

Electricity Line Business 2024 Information Disclosure Compendium

Information Disclosure Compendium

December 2024

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1. Introduction

We are pleased to release our 2024 Electricity Line Business Information Disclosure Compendium.

This document summarises the information disclosures of New Zealand's electricity line businesses for the year ended 31 March 2024, prepared pursuant to the Electricity Distribution Information Disclosure Determination 2012 (consolidated as at July 2023) (Decision No. NZCC 12) (the IDD).

An index of tables included in this Compendium is contained in section 17 and a glossary of technical terms is contained in Section 18. Members of PwC's Energy Team are profiled in Section 19.

The accuracy of the disclosure information in this document has not been verified with each source Company.

This report is not intended to represent industry analysis by PwC and shouldn't be construed as such. We haven't sought to analyse the information disclosures of each line business, other than deriving simple ratios using disclosed information as inputs. The accuracy of the ratios calculated by individual line businesses for their disclosures have not been verified. While we have taken every care to ensure all data has been correctly translated from individual Company disclosures, we accept no responsibility for the accuracy of the information published herein, and accept no liability to any person or persons for any errors or omissions.



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Disclaimer

The Electricity Line Business 2024 Information Disclosure Compendium is intended as a guide only. Readers are advised that before acting on any matter referred to in the Compendium they should consult a PwC advisor.

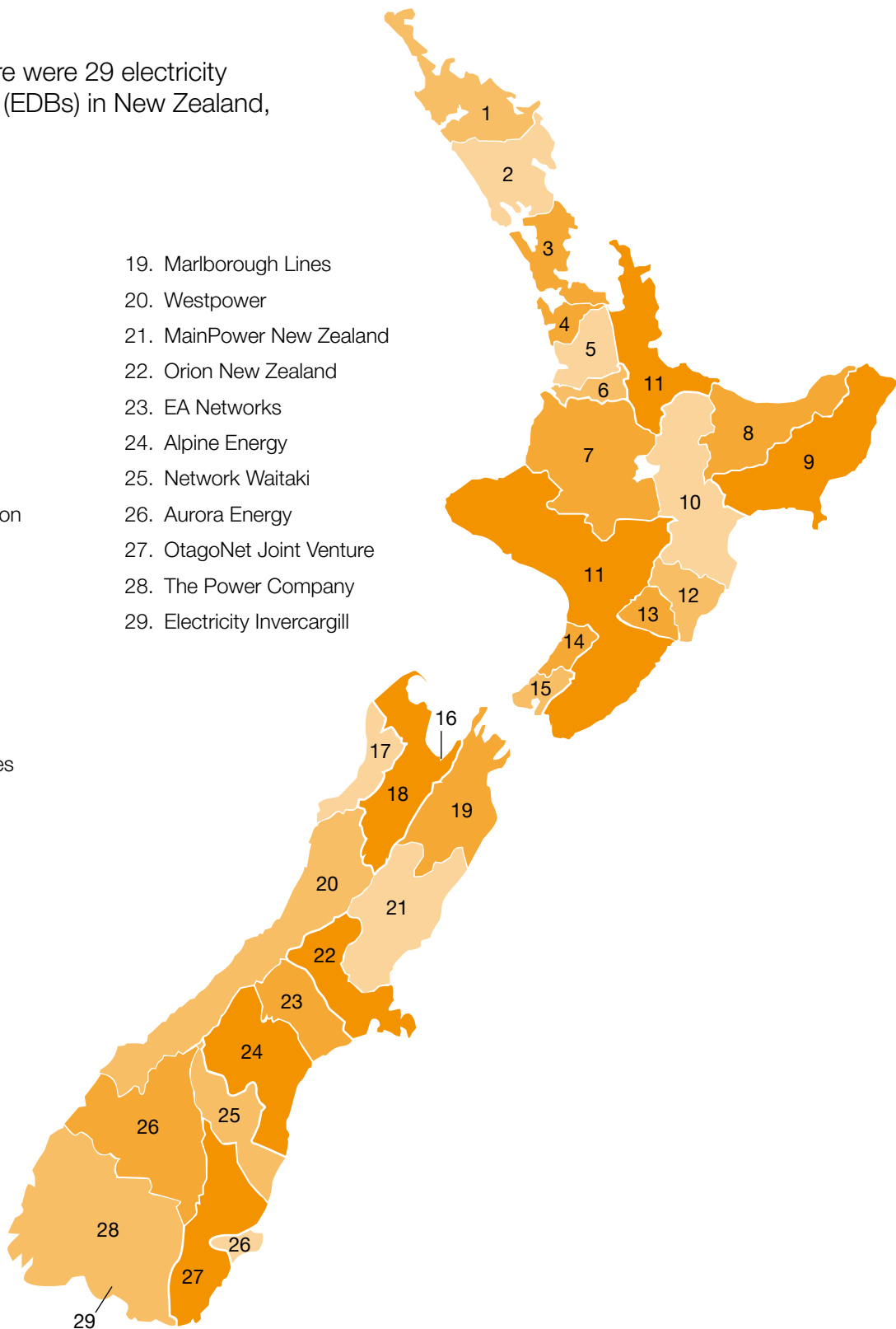
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2. Electricity industry updates

At 31 March 2024, there were 29 electricity distribution businesses (EDBs) in New Zealand, located as follows:

Company

- | | |
|----------------------------------|------------------------------|
| 1. Top Energy | 19. Marlborough Lines |
| 2. Northpower | 20. Westpower |
| 3. Vector | 21. MainPower New Zealand |
| 4. Counties Energy | 22. Orion New Zealand |
| 5. WEL Networks | 23. EA Networks |
| 6. Waipa Networks | 24. Alpine Energy |
| 7. The Lines Company | 25. Network Waitaki |
| 8. Horizon Energy Distribution | 26. Aurora Energy |
| 9. Firstlight Network | 27. OtagoNet Joint Venture |
| 10. Unison Networks | 28. The Power Company |
| 11. Powerco | 29. Electricity Invercargill |
| 12. Centralines | |
| 13. Scanpower | |
| 14. Electra | |
| 15. Wellington Electricity Lines | |
| 16. Nelson Electricity | |
| 17. Buller Electricity | |
| 18. Network Tasman | |



Electricity lines regulation

Regulatory Settings – Part 4 of the Commerce Act

Electricity line businesses, as natural monopolies, are subject to economic regulation under Part 4 of the Commerce Act 1986 (the Act). The purpose of Part 4 is to promote the long-term benefit of consumers, in markets where there is little or no competition and little or no likelihood of a substantial increase in competition, by promoting outcomes that are consistent with outcomes produced in competitive markets.

Since Part 4 was enacted in 2008, the Commerce Commission (the Commission) has developed and updated a series of regulations made under Part 4. This section discusses the key Part 4 regulations that apply to electricity line businesses and highlights recent events relevant to these regulations.

Input Methodologies

Input methodologies (IMs) are the regulatory methodologies, rules, processes, requirements and evaluation criteria that underpin Part 4 regulation. The Act requires the Commission to set these up front so that regulated businesses know what rules will apply to them.

IMs are set for each type of regulation that applies to each regulated sector (including electricity distribution and transmission services, gas pipeline services,¹ fixed fibre lines access services and designated airport services). Electricity Distribution Businesses (EDBs) are subject to Information Disclosure (ID) regulation, Default Price-Quality Path (DPP) regulation and Customised Price-Quality Path (CPP) regulation. The IMs that apply to these EDB regulations are as follows:

- For ID, IMs have been determined for cost allocation, asset valuation, treatment of taxation, and cost of capital.
- For DPPs, IMs have been determined for cost allocation, asset valuation, treatment of taxation, and cost of capital and when a DPP may be re-considered.

- For DPPs and CPPs, IMs have been determined for the specification of price including the revenue cap wash up, treatment of amalgamations and an incremental rolling incentive scheme for opex and capex. These IMs include provisions for pass-through and recoverable costs, which are costs that EDBs are permitted to pass on directly to consumers because they are either not under the control of EDBs (eg rates or transmission charges) or deliver financial incentives for performance improvements or wash-ups of allowances in previous years.
- For CPPs, IMs have been determined for CPP processes and rules (including contents of a CPP proposal and application, Commission's assessment criteria, consumer consultation, verification/audit, and reconsideration of a CPP), and determination of customised price-quality paths (including allowable revenue, cost allocation, asset valuation, treatment of taxation and cost of capital).

The IMs were first determined in 2010 and must be reviewed at least every 7 years to ensure they remain fit for purpose. A full review of the IMs (IM Review) was undertaken in 2023. The 2023 IM Review focussed on the following topics:

1. Financing and incentivising efficient expenditure during the energy transition
2. Cost of capital
3. CPPs and in-period adjustments to price-quality paths

Default Price-Quality Paths

Price-quality regulation is intended to limit the prices that regulated businesses can charge while requiring the quality of services that are provided to be maintained. DPPs apply to most non-exempt EDBs and are intended to provide a relatively low-cost form of regulation.

The DPP involves a price path set in advance for a five-year period, based on forecast expenditure allowances. Minimum quality standards are also set for reliability metrics.

This framework provides incentives for EDBs to make cost efficiencies over time, while delivering a minimum service level for consumers. There are also explicit incentives which encourage improved reliability performance above the minimum standards.

The current DPP came into effect on 1 April 2020 and will end on 31 March 2025. This is the third DPP that has applied to non-exempt EDBs. During 2024, the Commission consulted on the DPP settings which will apply to non-exempt EDBs from 1 April 2025.

As part of the IM review, the Commission considered how to forecast expenditure for setting price-quality paths for EDBs, due to increasing electrification in the economy. Although the Commission's approach to forecasting capital and operating expenditure is not set out in the IMs, revised approaches to expenditure allowances have implications for IMs – for instance, the circumstances when price-quality paths may be reopened.

The DPP reset reflects updated forecast opex and capex allowances and weighted average cost of capital (WACC) and provides for recovery of deferred revenue from the current regulatory period.

As there has been significant growth in the regulatory asset bases (RABs), along with inflationary impacts on costs, and an increase in the WACC, there are increases in DPP revenue caps for non-exempt EDBs in the next regulatory period. To mitigate price impacts for consumers, the Commission has smoothed the rate of revenue increase for each non-exempt EDB across the regulatory period.

The DPP reset also updates the quality standards to apply to each non-exempt EDB, using recent planned and unplanned outage data.

¹ Fixed fibre lines access services are regulated under Part 6 of the Telecommunications Act 2001

Customised price-quality paths

EDBs can apply for a CPP to better meet their individual circumstances. CPPs allow for the recovery from customers of additional expenditure over and above that allowed for under the DPP and for modified quality standards.

Aurora Energy's CPP applies for five years, from 1 April 2021 to 31 March 2026. Aurora Energy will transition to the DPP from 1 April 2026.

Compliance with price-quality paths

All non-exempt EDBs have reported on their compliance with the price-quality paths that applied for the year ending 31 March 2024. All non-exempt EDBs complied with their price paths for the 2024 assessment period.

EDBs subject to DPPs and CPPs comply with the price path where forecast revenue from prices is less than or equal to forecast allowable revenues for the assessment period. Thus compliance is assessed at the start of the year, based on forecast revenues at the time prices are set. Any unders or overs at the end of the year are washed up into future allowable revenues.

The quality standards are expressed as SAIDI limits and SAIFI limits for each non-exempt EDB, which is assessed at the end of each assessment period.²

Unplanned SAIDI and SAIFI limits are calculated after normalising for extreme events and including a buffer for normal variation equal to two standard deviations. The normalisation reduces the impact of major events on annual performance assessment. A major event standard also applies, along with additional reporting requirements for major events. Compliance with the unplanned quality standards is assessed annually.

Planned SAIDI and SAIFI limits are calculated as an accumulated limit over the five year regulatory period and are set at three times the historical average for each EDB.

Planned interruptions quality standards

	Accumulated Planned SAIDI Limit	Planned SAIDI Assess 2021 - 2024	Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2021 - 2024
Alpine Energy	824.9	340.9	3.49	1.23
EA Networks	1376.1	440.2	4.89	1.54
Electricity Invercargill	114.5	58.0	0.52	0.35
Firstlight Network	1290.7	393.2	7.47	2.52
Horizon Energy Distribution	858.6	245.6	5.44	3.33
Nelson Electricity	180.1	41.2	2.37	0.26
Network Tasman	1129.1	439.9	4.90	1.40
Orion New Zealand	198.4	89.7	0.75	0.32
OtagoNet Joint Venture	2114.4	650.5	9.62	3.48
The Lines Company	1331.7	394.8	8.75	2.13
Top Energy	1905.4	484.9	7.75	3.66
Unison Networks	625.8	265.1	4.46	2.24
Vector	585.4	186.7	2.88	1.18
Wellington Electricity Lines	55.8	27.7	0.44	0.20

	Accumulated Planned SAIDI Limit	Planned SAIDI Assess 2022-2024	Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2022-2024
Aurora Energy ³	979.8	356.7	5.54	2.19

	Adjusted Accumulated Planned SAIDI Limit	Planned SAIDI Assess 2024	Adjusted Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2024
Powerco ⁴	309.0	72.3	1.40	0.43

² SAIDI and SAIFI measure the average duration and frequency of electricity outages.

³ Aurora Energy's accumulated planned SAIDI and SAIFI limits apply for the regulatory period 1 April 2022 to 31 March 2026. Aurora Energy's unplanned SAIDI and SAIFI limits apply for the 2024 assessment period.

⁴ Powerco's adjusted accumulated planned SAIDI and SAIFI limits apply for the regulatory period 1 April 2023 to 31 March 2025. Powerco's unplanned SAIDI and SAIFI limits apply for the 2024 assessment period.

Unplanned interruptions quality standards

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2024	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2024	Exceed Unplanned SAIFI Limit
Alpine Energy	124.7	86.4	No	1.20	0.79	No
EA Networks	92.0	50.6	No	1.28	0.89	No
Electricity Invercargill	25.9	11.2	No	0.70	0.30	No
Firstlight Network	219.5	314.7	Yes	3.15	2.79	No
Horizon Energy Distribution	194.5	133.1	No	2.39	1.93	No
Nelson Electricity	19.6	3.6	No	0.43	0.08	No
Network Tasman	101.0	49.5	No	1.20	0.55	No
Orion New Zealand	84.7	39.6	No	1.03	0.63	No
OtagoNet Joint Venture	160.4	125.8	No	2.42	1.53	No
The Lines Company	181.5	155.5	No	3.27	2.16	No
Top Energy	380.2	292.3	No	5.07	3.31	No
Unison Networks	82.3	70.2	No	1.82	1.53	No
Vector	104.8	98.4	No	1.34	1.13	No
Wellington Electricity Lines	39.8	34.3	No	0.61	0.43	No

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2024	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2024	Exceed Unplanned SAIFI Limit
Aurora Energy ³	124.9	95.5	No	2.07	1.31	No

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2024	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2024	Exceed Unplanned SAIFI Limit
Powerco ⁴	180.3	139.4	No	2.27	1.57	No

Businesses that are exempt from price-quality paths

As suppliers of electricity lines services, an EDB that meets the 'consumer-owned' criteria set out in section 54D of the Commerce Act is exempt from default and customised price-quality regulation. The Commission is of the view that 13 EDBs met the consumer-owned criteria as at 31 March 2024. Accordingly, the following EDBs are currently exempt from price-quality regulation, but remain subject to information disclosure regulation:

- Buller Electricity Limited
- Centralines Limited
- Counties Energy Limited
- Electra Limited
- Mainpower New Zealand Limited
- Marlborough Lines Limited
- Network Waitaki Limited
- Northpower Limited
- Scanpower Limited
- The Power Company Limited
- Waipa Networks Limited
- WEL Networks Limited
- Westpower Limited.

Information Disclosure

ID regulation is intended to ensure that sufficient information is readily available to interested persons to assess whether the purpose of Part 4 is being met. The Information Disclosure Determination (IDD) that applies to EDBs, which were first introduced in 2012, require EDBs to disclose a substantial quantity of historical and forecast financial and network information on an annual basis.

This Compendium incorporates information disclosed in accordance with the ID.

The Commission has a role to monitor the information disclosed by EDBs under Part 4, including to undertake summary and analysis of disclosures. As part of this role, the Commission publishes 'dashboards' of key disclosure information for each EDB, including five-year trends for some items. This summary and analysis are intended to promote greater understanding of the performance of individual EDBs, their relative performance, and changes in performance over time.

The IDD is consistent with the input methodologies and other requirements of Part 4 of the Commerce Act relevant to information disclosure regulation.

The IDD includes four key sets of information comprising: financial, pricing and contract, non-financial, and asset management information, as set out on page 11. Much of the quantitative information is disclosed via spreadsheet templates. It is this information which forms the basis of this Compendium.

The Commission has completed targeted updates to the ID requirements. These are being implemented in stages to allow EDBs time to capture the new information in the required format.

Substantive changes to information disclosure requirements

Topic	Disclosure	Applies from
Cybersecurity	Current expenditure (Schedule 5)	2024
	Forecast expenditure (Schedule 11)	2025
Network constraints	Current and forecast constraints (Schedule 12)	2025
	AMP explanations	Next AMP
	Zone substation geospatial data	2025
Interruptions	Raw interruption data	2025
	Worst performing feeders (Schedule 10)	2024
	Normalised SAIDI and SAIFI disclosures have been removed (Schedule 10)	2025
Pricing	Standardised pricing components (Schedule 8)	2025
Non network solutions	Historical non-network solutions (Schedules 5, 6 and 7)	2025
	Forecast non-network solutions (Schedule 11)	
	Non-network solutions, including flexibility resources	Next AMP
Vegetation management	Opex (Schedule 6)	2026
	Critical assets (Schedule 9)	
	Unplanned interruptions (Schedule 10)	
IRIS	Update disclosures to align to IMs (Schedule 2)	2026

List of IDD disclosure requirements

Financial disclosures include:

- Simple analytical ratios (clause 2.3.1(1)(a))
- Return on investment and regulatory profit statement (clause 2.3.1(1)(b)-(c))
- Regulatory asset base, including by asset category, and roll forward component (ie: depreciation, commissioned assets, disposals, revaluations) (clause 2.3.1(1)(d))
- Regulatory tax allowance, including data relevant to its derivation (ie deferred tax, regulatory tax asset values) (clause 2.3.1(1)(e))
- Related party transactions (clause 2.3.1(1)(f), 2.3.8 and 2.3.10 – 2.3.13)
- Capital expenditure and operating expenditure disaggregated by expenditure category, including expenditure forecasts (clause 2.3.1(1)(j)-(l) and 2.6.6(1) (a)-(b))
- Allocations of opex and assets to the regulated business (clause 2.3.1(1)(h)-(i) and 2.3.2)
- Supporting commentary (clause 2.7)
- Supporting auditor and independent appraiser reports, and director certification (clauses 2.8.1, 2.8.2 and 2.9).

Pricing and contract disclosures include:

- Price schedules (clause 2.4.18 – 2.4.20)
- Billed quantities and revenues by consumer group and price category code (clause 2.4.21)
- Pricing methodologies and capital contribution policies (clause 2.4.1 and 2.4.6)
- Terms and conditions of prescribed contracts (clause 2.4.9 – 2.4.17)
- Financial distributions to trusts (clause 2.4.23).

Non-financial disclosures include:

- Asset quantities by asset category, asset class and age (clause 2.5.1(1)(a)-(b))
- Circuit length, disaggregated into various categories (clause 2.5.1(1)(c))
- Embedded networks (clause 2.5.1(1)(d))
- Electricity volumes, demand, customer connections and other network characteristics (clause 2.5.1(1)(e))
- Interruptions, by cause and asset category (clause 2.5.1(1)(f)).

Asset management disclosures include:

- Asset management plans (clause 2.6.1)
- Asset condition (clause 2.6.6(1)(c))
- Forecast capacity, connections, demand and interruptions (clause 2.6.6(1)(d)-(f))
- Self-assessment by each EDB of their of asset management maturity (clause 2.6.1(2)).



3. Electricity distribution industry profile

Network Characteristics

Definitions

Total Circuit Length =	Length of all lines and cables with the exception of services, street lighting, and private lines
Number of Connections =	The number of points of connection to supply electricity to a consumer, as represented by unique ICP identifiers having a status of active or inactive recorded on the registry in accordance with the Electricity Industry Participation Code 2010
Energy Delivered to ICPs =	The volume of electricity supplied to connection points, as measured at connection points
Demand on System for Supply to Consumers' Connection Points =	GXP Demand + Distributed Generation Output at HV and Above – Net Transfers to (from) Other EDBs at HV and Above
Total Distribution Transformer Capacity =	The sum of the capacities of all distribution transformers (both EDB and non-EDB owned) (MVA)
Proportion of Circuit Length Underground =	$\frac{\text{Length of All Circuits Installed as Underground Cables (km)}}{\text{Total Circuit Length (km)}}$
Load Factor =	$\frac{\text{Electricity Entering System for Supply to Connection Points (MWh)}}{\text{Demand on the Supply to Connection Points Number of Hours in the Disclosure Year (MWh)}}$
Zone Substation Transformer Capacity Utilisation =	$\frac{\text{Maximum Coincident System Demand}}{\text{Zone Substation Transformer Capacity}}$
Loss Ratio =	$\frac{\text{Electricity Entering System for Supply to Consumers' Connection Points – Energy Delivered to ICPs (GWh)}}{\text{Electricity Entering System for Supply to Consumers' Connection (GWh)}}$
Interruptions per 100 Circuit km =	The cessation of supply of electricity lines services to a consumer for a period of 1 minute or longer (other than by reason of disconnection of that consumer) per 100 circuit kms

Network characteristics

	Total Circuit Length	Number of Connections	Energy Delivered to ICPs	Demand on System for Supply to Consumers' Connection Points	Total Distribution Transformer Capacity
	km	ICP	GWh	MW	MVA
Alpine Energy	4,379	33,883	892	155	653
Aurora Energy	6,312	95,241	1,424	311	1,046
Buller Electricity	650	4,889	51	11	47
Centralines	1,869	9,285	112	23	116
Counties Energy	3,586	48,147	650	144	527
EA Networks	3,160	21,105	635	173	617
Electra	2,393	46,749	428	111	358
Electricity Invercargill	665	17,645	255	61	160
Firstlight Network	3,976	25,934	293	67	288
Horizon Energy Distribution	2,627	25,300	495	86	360
MainPower New Zealand	5,234	44,918	640	117	672
Marlborough Lines	3,539	27,034	401	74	386
Nelson Electricity	297	9,312	133	33	100
Network Tasman	3,733	42,816	650	133	520
Network Waitaki	1,939	13,446	308	70	245
Northpower	6,218	63,782	791	158	618
Orion New Zealand	11,992	223,047	3,479	692	2,574
OtagoNet Joint Venture	4,688	20,029	478	73	254
Powerco	29,202	359,857	5,003	967	3,790
Scanpower	1,050	6,791	78	17	78
The Lines Company	4,443	24,145	369	75	276
The Power Company	8,915	37,720	848	164	508
Top Energy	4,240	34,094	331	77	284
Unison Networks	9,403	119,182	1,674	338	1,306
Vector	19,594	616,705	8,754	1,918	5,895
Waipa Networks	2,341	28,972	434	88	320
WEL Networks	5,670	100,250	1,434	313	1,031
Wellington Electricity Lines	4,864	175,249	2,314	563	1,563
Westpower	2,187	14,326	230	36	180
Average	5,488	78,960	1,158	243	854
Median	3,976	33,883	495	111	386
Minimum	297	4,889	51	11	47
Maximum	29,202	616,705	8,754	1,918	5,895
Industry Total	159,163	2,289,852	33,585	7,048	24,772

