	22.0	22.0	11.0	11.0
50C	kVA	22.0	22.0	22.0	11.0	11.0
100	kVA	69	69	69	35	35
200	kVA	121	121	121	61	61
300	kVA	169	169	169	101	101

		Low-voltage mains	Distribution substations	High-voltage feeders	Zone substations	Sub-transmission lines
500	kVA	284	284	284	171	171
750	kVA	470	470	470	282	282
LC	kVA	397	397	397	397	397

Future development

Network Waitaki intends to transition to formal posted capacity rates from 1 April 2027 in line with clause 6B.5 of the Code. The methodology outlined above provides an interim approach to support reconciliation and inform development of those rates.