Network characteristics continued

	Proportion of Circuit Length Underground	Load Factor	Zone Substation Transformer Capacity Utilisation	Loss Ratio	Interruptions per 100 Circuit
	%	%	%	%	km
Alpine Energy	20.4	67.9	40.6	3.2	33.0
Aurora Energy	39.3	53.8	29.6	2.9	30.1
Buller Electricity	9.5	58.3	20.7	5.8	27.8
Centralines	8.9	59.2	49.8	7.4	18.6
Counties Energy	36.3	54.1	25.0	4.9	27.6
EA Networks	25.6	44.6	47.9	5.8	18.3
Electra	34.9	47.3	31.0	7.0	18.0
Electricity Invercargill	92.0	50.1	68.0	4.7	9.0
Firstlight Network	11.4	55.0	19.7	8.6	26.1
Horizon Energy Distribution	23.8	69.0	87.5	4.6	18.6
MainPower New Zealand	22.5	66.0	81.0	5.6	31.6
Marlborough Lines	20.4	65.1	22.0	5.4	18.6
Nelson Electricity	90.8	47.5	69.7	4.2	3.0
Network Tasman	28.9	58.6	38.5	5.0	9.1
Network Waitaki	10.5	53.0	30.7	5.3	22.5
Northpower	19.4	60.6	41.6	5.5	16.0
Orion New Zealand	55.4	59.8	58.6	4.1	16.1
OtagoNet Joint Venture	6.4	77.9	44.5	3.9	21.8
Powerco	25.9	62.4	38.8	5.4	20.2
Scanpower	9.5	56.7	-	7.0	12.3
The Lines Company	9.3	60.2	32.1	7.3	24.2
The Power Company	4.8	62.6	32.3	5.6	22.4
Top Energy	23.1	55.0	14.8	10.6	18.4
Unison Networks	41.5	59.2	53.1	4.4	18.0
Vector	58.2	54.2	38.7	3.9	17.9
Waipa Networks	24.1	59.3	-	5.2	28.0
WEL Networks	46.0	54.9	40.9	4.7	24.4
Wellington Electricity Lines	64.8	49.0	42.6	4.3	10.3
Westpower	12.9	79.3	21.4	6.9	15.8
Average	30.2	58.6	41.5	5.5	19.9
Median	23.8	58.6	38.8	5.3	18.6
Minimum	4.8	44.6	14.8	2.9	3.0
Maximum	92.0	79.3	87.5	10.6	33.0

Service intensity measures

Definitions

Demand Density =	$\frac{\text{Maximum Coincident System Demand (kW)}}{\text{Total Circuit Length (km)}}$
Volume Density =	$\frac{\text{Total Energy Delivered to ICPs (MWh)}}{\text{Total Circuit Length (km)}}$
Connection Point Density =	$\frac{\text{Number of Connections (ICPs)}}{\text{Total Circuit Length (km)}}$
Energy Intensity =	$\frac{\text{Total Energy Delivered to ICPs}}{\text{Number of Connections (ICPs)}}$



Service intensity measures

	Demand Density	Volume Density	Connection Point Density	Energy Intensity
	kW/km	MWh/km	ICP/km	kWh/ICP
Alpine Energy	35.4	203.8	7.7	26,337
Aurora Energy	49.3	225.6	15.1	14,949
Buller Electricity	16.4	78.7	7.5	10,467
Centralines	12.5	60.2	5.0	12,108
Counties Energy	40.2	181.1	13.4	13,490
EA Networks	54.6	200.9	6.7	30,085
Electra	46.4	178.8	19.5	9,155
Electricity Invercargill	95.7	384.2	26.6	14,470
Firstlight Network	16.7	73.7	6.5	11,301
Horizon Energy Distribution	32.7	188.3	9.6	19,548
MainPower New Zealand	22.4	122.2	8.6	14,244
Marlborough Lines	21.0	113.3	7.6	14,838
Nelson Electricity	112.8	449.3	31.4	14,314
Network Tasman	41.5	174.1	11.5	15,179
Network Waitaki	36.1	158.8	6.9	22,908
Northpower	25.4	127.3	10.3	12,409
Orion New Zealand	57.7	290.1	18.6	15,600
OtagoNet Joint Venture	15.4	102.0	4.3	23,877
Powerco	33.1	171.3	12.3	13,903
Scanpower	16.0	74.0	6.5	11,433
The Lines Company	17.0	83.0	5.4	15,266
The Power Company	18.1	95.2	4.2	22,491
Top Energy	18.1	78.0	8.0	9,695
Unison Networks	35.9	178.0	12.7	14,047
Vector	97.9	446.8	31.5	14,195
Waipa Networks	37.7	185.6	12.4	14,997
WEL Networks	55.2	252.9	17.7	14,302
Wellington Electricity Lines	115.8	475.7	36.0	13,203
Westpower	16.3	105.1	6.6	16,038
Average	41.1	188.2	12.8	15,684
Median	35.4	174.1	9.6	14,314
Minimum	12.5	60.2	4.2	9,155
Maximum	115.8	475.7	36.0	30,085

Financial measures

Definitions

Line Charge Revenue =	Revenue from posted prices (net of posted discounts and gross of discretionary discounts and consumer rebates)
Operational Expenditure =	Operating costs that are allocated to electricity distribution services and excluding costs treated as an asset under GAAP, depreciation, tax, subvention payments, revaluations, interest expenses, and pass-through and recoverable costs
Capital Expenditure =	Costs incurred in the acquisition or development of an asset that is, or is intended to be, included in the value of assets commissioned in the regulatory asset base
Closing Regulatory Asset Base =	The regulatory values of assets used to supply electricity lines services at disclosure year end

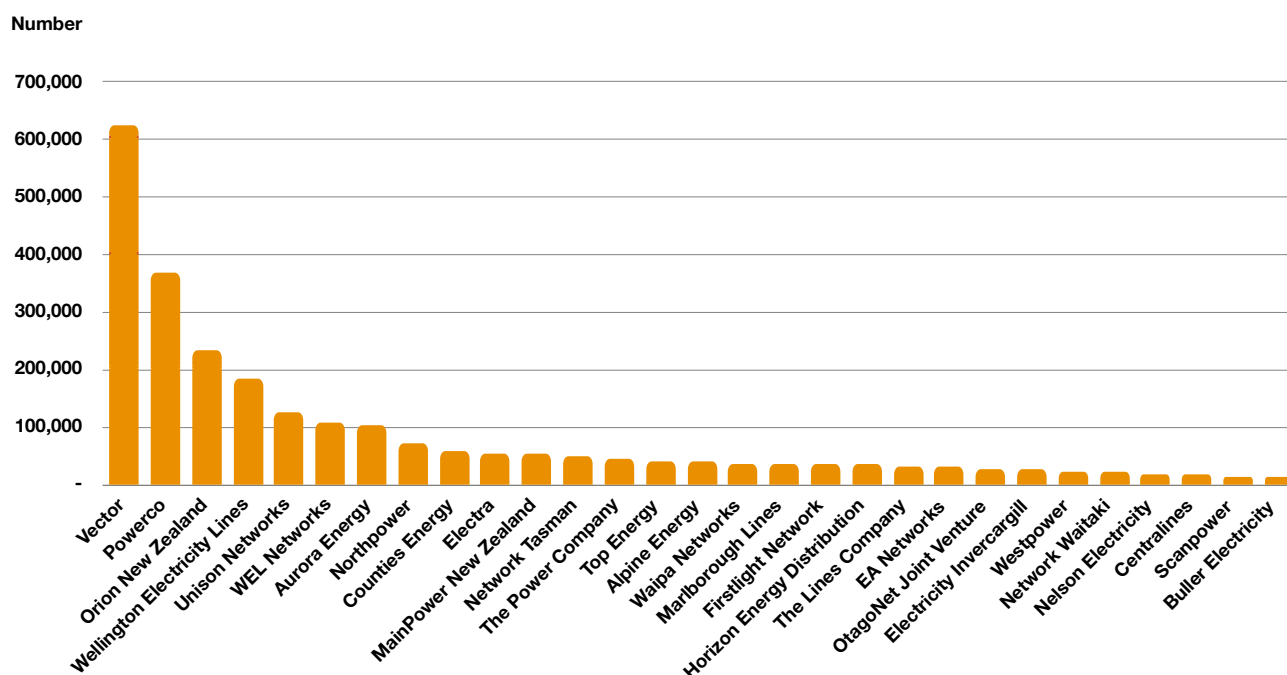


Financial measures

	Line Charge Revenue	Operational Expenditure	Capital Expenditure	Closing Regulatory Asset Base
	\$000	\$000	\$000	\$000
Alpine Energy	65,725	30,395	25,370	313,092
Aurora Energy	143,776	47,995	96,754	830,127
Buller Electricity	8,462	4,568	2,212	37,215
Centralines	15,279	5,794	7,836	97,761
Counties Energy	69,168	25,795	49,718	505,781
EA Networks	47,020	15,454	16,101	360,224
Electra	48,287	19,393	15,785	256,946
Electricity Invercargill	18,555	5,897	6,602	113,034
Firstlight Network	29,690	14,942	14,111	222,587
Horizon Energy Distribution	35,281	12,240	9,342	167,394
MainPower New Zealand	60,546	24,747	32,638	327,861
Marlborough Lines	41,959	22,135	16,721	279,151
Nelson Electricity	8,296	2,465	1,755	50,132
Network Tasman	38,920	15,136	15,016	225,439
Network Waitaki	24,568	12,806	19,007	134,034
Northpower	70,987	36,193	32,397	386,466
Orion New Zealand	238,059	81,613	131,614	1,566,054
OtagoNet Joint Venture	34,335	10,107	19,787	285,678
Powerco	427,436	123,031	238,087	2,796,870
Scanpower	9,444	4,759	3,623	57,126
The Lines Company	41,625	17,861	21,089	284,366
The Power Company	64,553	19,937	29,674	517,957
Top Energy	43,488	23,463	18,578	362,368
Unison Networks	145,550	50,907	88,256	886,495
Vector	662,550	169,186	305,660	4,193,945
Waipa Networks	34,861	14,834	12,815	171,859
WEL Networks	111,491	37,084	84,750	750,681
Wellington Electricity Lines	145,046	38,581	53,543	847,276
Westpower	24,611	14,236	4,860	120,038
Average	93,433	31,088	47,369	591,309
Median	43,488	19,393	19,007	285,678
Minimum	8,296	2,465	1,755	37,215
Maximum	662,550	169,186	305,660	4,193,945
Industry Total	2,709,569	901,553	1,373,703	17,147,957

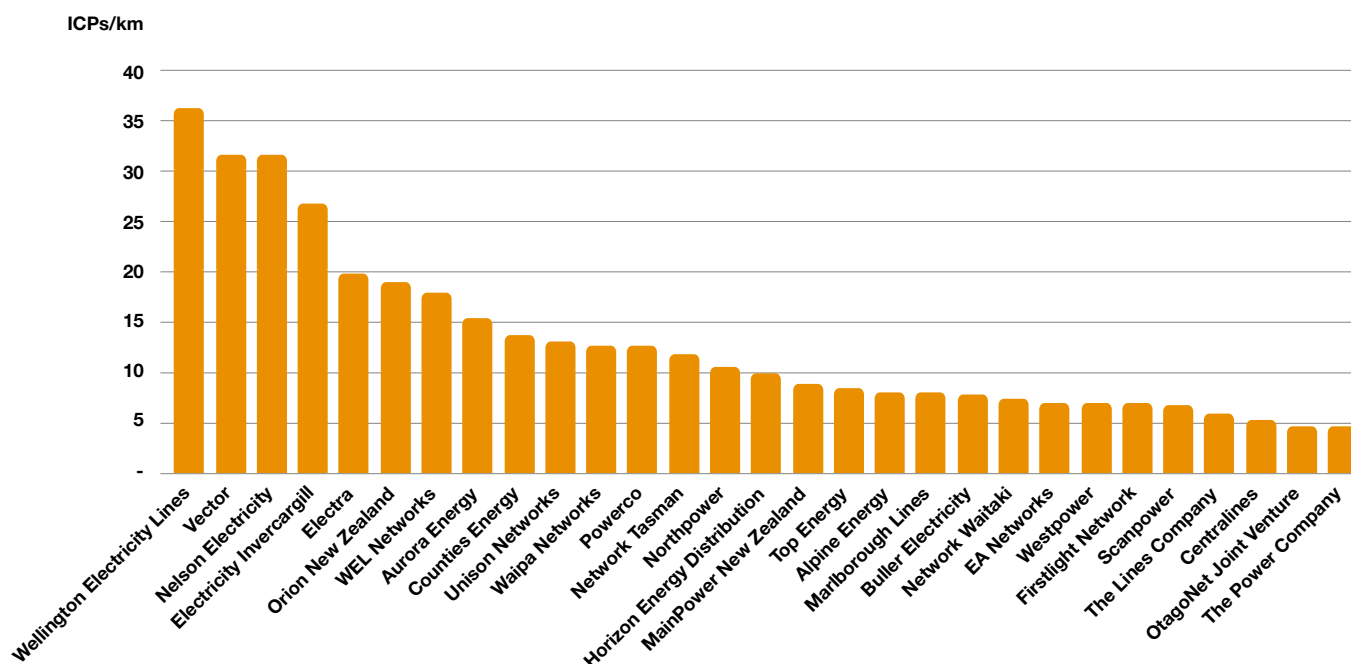
ICPs

The graph below illustrates the spread of ICPs for the electricity distribution sector. The top two distribution businesses accounted for 43% of the total number of connections at 31 March 2024. Vector, the largest distribution business, accounted for 27%.



Connection Point Density

The density graph below reflects the urban/rural nature of electricity distribution networks with 16 of the 29 line businesses with connection point density less than 10 ICPs per kilometre.



4. Ownership

The table below shows the ownership profile of each electricity distribution business at 31 March 2024 and summarises the form of distributions to consumers and shareholders. The method via which distributions to consumers and shareholders are made may impact on the performance measures set out later in this document.

	Ownership	Distributions to Consumers and Shareholders
Alpine Energy	Local Authority/Trust	dividend
Aurora Energy	Local Authority	dividend
Buller Electricity	Trust	dividend
Centralines	Trust	discount/dividend
Counties Energy	Trust	discount/dividend
EA Networks	Co-operative	discount
Firstlight Network	Igneo Infrastructure Partners	dividend
Electra	Trust	discount/dividend
Electricity Invercargill	Local Authority	dividend
Horizon Energy Distribution	Trust	dividend
MainPower New Zealand	Trust	rebate
Marlborough Lines	Trust	discount/dividend
Nelson Electricity	Marlborough Lines/Network Tasman	dividend
Network Tasman	Trust	discount/dividend
Network Waitaki	Trust	discount/dividend
Northpower	Trust	discount/dividend
Orion New Zealand	Local Authority	dividend
OtagoNet Joint Venture	Electricity Invercargill/The Power Company	dividend
Powerco	AMP Capital/Queensland Investment Corporation	dividend
Scanpower	Trust	discount/dividend
The Lines Company	Trust	discount/dividend
The Power Company	Trust	discount
Top Energy	Trust	discount/dividend
Unison Networks	Trust	dividend
Vector	Trust/Public	dividend
Waipa Networks	Trust	discount
WEL Networks	Trust	discount/dividend
Wellington Electricity Lines	CK Infrastructure Limited and Power Assets Holdings Limited	dividend
Westpower	Trust	discount/dividend



5. Regulatory profit

5

Regulatory profit

Regulatory profit measures

Definitions

Regulatory Profit Including Financial Incentives and Wash-Ups =

Total Regulatory Income – Operational Expenditure – Pass Through and Recoverable Costs Excluding Financial Incentives and Wash-Ups – Total Depreciation + Total Revaluations – Term Credit Spread Differential Allowance – Regulatory Tax Allowance

ROI Comparable to Vanilla WACC Reflecting All Revenue Earned =

$(1 + \text{Half-Yearly IRR})^2 - 1$

Where:

Half-yearly IRR is the internal rate of return calculated using:

- The negative of opening Regulatory Investment Value (Year-Start)
- Notional net cash flows (Mid-Year)
- The closing Regulatory Investment Value less Term Credit Spread Differential Allowance (Year-End)

ROI Comparable to Vanilla WACC Excluding Revenue Earned from Financial Incentives =

$(1 + \text{Half-Yearly IRR})^2 - 1$

Where:

Half-yearly IRR is the internal rate of return calculated using:

- The negative of opening Regulatory Investment Value (Year-Start)
- Notional net cash flows (Mid-Year), less Financial Incentives multiplied by the corporate tax rate
- The closing Regulatory Investment Value less Term Credit Spread Differential Allowance (Year-End)

ROI Comparable to Vanilla WACC Excluding Revenue Earned from Financial Incentives and Wash-Ups =

$(1 + \text{Half-Yearly IRR})^2 - 1$

Where:

Half-yearly IRR is the internal rate of return calculated using:

- The negative of opening Regulatory Investment Value (Year-Start)
- Notional net cash flows (Mid-Year), less Financial Incentives and Wash-Ups multiplied by the corporate tax rate
- The closing Regulatory Investment Value less Term Credit Spread Differential Allowance (Year-End)

ROI Comparable to Post Tax WACC Reflecting All Revenue Earned =	ROI Comparable to Vanilla WACC Reflecting All Revenue Earned – (Leverage × Cost of Debt × Corporate Tax Rate)
ROI Comparable to Post Tax WACC Excluding Revenue Earned from Financial Incentives =	ROI Comparable to Vanilla WACC Excluding Revenue Earned from Financial Incentives – (Leverage × Cost of Debt × Corporate Tax Rate)
ROI Comparable to Post Tax WACC Excluding Revenue Earned from Financial Incentives and Wash-Ups =	ROI Comparable to Vanilla WACC Excluding Revenue Earned from Financial Incentives and Wash-Ups – (Leverage × Cost of Debt × Corporate Tax Rate)
Year-End ROI Excluding Revenue Earned from Financial Incentives and Wash-Ups (Comparable to Vanilla WACC) =	$\frac{\text{Regulatory Profit Including Financial Incentives and Wash-Ups} - \text{Financial Incentives and Wash-Ups}}{\text{Total Opening Regulatory Asset Base} + \text{opening deferred tax} + 0.5 \times \text{Assets Commissioned}}$
Year-End ROI Excluding Revenue Earned from Financial Incentives and Wash-Ups (Comparable to Post-Tax WACC) =	Year-End ROI Excluding Revenue Earned from Financial Incentives and Wash-Ups (Comparable to Vanilla WACC) – (Leverage × Cost of Debt × Corporate Tax Rate)
WACC Mid-Point =	The mid-point estimate of regulatory WACC for the 5 year period commencing on the first day of the disclosure year
WACC 25th Percentile =	The 25th percentile of the mid-point estimate of regulatory WACC for the 5 year period commencing on the first day of the disclosure year
WACC 75th Percentile =	The 75th percentile of the mid-point estimate of regulatory WACC for the 5 year period commencing on the first day of the disclosure year

Regulatory profit measures

	Regulatory Profit Including Financial Incentives and Wash-Ups			ROI - Comparable to Vanilla WACC			
		As a % of Line Charge Revenue		Reflecting All Revenue Earned	Excluding Revenue Earned from Financial Incentives	Excluding Revenue Earned from Financial Incentives and Wash-Ups	
	\$000	%	c/kWh	%	%	%	
Alpine Energy	18,680	28.42	2.09	6.66	6.00	6.03	
Aurora Energy	58,782	40.88	4.13	8.04	6.15	6.23	
Buller Electricity	1,076	12.71	2.10	3.11	3.11	3.11	
Centralines	7,020	45.95	6.24	8.23	8.23	8.23	
Counties Energy	28,599	41.35	4.40	6.61	6.61	6.61	
EA Networks	20,472	43.54	3.22	6.24	6.21	6.09	
Electra	16,448	34.06	3.84	7.04	7.04	7.04	
Electricity Invercargill	7,044	37.96	2.76	6.92	7.05	7.15	
Firstlight Network	10,465	35.25	3.57	5.31	5.48	5.51	
Horizon Energy Distribution	14,201	40.25	2.87	8.84	7.27	7.21	
MainPower New Zealand	15,997	26.42	2.50	5.21	5.21	5.21	
Marlborough Lines	12,866	30.66	3.21	4.88	4.88	4.88	
Nelson Electricity	2,339	28.20	1.75	4.99	5.32	5.28	
Network Tasman	12,336	31.70	1.90	5.88	5.59	5.67	
Network Waitaki	5,935	24.16	1.93	4.91	4.91	4.91	
Northpower	18,624	26.24	2.35	5.32	5.32	5.32	
Orion New Zealand	88,686	37.25	2.55	6.29	6.24	6.20	
OtagoNet Joint Venture	15,643	45.56	3.27	6.39	6.85	6.92	
Powerco	163,504	38.25	3.27	6.45	6.65	6.65	
Scanpower	2,906	30.78	3.74	5.55	5.55	5.55	
The Lines Company	14,178	34.06	3.85	5.69	6.11	6.17	
The Power Company	29,827	46.21	3.52	6.39	6.39	6.39	
Top Energy	13,488	31.02	4.08	4.11	4.14	3.98	
Unison Networks	53,949	37.07	3.22	6.85	6.88	6.88	
Vector	237,467	35.84	2.71	6.21	6.16	6.16	
Waipa Networks	8,686	24.92	2.00	5.54	5.54	5.54	
WEL Networks	46,736	41.92	3.26	6.99	6.99	6.99	
Wellington Electricity Lines	48,392	33.36	2.09	6.34	6.33	6.35	
Westpower	5,961	24.22	2.59	4.92	4.92	4.92	
Average	33,804	34.08	3.07	6.07	5.97	5.97	
Median	15,643	34.06	3.21	6.24	6.15	6.16	
Minimum	1,076	12.71	1.75	3.11	3.11	3.11	
Maximum	237,467	46.21	6.24	8.84	8.23	8.23	
WACC 25th Percentile				6.07%			
WACC Mid-Point				6.75%			
WACC 75th Percentile				7.43%			

	ROI – Comparable to Post Tax WACC			Year-End ROI Excluding Revenue Earned from Financial Incentives and Wash-Ups	
	Reflecting All Revenue Earned	Excluding Revenue Earned from Financial Incentives	Excluding Revenue Earned from Financial Incentives and Wash-Ups	Comparable to Vanilla WACC	Comparable to Post Tax WACC
	%	%	%	%	%
	5.96	5.30	5.33	5.72	5.02
	7.34	5.44	5.53	5.43	4.73
	2.41	2.41	2.41	3.08	2.38
	7.53	7.53	7.53	8.02	7.32
	5.91	5.91	5.91	6.47	5.77
	5.54	5.51	5.39	5.92	5.21
	6.34	6.34	6.34	6.89	6.18
	6.22	6.35	6.45	7.05	6.35
	4.61	4.78	4.81	5.47	4.76
	8.84	7.27	7.21	7.06	7.06
	4.50	4.50	4.50	5.10	4.39
	4.18	4.18	4.18	4.81	4.11
	4.29	4.61	4.58	5.31	4.61
	5.17	4.89	4.97	5.51	4.81
	4.21	4.21	4.21	4.88	4.17
	4.62	4.62	4.62	5.26	4.56
	5.59	5.54	5.50	6.05	5.35
	5.69	6.15	6.22	6.95	6.25
	5.75	5.95	5.95	6.55	5.85
	4.85	4.85	4.85	5.45	4.75
	4.99	5.41	5.47	6.24	5.54
	5.69	5.69	5.69	6.25	5.55
	3.41	3.44	3.28	3.90	3.19
	6.15	6.18	6.17	6.73	6.03
	5.51	5.46	5.45	6.01	5.31
	4.84	4.84	4.84	5.46	4.76
	6.29	6.29	6.29	6.84	6.14
	5.63	5.62	5.65	6.25	5.55
	4.22	4.22	4.22	4.86	4.16
	5.39	5.29	5.29	5.85	5.17
	5.54	5.44	5.45	5.92	5.21
	2.41	2.41	2.41	3.08	2.38
	8.84	7.53	7.53	8.02	7.32
	5.37%				
	6.05%				
	6.73%				



Components of regulatory profit

Definitions

Total Regulatory Income =	Line Charge Revenue + Gains / (Losses) on Asset Disposals + Other Regulated Income
Operational Expenditure =	Operating costs that are allocated to electricity distribution services and excluding costs treated as an asset under GAAP, depreciation, tax, subvention payments, revaluations, interest expenses, and pass-through and recoverable costs
Pass-Through and Recoverable Costs Excluding Financial Incentives and Wash-Ups =	Pass-Through Costs + Recoverable Costs – Financial Incentives and Wash-Ups
Operating Surplus =	Total Regulatory Income – Operational Expenditure – Pass Through and Recoverable Costs Excluding Financial Incentives and Wash-Ups
Total Depreciation =	The sum of: $\frac{\text{Opening Regulatory Asset Base}}{\text{Remaining Life for Assets}} \text{ or}$ Opening Regulatory Asset Base, for assets that have a closing remaining life of nil (excluding land, non-fixed life easements and network spares)
Total Revaluations =	The sum of CPI × Opening Regulatory Asset Base (Excluding assets that are fully depreciated, disposed of or lost in the disclosure year)
Regulatory Profit Before Tax & Term Credit Spread Differential Allowance =	Operating Surplus – Total Depreciation + Total Revaluations
Term Credit Spread Differential Allowance =	An adjustment to regulatory profit which compensates for the difference in term yields on qualifying debt held and the notional 5 year bond yield assumed in the regulatory WACC
Regulatory Tax Allowance =	(Regulatory Net Taxable Income – Utilised Tax Losses) × Corporate Tax Rate
Regulatory Profit Including Financial Incentives and Wash-Ups =	Regulatory Profit Before Tax & Term Credit Spread Differential Allowance – Term Credit Spread Differential Allowance – Regulatory Tax Allowance

Components of regulatory profit

	Total Regulatory Income	Operational Expenditure	Pass-Through and Recoverable Costs Excluding Financial Incentives and Wash-Ups	Operating Surplus	Total Depreciation	
	\$000	\$000	\$000	\$000	\$000	
Alpine Energy	65,765	30,395	14,616	20,754	11,923	
Aurora Energy	142,786	47,995	27,795	66,996	29,095	
Buller Electricity	8,599	4,568	2,403	1,628	1,960	
Centralines	15,373	5,794	2,197	7,382	2,669	
Counties Energy	68,980	25,795	12,923	30,262	15,843	
EA Networks	45,712	15,454	10,880	19,378	12,409	
Electra	49,035	19,393	9,434	20,209	10,891	
Electricity Invercargill	18,485	5,897	4,891	7,697	4,044	
Firstlight Network	29,986	14,942	4,932	10,111	7,840	
Horizon Energy Distribution	35,212	12,240	7,749	15,224	7,491	
MainPower New Zealand	59,577	24,747	10,927	23,903	19,315	
Marlborough Lines	43,240	22,135	6,263	14,842	11,667	
Nelson Electricity	7,435	2,465	2,651	2,319	1,771	
Network Tasman	38,266	15,136	10,833	12,297	6,754	
Network Waitaki	24,568	12,806	5,528	6,234	5,021	
Northpower	73,911	36,193	18,689	19,030	13,043	
Orion New Zealand	241,945	81,613	62,569	97,763	55,548	
OtagoNet Joint Venture	34,252	10,107	7,467	16,678	10,555	
Powerco	411,771	123,031	98,674	190,065	114,919	
Scanpower	10,285	4,759	2,095	3,431	2,482	
The Lines Company	41,666	17,861	6,950	16,855	11,609	
The Power Company	64,370	19,937	11,657	32,776	18,904	
Top Energy	43,573	23,463	7,109	13,001	13,136	
Unison Networks	147,361	50,907	31,021	65,433	36,673	
Vector	646,903	169,186	211,278	266,439	155,500	
Waipa Networks	34,186	14,834	7,813	11,539	7,017	
WEL Networks	112,756	37,084	23,989	51,683	27,391	
Wellington Electricity Lines	146,053	38,581	54,320	53,152	32,361	
Westpower	25,208	14,236	3,384	7,588	6,308	
Average	92,664	31,088	23,484	38,092	22,556	
Median	43,573	19,393	9,434	16,855	11,667	
Minimum	7,435	2,465	2,095	1,628	1,771	
Maximum	646,903	169,186	211,278	266,439	155,500	
Industry Total	2,687,259	901,553	681,037	1,104,669	654,137	

	Total Revaluations	Regulatory Profit Before Tax & Term Credit Spread Differential Allowance	Term Credit Spread Differential Allowance	Regulatory Tax Allowance	Regulatory Profit Including Financial Incentives and Wash-Ups
	\$000	\$000	\$000	\$000	\$000
	11,785	20,616	0	1,937	18,680
	29,401	67,301	0	8,520	58,782
	1,409	1,076	0	0	1,076
	3,559	8,272	0	1,252	7,020
	17,102	31,522	0	2,923	28,599
	13,749	20,718	0	246	20,472
	9,668	18,986	107	2,431	16,448
	4,309	7,963	0	919	7,044
	8,417	10,689	0	224	10,465
	6,468	14,201	0	0	14,201
	12,322	16,910	0	913	15,997
	10,608	13,783	0	916	12,866
	1,948	2,496	0	157	2,339
	8,402	13,945	0	1,610	12,336
	4,853	6,065	0	130	5,935
	14,140	20,127	0	1,503	18,624
	58,173	100,389	1,551	10,151	88,686
	10,591	16,714	0	1,071	15,643
	103,311	178,457	2,578	12,374	163,504
	2,161	3,110	0	203	2,906
	10,546	15,793	0	1,615	14,178
	19,654	33,526	433	3,266	29,827
	13,623	13,488	0	0	13,488
	32,267	61,027	519	6,559	53,949
	155,198	266,137	4,079	24,591	237,467
	6,582	11,104	0	2,418	8,686
	28,359	52,651	0	5,915	46,736
	32,251	53,042	376	4,275	48,392
	4,680	5,961	0	0	5,961
	21,915	37,451	333	3,314	33,804
	10,608	16,714	0	1,503	15,643
	1,409	1,076	0	0	1,076
	155,198	266,137	4,079	24,591	237,467
	635,537	1,086,069	9,643	96,118	980,309

6. Revenue

Composition of total regulatory income

Definitions

Line Charge Revenue =	Revenue from posted prices (net of posted discounts and gross of discretionary discounts and consumer rebates)
Standard Contract =	Any contract where the electricity line services to be provided under the contract are determined solely by reference to a schedule of prescribed terms and conditions; and at least four people have such contracts
Non-Standard Contract =	A contract for electricity lines services that is not a standard contract
Distribution Line Charge Revenue =	Line charge revenue that is not transmission line charge revenue
Transmission Line Charge Revenue =	Line charge revenue relating to recovery of transmission charges
Gains / (Losses) on Asset Disposals =	Sale Price of an Asset – Asset Disposals
Other Regulatory Income =	Income associated with the supply of electricity distribution services other than through prices, investment-related income, capital contributions or vested assets
Total Regulatory Income =	Line Charge Revenue + Gains / (Losses) on Asset Disposals + Other Regulated Income

Composition of total regulatory income

	Line Charge Revenue					
	Standard Contracts			Non-Standard Contracts		
	Distribution ¹	Transmission ¹	Total	Distribution ¹	Transmission ¹	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	47,944	12,471	60,415	3,237	2,073	5,310
Aurora Energy	97,890	44,836	142,726	886	164	1,050
Buller Electricity	-	-	8,462	0	0	0
Centralines	-	-	14,314	-	-	965
Counties Energy	-	-	65,079	-	-	4,090
EA Networks	36,467	10,553	47,020	0	0	0
Electra	-	-	48,287	0	0	0
Electricity Invercargill	13,975	4,580	18,555	0	0	0
Firstlight Network	25,259	4,431	29,690	0	0	0
Horizon Energy Distribution	23,970	6,974	30,944	987	3,350	4,337
MainPower New Zealand	50,107	8,926	59,033	315	1,198	1,513
Marlborough Lines	-	-	41,883	-	-	76
Nelson Electricity	5,518	2,126	7,644	308	344	652
Network Tasman	25,874	9,429	35,303	2,069	1,548	3,617
Network Waitaki	16,364	4,342	20,706	2,276	1,586	3,862
Northpower	-	-	60,085	-	-	10,903
Orion New Zealand	178,977	54,998	233,974	2,491	1,594	4,085
OtagoNet Joint Venture	26,819	4,657	31,476	463	2,395	2,858
Powerco	281,311	64,016	345,327	47,864	34,245	82,109
Scanpower	-	-	9,444	0	0	0
The Lines Company	34,792	3,850	35,368	5,109	1,549	6,257
The Power Company	46,798	10,207	57,005	6,664	884	7,548
Top Energy	34,928	5,740	40,668	2,202	617	2,819
Unison Networks	-	-	133,348	-	-	12,202
Vector	465,453	177,235	642,688	9,123	10,739	19,862
Waipa Networks	-	-	31,911	-	-	2,950
WEL Networks	-	-	111,491	0	0	0
Wellington Electricity Lines	93,066	49,877	142,943	1,369	734	2,103
Westpower	20,920	3,691	24,611	0	0	0
Average	80,339	25,418	87,255	3,711	2,740	6,178
Median	34,928	8,926	41,883	886	734	2,819
Minimum			7,644			0
Maximum			642,688			82,109
Industry Total			2,530,399			179,170

1 Allocation of line charge revenue between distribution and transmission components is optional under the IDD.

Composition of total regulatory income continued

	Line Charge Revenue			Gains / (Losses) on Asset Disposals	Other Regulatory Income	Total Regulatory Income
	Total					
	Distribution¹	Transmission¹	Total			
	\$000	\$000	\$000			
Alpine Energy	51,181	14,544	65,725	27	13	65,765
Aurora Energy	98,777	45,000	143,776	-1,962	971	142,786
Buller Electricity	-	-	8,462	-229	366	8,599
Centralines	-	-	15,279	47	47	15,373
Counties Energy	-	-	69,168	-429	241	68,980
EA Networks	36,467	10,553	47,020	-1,259	-49	45,712
Electra	-	-	48,287	-847	1,595	49,035
Electricity Invercargill	13,975	4,580	18,555	-136	66	18,485
Firstlight Network	25,259	4,431	29,690	-3	298	29,986
Horizon Energy Distribution	24,957	10,324	35,281	-287	218	35,212
MainPower New Zealand	50,422	10,124	60,546	-1,167	198	59,577
Marlborough Lines	-	-	41,959	-386	1,667	43,240
Nelson Electricity	5,826	2,469	8,296	-864	4	7,435
Network Tasman	27,943	10,977	38,920	-871	217	38,266
Network Waitaki	18,640	5,928	24,568	0	0	24,568
Northpower	-	-	70,987	0	2,924	73,911
Orion New Zealand	181,468	56,592	238,059	-602	4,488	241,945
OtagoNet Joint Venture	27,283	7,052	34,335	-83	0	34,252
Powerco	329,174	98,261	427,436	-19,545	3,880	411,771
Scanpower	-	-	9,444	-93	934	10,285
The Lines Company	39,901	5,399	41,625	41	0	41,666
The Power Company	53,462	11,091	64,553	-969	786	64,370
Top Energy	37,130	6,358	43,488	-377	463	43,573
Unison Networks	145,550	0	145,550	-1,167	2,978	147,361
Vector	474,576	187,974	662,550	-15,647	0	646,903
Waipa Networks	-	-	34,861	-675	0	34,186
WEL Networks	-	-	111,491	-13	1,278	112,756
Wellington Electricity Lines	94,435	50,611	145,046	0	1,007	146,053
Westpower	20,920	3,691	24,611	-74	671	25,208
Average	87,867	27,298	93,433	-1,640	871	92,664
Median	38,516	10,224	43,488	-377	298	43,573
Minimum			8,296	-19,545	-49	7,435
Maximum			662,550	47	4,488	646,903
Industry Total			2,709,569	-47,572	25,262	2,687,259

¹ Allocation of line charge revenue between distribution and transmission components is optional under the IDD.

Pass-through and recoverable costs

Definitions

Pass-Through Costs =	Local authority rates on system fixed assets and statutory levies paid or payable in association with the supply of electricity distribution services
Recoverable Costs =	Transpower Charges + Distributed Generation Allowance + Purchased Assets Avoided Transmission Charge + Other Recoverable Costs Including Financial Incentives and Wash-Ups
Recoverable Costs – Transpower Charges =	Charges payable to Transpower for electricity lines services (including new investment contracts and system operator charges) in respect of the transmission system
Recoverable Costs – Distributed Generation Allowance =	Transpower charges avoided arising from distributed generation, including embedded or notionally embedded generation, consistent with Part 6 of the Electricity Industry Participation Code 2010
Recoverable Costs – Purchased Assets Avoided Transmission Charge =	Transpower charges avoided as a result of the purchase of transmission assets from Transpower
Recoverable Costs – Other Recoverable Costs Including Financial Incentives and Wash-Ups =	Adjustments resulting from extended reserves allowance, FENZ levy, and other recoverable costs excluding financial incentives and wash-ups + Financial Incentives and Wash-Ups
Financial Incentives and Wash-Ups =	Adjustments resulting from incremental rolling incentive scheme, quality incentive adjustment, claw back under a price-quality path determination, fees and other costs incurred in relation to a CPP application, catastrophic event allowance, capex wash-up adjustment, transmission asset wash-up adjustment, reconsideration event allowance, urgent project allowance, innovation project allowance draw-down, and other financial incentives and wash-ups

Pass-through and recoverable costs

	Pass-Through Costs	Recoverable Costs				Total Recoverable Costs	Total Pass-Through and Recoverable Costs Including Financial Incentives and Wash-Ups
		Transpower Charges	Distributed Generation Allowance	Purchased Assets – Avoided Transmission Charge	Other Recoverable Costs Including Financial Incentives and Wash-Ups		
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	440	14,176	0	0	2,386	16,562	17,002
Aurora Energy	2,173	25,582	0	0	18,066	43,648	45,821
Buller Electricity	53	2,350	0	0	0	2,350	2,403
Centralines	107	2,090	0	0	0	2,090	2,197
Counties Energy	1,054	11,869	0	0	0	11,869	12,923
EA Networks	539	10,341	0	0	686	11,027	11,566
Electra	368	8,792	274	0	0	9,066	9,434
Electricity Invercargill	311	4,580	0	0	-315	4,265	4,576
Firstlight Network	441	4,490	0	0	-538	3,952	4,394
Horizon Energy Distribution	458	7,251	0	708	1,889	9,848	10,306
MainPower New Zealand	660	10,267	0	0	0	10,267	10,927
Marlborough Lines	223	6,040	0	0	0	6,040	6,263
Nelson Electricity	106	2,516	0	0	-158	2,358	2,464
Network Tasman	458	10,375	0	0	585	10,960	11,418
Network Waitaki	189	5,339	0	0	0	5,339	5,528
Northpower	462	18,226	0	0	0	18,226	18,689
Orion New Zealand	6,545	55,892	0	310	1,519	57,720	64,266
OtagoNet Joint Venture	415	7,052	0	0	-1,782	5,270	5,685
Powerco	5,005	93,846	-302	0	-6,927	86,617	91,622
Scanpower	93	2,002	0	0	0	2,002	2,095
The Lines Company	545	6,375	0	0	-1,609	4,766	5,311
The Power Company	566	11,091	0	0	0	11,091	11,657
Top Energy	340	6,769	0	0	573	7,342	7,682
Unison Networks	1,819	29,136	-46	0	-120	28,969	30,789
Vector	22,119	187,671	0	0	4,423	192,094	214,213
Waipa Networks	306	7,507	0	0	0	7,507	7,813
WEL Networks	1,435	22,554	0	0	0	22,554	23,989
Wellington Electricity Lines	4,250	49,926	0	0	-11	49,915	54,165
Westpower	358	3,026	0	0	0	3,026	3,384
Average	1,788	21,625	-3	35	644	22,301	24,089
Median	458	8,792	0	0	0	9,848	10,306
Minimum	53	2,002	-302	0	-6,927	2,002	2,095
Maximum	22,119	187,671	274	708	18,066	192,094	214,213
Industry Total	51,840	627,131	-74	1,018	18,668	646,742	698,582

Unit line charge revenue

	Total Line Charge Revenue per kWh Energy Delivered to ICPs								
	Standard Contracts			Non-Standard Contracts			Total		
	Distri- -bution ¹ c/kWh	Trans- -mission ¹ c/kWh	Total c/kWh	Distri- -bution ¹ c/kWh	Trans- -mission ¹ c/kWh	Total c/kWh	Distri- -bution ¹ c/kWh	Trans- -mission ¹ c/kWh	Total c/kWh
Alpine Energy	7.06	1.84	8.90	1.52	0.97	2.49	5.74	1.63	7.37
Aurora Energy	6.92	3.17	10.10	8.92	1.65	10.57	6.94	3.16	10.10
Buller Electricity	-	-	16.54	-	-	-	-	-	16.54
Centralines	-	-	17.60	-	-	3.10	-	-	13.59
Counties Energy	-	-	11.46	-	-	5.02	-	-	10.65
EA Networks	5.74	1.66	7.41	-	-	-	5.74	1.66	7.41
Electra	-	-	11.28	-	-	-	-	-	11.28
Electricity Invercargill	5.47	1.79	7.27	-	-	-	5.47	1.79	7.27
Firstlight Network	8.62	1.51	10.13	-	-	-	8.62	1.51	10.13
Horizon Energy Distribution	9.02	2.62	11.64	0.43	1.46	1.90	5.05	2.09	7.13
MainPower New Zealand	8.29	1.48	9.77	0.89	3.37	4.25	7.88	1.58	9.46
Marlborough Lines	-	-	10.44	-	-	-	-	-	10.46
Nelson Electricity	4.97	1.92	6.89	1.38	1.54	2.91	4.37	1.85	6.22
Network Tasman	4.70	1.71	6.41	2.09	1.57	3.66	4.30	1.69	5.99
Network Waitaki	7.51	1.99	9.50	2.52	1.76	4.28	6.05	1.92	7.98
Northpower	-	-	10.11	-	-	5.53	-	-	8.97
Orion New Zealand	5.41	1.66	7.08	1.44	0.92	2.35	5.22	1.63	6.84
OtagoNet Joint Venture	9.71	1.69	11.40	0.23	1.19	1.41	5.70	1.47	7.18
Powerco	9.09	2.07	11.16	2.51	1.79	4.30	6.58	1.96	8.54
Scanpower	-	-	12.16	-	-	-	-	-	12.16
The Lines Company	13.28	1.47	13.50	4.80	1.45	5.87	10.83	1.46	11.29
The Power Company	7.41	1.62	9.03	3.07	0.41	3.48	6.30	1.31	7.61
Top Energy	12.07	1.98	14.06	5.33	1.50	6.83	11.23	1.92	13.16
Unison Networks	-	-	9.65	-	-	4.18	-	-	8.69
Vector	5.67	2.16	7.83	1.67	1.96	3.63	5.42	2.15	7.57
Waipa Networks	-	-	8.99	-	-	3.72	-	-	8.02
WEL Networks	-	-	7.79	-	-	-	-	-	7.78
Wellington Electricity Lines	4.08	2.18	6.26	4.47	2.39	6.86	4.08	2.19	6.27
Westpower	9.11	1.61	10.71	-	-	-	9.11	1.61	10.71
Average	7.59	1.90	10.17	2.75	1.60	4.32	6.56	1.82	9.19
Median	7.41	1.79	10.10	2.09	1.54	3.95	5.74	1.69	8.54
Minimum			6.26			1.41			5.99
Maximum			17.60			10.57			16.54

1 Allocation of line charge revenue between distribution and transmission components is optional under the IDD.

Unit line charge revenue continued

	Total Line Charge Revenue per ICP								
	Standard Contracts			Non-Standard Contracts			Total		
	Distri- -bution ¹	Trans- -mission ¹	Total	Distri- -bution ¹	Trans- -mission ¹	Total	Distri- -bution ¹	Trans- -mission ¹	Total
	\$/ICP	\$/ICP	\$/ICP	\$/ICP	\$/ICP	\$/ICP	\$/ICP	\$/ICP	\$/ICP
Alpine Energy	1,415	368	1,784	269,764	172,764	442,528	1,511	429	1,940
Aurora Energy	1,028	471	1,499	62,283	11,527	73,810	1,037	472	1,510
Buller Electricity	-	-	1,731	-	-	-	-	-	1,731
Centralines	-	-	1,542	-	-	321,733	-	-	1,646
Counties Energy	-	-	1,352	-	-	454,394	-	-	1,437
EA Networks	1,728	500	2,228	-	-	-	1,728	500	2,228
Electra	-	-	1,033	-	-	-	-	-	1,033
Electricity Invercargill	792	260	1,052	-	-	-	792	260	1,052
Firstlight Network	974	171	1,145	-	-	-	974	171	1,145
Horizon Energy Distribution	948	276	1,224	42,918	145,664	188,582	986	408	1,395
MainPower New Zealand	1,116	199	1,314	315,077	1,198,328	1,513,405	1,123	225	1,348
Marlborough Lines	-	-	1,549	-	-	76,042	-	-	1,552
Nelson Electricity	593	228	821	102,702	114,504	217,206	626	265	891
Network Tasman	604	220	825	295,557	221,198	516,754	653	256	909
Network Waitaki	1,225	325	1,550	27,419	19,109	46,528	1,386	441	1,827
Northpower	-	-	942	-	-	1,362,843	-	-	1,113
Orion New Zealand	802	247	1,049	166,066	106,275	272,342	814	254	1,067
OtagoNet Joint Venture	1,339	233	1,572	154,470	798,336	952,806	1,362	352	1,714
Powerco	783	178	962	67,130	48,030	115,159	915	273	1,188
Scanpower	-	-	1,391	-	-	-	-	-	1,391
The Lines Company	1,444	160	1,468	100,178	30,369	122,689	1,653	224	1,724
The Power Company	1,241	271	1,512	833,031	110,490	943,522	1,417	294	1,711
Top Energy	1,031	169	1,200	10,741	3,012	13,753	1,089	186	1,276
Unison Networks	-	-	1,120	-	-	118,465	-	-	1,221
Vector	755	287	1,042	337,889	397,741	735,630	770	305	1,074
Waipa Networks	-	-	1,102	-	-	983,371	-	-	1,203
WEL Networks	-	-	1,112	-	-	-	-	-	1,112
Wellington Electricity Lines	531	285	816	80,540	43,164	123,704	539	289	828
Westpower	1,460	258	1,718	-	-	-	1,460	258	1,718
Average	1,043	269	1,298	191,051	228,034	456,918	1,096	309	1,379
Median	1,028	258	1,224	102,702	110,490	272,342	1,037	273	1,348
Minimum			816			13,753			828
Maximum			2,228			1,513,405			2,228

¹ Allocation of line charge revenue between distribution and transmission components is optional under the IDD.

7. Operational expenditure

Definitions

Operational Expenditure =	Operating costs that are allocated to electricity distribution services excluding costs treated as an asset under GAAP, depreciation, tax, subvention payments, revaluations, interest expenses, and pass-through and recoverable costs
Network Operational Expenditure =	Operational expenditure relating to service interruptions and emergencies, vegetation management, routine and corrective maintenance and inspection, and asset replacement and renewal
Non-Network Operational Expenditure =	Operational expenditure relating to system operations and network support, and business support



Operational expenditure ratios

	Operating Expenditure per Energy Delivered to ICPs			Operating Expenditure per Connection		
	Network	Non-Network	Total	Network	Non-Network	Total
	\$/GWh	\$/GWh	\$/GWh	\$/ICP	\$/ICP	\$/ICP
Alpine Energy	7,368	26,692	34,061	194	703	897
Aurora Energy	12,366	21,345	33,711	185	319	504
Buller Electricity	16,086	73,184	89,270	168	766	934
Centralines	18,902	32,635	51,536	229	395	624
Counties Energy	15,829	23,885	39,714	214	322	536
EA Networks	6,794	17,545	24,339	204	528	732
Electra	15,652	29,661	45,313	143	272	415
Electricity Invercargill	7,166	15,928	23,094	104	230	334
Firstlight Network	25,504	25,479	50,982	288	288	576
Horizon Energy Distribution	8,532	16,218	24,750	167	317	484
MainPower New Zealand	12,199	26,478	38,677	174	377	551
Marlborough Lines	24,568	30,613	55,181	365	454	819
Nelson Electricity	7,113	11,382	18,494	102	163	265
Network Tasman	12,858	10,433	23,290	195	158	354
Network Waitaki	11,071	30,506	41,576	254	699	952
Northpower	20,174	25,555	45,729	250	317	567
Orion New Zealand	8,797	14,659	23,456	137	229	366
OtagoNet Joint Venture	12,672	8,462	21,134	303	202	505
Powerco	10,399	14,191	24,590	145	197	342
Scanpower	24,590	36,708	61,298	281	420	701
The Lines Company	18,619	29,839	48,458	284	456	740
The Power Company	14,132	9,369	23,500	318	211	529
Top Energy	25,108	45,876	70,985	243	445	688
Unison Networks	9,609	20,800	30,409	135	292	427
Vector	6,895	12,431	19,326	98	176	274
Waipa Networks	11,236	22,906	34,142	169	344	512
WEL Networks	8,032	17,833	25,865	115	255	370
Wellington Electricity Lines	7,229	9,446	16,674	95	125	220
Westpower	34,074	27,884	61,958	546	447	993
Average	14,261	23,722	37,983	210	349	559
Median	12,366	22,906	34,061	194	317	529
Minimum	6,794	8,462	16,674	95	125	220
Maximum	34,074	73,184	89,270	546	766	993

	Operating Expenditure per Maximum Coincident System Demand			Operating Expenditure per Circuit Length			Operating Expenditure per Distribution Transformer Capacity		
	Network	Non-Network	Total	Network	Non-Network	Total	Network	Non-Network	Total
	\$/MW	\$/MW	\$/MW	\$/km	\$/km	\$/km	\$/MVA	\$/MVA	\$/MVA
	42,421	153,674	196,095	1,502	5,439	6,941	10,322	37,393	47,716
	56,530	97,574	154,105	2,789	4,815	7,604	17,984	31,041	49,025
	77,385	352,066	429,451	1,266	5,761	7,028	22,182	100,920	123,102
	90,765	156,708	247,474	1,137	1,963	3,101	20,159	34,806	54,965
	71,396	107,736	179,132	2,867	4,326	7,194	22,497	33,947	56,444
	25,008	64,579	89,587	1,365	3,525	4,891	7,127	18,405	25,532
	60,310	114,285	174,595	2,800	5,306	8,106	19,530	37,009	56,539
	29,962	66,597	96,559	2,753	6,120	8,873	11,581	25,742	37,323
	112,384	112,273	224,657	1,880	1,878	3,758	32,146	32,115	64,261
	49,194	93,511	142,705	1,606	3,053	4,660	15,123	28,747	43,870
	66,563	144,475	211,038	1,491	3,237	4,728	11,812	25,637	37,449
	132,652	165,294	297,946	2,785	3,470	6,255	26,656	33,216	59,872
	28,340	45,350	73,690	3,195	5,113	8,309	9,438	15,104	24,542
	62,660	50,842	113,503	2,238	1,816	4,054	17,555	14,244	31,798
	48,715	134,234	182,949	1,759	4,846	6,604	14,606	40,248	54,854
	101,273	128,289	229,561	2,568	3,253	5,821	26,218	33,212	59,430
	44,232	73,708	117,940	2,552	4,253	6,806	12,977	21,625	34,602
	83,072	55,478	138,550	1,293	863	2,156	24,738	16,520	41,258
	53,804	73,426	127,230	1,782	2,431	4,213	14,416	19,674	34,090
	113,639	169,640	283,279	1,819	2,715	4,534	24,405	36,431	60,835
	91,000	145,837	236,837	1,545	2,475	4,020	25,928	41,552	67,479
	73,167	48,506	121,673	1,345	892	2,236	24,778	16,427	41,205
	108,221	197,736	305,957	1,957	3,577	5,534	29,264	53,469	82,733
	47,617	103,076	150,694	1,711	3,703	5,414	12,522	27,106	39,628
	31,471	56,738	88,210	3,081	5,554	8,635	11,861	21,384	33,245
	55,332	112,803	168,135	2,086	4,252	6,338	16,164	32,953	49,118
	36,792	81,687	118,479	2,031	4,510	6,541	11,727	26,037	37,764
	29,708	38,819	68,527	3,439	4,494	7,933	10,896	14,238	25,134
	220,255	180,244	400,499	3,580	2,930	6,510	50,460	41,293	91,753
	70,478	114,662	185,140	2,146	3,675	5,820	19,140	31,396	50,537
	60,310	107,736	168,135	1,957	3,577	6,255	17,555	31,041	47,716
	25,008	38,819	68,527	1,137	863	2,156	7,127	14,238	24,542
	220,255	352,066	429,451	3,580	6,120	8,873	50,460	100,920	123,102

Composition of operational expenditure

Definitions

Service Interruptions and Emergencies =	Operational expenditure where the primary driver is an immediate response to an unplanned instantaneous event or incident that impairs the normal operation of network assets
Vegetation Management =	Operational expenditure where the primary driver is the need to physically fell, remove or trim vegetation (including root management) that is in the proximity of overhead lines or cables
Routine and Corrective Maintenance and Inspection =	Operational expenditure where the primary driver is planned or programmed inspection, testing and maintenance
Asset Replacement and Renewal =	Operational expenditure where the primary driver is the need to maintain network asset integrity so as to maintain current security and/or quality of supply standards
System Operations and Network Support =	Operational expenditure where the primary driver is the management of the network including control centre and office-based system operations
Business Support =	Operational expenditure associated with day to day corporate activities, including human resources, finance and regulation, management, legal and consulting services, property management, IT and communications, pricing and billing, and stakeholder management
Energy Efficiency and Demand Side Management, Reduction of Energy Losses =	Operational expenditure where the primary driver is to improve the efficient provision of electricity line services by improving energy efficiency, encouraging demand side management, implementing initiatives that reduce electricity losses and reactive power flows on the network
Direct Billing =	Operational expenditure associated with directly billing end consumers and recovering payments due
Research and Development =	Operational expenditure where the primary driver for the expenditure relates to increasing the efficient provision of electricity lines services
Insurance =	Operational expenditure associated with contracts of insurance as defined in the Insurance (Prudential Supervision) Act 2010

Operational expenditure categories

	Network Operational Expenditure				
	Service Interruptions and Emergencies	Vegetation Management	Routine and Corrective Maintenance and Inspection	Asset Replacement and Renewal	Total
	\$000	\$000	\$000	\$000	\$000
Alpine Energy	2,302	807	3,145	321	6,575
Aurora Energy	3,408	4,511	9,687	0	17,606
Buller Electricity	286	178	318	41	823
Centralines	568	696	89	772	2,125
Counties Energy	3,423	3,559	2,065	1,234	10,281
EA Networks	742	1,081	1,336	1,155	4,314
Electra	2,599	1,833	1,300	967	6,699
Electricity Invercargill	611	14	1,145	60	1,830
Firstlight Network	2,945	1,829	2,175	526	7,475
Horizon Energy Distribution	1,549	1,075	1,389	207	4,219
MainPower New Zealand	1,265	1,155	5,366	19	7,805
Marlborough Lines	1,694	2,162	5,393	606	9,855
Nelson Electricity	268	44	571	65	948
Network Tasman	1,355	1,572	3,195	2,234	8,356
Network Waitaki	809	989	1,451	160	3,410
Northpower	3,714	3,633	4,259	4,361	15,967
Orion New Zealand	13,166	4,379	13,063	0	30,608
OtagoNet Joint Venture	2,261	1,323	2,374	102	6,060
Powerco	8,420	11,242	19,185	13,182	52,028
Scanpower	417	761	261	471	1,909
The Lines Company	2,594	1,727	2,177	365	6,863
The Power Company	5,780	1,529	4,118	562	11,989
Top Energy	2,241	2,159	2,375	1,524	8,299
Unison Networks	4,673	3,369	5,789	2,255	16,086
Vector	14,055	7,963	22,185	16,159	60,362
Waipa Networks	1,634	2,142	352	753	4,882
WEL Networks	5,166	1,969	2,725	1,656	11,516
Wellington Electricity Lines	4,092	1,633	9,513	1,487	16,726
Westpower	961	1,547	4,993	328	7,829
Average	3,207	2,306	4,551	1,778	11,843
Median	2,261	1,633	2,375	562	7,805
Minimum	268	14	89	0	823
Maximum	14,055	11,242	22,185	16,159	60,362
Industry Total	92,998	66,882	131,993	51,572	343,445

Operational expenditure categories continued

	Non-Network Operational Expenditure			Total Operational Expenditure	Subcomponents ¹			
	System Operations and Network Support	Business Support	Total		Energy Efficiency and Demand Side Management, Reduction of Energy Losses	Direct Billing	Research and Development	Insurance
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	9,540	14,279	23,819	30,395	0	0	0	417
Aurora Energy	16,180	14,209	30,389	47,995	0	0	0	736
Buller Electricity	620	3,125	3,745	4,568	0	0	0	283
Centralines	649	3,020	3,669	5,794	0	0	0	306
Counties Energy	3,677	11,837	15,514	25,795	0	0	0	697
EA Networks	4,161	6,979	11,140	15,454	7	0	3	479
Electra	5,460	7,234	12,694	19,393	0	0	0	983
Electricity Invercargill	1,506	2,561	4,067	5,897	228	0	0	189
Firstlight Network	2,792	4,676	7,468	14,942	0	0	0	366
Horizon Energy Distribution	3,507	4,513	8,020	12,240	0	0	0	0
MainPower New Zealand	12,603	4,339	16,942	24,747	0	0	0	934
Marlborough Lines	5,464	6,816	12,280	22,135	0	0	0	467
Nelson Electricity	507	1,010	1,517	2,465	0	0	0	231
Network Tasman	3,911	2,869	6,780	15,136	161	0	0	471
Network Waitaki	3,840	5,557	9,396	12,806	0	0	0	681
Northpower	8,819	11,407	20,226	36,193	0	0	0	0
Orion New Zealand	28,675	22,330	51,005	81,613	0	0	0	3,242
OtagoNet Joint Venture	1,734	2,313	4,047	10,107	0	0	0	287
Powerco	25,198	45,805	71,003	123,031	287	0	85	1,926
Scanpower	1,022	1,828	2,850	4,759	0	0	0	0
The Lines Company	5,428	5,570	10,998	17,861	10	0	0	467
The Power Company	3,850	4,098	7,948	19,937	150	0	0	529
Top Energy	7,287	7,877	15,164	23,463	0	0	0	870
Unison Networks	10,963	23,858	34,821	50,907	0	0	0	2,235
Vector	48,530	60,294	108,824	169,186	0	0	0	4,671
Waipa Networks	4,866	5,087	9,952	14,834	0	0	0	0
WEL Networks	8,956	16,612	25,568	37,084	281	0	33	848
Wellington Electricity Lines	9,510	12,345	21,855	38,581	0	0	0	2,777
Westpower	3,929	2,478	6,407	14,236	0	0	0	199
Average	8,386	10,859	19,245	31,088	39	0	4	872
Median	4,866	5,570	11,140	19,393	0	0	0	471
Minimum	507	1,010	1,517	2,465	0	0	0	0
Maximum	48,530	60,294	108,824	169,186	287	0	85	4,671
Industry Total	243,184	314,924	558,108	901,553	1,124	0	121	25,290

¹ Subcomponents are only disclosed where known.

Operating cost allocations

Definitions

Directly Attributable =	Operating costs that are wholly and solely incurred in relation to the supply of electricity lines services
Not Directly Attributable =	Operating costs that are not Directly Attributable
Arm's Length Deduction =	An amount of operating costs that is not Directly Attributable that have been recouped in an arm's-length transaction
OVABAA Allocation Increase =	Optional variation to accounting-based allocation approach which provides for an adjustment to allocations of operating costs which are Not Directly Attributable to a regulated service, to ensure the unregulated service is not unduly deterred



Operating cost allocations

	Directly Attributable			Not Directly Attributable			Arm's Length Deduction	OVABAA Allocation Increase
	Network	Non-Network	Total	Network	Non-Network	Total	Total	Total
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	6,575	9,957	16,532	0	13,863	13,863	0	0
Aurora Energy	17,606	30,389	47,995	0	0	0	0	0
Buller Electricity	823	3,745	4,568	0	0	0	0	0
Centralines	2,125	3,154	5,279	0	515	515	0	0
Counties Energy	10,281	4,374	14,655	0	11,140	11,140	0	0
EA Networks	4,314	4,756	9,070	0	6,384	6,384	0	0
Electra	6,699	8,824	15,523	0	3,869	3,869	0	0
Electricity Invercargill	1,830	3,492	5,322	0	575	575	0	0
Firstlight Network	7,475	7,468	14,942	0	0	0	0	0
Horizon Energy Distribution	4,219	7,509	11,728	0	511	511	0	0
MainPower New Zealand	7,805	11,093	18,898	0	5,849	5,849	0	0
Marlborough Lines	8,811	12,110	20,921	1,044	170	1,214	0	0
Nelson Electricity	948	1,517	2,465	0	0	0	0	0
Network Tasman	8,356	4,613	12,969	0	2,168	2,168	0	0
Network Waitaki	3,410	4,088	7,498	0	5,308	5,308	0	0
Northpower	15,967	14,917	30,884	0	5,309	5,309	0	0
Orion New Zealand	30,608	50,627	81,235	0	378	378	0	0
OtagoNet Joint Venture	6,060	4,047	10,107	0	0	0	0	0
Powerco	52,028	24,461	76,489	0	46,542	46,542	0	0
Scanpower	1,909	1,305	3,214	0	1,545	1,545	0	0
The Lines Company	6,863	6,796	13,658	0	4,203	4,203	0	0
The Power Company	11,989	7,507	19,496	0	442	442	0	0
Top Energy	8,299	8,421	16,720	0	6,743	6,743	0	0
Unison Networks	16,086	19,637	35,723	0	15,183	15,183	0	1,148
Vector	60,362	42,752	103,114	0	66,072	66,072	0	0
Waipa Networks	4,882	5,036	9,918	0	4,916	4,916	0	0
WEL Networks	11,516	8,956	20,472	0	16,612	16,612	0	0
Wellington Electricity Lines	15,457	21,124	36,581	1,268	731	2,000	0	0
Westpower	7,829	4,175	12,004	0	2,232	2,232	0	0
Average	11,763	11,615	23,379	80	7,630	7,709	0	40
Median	7,805	7,507	14,942	0	2,232	2,232	0	0
Minimum	823	1,305	2,465	0	0	0	0	0
Maximum	60,362	50,627	103,114	1,268	66,072	66,072	0	1,148
Industry Total	341,132	336,849	677,982	2,312	221,259	223,572	0	1,148

Forecast real operational expenditure by category (RY25-RY34 in constant prices)

	Network Operational Expenditure				
	Service Interruptions and Emergencies	Vegetation Management	Routine and Corrective Maintenance and Inspection	Asset Replacement and Renewal	Total
	\$000	\$000	\$000	\$000	\$000
Alpine Energy	22,090	15,500	33,300	3,420	74,310
Aurora Energy	36,569	38,823	149,146	0	224,537
Buller Electricity	2,833	3,363	3,029	848	10,073
Centralines	4,465	7,963	1,981	9,605	24,014
Counties Energy	33,318	24,730	30,792	10,281	99,121
EA Networks	8,614	10,446	15,726	14,983	49,768
Electra	23,530	19,640	19,790	5,910	68,864
Electricity Invercargill	5,748	23	16,120	1,710	23,601
Firstlight Network	36,058	17,580	32,960	8,009	94,606
Horizon Energy Distribution	14,550	12,970	17,731	4,925	50,177
MainPower New Zealand	12,000	21,580	56,677	0	90,257
Marlborough Lines	15,000	22,800	44,050	8,000	89,850
Nelson Electricity	1,920	470	890	3,710	6,990
Network Tasman	14,068	15,330	30,358	25,315	85,071
Network Waitaki	6,901	7,690	16,138	2,371	33,100
Northpower	29,430	28,829	49,557	31,086	138,908
Orion New Zealand	87,673	89,629	217,626	30,039	424,967
OtagoNet Joint Venture	22,084	11,050	32,988	1,850	67,971
Powerco	104,245	148,441	280,640	141,698	675,024
Scanpower	5,368	6,817	2,488	5,238	19,910
The Lines Company	20,816	17,594	21,334	6,177	65,921
The Power Company	42,795	14,583	56,511	10,055	123,944
Top Energy	20,939	29,659	27,942	21,266	99,806
Unison Networks	42,651	43,026	61,770	24,884	172,331
Vector	190,363	65,455	253,007	142,977	651,802
Waipa Networks	18,380	18,968	11,145	7,793	56,286
WEL Networks	46,459	18,649	49,998	9,001	124,106
Wellington Electricity Lines	52,886	24,322	109,460	14,696	201,364
Westpower	10,200	16,000	49,983	1,580	77,763
Average	32,136	25,929	58,384	18,877	135,326
Median	20,939	17,594	32,960	8,000	85,071
Minimum	1,920	23	890	0	6,990
Maximum	190,363	148,441	280,640	142,977	675,024
Industry Total	931,953	751,929	1,693,135	547,427	3,924,443

Forecast real operational expenditure by category (RY25-RY34 in constant prices) continued

	Non-Network Operational Expenditure			Total Operational Expenditure
	System Operations and Network Support	Business Support	Total	
	\$000	\$000	\$000	
Alpine Energy	116,820	184,032	300,852	375,162
Aurora Energy	169,175	140,069	309,244	533,782
Buller Electricity	4,638	30,537	35,175	45,248
Centralines	3,401	38,312	41,714	65,727
Counties Energy	49,331	144,564	193,896	293,017
EA Networks	66,050	81,293	147,343	197,111
Electra	87,046	77,110	164,153	233,015
Electricity Invercargill	19,440	24,466	43,906	67,507
Firstlight Network	34,725	53,183	87,906	182,511
Horizon Energy Distribution	45,721	51,921	97,642	147,818
MainPower New Zealand	140,549	57,900	198,449	288,706
Marlborough Lines	56,400	57,000	113,400	203,250
Nelson Electricity	3,200	13,500	16,700	23,690
Network Tasman	44,738	32,879	77,617	162,688
Network Waitaki	45,930	46,545	92,475	125,575
Northpower	59,179	170,111	229,290	368,202
Orion New Zealand	258,609	354,291	612,900	1,037,867
OtagoNet Joint Venture	18,316	30,209	48,525	116,496
Powerco	405,300	502,203	907,503	1,582,527
Scanpower	9,793	19,273	29,066	48,977
The Lines Company	64,302	60,166	124,468	190,389
The Power Company	64,540	39,557	104,097	228,041
Top Energy	87,037	94,154	181,192	280,998
Unison Networks	110,521	303,809	414,330	586,661
Vector	613,298	589,158	1,202,453	1,854,255
Waipa Networks	53,575	58,310	111,885	168,171
WEL Networks	95,700	238,439	334,139	458,245
Wellington Electricity Lines	127,733	166,912	294,645	496,008
Westpower	6,950	1,075	8,025	85,788
Average	98,690	126,241	224,931	360,256
Median	59,179	58,310	124,468	203,250
Minimum	3,200	1,075	8,025	23,690
Maximum	613,298	589,158	1,202,453	1,854,255
Industry Total	2,862,018	3,660,980	6,522,990	10,447,433

Forecast nominal operational expenditure by category (RY25-RY34)

	Network Operational Expenditure				
	Service Interruptions and Emergencies	Vegetation Management	Routine and Corrective Maintenance and Inspection	Asset Replacement and Renewal	Total
	\$000	\$000	\$000	\$000	\$000
Alpine Energy	24,294	17,046	36,622	3,761	81,723
Aurora Energy	41,852	44,379	170,561	0	256,792
Buller Electricity	3,269	3,882	3,492	978	11,621
Centralines	5,011	8,947	2,238	10,721	26,918
Counties Energy	38,486	28,167	35,588	11,903	114,143
EA Networks	9,628	11,676	17,571	16,700	55,575
Electra	26,353	22,001	22,027	6,614	76,994
Electricity Invercargill	6,758	28	18,891	2,004	27,681
Firstlight Network	41,250	20,104	37,682	9,203	108,238
Horizon Energy Distribution	15,931	14,236	19,453	5,366	54,983
MainPower New Zealand	14,100	25,566	66,280	0	105,947
Marlborough Lines	16,819	25,478	49,326	8,970	100,592
Nelson Electricity	2,204	538	1,018	4,261	8,022
Network Tasman	15,568	16,962	33,594	28,013	94,137
Network Waitaki	7,911	8,815	18,516	2,696	37,938
Northpower	34,029	32,951	56,770	35,644	159,391
Orion New Zealand	108,500	110,535	271,921	36,753	527,709
OtagoNet Joint Venture	24,327	12,155	36,407	2,031	74,920
Powerco	122,349	174,032	332,085	167,204	795,670
Scanpower	5,878	7,464	2,724	5,735	21,801
The Lines Company	23,216	19,622	23,794	6,889	73,521
The Power Company	47,143	16,065	62,227	11,077	136,511
Top Energy	24,424	34,533	32,520	24,726	116,203
Unison Networks	47,910	48,461	69,410	28,008	193,789
Vector	214,256	73,167	284,493	160,193	732,113
Waipa Networks	20,656	21,304	12,537	8,751	63,250
WEL Networks	51,000	20,420	54,915	9,855	136,190
Wellington Electricity Lines	60,431	27,811	125,075	16,793	230,109
Westpower	13,445	21,090	64,825	1,971	101,331
Average	36,793	29,912	67,674	21,615	155,994
Median	24,294	20,420	36,407	8,970	100,592
Minimum	2,204	28	1,018	0	8,022
Maximum	214,256	174,032	332,085	167,204	795,670
Industry Total	1,066,998	867,435	1,962,559	626,821	4,523,812

Forecast nominal operational expenditure by category (RY25-RY34) continued

	Non-Network Operational Expenditure			Total Operational Expenditure
	System Operations and Network Support	Business Support	Total	
	\$000	\$000	\$000	\$000
Alpine Energy	128,382	201,692	330,075	411,797
Aurora Energy	192,496	159,947	352,443	609,235
Buller Electricity	5,370	35,234	40,604	52,225
Centralines	3,822	43,045	46,867	73,785
Counties Energy	57,048	167,196	224,243	338,386
EA Networks	73,793	90,667	164,460	220,035
Electra	97,993	86,372	184,364	261,358
Electricity Invercargill	19,440	24,466	43,906	71,587
Firstlight Network	39,799	60,788	100,588	208,826
Horizon Energy Distribution	50,055	56,599	106,655	161,635
MainPower New Zealand	165,203	67,990	233,193	339,139
Marlborough Lines	63,248	63,911	127,160	227,752
Nelson Electricity	3,577	15,094	18,671	26,693
Network Tasman	49,506	36,389	85,895	180,032
Network Waitaki	52,654	53,359	106,013	143,950
Northpower	69,694	195,852	265,546	424,936
Orion New Zealand	292,559	397,026	689,585	1,217,294
OtagoNet Joint Venture	20,266	33,296	53,562	128,482
Powerco	457,872	562,980	1,020,852	1,816,522
Scanpower	10,723	21,104	31,827	53,628
The Lines Company	71,780	67,052	138,831	212,352
The Power Company	71,268	43,595	114,863	251,374
Top Energy	104,184	113,158	217,342	333,545
Unison Networks	124,323	343,614	467,937	661,727
Vector	691,044	662,494	1,353,539	2,085,650
Waipa Networks	60,210	65,538	125,747	188,997
WEL Networks	104,789	261,059	365,848	502,037
Wellington Electricity Lines	146,387	191,847	338,234	568,344
Westpower	9,161	1,392	10,553	111,884
Average	111,608	142,164	253,773	409,766
Median	69,694	67,052	138,831	227,752
Minimum	3,577	1,392	10,553	26,693
Maximum	691,044	662,494	1,353,539	2,085,650
Industry Total	3,236,646	4,122,756	7,359,403	11,883,209

8. Capital expenditure

Definitions

Capital Expenditure =	Costs incurred in the acquisition or development of an asset that is, or is intended to be, included in the value of assets commissioned in the regulatory asset base
Expenditure on Assets =	Capital Expenditure – Cost of Financing + Value of Capital Contributions – Value of Vested Assets
Network Expenditure on Assets =	Expenditure on Assets related to the provision of electricity lines services that is directly related to any network asset
Non-Network Expenditure on Assets =	Expenditure on Assets related to the provision of electricity lines services that is not directly related to any network asset



Expenditure on Asset ratios

	Expenditure on Assets Per Energy Delivered to ICPs			Expenditure on Assets Per Connection			
	Network	Non-Network	Total	Network	Non-Network	Total	
	\$/GWh	\$/GWh	\$/GWh	\$/ICP	\$/ICP	\$/ICP	
Alpine Energy	31,172	1,535	32,707	821	40	861	
Aurora Energy	73,394	2,119	75,513	1,097	32	1,129	
Buller Electricity	35,830	17,213	53,043	375	180	555	
Centralines	72,228	7,196	79,424	875	87	962	
Counties Energy	85,947	16,478	102,425	1,159	222	1,382	
EA Networks	25,260	855	26,116	760	26	786	
Electra	33,231	2,657	35,887	304	24	329	
Electricity Invercargill	27,723	0	27,723	401	0	401	
Firstlight Network	45,059	3,447	48,506	509	39	548	
Horizon Energy Distribution	17,799	877	18,676	348	17	365	
MainPower New Zealand	46,986	11,259	58,245	669	160	830	
Marlborough Lines	30,075	12,642	42,716	446	188	634	
Nelson Electricity	12,819	352	13,170	183	5	189	
Network Tasman	21,996	463	22,459	334	7	341	
Network Waitaki	67,599	1,669	69,268	1,549	38	1,587	
Northpower	53,395	1,710	55,105	663	21	684	
Orion New Zealand	37,018	2,334	39,352	577	36	614	
OtagoNet Joint Venture	45,269	0	45,269	1,081	0	1,081	
Powerco	54,405	1,944	56,349	756	27	783	
Scanpower	33,179	13,489	46,669	379	154	534	
The Lines Company	56,680	4,876	61,556	865	74	940	
The Power Company	49,424	0	49,424	1,112	0	1,112	
Top Energy	67,155	3,880	71,036	651	38	689	
Unison Networks	47,371	13,923	61,294	665	196	861	
Vector	48,160	7,101	55,260	684	101	784	
Waipa Networks	34,547	1,969	36,516	518	30	548	
WEL Networks	58,434	8,928	67,362	836	128	963	
Wellington Electricity Lines	26,709	3,678	30,387	353	49	401	
Westpower	20,537	616	21,154	329	10	339	
Average	43,428	4,938	48,366	666	67	732	
Median	45,059	2,334	48,506	663	38	689	
Minimum	12,819	0	13,170	183	0	189	
Maximum	85,947	17,213	102,425	1,549	222	1,587	

	Expenditure on Assets Per Maximum Coincident System Demand			Expenditure on Assets Per Circuit Length		
	Network	Non-Network	Total	Network	Non-Network	Total
	\$/MW	\$/MW	\$/MW	\$/km	\$/km	\$/km
	179,465	8,836	188,301	6,352	313	6,665
	335,509	9,687	345,196	16,555	478	17,033
	172,366	82,808	255,175	2,821	1,355	4,176
	346,831	34,555	381,386	4,345	433	4,778
	387,667	74,326	461,993	15,568	2,985	18,553
	92,979	3,148	96,126	5,076	172	5,247
	128,126	10,243	138,369	5,943	475	6,418
	115,916	0	115,916	10,651	0	10,651
	198,555	15,189	213,744	3,321	254	3,575
	102,630	5,057	107,687	3,351	165	3,516
	256,374	61,435	317,809	5,744	1,376	7,120
	162,386	68,258	230,644	3,409	1,433	4,842
	51,076	1,401	52,477	5,759	158	5,917
	107,196	2,257	109,453	3,829	81	3,910
	297,457	7,343	304,800	10,738	265	11,003
	268,044	8,584	276,628	6,797	218	7,014
	186,132	11,737	197,869	10,741	677	11,418
	296,771	0	296,771	4,618	0	4,618
	281,489	10,058	291,547	9,321	333	9,654
	153,333	62,339	215,672	2,454	998	3,452
	277,022	23,830	300,852	4,702	404	5,106
	255,891	0	255,891	4,703	0	4,703
	289,452	16,725	306,177	5,235	303	5,538
	234,755	68,997	303,753	8,434	2,479	10,913
	219,811	32,409	252,220	21,517	3,173	24,690
	170,130	9,698	179,829	6,413	366	6,779
	267,663	40,898	308,561	14,777	2,258	17,035
	109,768	15,115	124,884	12,707	1,750	14,456
	132,754	3,984	136,738	2,158	65	2,222
	209,571	23,756	233,326	7,519	792	8,310
	198,555	10,243	252,220	5,759	366	6,418
	51,076	0	52,477	2,158	0	2,222
	387,667	82,808	461,993	21,517	3,173	24,690

Expenditure on Assets ratios continued

	Expenditure on Assets Per Distribution Transformer Capacity (EDB Owned)		
	Network	Non-Network	Total
	\$/MVA	\$/MVA	\$/MVA
Alpine Energy	43,669	2,150	45,819
Aurora Energy	106,734	3,082	109,815
Buller Electricity	49,409	23,737	73,146
Centralines	77,033	7,675	84,707
Counties Energy	122,153	23,420	145,573
EA Networks	26,499	897	27,396
Electra	41,464	3,315	44,778
Electricity Invercargill	44,805	0	44,805
Firstlight Network	56,794	4,345	61,139
Horizon Energy Distribution	31,550	1,555	33,105
MainPower New Zealand	45,494	10,902	56,395
Marlborough Lines	32,632	13,716	46,348
Nelson Electricity	17,010	467	17,477
Network Tasman	30,032	632	30,664
Network Waitaki	89,187	2,202	91,388
Northpower	69,392	2,222	71,614
Orion New Zealand	54,608	3,444	58,052
OtagoNet Joint Venture	88,374	0	88,374
Powerco	75,423	2,695	78,117
Scanpower	32,929	13,388	46,317
The Lines Company	78,928	6,790	85,718
The Power Company	86,658	0	86,658
Top Energy	78,270	4,523	82,793
Unison Networks	61,733	18,144	79,877
Vector	82,845	12,215	95,060
Waipa Networks	49,701	2,833	52,534
WEL Networks	85,314	13,036	98,350
Wellington Electricity Lines	40,260	5,544	45,804
Westpower	30,413	913	31,326
Average	59,631	6,339	65,971
Median	54,608	3,315	61,139
Minimum	17,010	0	17,477
Maximum	122,153	23,737	145,573

Composition of capital expenditure

Definitions

Consumer Connection =	Expenditure on Assets where the primary driver is the establishment of a new customer connection point or alterations to an existing customer connection point
System Growth =	Expenditure on Assets where the primary driver is a change in demand or generation on a part of the network which results in a requirement for either additional capacity to meet this demand or additional investment to maintain current security and/or quality of supply standards due to the increased demand
Asset Replacement and Renewal =	Expenditure on Assets where the primary driver is the need to maintain network asset integrity so as to maintain current security and/or quality of supply standards and includes expenditure to replace or renew assets due to physical deterioration, obsolescence, preventative replacement, or the need to ensure ongoing physical security
Asset Relocations =	Expenditure on Assets where the primary driver is the need to relocate assets due to third party requests, such as for the purpose of road widening
Reliability, Safety and Environment (Quality of Supply) =	Expenditure on Assets where the primary driver is the need to meet improved security and/or quality of supply standards
Reliability, Safety and Environment (Legislative and Regulatory) =	Expenditure on Assets where the primary driver is a new regulatory or legal requirement that results in the creation of, or modification to, network assets
Reliability, Safety and Environment (Other) =	Expenditure on Assets where the primary driver is to improve network reliability or safety or to mitigate the environmental impacts of the network
Cost of Financing =	The cost of financing incurred by and accumulated during the construction phase of a project that creates a new network asset
Value of Capital Contributions =	The value of capital contributions received or expected to be received in respect of the cost of new network assets
Value of Vested Assets =	The consideration incurred or expected to be incurred in respect of vested assets that create new network assets

Capital expenditure categories

	Network Expenditure on Assets					
	Consumer Connection	System Growth	Asset Replacement and Renewal	Asset Relocations	Reliability, Safety and Environment (Quality of Supply)	Reliability, Safety and Environment (Legislative and Regulatory)
	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	5,225	2,137	18,444	330	0	0
Aurora Energy	19,234	18,139	61,425	3,677	2,017	0
Buller Electricity	283	65	1,132	0	32	153
Centralines	1,951	618	4,625	0	0	0
Counties Energy	18,210	3,333	27,436	66	6,083	90
EA Networks	5,028	380	9,793	9	482	0
Electra	0	425	9,709	10	2,550	292
Electricity Invercargill	1,042	0	4,101	0	313	0
Firstlight Network	30	124	12,384	0	330	230
Horizon Energy Distribution	301	467	6,473	0	748	445
MainPower New Zealand	11,279	1,442	13,932	0	651	458
Marlborough Lines	1,377	347	6,948	213	1,983	0
Nelson Electricity	77	63	762	0	757	0
Network Tasman	1,360	1,501	6,217	3	4,683	0
Network Waitaki	1,962	10,787	6,865	16	1,124	68
Northpower	8,142	8,810	23,208	521	478	214
Orion New Zealand	37,517	19,494	37,460	1,727	25,755	0
OtagoNet Joint Venture	8,113	53	11,107	470	771	0
Powerco	78,372	59,708	110,393	5,424	12,809	617
Scanpower	30	1,789	757	0	0	0
The Lines Company	2,445	758	13,724	0	2,319	0
The Power Company	15,669	6,748	14,768	242	1,256	0
Top Energy	4,540	1,317	10,647	0	0	0
Unison Networks	28,261	6,857	39,336	2,337	656	0
Vector	122,875	78,774	186,924	26,020	0	1,232
Waipa Networks	4,766	3,844	4,915	574	251	0
WEL Networks	34,079	9,369	25,637	5,741	1,597	865
Wellington Electricity Lines	22,739	5,021	30,136	1,496	1,986	0
Westpower	677	405	2,378	146	532	0
Average	15,020	8,372	24,194	1,690	2,419	161
Median	4,766	1,501	11,107	66	748	0
Minimum	0	0	757	0	0	0
Maximum	122,875	78,774	186,924	26,020	25,755	1,232
Industry Total	435,583	242,778	701,635	49,023	70,164	4,665

Network Expenditure on Assets			Non-Network Expenditure on Assets	Total Expenditure on Assets	Cost of Financing	Value of Capital Contributions	Value of Vested Assets	Capital Expenditure
	Reliability, Safety and Environment (Other)	Total						
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
	1,681	27,817	1,370	29,187	0	3,816	0	25,370
	0	104,492	3,017	107,509	830	11,585	0	96,754
	169	1,833	881	2,714	0	557	54	2,212
	926	8,120	809	8,929	0	1,093	0	7,836
	606	55,824	10,703	66,527	164	16,973	0	49,718
	347	16,039	543	16,582	0	481	0	16,101
	1,236	14,222	1,137	15,359	88	0	338	15,785
	1,622	7,079	0	7,079	0	476	0	6,602
	109	13,206	1,010	14,217	0	106	0	14,111
	368	8,803	434	9,236	106	0	0	9,342
	2,300	30,063	7,204	37,267	0	4,629	0	32,638
	1,196	12,064	5,071	17,135	0	414	0	16,721
	49	1,709	47	1,755	0	0	0	1,755
	531	14,295	301	14,596	0	38	458	15,016
	0	20,822	514	21,336	0	2,329	0	19,007
	886	42,260	1,353	43,613	1,371	12,586	0	32,397
	6,848	128,801	8,122	136,923	0	5,309	0	131,614
	1,135	21,649	0	21,649	0	1,862	0	19,787
	4,877	272,200	9,726	281,926	2,172	46,010	0	238,087
	0	2,576	1,047	3,623	0	0	0	3,623
	1,646	20,891	1,797	22,689	389	1,988	0	21,089
	3,246	41,930	0	41,930	0	12,255	0	29,674
	5,694	22,197	1,283	23,480	190	5,093	0	18,578
	1,857	79,304	23,308	102,613	2,225	16,581	0	88,256
	5,772	421,597	62,161	483,758	1,547	179,645	0	305,660
	661	15,010	856	15,866	0	3,050	0	12,815
	6,491	83,779	12,801	96,580	0	11,830	0	84,750
	420	61,800	8,510	70,310	641	17,408	0	53,543
	581	4,719	142	4,860	0	0	0	4,860
	1,767	53,624	5,660	59,284	335	12,280	29	47,369
	926	20,891	1,137	21,649	0	2,329	0	19,007
	0	1,709	0	1,755	0	0	0	1,755
	6,848	421,597	62,161	483,758	2,225	179,645	458	305,660
	51,254	1,555,101	164,146	1,719,247	9,722	356,116	850	1,373,703

Subcomponents of capital expenditure

Definitions

Energy Efficiency and Demand Side Management, Reduction of Energy Losses =

Expenditure where the primary driver is to improve the efficient provision of electricity line services by improving energy efficiency, encouraging demand side management, implementing initiatives that reduce electricity losses and reactive power flows on the network

Overhead to Underground Conversion =

Expenditure on assets incurred in developing underground circuits in circumstances where these primarily replace equivalent existing overhead circuits

Research and Development =

Expenditure where the primary driver for the expenditure relates to increasing the efficient provision of electricity lines services

8

Capital expenditure



Subcomponents of capital expenditure

	Subcomponents		
	Energy Efficiency and Demand Side Management, Reduction of Energy Losses	Overhead to Underground Conversion	Research and Development
	\$000	\$000	\$000
Alpine Energy	0	43	0
Aurora Energy	0	0	0
Buller Electricity	0	0	0
Centralines	0	0	0
Counties Energy	0	2,615	0
EA Networks	0	3,921	0
Electra	0	0	0
Electricity Invercargill	0	0	0
Firstlight Network	0	487	0
Horizon Energy Distribution	0	0	0
MainPower New Zealand	0	0	0
Marlborough Lines	0	0	0
Nelson Electricity	0	0	0
Network Tasman	27	3	0
Network Waitaki	0	0	0
Northpower	0	0	0
Orion New Zealand	0	0	0
OtagoNet Joint Venture	0	0	0
Powerco	378	512	739
Scanpower	0	0	0
The Lines Company	0	0	0
The Power Company	0	0	0
Top Energy	0	0	0
Unison Networks	0	1,229	0
Vector	0	12,820	2,269
Waipa Networks	0	0	0
WEL Networks	593	0	0
Wellington Electricity Lines	1,363	0	0
Westpower	0	0	0
Average	81	746	104
Median	0	0	0
Minimum	0	0	0
Maximum	1,363	12,820	2,269
Industry Total	2,361	21,630	3,007

Forecast real expenditure on assets by category (RY25-RY34 in constant prices)

	Network Expenditure on Assets					
	Consumer Connection	System Growth	Asset Replacement and Renewal	Asset Relocations	Reliability, Safety and Environment (Quality of Supply)	
	\$000	\$000	\$000	\$000	\$000	
Alpine Energy	112,303	95,135	214,413	4,350	1,500	
Aurora Energy	199,110	222,451	494,174	21,320	32,191	
Buller Electricity	2,483	532	14,034	0	393	
Centralines	14,962	7,831	57,121	0	7,852	
Counties Energy	104,000	65,820	198,556	2,952	21,631	
EA Networks	39,984	36,470	45,394	0	6,842	
Electra	16,414	50,060	124,422	0	49,937	
Electricity Invercargill	7,657	2,772	56,775	70	1,698	
Firstlight Network	17,891	42,439	150,035	733	8,050	
Horizon Energy Distribution	3,209	45,151	96,897	310	5,130	
MainPower New Zealand	61,500	84,279	107,066	0	10,359	
Marlborough Lines	2,205	19,867	128,433	3,034	6,174	
Nelson Electricity	1,170	4,450	14,315	530	4,300	
Network Tasman	11,750	91,550	58,780	0	5,905	
Network Waitaki	16,300	64,751	79,844	0	5,261	
Northpower	58,030	79,507	307,973	1,090	6,628	
Orion New Zealand	364,470	574,781	571,880	76,232	166,007	
OtagoNet Joint Venture	64,490	30,732	156,885	1,818	24,156	
Powerco	1,105,870	1,108,632	1,329,404	20,538	204,441	
Scanpower	250	36,955	10,815	0	180	
The Lines Company	18,550	22,103	124,127	750	26,539	
The Power Company	44,438	127,569	189,847	1,383	6,339	
Top Energy	25,911	36,238	105,672	0	48,054	
Unison Networks	246,488	266,451	400,238	14,366	8,223	
Vector	1,073,516	715,923	1,522,329	333,768	0	
Waipa Networks	55,110	48,593	49,699	2,310	7,918	
WEL Networks	321,662	169,911	244,961	39,137	16,177	
Wellington Electricity Lines	163,037	842,554	340,247	8,975	24,925	
Westpower	3,900	3,750	29,859	0	14,890	
Average	143,333	168,871	249,110	18,402	24,886	
Median	39,984	50,060	124,422	750	7,918	
Minimum	250	532	10,815	0	0	
Maximum	1,105,870	1,108,632	1,522,329	333,768	204,441	
Industry Total	4,156,659	4,897,257	7,224,194	533,664	721,699	

Network Expenditure on Assets			Non-Network Expenditure on Assets	Total Expenditure on Assets
Reliability, Safety and Environment (Legislative and Regulatory)	Reliability, Safety and Environment (Other)	Total		
\$000	\$000	\$000	\$000	\$000
800	21,985	450,486	8,489	458,975
0	0	969,246	40,280	1,009,526
632	1,479	19,553	6,495	26,048
0	5,156	92,923	7,656	100,579
0	5,417	398,375	49,051	447,426
236	8,276	137,202	6,979	144,181
1,191	6,640	248,665	24,052	272,717
0	13,960	82,933	0	82,933
125	1,000	220,273	5,074	225,346
3,124	8,987	162,805	4,363	167,168
0	6,395	269,599	4,700	274,299
0	20,061	179,774	25,034	204,808
0	1,900	26,665	798	27,463
0	5,680	173,665	10,032	183,697
0	0	166,156	12,376	178,532
930	2,789	456,954	13,398	470,352
0	32,885	1,786,255	156,841	1,943,096
0	10,362	288,442	0	288,442
2,961	95,547	3,867,393	140,236	4,007,629
1,000	100	49,300	1,780	51,079
0	25,893	217,962	19,318	237,280
0	71,378	440,955	85	441,040
0	10,665	226,540	19,603	246,142
0	56,295	992,059	113,260	1,105,320
0	558,791	4,204,327	290,954	4,495,281
1,840	2,420	167,891	21,700	189,591
5,206	54,718	851,772	94,704	946,476
4,458	3,835	1,388,030	56,845	1,444,875
100	14,440	66,939	0	66,939
779	36,105	641,488	39,107	680,595
0	8,276	226,540	12,376	246,142
0	0	19,553	0	26,048
5,206	558,791	4,204,327	290,954	4,495,281
22,603	1,047,055	18,603,138	1,134,103	19,737,241

Forecast nominal expenditure on assets by category (RY25-RY34)

	Network Expenditure on Assets					
	Consumer Connection	System Growth	Asset Replacement and Renewal	Asset Relocations	Reliability, Safety and Environment (Quality of Supply)	
	\$000	\$000	\$000	\$000	\$000	
Alpine Energy	123,471	103,968	236,256	4,631	1,698	
Aurora Energy	228,365	244,464	549,136	24,453	37,717	
Buller Electricity	3,052	651	17,276	0	447	
Centralines	16,810	8,354	64,604	0	8,822	
Counties Energy	119,270	72,037	226,167	3,396	22,873	
EA Networks	44,231	40,528	49,867	0	7,400	
Electra	17,491	57,323	139,674	0	56,099	
Electricity Invercargill	8,951	2,996	62,670	81	1,867	
Firstlight Network	20,061	47,822	168,183	822	8,992	
Horizon Energy Distribution	3,522	48,549	107,335	341	5,758	
MainPower New Zealand	72,075	95,888	125,725	0	12,405	
Marlborough Lines	2,456	21,623	144,622	3,398	6,638	
Nelson Electricity	1,397	5,366	17,193	595	5,332	
Network Tasman	12,979	101,492	64,600	0	6,218	
Network Waitaki	21,770	87,246	104,561	0	6,381	
Northpower	62,399	86,875	347,695	1,217	7,147	
Orion New Zealand	505,818	818,807	803,383	103,417	227,366	
OtagoNet Joint Venture	71,067	33,850	173,238	1,857	27,823	
Powerco	1,282,640	1,310,783	1,580,377	23,575	244,873	
Scanpower	274	40,445	12,053	0	191	
The Lines Company	19,935	25,452	138,903	832	28,825	
The Power Company	69,885	141,645	208,757	1,523	6,905	
Top Energy	29,479	42,186	120,023	0	55,165	
Unison Networks	277,714	303,216	450,569	16,070	9,125	
Vector	1,192,105	798,927	1,715,789	376,135	0	
Waipa Networks	61,941	51,935	55,531	2,597	8,896	
WEL Networks	355,005	187,632	269,095	42,830	17,616	
Wellington Electricity Lines	186,084	948,775	388,690	10,211	28,489	
Westpower	5,139	4,944	37,124	0	16,030	
Average	166,048	197,716	288,934	21,310	29,900	
Median	44,231	57,323	139,674	832	8,896	
Minimum	274	651	12,053	0	0	
Maximum	1,282,640	1,310,783	1,715,789	376,135	244,873	
Industry Total	4,815,386	5,733,778	8,379,097	617,981	867,096	

Network Expenditure on Assets			Non-Network Expenditure on Assets	Total Expenditure on Assets
Reliability, Safety and Environment (Legislative and Regulatory)	Reliability, Safety and Environment (Other)	Total		
\$000	\$000	\$000	\$000	\$000
800	23,916	494,739	8,951	503,691
0	0	1,084,135	46,044	1,130,179
735	1,760	23,921	7,786	31,708
0	5,610	104,199	8,533	112,733
0	6,230	449,973	53,527	503,500
240	9,129	151,394	7,846	159,241
1,244	7,352	279,183	26,038	305,223
0	15,537	92,102	0	92,102
129	1,135	247,144	5,714	252,859
3,257	9,737	178,499	4,675	183,174
0	7,474	313,567	5,361	318,928
0	21,539	200,275	27,736	228,011
0	2,244	32,129	923	33,053
0	6,269	191,558	10,933	202,491
0	0	219,958	13,049	233,007
952	3,012	509,294	14,654	523,949
0	38,805	2,497,596	179,909	2,677,505
0	11,209	319,044	0	319,044
3,099	112,328	4,557,675	155,456	4,713,131
1,010	120	54,092	1,916	56,008
0	29,309	243,256	20,884	264,140
0	79,796	508,512	85	508,597
0	10,807	257,660	22,136	279,796
0	64,026	1,120,720	125,849	1,246,569
0	629,109	4,712,065	326,620	5,038,685
1,987	2,646	185,530	24,371	209,902
5,346	59,300	936,824	103,153	1,039,977
4,748	4,079	1,571,075	61,811	1,632,886
112	15,054	78,403	0	78,403
816	40,605	745,328	43,585	788,913
0	9,129	257,660	13,049	279,796
0	0	23,921	0	31,708
5,346	629,109	4,712,065	326,620	5,038,685
23,659	1,177,531	21,614,524	1,263,961	22,878,489

9. Regulatory asset base

Definitions

Regulatory Asset Base
Roll Forward =

Total Opening Regulatory Asset Base – Total Depreciation
+ Total Revaluations + Assets Commissioned – Asset
Disposals + Lost and Found Assets Adjustment
+ Adjustment Resulting from Asset Allocation

Opening Regulatory Asset Base =

The sum of regulatory asset values for assets included
in the total opening regulatory asset base value

Depreciation (Standard) =

Depreciation based on standard physical lives

Depreciation (No Standard
Life Assets) =

Depreciation for assets with no standard lives

Depreciation (Modified Life Assets) =

Depreciation based on modified lives

Depreciation (Alternative
Depreciation in Accordance
with CPP) =

Depreciation calculated in accordance with
a CPP determination



Regulatory asset base – opening and depreciation

	Opening Regulatory Asset Base	Depreciation				
		Standard	No-Standard Life Assets	Modified Life Assets	Alternative Depreciation in Accordance with CPP	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	293,278	10,526	1,397	0	0	11,923
Aurora Energy	736,088	27,021	2,074	0	0	29,095
Buller Electricity	35,266	1,960	0	0	0	1,960
Centralines	88,898	2,669	0	0	0	2,669
Counties Energy	427,054	12,157	3,686	0	0	15,843
EA Networks	343,290	11,060	1,349	0	0	12,409
Electra	241,685	10,891	0	0	0	10,891
Electricity Invercargill	107,300	4,044	0	0	0	4,044
Firstlight Network	209,446	6,538	1,302	0	0	7,840
Horizon Energy Distribution	161,216	7,075	416	0	0	7,491
MainPower New Zealand	306,284	15,290	4,025	0	0	19,315
Marlborough Lines	264,231	11,667	0	0	0	11,667
Nelson Electricity	49,284	1,771	0	0	0	1,771
Network Tasman	209,789	6,391	363	0	0	6,754
Network Waitaki	120,992	4,508	514	0	0	5,021
Northpower	353,169	12,332	711	0	0	13,043
Orion New Zealand	1,450,079	48,999	6,549	0	0	55,548
OtagoNet Joint Venture	263,617	10,555	0	0	0	10,555
Powerco	2,589,537	78,512	36,407	0	0	114,919
Scanpower	53,996	1,480	1,002	0	0	2,482
The Lines Company	263,264	10,407	1,202	0	0	11,609
The Power Company	491,373	18,904	0	0	0	18,904
Top Energy	339,121	13,136	0	0	0	13,136
Unison Networks	805,807	36,673	0	0	0	36,673
Vector	3,891,833	103,327	52,173	0	0	155,500
Waipa Networks	162,242	5,090	1,927	0	0	7,017
WEL Networks	706,476	21,393	5,998	0	0	27,391
Wellington Electricity Lines	803,430	27,788	4,573	0	0	32,361
Westpower	116,341	5,520	788	0	0	6,308
Average	547,737	18,196	4,361	0	0	22,556
Median	264,231	10,891	788	0	0	11,667
Minimum	35,266	1,480	0	0	0	1,771
Maximum	3,891,833	103,327	52,173	0	0	155,500
Industry Total	15,884,387	527,682	126,455	0	0	654,137

Regulatory asset base – revaluations, commissioned assets, disposals, adjustments and closing

Definitions

Revaluations =	CPI × Opening Regulatory Asset Base (excluding assets that are fully depreciated, disposed of or lost in the disclosure year)
Assets Commissioned =	The value of assets commissioned by the EDB during the disclosure year for use in providing electricity distribution services
Assets Commissioned (Assets Acquired from a Regulated Supplier) =	The value of assets commissioned that are acquired from a regulated supplier
Assets Commissioned (Assets Acquired from a Related Party) =	The value of assets commissioned that are acquired from a related party
Assets Commissioned (Other) =	Assets commissioned other than Assets Acquired from a Regulated Supplier and Assets Acquired from a Related Party
Asset Disposals (To a Regulated Supplier) =	Assets disposed of to a regulated supplier
Asset Disposals (To a Related Party) =	Assets disposed of to a related party
Asset Disposals (Other) =	Asset disposals other than Asset Disposals to a Regulated Supplier and Asset Disposals to a Related Party
Lost and Found Assets Adjustment =	The value of found assets less the value of lost assets
Adjustment Resulting from Asset Allocation =	Adjustment to Closing Regulatory Asset Base resulting from the reapplication of the cost allocation input methodologies
Closing Regulatory Asset Base =	The regulatory values of assets used to supply electricity lines services at disclosure year end

Regulatory asset base – revaluations and commissioned assets

	Revaluations	Assets Commissioned			
		Acquired from a Regulated Supplier	Acquired from a Related Party	Other	Total
	\$000	\$000	\$000	\$000	\$000
Alpine Energy	11,785	0	10,799	10,208	21,008
Aurora Energy	29,401	0	35,827	59,869	95,696
Buller Electricity	1,409	0	5	2,653	2,657
Centralines	3,559	0	3,734	4,660	8,394
Counties Energy	17,102	0	0	78,227	78,227
EA Networks	13,749	0	5,696	11,390	17,086
Electra	9,668	0	0	17,480	17,480
Electricity Invercargill	4,309	0	5,631	0	5,631
Firstlight Network	8,417	0	11,292	1,281	12,573
Horizon Energy Distribution	6,468	0	7,025	499	7,524
MainPower New Zealand	12,322	0	0	30,810	30,810
Marlborough Lines	10,608	0	0	16,525	16,525
Nelson Electricity	1,948	0	0	1,529	1,529
Network Tasman	8,402	0	0	16,257	16,257
Network Waitaki	4,853	0	1,389	11,751	13,140
Northpower	14,140	0	27,164	6,099	33,263
Orion New Zealand	58,173	0	60,310	53,823	114,133
OtagoNet Joint Venture	10,591	0	22,136	0	22,136
Powerco	103,311	0	904	238,723	239,627
Scanpower	2,161	0	0	3,623	3,623
The Lines Company	10,546	0	0	22,231	22,231
The Power Company	19,654	0	26,892	0	26,892
Top Energy	13,623	0	0	22,778	22,778
Unison Networks	32,267	0	50,623	37,115	87,738
Vector	155,198	0	17,819	295,253	313,072
Waipa Networks	6,582	0	3,553	5,074	8,626
WEL Networks	28,359	0	11,617	31,732	43,349
Wellington Electricity Lines	32,251	0	0	44,284	44,284
Westpower	4,680	0	5,032	367	5,399
Average	21,915	0	10,602	35,319	45,920
Median	10,608	0	3,734	11,751	21,008
Minimum	1,409	0	0	0	1,529
Maximum	155,198	0	60,310	295,253	313,072
Industry Total	635,537	0	307,449	1,024,241	1,331,690

Regulatory asset base – disposals, adjustments and closing

	Asset Disposals				Lost and Found Asset Adjustment	Adjustment Resulting from Asset Allocation	Closing Regulatory Asset Base
	To a Regulated Supplier	To a Related Party	Other	Total			
	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Alpine Energy	0	0	328	328	0	-728	313,092
Aurora Energy	0	0	1,962	1,962	0	0	830,127
Buller Electricity	0	0	254	254	97	-1	37,215
Centralines	0	0	64	64	-357	0	97,761
Counties Energy	0	0	759	759	0	0	505,781
EA Networks	0	0	1,374	1,374	0	-118	360,224
Electra	0	11	986	996	0	0	256,946
Electricity Invercargill	0	0	163	163	0	0	113,034
Firstlight Network	0	0	40	40	0	30	222,587
Horizon Energy Distribution	0	43	280	324	0	0	167,394
MainPower New Zealand	0	0	1,764	1,764	0	-476	327,861
Marlborough Lines	0	0	546	546	0	0	279,151
Nelson Electricity	0	0	864	864	7	0	50,132
Network Tasman	0	0	2,275	2,275	0	20	225,439
Network Waitaki	0	0	0	0	0	71	134,034
Northpower	0	0	985	985	0	-78	386,466
Orion New Zealand	0	0	783	783	0	0	1,566,054
OtagoNet Joint Venture	0	0	111	111	0	0	285,678
Powerco	0	0	20,096	20,096	0	-589	2,796,870
Scanpower	0	0	174	174	0	0	57,126
The Lines Company	0	0	391	391	52	272	284,366
The Power Company	0	12	1,046	1,058	0	0	517,957
Top Energy	0	0	2	2	0	-16	362,368
Unison Networks	0	0	2,130	2,130	6	-521	886,495
Vector	0	0	18,055	18,055	0	7,397	4,193,945
Waipa Networks	0	0	675	675	2,101	0	171,859
WEL Networks	0	0	112	112	0	0	750,681
Wellington Electricity Lines	0	0	0	0	0	-328	847,276
Westpower	0	0	74	74	0	0	120,038
Average	0	2	1,941	1,943	66	170	591,309
Median	0	0	546	546	0	0	285,678
Minimum	0	0	0	0	-357	-728	37,215
Maximum	0	43	20,096	20,096	2,101	7,397	4,193,945
Industry Total	0	67	56,292	56,358	1,906	4,932	17,147,957

Closing regulatory asset base by asset category

Definitions

Network Assets =	Fixed assets used to provide electricity lines services
Subtransmission Lines =	Overhead power lines operated at a subtransmission voltage
Subtransmission Cables =	Underground power cables operated at a subtransmission voltage
Zone Substations =	Transformers, switchgear, protection and control and supervisory control and data acquisition (SCADA) equipment, low voltage and station direct current systems, other secondary systems, ripple injection plant and outdoor structure installed in an electrical power substation primarily used to convert any subtransmission voltage to any distribution voltage
Distribution and LV Lines =	Overhead power lines operated at a distribution voltage or low voltage
Distribution and LV Cables =	Underground power cables operated at a distribution voltage or low voltage
Distribution Substations and Transformers =	Substations, including all associated pole mountings, ground pads and covers, and kiosks and components used to install transformers; and transformers used to convert between distribution voltage and low voltage
Distribution Switchgear =	All switchgear operated at distribution voltage
Other Network Assets =	Network Assets that are not Subtransmission Lines, Subtransmission Cables, Zone Substations, Distribution and LV Lines, Distribution and LV Cables, Distribution Substations and Transformers or Distribution Switchgear, and includes central facilities for SCADA and telecommunications systems
Non-Network Assets =	Assets related to the provision of electricity lines services that are not Network Assets
Closing Regulatory Asset Base =	The regulatory values of assets used to supply electricity lines services at disclosure year end

Closing regulatory asset base by asset category

	Network Assets				
	Subtransmission Lines	Subtransmission Cables	Zone Substations	Distribution and LV Lines	Distribution and LV Cables
	\$000	\$000	\$000	\$000	\$000
Alpine Energy	13,056	5,800	69,097	76,681	69,724
Aurora Energy	44,492	38,389	136,409	262,592	188,066
Buller Electricity	3,685	0	7,008	9,550	2,914
Centralines	1,875	607	6,262	38,186	11,115
Counties Energy	21,925	225	80,254	179,933	70,367
EA Networks	17,214	4,094	30,953	57,403	105,075
Electra	10,912	13,484	34,387	68,819	42,648
Electricity Invercargill	1,471	7,843	24,374	3,138	49,411
Firstlight Network	23,595	1,619	32,189	84,515	31,620
Horizon Energy Distribution	7,461	1,379	10,088	29,558	47,829
MainPower New Zealand	22,779	795	38,896	85,208	68,263
Marlborough Lines	31,527	17,014	51,042	60,100	48,745
Nelson Electricity	0	5,721	10,345	961	17,837
Network Tasman	9,474	12,435	34,108	34,588	69,512
Network Waitaki	17,685	1,723	20,854	39,528	11,701
Northpower	8,646	10,846	54,317	154,348	54,949
Orion New Zealand	92,114	108,518	195,545	175,478	496,871
OtagoNet Joint Venture	32,931	3,286	42,586	122,090	29,699
Powerco	119,108	88,355	222,736	655,491	500,032
Scanpower	0	0	0	27,319	5,403
The Lines Company	23,251	882	40,948	116,043	25,605
The Power Company	71,126	7,526	130,118	174,397	22,702
Top Energy	72,949	10,481	45,108	106,813	42,661
Unison Networks	28,020	28,140	106,495	202,881	194,480
Vector	80,965	389,806	430,504	655,558	826,398
Waipa Networks	21,579	0	0	35,494	27,281
WEL Networks	24,078	54,051	87,487	151,142	242,227
Wellington Electricity Lines	4,554	55,667	82,530	229,692	245,907
Westpower	18,724	0	28,763	36,367	5,532
Average	28,455	29,955	70,807	133,582	122,572
Median	21,579	5,800	40,948	84,515	48,745
Minimum	0	0	0	961	2,914
Maximum	119,108	389,806	430,504	655,558	826,398
Industry Total	825,197	868,688	2,053,402	3,873,872	3,554,574

	Network Assets				Non-Network Assets	All Assets
	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets	Total		
	\$000	\$000	\$000	\$000	\$000	\$000
	26,800	23,393	11,649	296,200	16,892	313,092
	85,679	47,091	21,252	823,970	6,158	830,127
	3,336	2,753	2,724	31,972	5,243	37,215
	12,533	8,988	452	80,018	17,743	97,761
	48,932	31,442	8,663	441,741	64,040	505,781
	79,389	39,598	2,909	336,635	23,589	360,224
	32,289	21,520	18,817	242,876	14,071	256,946
	12,459	10,741	3,596	113,034	0	113,034
	21,265	10,748	6,900	212,450	10,137	222,587
	34,058	25,455	9,246	165,074	2,319	167,394
	45,638	14,599	21,349	297,528	30,333	327,861
	22,488	17,669	7,524	256,110	23,041	279,151
	6,831	3,978	4,213	49,886	246	50,132
	34,211	14,292	13,411	222,031	3,408	225,439
	19,820	14,832	3,704	129,846	4,188	134,034
	61,047	11,754	6,540	362,448	24,019	386,466
	177,936	210,879	47,647	1,504,988	61,066	1,566,054
	28,665	19,074	6,085	284,416	1,262	285,678
	357,063	220,736	518,080	2,681,602	115,269	2,796,870
	9,331	4,688	6,308	53,049	4,077	57,126
	38,887	25,173	11,204	281,993	2,373	284,366
	65,016	37,811	9,260	517,957	0	517,957
	38,627	37,202	5,441	359,281	3,086	362,368
	133,304	89,211	28,623	811,153	75,342	886,495
	369,151	400,345	923,993	4,076,720	117,225	4,193,945
	38,907	22,768	8,029	154,058	17,801	171,859
	81,466	53,000	14,457	707,908	42,773	750,681
	156,453	34,884	28,977	838,666	8,611	847,276
	15,453	7,130	6,544	118,513	1,525	120,039
	70,932	50,405	60,607	567,315	23,994	591,309
	38,627	22,768	8,663	284,416	10,137	285,678
	3,336	2,753	452	31,972	0	37,215
	369,151	400,345	923,993	4,076,720	117,225	4,193,945
	2,057,033	1,461,756	1,757,599	16,452,122	695,836	17,147,958

Weighted average remaining life by asset category

	Network Assets					
	Subtransmission Lines	Subtransmission Cables	Zone Substations	Distribution and LV Lines	Distribution and LV Cables	
	years	years	years	years	years	
Alpine Energy	30.7	36.7	33.3	36.2	39.5	
Aurora Energy	30.2	33.2	25.9	33.7	30.3	
Buller Electricity	31.2	-	25.8	32.7	37.2	
Centralines	49.2	44.2	35.5	46.8	43.8	
Counties Energy	42.3	22.3	38.6	45.1	36.2	
EA Networks	32.8	47.0	32.7	30.0	43.9	
Electra	30.9	40.8	33.7	36.0	36.9	
Electricity Invercargill	33.7	38.5	34.3	36.9	36.1	
Firstlight Network	37.6	36.4	31.8	39.0	37.8	
Horizon Energy Distribution	30.9	41.1	38.6	27.8	39.2	
MainPower New Zealand	18.9	18.7	19.7	16.3	25.5	
Marlborough Lines	46.0	44.2	32.8	41.4	33.0	
Nelson Electricity	-	30.1	34.7	32.8	27.8	
Network Tasman	37.1	44.0	31.1	46.3	43.5	
Network Waitaki	42.2	50.1	35.8	36.5	40.6	
Northpower	33.8	37.4	33.7	42.0	31.1	
Orion New Zealand	34.8	40.3	32.0	32.5	38.6	
OtagoNet Joint Venture	37.4	43.9	40.0	32.0	45.6	
Powerco	42.3	43.8	30.6	41.2	34.6	
Scanpower	-	-	-	44.1	29.6	
The Lines Company	31.5	40.5	28.1	36.0	34.3	
The Power Company	35.2	39.0	31.5	24.1	41.6	
Top Energy	42.5	50.8	24.0	29.0	23.4	
Unison Networks	38.2	41.8	34.8	42.5	41.0	
Vector	40.0	44.0	32.0	47.0	34.0	
Waipa Networks	49.0	-	-	29.8	39.8	
WEL Networks	38.9	39.9	31.5	43.0	43.2	
Wellington Electricity Lines	25.2	26.3	23.7	39.0	23.3	
Westpower	34.3	-	19.6	32.6	22.0	
Average	36.2	39.0	31.3	36.3	35.6	
Median	35.2	40.5	32.0	36.2	36.9	
Minimum	18.9	18.7	19.6	16.3	22.0	
Maximum	49.2	50.8	40.0	47.0	45.6	

Network Assets					Non-Network Assets	All Assets ¹
	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets	Total ¹		
	years	years	years	years	years	years
	26.1	33.5	33.2	34.8	21.7	34.0
	26.6	20.5	7.7	29.1	3.0	28.9
	27.1	24.0	26.5	29.5	11.8	27.4
	33.7	31.3	9.8	41.4	48.0	42.7
	30.6	28.6	8.9	38.7	20.8	36.9
	35.1	25.0	12.8	35.2	20.1	34.2
	32.9	29.8	25.4	34.2	8.2	32.7
	27.3	26.6	17.9	33.5	-	33.5
	29.1	24.3	13.2	34.9	14.2	34.0
	34.6	31.5	15.3	33.3	4.4	32.9
	18.2	10.4	15.9	19.0	7.0	17.9
	25.8	26.2	15.6	35.4	17.6	34.1
	35.7	24.8	14.6	29.2	5.0	29.0
	38.5	31.5	15.7	38.6	22.7	38.3
	32.7	29.1	20.0	35.7	44.8	36.1
	34.8	27.2	15.7	36.6	27.5	36.0
	34.5	32.5	23.9	35.2	25.6	34.8
	29.9	27.4	31.2	34.6	16.9	34.5
	33.2	29.5	29.4	34.7	18.4	34.0
	35.2	28.5	28.1	38.0	17.4	36.6
	27.2	29.0	15.3	31.6	6.8	31.4
	32.3	27.8	15.6	29.6	-	29.6
	21.6	28.3	10.3	29.8	2.4	29.6
	31.9	31.3	25.0	37.3	12.5	35.5
	33.0	29.0	40.0	37.8	6.0	37.4
	34.3	31.1	20.5	35.2	7.0	32.5
	35.0	32.3	13.4	38.9	13.7	37.6
	28.6	17.4	41.4	29.1	2.8	28.8
	30.5	24.4	15.3	27.5	10.0	27.2
	30.9	27.3	19.9	33.7	15.4	33.0
	32.3	28.5	15.7	34.8	13.7	34.0
	18.2	10.4	7.7	19.0	2.4	17.9
	38.5	33.5	41.4	41.4	48.0	42.7

¹ Weighted average asset lives for Total Network Assets and All Assets are weighted by Opening Regulatory Asset Base values for each asset category. This is consistent with the IDD.

Asset allocations

Definitions

Directly Attributable = Regulatory service asset values wholly and solely related to an asset used in relation to the supply of electricity lines services

Not Directly Attributable = Regulatory service asset values that are not Directly Attributable

	Directly Attributable			Not Directly Attributable		
	Network \$000	Non-Network \$000	Total \$000	Network \$000	Non-Network \$000	Total \$000
Alpine Energy	296,200	1,486	297,686	0	15,406	15,406
Aurora Energy	821,268	6,158	827,425	2,702	0	2,702
Buller Electricity	31,971	5,243	37,214	0	0	0
Centralines	80,017	17,744	97,761	0	0	0
Counties Energy	441,741	50,452	492,193	0	13,588	13,588
EA Networks	336,633	16,591	353,224	2	6,998	7,000
Electra	242,876	14,071	256,947	0	0	0
Electricity Invercargill	113,034	0	113,034	0	0	0
Firstlight Network	212,450	10,137	222,587	0	0	0
Horizon Energy Distribution	165,074	0	165,074	0	2,319	2,319
MainPower New Zealand	297,528	0	297,528	0	30,333	30,333
Marlborough Lines	256,110	23,041	279,151	0	0	0
Nelson Electricity	49,886	246	50,132	0	0	0
Network Tasman	219,779	1,055	220,834	2,251	2,354	4,605
Network Waitaki	129,846	1,440	131,286	0	2,748	2,748
Northpower	352,005	20,366	372,371	10,442	3,653	14,095
Orion New Zealand	1,504,988	50,338	1,555,326	0	10,728	10,728
OtagoNet Joint Venture	284,416	1,262	285,678	0	0	0
Powerco	2,681,602	41,838	2,723,440	0	73,430	73,430
Scanpower	53,049	4,076	57,126	0	0	0
The Lines Company	281,993	1,194	283,188	0	1,179	1,179
The Power Company	517,957	0	517,957	0	0	0
Top Energy	359,281	0	359,281	0	3,086	3,086
Unison Networks	808,818	24,544	833,362	2,335	50,798	53,133
Vector	3,977,928	59,616	4,037,544	98,792	57,609	156,401
Waipa Networks	154,058	16,672	170,730	0	1,129	1,129
WEL Networks	704,758	33,848	738,606	3,150	8,925	12,075
Wellington Electricity Lines	662,431	8,611	671,042	176,234	0	176,234
Westpower	118,513	1,526	120,038	0	0	0
Average	557,111	14,192	571,302	10,204	9,803	20,007
Median	284,416	6,158	285,678	0	1,179	2,702
Minimum	31,971	0	37,214	0	0	0
Maximum	3,977,928	59,616	4,037,544	176,234	73,430	176,234
Industry Total	16,156,210	411,555	16,567,765	295,909	284,284	580,192

10. Regulatory tax

Definitions

Regulatory Profit / (Loss) Before Tax =	Total Regulatory Income – Operational Expenditure – Pass-Through and Recoverable Costs Excluding Financial Incentives and Wash-Ups – Total Depreciation + Total Revaluations
Discretionary Discounts and Customer Rebates =	Payments made or credit amounts given by an EDB in respect of the supply of electricity distribution services owing to direct or indirect ownership interest in the EDB, excluding discounts posted as part of prices
Amortisation of Initial Differences in Asset Values =	Amortisation of initial difference in regulatory asset base and regulatory tax asset values over weighted average remaining useful life of assets
Amortisation of Revaluations =	Total Depreciation - Adjusted Depreciation (calculated as RAB depreciation calculated by rolling the RAB forward from 1 April 2009 with no revaluations)
Revaluation Timing Difference =	Revaluation income included in Regulatory Profit / (Loss) Before Tax but not taxable
Other Timing Differences =	Income not included in Regulatory Profit / (Loss) Before Tax but taxable + Expenditure or loss included in Regulatory Profit / (Loss) Before Tax but not deductible – (Income included in Regulatory Profit / (Loss) Before Tax but not taxable – Revaluation Timing Difference) – Expenditure or loss not included in Regulatory Profit / (Loss) Before Tax but deductible
Notional Deductible Interest =	$(\text{Regulatory Investment Value} \times \text{Cost of Debt} \times \text{Leverage}) + \text{Term Credit Spread Differential Allowance} / \sqrt{1 + \text{Cost of Debt}}$
Utilised Tax Losses =	The lesser of opening tax losses and regulatory taxable income
Regulatory Net Taxable Income =	Regulatory Profit / (Loss) Before Tax + Revaluation Timing Difference + Other Timing Differences + Amortisation of Initial Differences in Asset Values + Amortisation of Revaluations – Discretionary Discounts and Consumer Rebates – Notional Deductible Interest – Utilised Tax Losses
Regulatory Tax Allowance =	Regulatory Net Taxable Income $\times$ Corporate Tax Rate
Regulatory Investment Value =	Total Opening Regulatory Asset Base + opening deferred tax

Components of the regulatory tax allowance

	Regulatory Profit / (Loss) Before Tax	Discretionary Discounts and Consumer Rebates	Amortisation of Initial Differences in Asset Values	Amortisation of Revaluations	Revaluations Timing Differences	
	\$000	\$000	\$000	\$000	\$000	
Alpine Energy	20,616	0	2,647	2,034	-11,785	
Aurora Energy	67,301	0	4,897	5,740	-29,401	
Buller Electricity	1,076	0	569	483	-1,409	
Centralines	8,272	0	1,255	532	-3,559	
Counties Energy	31,522	0	2,663	2,909	-17,102	
EA Networks	20,718	3,006	2,068	2,739	-13,749	
Electra	18,986	0	2,474	2,113	-9,668	
Electricity Invercargill	7,963	0	1,249	861	-4,309	
Firstlight Network	10,689	0	1,901	1,372	-8,417	
Horizon Energy Distribution	14,201	0	4,219	2,098	-6,468	
MainPower New Zealand	16,910	0	1,048	4,895	-12,322	
Marlborough Lines	13,783	0	3,341	3,017	-10,608	
Nelson Electricity	2,496	0	693	459	-1,948	
Network Tasman	13,945	0	3,236	1,913	-8,402	
Network Waitaki	6,065	0	1,132	900	-4,853	
Northpower	20,127	0	4,532	3,044	-14,140	
Orion New Zealand	100,389	0	15,583	11,955	-58,173	
OtagoNet Joint Venture	16,714	0	1,327	2,256	-10,591	
Powerco	178,457	0	9,617	21,334	-103,311	
Scanpower	3,110	0	546	486	-2,161	
The Lines Company	15,793	0	4,085	2,337	-10,546	
The Power Company	33,526	0	6,921	2,706	-19,654	
Top Energy	13,488	0	3,399	3,350	-13,623	
Unison Networks	61,027	0	5,670	7,955	-32,267	
Vector	266,137	0	31,189	33,111	-155,198	
Waipa Networks	11,104	0	1,601	2,856	-6,582	
WEL Networks	52,651	0	7,095	5,833	-28,359	
Wellington Electricity Lines	53,042	0	7,151	5,993	-32,251	
Westpower	5,961	3,001	1,554	1,575	-4,680	
Average	37,451	207	4,609	4,719	-21,915	
Median	16,714	0	2,663	2,706	-10,608	
Minimum	1,076	0	546	459	-155,198	
Maximum	266,137	3,006	31,189	33,111	-1,409	
Industry Total	1,086,069	6,007	133,661	136,857	-635,537	

	Other Timing Differences	Notional Deductible Interest	Utilised Tax Losses	Regulatory Net Taxable Income	Regulatory Tax Allowance	Opening Regulatory Investment Value
	\$000	\$000	\$000	\$000	\$000	\$000
	82	6,677	0	6,917	1,937	274,138
	-997	17,114	0	30,427	8,520	702,638
	-1,214	819	0	0	0	33,628
	0	2,029	0	4,471	1,252	83,288
	261	9,814	0	10,438	2,923	402,931
	48	7,938	0	879	246	325,915
	485	5,708	0	8,682	2,431	230,082
	-9	2,473	0	3,281	919	101,519
	5	4,750	0	799	224	195,003
	50	3,927	0	10,173	0	161,216
	0	7,271	0	3,260	913	298,512
	53	6,313	0	3,273	916	259,163
	0	1,141	0	559	157	46,838
	55	4,998	0	5,748	1,610	205,212
	25	2,805	0	464	130	115,154
	19	8,214	0	5,369	1,503	337,215
	1,614	35,114	0	36,254	10,151	1,379,734
	-43	5,838	0	3,824	1,071	239,690
	1,078	62,982	0	44,194	12,374	2,482,932
	0	1,255	0	726	203	51,506
	0	5,903	0	5,767	1,615	242,337
	-114	11,721	0	11,664	3,266	463,931
	7	7,796	0	0	0	320,078
	84	19,043	0	23,426	6,559	761,102
	7,789	95,202	0	87,826	24,591	3,745,874
	3,427	3,770	0	8,636	2,418	154,760
	19	16,114	0	21,125	5,915	661,574
	66	18,734	0	15,268	4,275	754,132
	6	2,923	0	0	0	119,993
	441	13,048	0	12,188	3,314	522,417
	19	6,313	0	5,748	1,503	259,163
	-1,214	819	0	0	0	33,628
	7,789	95,202	0	87,826	24,591	3,745,874
	12,796	378,385	0	353,451	96,118	15,150,094

11. Related party transactions

Definitions

Total Regulatory Income =	Line Charge Revenue + Gains/(Losses) on Asset Disposals + Other Regulated Income
Operational Expenditure =	Operating costs that are allocated to electricity distribution services; excluding costs treated as an asset under GAAP, depreciation, tax, subvention payments, revaluations, interest expenses, and Pass-Through and Recoverable Costs
Capital Expenditure =	Costs incurred in the acquisition or development of an asset that is, or is intended to be, included in the value of assets commissioned in the regulatory asset base
Market Value of Asset Disposals =	The market value of disposed assets sold or transferred to a related party
Other Related Party Transactions =	The value of related party transactions that are not disclosed as Total Regulatory Income, Operational Expenditure, Capital Expenditure or Market Value of Asset Disposals



Related party transactions

	Total Regulatory Income \$000	Operational Expenditure \$000	Capital Expenditure \$000	Market Value of Asset Disposals \$000	Other Related Party Transactions \$000
Alpine Energy	0	6,747	13,839	0	157
Aurora Energy	0	16,072	36,813	0	1,231
Buller Electricity	2,055	892	5	0	0
Centralines	0	1,649	3,734	0	0
Counties Energy	0	424	0	0	0
EA Networks	81	3,013	5,696	0	1,156
Electra	32	573	160	5	0
Electricity Invercargill	0	3,840	7,079	0	0
Firstlight Network	3,493	10,898	13,172	0	0
Horizon Energy Distribution	0	7,917	8,608	43	0
MainPower New Zealand	0	0	0	0	0
Marlborough Lines	0	444	837	0	0
Nelson Electricity	0	251	0	0	0
Network Tasman	80	0	0	0	0
Network Waitaki	0	302	1,389	0	0
Northpower	0	15,451	27,927	0	0
Orion New Zealand	2,465	25,139	58,855	0	5,353
OtagoNet Joint Venture	0	9,127	21,649	0	0
Powerco	17	0	904	0	0
Scanpower	0	764	60	0	0
The Lines Company	0	720	0	0	0
The Power Company	512	18,614	41,930	12	0
Top Energy	0	1,333	0	0	0
Unison Networks	0	25,574	50,623	0	0
Vector	0	18,302	17,723	0	0
Waipa Networks	0	3,380	3,553	0	0
WEL Networks	494	7,929	11,617	0	0
Wellington Electricity Lines	0	11,920	5,246	0	0
Westpower	0	8,136	4,493	0	794
Average	318	6,876	11,583	2	300
Median	0	3,380	4,493	0	0
Minimum	0	0	0	0	0
Maximum	3,493	25,574	58,855	43	5,353
Industry Total	9,230	199,412	335,911	60	8,691

12. Network assets

Asset quantities by asset category

	Subtransmission			Distribution			
	Lines km	Cables km	Total km	Lines km	Cables km	Total km	
Alpine Energy	249	33	282	2,898	477	3,375	
Aurora Energy	522	98	620	2,284	1,219	3,502	
Buller Electricity	106	1	107	374	22	396	
Centralines	94	2	96	1,408	44	1,452	
Counties Energy	116	1	118	1,488	332	1,820	
EA Networks	383	8	391	1,920	348	2,269	
Electra	186	31	217	849	268	1,117	
Electricity Invercargill	1	27	28	22	160	182	
Firstlight Network	638	2	640	2,371	156	2,526	
Horizon Energy Distribution	249	4	253	1,497	229	1,726	
MainPower New Zealand	384	5	390	3,430	383	3,814	
Marlborough Lines	277	32	309	2,132	213	2,345	
Nelson Electricity	0	18	18	6	76	83	
Network Tasman	281	44	325	1,876	313	2,189	
Network Waitaki	249	5	254	1,266	90	1,356	
Northpower	323	26	349	3,507	316	3,823	
Orion New Zealand	514	140	654	3,128	2,888	6,016	
OtagoNet Joint Venture	698	19	717	3,239	112	3,351	
Powerco	1,506	324	1,829	14,695	2,322	17,017	
Scanpower	0	0	0	840	17	857	
The Lines Company	434	15	449	3,102	203	3,305	
The Power Company	910	35	945	6,732	149	6,882	
Top Energy	390	24	414	2,655	253	2,908	
Unison Networks	428	72	500	3,895	902	4,797	
Vector	396	627	1,023	3,699	3,965	7,664	
Waipa Networks	33	0	33	1,243	168	1,411	
WEL Networks	178	268	446	1,929	770	2,699	
Wellington Electricity Lines	57	137	194	587	1,218	1,806	
Westpower	313	0	313	1,423	71	1,494	
Average	342	69	411	2,569	610	3,179	
Median	281	24	325	1,929	253	2,345	
Minimum	0	0	0	6	17	83	
Maximum	1,506	627	1,829	14,695	3,965	17,017	
Industry Total	9,915	1,998	11,913	74,496	17,686	92,182	

	Low Voltage			Street Lighting	Poles
	Lines km	Cables km	Total km	km	No.
	345	380	725	0	44,624
	1,025	1,164	2,190	1,078	53,678
	108	39	147	0	7,026
	200	120	321	74	19,984
	678	937	1,616	28	27,685
	49	452	501	338	27,118
	523	535	1,058	64	21,425
	30	425	454	170	943
	515	295	810	13	35,072
	257	391	648	247	20,395
	237	808	1,045	558	56,430
	410	403	813	73	31,034
	21	175	196	68	886
	483	724	1,207	0	28,455
	221	108	329	111	21,759
	1,183	864	2,047	422	55,007
	1,706	3,616	5,322	3,899	87,065
	462	158	620	140	50,478
	5,450	4,906	10,355	3,116	264,577
	110	83	193	0	11,287
	497	194	691	78	35,361
	849	239	1,088	365	110,333
	217	703	920	321	37,120
	1,177	2,929	4,106	1,901	65,930
	4,098	6,809	10,907	502	125,144
	501	395	896	155	22,419
	957	1,568	2,525	1,326	39,755
	1,069	1,795	2,864	1,972	40,017
	169	210	379	0	20,411
	812	1,084	1,896	587	46,945
	483	425	896	155	35,072
	21	39	147	0	886
	5,450	6,809	10,907	3,899	264,577
	23,547	31,426	54,973	17,019	1,361,418

Asset quantities by asset category continued

	Zone Substation			Distribution			
	Buildings No.	Switchgear No.	Transformers No.	Substations No.	Transformers No.	Switchgear No.	
Alpine Energy	24	332	31	0	6,269	7,585	
Aurora Energy	36	706	69	335	7,413	8,828	
Buller Electricity	4	68	12	12	815	1,034	
Centralines	3	62	7	13	2,570	3,775	
Counties Energy	9	148	17	1,060	4,271	5,787	
EA Networks	20	446	32	591	6,568	7,685	
Electra	10	204	19	0	2,656	3,271	
Electricity Invercargill	5	74	7	38	450	589	
Firstlight Network	30	171	35	0	3,685	4,888	
Horizon Energy Distribution	12	103	15	868	3,529	4,589	
MainPower New Zealand	15	156	24	899	8,493	10,540	
Marlborough Lines	16	278	31	0	4,095	2,889	
Nelson Electricity	1	39	3	193	197	308	
Network Tasman	14	271	28	25	4,705	1,811	
Network Waitaki	20	251	23	0	3,046	4,392	
Northpower	23	494	43	117	7,682	8,949	
Orion New Zealand	83	1,185	81	5,089	12,156	15,060	
OtagoNet Joint Venture	45	384	44	15	4,435	5,353	
Powerco	160	2,275	212	4,580	37,664	46,840	
Scanpower	0	0	0	0	1,515	2,017	
The Lines Company	25	414	47	0	5,715	8,426	
The Power Company	57	644	61	7	11,540	13,369	
Top Energy	18	456	39	20	6,311	2,164	
Unison Networks	43	638	60	101	10,383	12,997	
Vector	114	2,005	234	14,545	22,839	22,328	
Waipa Networks	0	0	0	0	3,765	4,752	
WEL Networks	26	193	49	0	6,263	8,112	
Wellington Electricity Lines	27	354	52	519	4,564	6,354	
Westpower	16	165	22	0	2,536	840	
Average	30	432	45	1,001	6,763	7,777	
Median	20	271	31	20	4,564	5,353	
Minimum	0	0	0	0	197	308	
Maximum	160	2,275	234	14,545	37,664	46,840	
Industry Total	856	12,516	1,297	29,027	196,130	225,532	

	Protection	Load Control		Connections
	No.	Centralised Plant Lot.	Relays No.	No.
	455	7	0	38,828
	729	15	2,300	97,123
	76	1	0	5,115
	45	1	11	8,940
	178	7	2,950	49,629
	823	2	400	21,218
	177	2	1,924	47,904
	177	1	0	18,039
	240	8	16,157	26,804
	120	3	0	25,951
	321	8	11,017	45,299
	232	2	0	27,075
	86	1	0	9,324
	128	5	0	43,577
	181	3	9,757	13,805
	396	6	40,540	64,073
	2,753	46	2,132	225,168
	259	5	0	21,229
	2,956	38	4,323	360,490
	0	0	0	6,834
	336	14	5,813	4,265
	722	5	0	39,405
	541	2	0	35,624
	679	16	5,287	116,242
	4,758	32	0	621,983
	131	3	17,758	29,098
	783	14	60,333	102,950
	1,449	25	0	175,709
	0	5	0	14,365
	680	10	6,231	79,175
	259	5	11	35,624
	0	0	0	4,265
	4,758	46	60,333	621,983
	19,731	277	180,702	2,296,066

Age profile of electricity circuits

Definitions

Age Unknown = The total quantity of assets for which no installation information is known and no default date has been assigned

	Total Km	Proportion of Circuits Installed by EDB					
		Pre – 1940 %	1940 – 1949 %	1950 – 1959 %	1960 – 1969 %	1970 – 1979 %	
Alpine Energy	4,382	0.1	0.0	20.5	14.9	13.7	
Aurora Energy	6,312	2.0	1.4	5.7	15.8	12.8	
Buller Electricity	650	0.0	0.0	1.5	36.7	6.6	
Centralines	1,869	2.9	10.3	18.8	12.6	9.1	
Counties Energy	3,553	0.7	1.2	2.0	6.3	6.8	
EA Networks	3,161	0.0	0.1	0.5	1.3	3.5	
Electra	2,392	0.0	3.7	4.0	14.4	21.6	
Electricity Invercargill	665	0.2	0.0	1.5	11.9	16.0	
Firstlight Network	3,976	1.8	3.3	19.5	30.9	16.5	
Horizon Energy Distribution	2,627	0.0	0.3	1.2	12.5	15.7	
MainPower New Zealand	5,249	0.4	0.1	0.6	3.9	15.0	
Marlborough Lines	3,467	1.6	1.4	4.7	15.0	21.3	
Nelson Electricity	297	0.4	0.0	0.6	13.1	21.6	
Network Tasman	3,721	1.0	5.2	19.0	17.0	8.5	
Network Waitaki	1,939	1.0	0.2	3.3	22.8	15.4	
Northpower	6,218	0.2	0.3	2.8	13.3	15.8	
Orion New Zealand	11,992	0.4	0.3	2.0	9.7	19.6	
OtagoNet Joint Venture	4,688	0.1	0.8	11.0	10.9	10.8	
Powerco	29,202	0.3	1.5	4.9	14.4	25.2	
Scanpower	1,049	0.0	0.0	0.2	7.8	11.1	
The Lines Company	4,445	0.1	2.7	16.4	20.8	16.5	
The Power Company	8,915	0.0	0.0	3.7	10.2	44.1	
Top Energy	4,242	0.0	3.2	4.7	14.3	19.2	
Unison Networks	9,403	4.6	0.9	3.7	13.9	17.3	
Vector	19,594	0.1	0.2	1.7	9.2	19.9	
Waipa Networks	2,341	0.0	0.0	0.0	0.0	0.1	
WEL Networks	5,670	0.0	0.1	0.1	3.7	32.7	
Wellington Electricity Lines	4,864	1.4	1.1	7.8	27.7	24.1	
Westpower	2,187	0.6	0.0	1.5	3.9	14.1	
Average	5,485	0.7	1.3	5.7	13.4	16.4	
Median	3,976	0.2	0.3	3.3	13.1	15.8	
Minimum	297	0.0	0.0	0.0	0.0	0.1	
Maximum	29,202	4.6	10.3	20.5	36.7	44.1	

Default Dates =

The total quantity of assets where the installation year is unknown and a default installation year has been allocated

Proportion of Circuits Installed by EDB							Default Dates
	1980 – 1989	1990 – 1999	2000 – 2009	2010 – 2019	2020 - 2024	Age Unknown	
	%	%	%	%	%	%	%
	9.9	7.5	17.4	12.0	3.8	0.0	0.0
	12.5	14.5	15.0	11.2	9.2	0.0	0.0
	26.0	4.9	8.5	10.0	4.4	1.4	0.0
	17.3	8.7	9.0	7.4	3.9	0.0	0.0
	8.4	32.2	15.1	16.2	10.5	0.6	22.5
	14.1	22.1	32.7	18.8	6.9	0.0	0.0
	17.1	8.6	14.1	10.8	5.4	0.0	1.0
	22.7	13.4	24.4	7.6	1.4	0.9	0.0
	10.5	7.4	6.1	2.5	1.7	0.0	0.0
	21.9	18.5	12.0	6.8	4.1	7.0	0.0
	27.0	19.6	15.5	14.6	3.2	0.0	0.0
	12.6	6.4	15.8	13.3	4.3	3.6	0.0
	23.6	5.8	11.0	12.8	3.1	8.0	0.0
	15.4	6.9	13.3	8.1	5.2	0.4	0.0
	12.4	3.0	16.1	16.7	6.4	2.7	5.7
	20.7	14.6	16.0	11.6	4.7	0.0	6.1
	13.8	12.6	16.0	16.3	6.8	2.4	0.0
	11.7	10.9	15.5	16.9	4.4	7.1	0.0
	19.6	10.3	8.4	9.1	5.7	0.7	0.0
	25.5	23.3	21.7	7.7	1.6	1.0	0.0
	21.7	5.3	6.7	5.1	2.7	2.0	63.7
	14.8	5.7	12.3	6.7	1.7	0.7	0.0
	16.5	13.6	17.0	8.1	2.6	0.8	0.0
	24.0	10.5	12.1	7.6	5.4	0.0	0.0
	25.1	12.4	14.2	10.2	6.4	0.6	0.0
	0.2	0.3	58.7	3.3	2.3	35.3	0.0
	17.7	7.2	16.5	15.2	6.8	0.0	0.1
	12.4	9.0	7.8	5.6	3.1	0.0	0.7
	19.0	23.5	17.8	8.0	1.3	10.3	0.0
	17.0	11.7	16.1	10.3	4.4	2.9	3.4
	17.1	10.3	15.1	10.0	4.3	0.7	0.0
	0.2	0.3	6.1	2.5	1.3	0.0	0.0
	27.0	32.2	58.7	18.8	10.5	35.3	63.7

Average asset condition (weighted by quantities)

Definitions

- H1 = Replacement recommended
H2 = End of life drivers for replacement present: high asset related risk
H3 = End of life drivers for replacement present: increasing asset related risk

	Subtransmission Lines Average Grade	Subtransmission Cables Average Grade	Zone Substations Average Grade	Distribution and LV Lines Average Grade
Alpine Energy	3.86	4.95	4.19	3.10
Aurora Energy	4.13	4.30	3.53	4.35
Buller Electricity	3.92	3.36	3.96	3.75
Centralines	3.59	5.00	4.53	3.56
Counties Energy	4.08	5.00	3.43	3.81
EA Networks	4.28	4.44	4.06	3.74
Electra	4.53	4.89	4.27	4.08
Electricity Invercargill	3.83	3.35	3.67	3.57
Firstlight Network	4.97	4.96	4.11	4.84
Horizon Energy Distribution	3.59	4.42	3.88	3.74
MainPower New Zealand	4.27	4.10	3.53	3.71
Marlborough Lines	3.54	4.89	4.49	3.11
Nelson Electricity	-	3.84	5.00	4.11
Network Tasman	3.90	4.19	4.24	3.68
Network Waitaki	4.37	4.07	3.89	3.19
Northpower	4.45	3.74	3.92	4.64
Orion New Zealand	4.24	4.57	4.08	4.28
OtagoNet Joint Venture	3.19	4.87	3.67	3.43
Powerco	3.97	4.80	3.85	3.42
Scanpower	-	-	-	3.83
The Lines Company	3.77	4.79	4.09	3.96
The Power Company	3.23	4.70	3.62	3.48
Top Energy	3.52	4.95	4.37	2.76
Unison Networks	3.43	4.20	4.15	3.43
Vector	3.14	4.25	3.99	3.18
Waipa Networks	5.00	-	-	4.54
WEL Networks	4.56	4.85	4.47	4.27
Wellington Electricity Lines	3.18	3.15	3.14	2.96
Westpower	3.86	-	3.58	3.65
Average	3.94	4.41	3.99	3.73
Median	3.90	4.51	3.99	3.71
Minimum	3.14	3.15	3.14	2.76
Maximum	5.00	5.00	5.00	4.84

H4 = Asset serviceable: no drivers for replacement, normal in-service deterioration

H5 = As new condition: no drivers for replacement

Unknown = Condition unknown or not yet assessed

	Distribution and LV Cables	Poles	Distribution Substations and Transformers	Distribution Switchgear
	Average Grade	Average Grade	Average Grade	Average Grade
	4.46	3.86	3.35	3.90
	4.92	4.01	4.59	4.14
	3.43	3.77	4.00	4.00
	4.18	3.93	4.47	4.01
	4.45	4.07	3.72	3.55
	4.55	4.22	4.19	4.39
	4.37	4.18	4.51	3.58
	3.93	4.02	3.95	2.99
	4.24	4.64	4.72	4.61
	3.85	3.77	3.80	3.91
	4.39	4.22	3.47	4.22
	4.48	3.78	3.41	4.19
	3.77	4.11	4.09	4.42
	3.91	3.85	3.84	3.69
	4.12	3.75	3.80	3.68
	4.92	4.82	3.81	4.42
	4.62	4.84	4.31	4.25
	4.78	3.84	3.96	3.83
	4.50	4.01	4.67	4.46
	4.37	4.33	3.47	4.06
	4.20	3.97	4.11	4.07
	4.21	3.99	3.54	3.71
	3.72	3.90	3.97	3.66
	3.90	3.98	3.98	3.59
	4.20	4.21	3.50	3.77
	4.54	4.03	4.08	4.05
	4.41	4.40	4.77	4.53
	3.33	3.99	3.43	3.28
	3.53	3.60	3.04	3.38
	4.22	4.07	3.95	3.94
	4.24	4.01	3.96	4.00
	3.33	3.60	3.04	2.99
	4.92	4.84	4.77	4.61

Proportion of assets forecast to be replaced in next five years

	Subtransmission Lines	Subtransmission Cables	Zone Substations	Distribution and LV Lines	
	%	%	%	%	
Alpine Energy	-	-	2.1	2.0	
Aurora Energy	6.7	0.8	15.7	6.5	
Buller Electricity	-	-	-	3.8	
Centralines	-	-	12.2	1.0	
Counties Energy	3.1	-	10.7	6.3	
EA Networks	0.1	-	0.1	2.2	
Electra	16.5	-	22.0	5.3	
Electricity Invercargill	12.5	7.2	30.7	3.8	
Firstlight Network	-	-	11.2	2.3	
Horizon Energy Distribution	3.5	-	14.8	5.1	
MainPower New Zealand	-	-	5.8	1.9	
Marlborough Lines	4.0	-	1.8	5.6	
Nelson Electricity	-	-	-	-	
Network Tasman	-	-	1.4	4.2	
Network Waitaki	-	-	12.8	7.2	
Northpower	6.0	9.0	8.4	7.4	
Orion New Zealand	1.6	3.8	30.4	4.4	
OtagoNet Joint Venture	8.8	-	6.3	8.4	
Powerco	4.7	4.9	14.1	11.4	
Scanpower	-	-	-	1.9	
The Lines Company	-	1.8	14.5	1.1	
The Power Company	1.0	-	6.8	2.8	
Top Energy	-	-	0.3	2.6	
Unison Networks	1.0	4.4	6.3	2.0	
Vector	0.3	5.1	14.1	1.8	
Waipa Networks	-	-	-	1.3	
WEL Networks	-	-	-	1.7	
Wellington Electricity Lines	-	25.4	11.0	1.8	
Westpower	-	-	-	-	
Average	2.6	2.3	9.4	3.6	
Median	0.1	0.0	8.4	2.6	
Minimum	0.0	0.0	0.0	0.0	
Maximum	16.5	25.4	30.7	11.4	

	Distribution and LV Cables	Poles	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets
	%	%	%	%	%
	0.6	1.6	1.0	4.7	0.1
	0.4	8.1	2.4	11.1	0.3
	-	2.8	0.2	-	2.9
	0.5	2.1	2.9	2.1	0.5
	-	2.4	2.3	7.6	0.1
	0.2	1.4	0.8	0.3	0.1
	0.5	1.4	2.5	5.1	4.2
	9.1	0.6	0.4	10.4	0.5
	1.7	7.3	4.1	9.5	3.0
	2.8	1.0	8.2	3.1	0.1
	0.9	3.9	4.6	2.1	1.0
	0.9	3.7	2.0	2.4	0.2
	4.7	1.0	1.0	6.0	-
	0.8	2.1	2.4	7.8	5.0
	0.2	8.0	5.5	11.3	1.4
	0.3	1.5	4.2	5.5	0.1
	-	7.1	4.1	7.9	2.8
	-	3.0	4.5	5.9	5.4
	0.2	6.0	5.1	7.5	0.2
	-	3.3	6.7	-	-
	1.2	7.9	2.6	9.4	2.9
	-	2.7	9.1	21.6	0.2
	-	2.4	1.6	0.6	0.1
	0.7	2.2	4.7	5.7	1.0
	4.7	7.7	7.2	10.6	0.0
	1.3	3.6	3.9	3.0	0.8
	-	3.8	6.3	6.5	0.1
	0.2	4.6	10.9	8.8	0.1
	-	-	-	-	-
	1.1	3.6	3.8	6.1	1.1
	0.4	2.8	3.9	5.9	0.2
	0.0	0.0	0.0	0.0	0.0
	9.1	8.1	10.9	21.6	5.4

Circuit length by operating voltage

Definitions

Overhead =

Circuits installed as overhead lines

Underground =

Circuits installed as underground cables

	Total Overhead and Underground				
	>66kV km	50kV & 66kV km	33kV km	SWER (All SWER Voltages) km	
Alpine Energy	1	0	284	7	
Aurora Energy	0	129	491	5	
Buller Electricity	1	0	106	0	
Centralines	0	0	96	0	
Counties Energy	66	0	51	0	
EA Networks	0	352	39	0	
Electra	0	0	217	0	
Electricity Invercargill	0	0	28	0	
Firstlight Network	302	303	34	1	
Horizon Energy Distribution	0	71	182	64	
MainPower New Zealand	0	224	164	119	
Marlborough Lines	0	0	309	534	
Nelson Electricity	0	0	18	0	
Network Tasman	0	158	164	0	
Network Waitaki	0	0	254	0	
Northpower	28	75	246	0	
Orion New Zealand	0	369	285	88	
OtagoNet Joint Venture	0	74	642	895	
Powerco	13	169	1,648	81	
Scanpower	0	0	0	0	
The Lines Company	0	0	449	936	
The Power Company	0	531	414	9	
Top Energy	68	0	346	434	
Unison Networks	0	0	502	111	
Vector	75	0	828	0	
Waipa Networks	33	0	0	0	
WEL Networks	0	0	446	0	
Wellington Electricity Lines	0	0	194	1	
Westpower	0	60	254	0	
Average	20	87	300	113	
Median	0	0	246	0	
Minimum	0	0	0	0	
Maximum	302	531	1,648	936	
Total Industry	588	2,515	8,691	3,285	

Total Overhead and Underground				
	22kV (Other Than SWER) km	6.6V to 11kV Inclusive (Other Than SWER) km	Low Voltage (< 1kV) km	Total km
	162	3,201	724	4,379
	0	3,497	2,190	6,312
	0	396	147	650
	0	1,452	321	1,869
	885	967	1,616	3,586
	1,755	513	501	3,160
	0	1,117	1,058	2,393
	0	182	454	665
	0	2,527	809	3,976
	0	1,662	648	2,627
	1,034	2,664	1,029	5,234
	0	1,809	887	3,539
	0	83	196	297
	31	2,173	1,207	3,733
	0	1,356	329	1,939
	0	3,823	2,046	6,218
	0	5,928	5,322	11,992
	57	2,399	620	4,688
	125	16,812	10,355	29,202
	0	857	193	1,050
	0	2,368	691	4,443
	1	6,872	1,088	8,915
	18	2,453	920	4,240
	0	4,684	4,106	9,403
	177	7,607	10,907	19,594
	0	1,411	896	2,341
	0	2,699	2,525	5,670
	0	1,805	2,864	4,864
	0	1,494	379	2,187
	146	2,925	1,898	5,488
	0	2,173	896	3,976
	0	83	147	297
	1,755	16,812	10,907	29,202
	4,245	84,811	55,028	159,163

Overhead circuit characteristics and streetlight circuits

Definitions

Urban =	A circuit installed in an area where the average HV span length is approximately 40 – 50 metres, located in urbanised locations
Rural =	A circuit installed in an area where the average HV span length is approximately 70 – 80 metres, excluding those circuits located in remote and/or rugged areas
Remote =	A circuit, installed in an area situated more than 75 km from the nearest works depot
Rugged =	A circuit installed in an area where normal line construction vehicles and plant cannot be used or where difficult physical or climatic conditions exist and non standard line construction designs are employed to accommodate these conditions
Unallocated Lines =	A circuit installed in an area that is not an urban, rural, remote or rugged area



Overhead circuit characteristics and streetlight circuits

	Overhead Circuit Length by Terrain					
	Urban Only		Rural Only		Remote Only	
	km	% of total	km	% of total	km	% of total
Alpine Energy	300	8.6	3,091	88.7	0	0.0
Aurora Energy	1,154	30.1	2,589	67.6	0	0.0
Buller Electricity	93	15.8	434	73.8	11	1.9
Centralines	139	8.2	1,159	68.1	44	2.6
Counties Energy	162	7.1	2,056	90.1	0	0.0
EA Networks	71	3.0	2,234	95.0	47	2.0
Electra	452	29.0	483	31.0	0	0.0
Electricity Invercargill	49	92.7	2	3.2	0	0.0
Firstlight Network	187	5.3	1,502	42.6	305	8.6
Horizon Energy Distribution	196	9.8	1,104	55.2	185	9.3
MainPower New Zealand	48	1.2	2,434	60.0	1,444	35.6
Marlborough Lines	328	11.6	851	30.2	0	0.0
Nelson Electricity	25	92.7	0	0.0	2	7.3
Network Tasman	176	6.6	2,283	86.0	70	2.6
Network Waitaki	356	20.5	1,378	79.4	2	0.1
Northpower	610	12.2	4,403	87.8	0	0.0
Orion New Zealand	1,652	30.9	3,132	58.6	144	2.7
OtagoNet Joint Venture	329	7.5	904	20.6	593	13.5
Powerco	2,635	12.2	7,263	33.5	0	0.0
Scanpower	45	4.7	905	95.3	0	0.0
The Lines Company	479	11.9	2,928	72.6	241	6.0
The Power Company	475	5.6	4,556	53.7	804	9.5
Top Energy	120	3.7	3,139	96.3	2	0.1
Unison Networks	1,325	24.1	1,321	24.0	248	4.5
Vector	4,591	56.0	3,602	44.0	0	0.0
Waipa Networks	159	8.9	1,476	83.0	63	3.5
WEL Networks	485	15.8	1,912	62.4	0	0.0
Wellington Electricity Lines	1,319	77.0	394	23.0	0	0.0
Westpower	139	7.3	1,371	71.9	148	7.7
Average	624	21.4	2,031	58.5	150	4.1
Median	300	11.6	1,502	62.4	2	1.9
Minimum	25	1.2	0	0.0	0	0.0
Maximum	4,591	92.7	7,263	96.3	1,444	35.6
Industry Total	18,101		58,907		4,354	

Overhead circuit characteristics and streetlight circuits continued

	Overhead Circuit Length by Terrain						Streetlight		
	Rugged Only		Remote and Rugged		Unallocated Lines		O/head	U/ground	Total
	km	% of total	km	% of total	km	% of total	km	km	km
Alpine Energy	95	2.7	0	0.0	0	0.0	0	0	0
Aurora Energy	87	2.3	0	0.0	0	0.0	531	547	1,078
Buller Electricity	49	8.4	0	0.0	0	0.0	0	0	0
Centralines	361	21.2	0	0.0	0	0.0	44	30	74
Counties Energy	64	2.8	0	0.0	0	0.0	0	28	28
EA Networks	0	0.0	0	0.0	0	0.0	11	327	338
Electra	623	40.0	0	0.0	0	0.0	14	50	64
Electricity Invercargill	2	4.0	0	0.0	0	0.0	25	146	170
Firstlight Network	1,174	33.3	345	9.8	11	0.3	13	0	13
Horizon Energy Distribution	401	20.0	116	5.8	0	0.0	2	245	247
MainPower New Zealand	129	3.2	0	0.0	0	0.0	63	526	588
Marlborough Lines	779	27.7	846	30.0	13	0.5	0	74	74
Nelson Electricity	0	0.0	0	0.0	0	0.0	1	67	68
Network Tasman	118	4.4	8	0.3	0	0.0	0	0	0
Network Waitaki	0	0.0	0	0.0	0	0.0	76	35	111
Northpower	0	0.0	0	0.0	0	0.0	174	248	422
Orion New Zealand	183	3.4	237	4.4	0	0.0	872	3,027	3,899
OtagoNet Joint Venture	1,793	40.9	673	15.3	96	2.2	82	58	140
Powerco	11,425	52.8	328	1.5	0	0.0	1,064	2,052	3,116
Scanpower	0	0.0	0	0.0	0	0.0	0	0	0
The Lines Company	292	7.2	90	2.2	0	0.0	30	48	78
The Power Company	2,043	24.1	610	7.2	0	0.0	271	94	365
Top Energy	0	0.0	0	0.0	0	0.0	9	311	321
Unison Networks	2,605	47.4	0	0.0	0	0.0	357	1,548	1,905
Vector	0	0.0	0	0.0	0	0.0	17	485	501
Waipa Networks	80	4.5	0	0.0	0	0.0	90	64	155
WEL Networks	667	21.8	0	0.0	0	0.0	281	1,045	1,326
Wellington Electricity Lines	0	0.0	0	0.0	0	0.0	0	0	0
Westpower	220	11.6	27	1.4	0	0.0	0	0	0
Average	800	13.2	113	2.7	4	0.1	139	381	520
Median	118	4.4	0	0.0	0	0.0	17	67	140
Minimum	0	0.0	0	0.0	0	0.0	0	0	0
Maximum	11,425	52.8	846	30.0	96	2.2	1,064	3,027	3,899
Industry Total	23,190		3,279		121		4,028	11,054	15,081

Circuit length by special feature

	Circuit Length by Special Feature					
	Requiring Vegetation Management		Within 10km of Coastline or Geothermal Area		In Sensitive Areas	
	km	% of overhead	km	% of total	km	% of total
Alpine Energy	717	20.6	1,779	40.6	36	0.8
Aurora Energy	3,830	100.0	1,465	23.2	58	0.9
Buller Electricity	588	99.9	650	99.9	0	0.0
Centralines	1,702	100.0	274	14.7	32	1.7
Counties Energy	2,282	100.0	1,622	45.2	2	0.1
EA Networks	2,352	100.0	474	15.0	0	0.0
Electra	1,558	100.0	1,962	82.0	16	0.7
Electricity Invercargill	4	8.1	665	100.0	0	0.0
Firstlight Network	3,524	100.0	1,778	44.7	0	0.0
Horizon Energy Distribution	2,002	100.0	1,999	76.1	566	21.6
MainPower New Zealand	3,774	93.1	2,359	45.1	0	0.0
Marlborough Lines	2,817	100.0	2,355	66.5	0	0.0
Nelson Electricity	27	100.0	297	100.0	0	0.0
Network Tasman	2,655	100.0	1,671	44.8	18	0.5
Network Waitaki	13	0.7	768	39.6	0	0.0
Northpower	5,013	100.0	3,414	54.9	122	2.0
Orion New Zealand	5,348	100.0	1,863	15.5	88	0.7
OtagoNet Joint Venture	688	15.7	1,083	23.1	0	0.0
Powerco	21,651	100.0	11,782	40.3	0	0.0
Scanpower	0	0.0	0	0.0	0	0.0
The Lines Company	598	14.8	238	5.4	598	13.5
The Power Company	1,599	18.8	1,543	17.3	0	0.0
Top Energy	462	14.2	3,798	89.6	1,324	31.2
Unison Networks	5,499	100.0	2,434	25.9	368	3.9
Vector	8,193	100.0	19,572	99.9	5,289	27.0
Waipa Networks	1,277	71.8	162	6.9	0	0.0
WEL Networks	2,053	67.0	381	6.7	867	15.3
Wellington Electricity Lines	1,542	90.0	4,280	88.0	0	0.0
Westpower	1,046	54.9	970	44.3	228	10.4
Average	2,856	71.4	2,470	46.7	331	4.5
Median	1,702	100.0	1,622	44.3	2	0.1
Minimum	0	0.0	0	0.0	0	0.0
Maximum	21,651	100.0	19,572	100.0	5,289	31.2
Industry Total	82,814		71,636		9,613	

13. Network utilisation

Definitions

Number of Connections =

The number of points of connection to supply electricity to a consumer, as represented by unique ICP identifiers having a status of active or inactive recorded on the registry in accordance with the Electricity Industry Participation Code 2010

Embedded Network =

Network which conveys electricity (quantified by a meter) between another EDB network and consumers



Network connections

	Number of Connections	Embedded Network Connections
	ICP	ICP
Alpine Energy	33,883	0
Aurora Energy	95,241	0
Buller Electricity	4,889	0
Centralines	9,285	0
Counties Energy	48,147	0
EA Networks	21,105	14
Electra	46,749	0
Electricity Invercargill	17,645	0
Firstlight Network	25,934	0
Horizon Energy Distribution	25,300	0
MainPower New Zealand	44,918	0
Marlborough Lines	27,034	0
Nelson Electricity	9,312	0
Network Tasman	42,816	0
Network Waitaki	13,446	0
Northpower	63,782	0
Orion New Zealand	223,047	2
OtagoNet Joint Venture	20,029	838
Powerco	359,857	0
Scanpower	6,791	0
The Lines Company	24,145	0
The Power Company	37,720	0
Top Energy	34,094	2
Unison Networks	119,182	0
Vector	616,705	0
Waipa Networks	28,972	65
WEL Networks	100,250	1,940
Wellington Electricity Lines	175,249	0
Westpower	14,326	0
Average	78,960	99
Median	33,883	0
Minimum	4,889	0
Maximum	616,705	1,940
Industry Total	2,289,852	2,861

Network demand

Definitions

GXP Demand =	Maximum demand of all transmission grid exit point supplies to the network (MW)
Distributed Generation Output at HV and Above =	Total rate of power output, coincident with the GXP Demand, of all Distributed Generation that is connected to the network at high voltage or higher (MW)
Maximum Coincident System Demand =	The aggregate peak demand, being the coincident maximum sum of GXP Demand and Embedded Generation Output at HV and Above (MW)
Net Transfers to (from) Other EDBs at HV and Above =	Total rate of power transfer to (from) other EDB networks to which the network is connected (MW)
Demand on System for Supply to Consumers' Connection Points =	Maximum Coincident System Demand – Net Transfers to (from) Other EDBs at HV and Above (MW)



Network demand

	Demand				
	GXP Demand	Distributed Generation Output at HV and Above	Maximum Coincident System Demand	Net Transfers to (from) Other EDBs at HV and Above	Demand on System for Supply to Consumers' Connection Points
	MW	MW	MW	MW	MW
Alpine Energy	148	7	155	0	155
Aurora Energy	254	57	311	0	311
Buller Electricity	7	4	11	0	11
Centralines	23	0	23	0	23
Counties Energy	134	10	144	0	144
EA Networks	172	1	172	0	173
Electra	85	26	111	0	111
Electricity Invercargill	64	0	64	3	61
Firstlight Network	64	2	67	0	67
Horizon Energy Distribution	58	28	86	0	86
MainPower New Zealand	116	2	117	0	117
Marlborough Lines	74	1	74	0	74
Nelson Electricity	33	0	33	0	33
Network Tasman	119	36	155	22	133
Network Waitaki	70	0	70	0	70
Northpower	158	0	158	0	158
Orion New Zealand	692	0	692	0	692
OtagoNet Joint Venture	64	8	72	-1	73
Powerco	868	99	967	0	967
Scanpower	17	0	17	0	17
The Lines Company	60	15	75	0	75
The Power Company	102	60	162	-2	164
Top Energy	20	57	77	0	77
Unison Networks	292	46	338	0	338
Vector	1,888	30	1,918	0	1,918
Waipa Networks	88	0	88	0	88
WEL Networks	282	31	313	0	313
Wellington Electricity Lines	534	29	563	0	563
Westpower	23	12	36	0	36
Average	224	19	244	1	243
Median	88	8	111	0	111
Minimum	7	0	11	-2	11
Maximum	1,888	99	1,918	22	1,918
Industry Total	6,507	561	7,069	21	7,048

Network capacity and growth

Definitions

Distribution Transformer Capacity =	Maximum demand of all transmission grid exit point supplies to the network (MVA)
Zone Substation Transformer Capacity =	The sum of the capacities of all owned and non-owned zone substation transformers (MVA).
Zone Substation Utilisation =	$\frac{\text{Maximum Coincident System Demand}}{\text{Zone Substation Transformer Capacity}}$
Current Peak Load =	The maximum total load supplied by the existing zone substation in the disclosure year (MVA)
Installed Firm Capacity =	The capacity as at the last day of the disclosure year that can be delivered from an existing zone substation following an outage of the highest capacity item of primary equipment within the zone substation or the highest capacity circuit supplying the zone substation (MVA)
Transfer Capacity =	Sum of additional capacity, transferable within the timeframe of the EDB's security standards, that is available to augment the capacity of each zone substation by switching circuits, via the distribution feeder network, that may supply the existing zone substation from other zone substations (MVA)
Utilisation of Installed Firm Capacity =	$\frac{\text{Sum of Current Peak Load for All Zone Substations}}{\text{Sum of Installed Firm Capacity for All Zone Substations}}$
Forecast Installed Firm Capacity + 5 years =	Installed firm capacity forecast to be installed at the end of the year in 5 years' time (MVA)



Network capacity and growth

	Distribution Transformer Capacity			Zone Substation Transformer Capacity
	EDB Owned	Non-EDB Owned	Total	
	MVA	MVA	MVA	MVA
Alpine Energy	637	16	653	382
Aurora Energy	979	67	1,046	1,052
Buller Electricity	37	10	47	52
Centralines	105	11	116	47
Counties Energy	457	70	527	575
EA Networks	605	12	617	360
Electra	343	15	358	358
Electricity Invercargill	158	2	160	94
Firstlight Network	233	55	288	337
Horizon Energy Distribution	279	81	360	98
MainPower New Zealand	661	11	672	145
Marlborough Lines	370	17	386	338
Nelson Electricity	100	0	100	48
Network Tasman	476	44	520	402
Network Waitaki	233	12	245	228
Northpower	609	9	618	379
Orion New Zealand	2,359	215	2,574	1,181
OtagoNet Joint Venture	245	9	254	162
Powerco	3,609	181	3,790	2,493
Scanpower	78	0	78	-
The Lines Company	265	12	276	235
The Power Company	484	24	508	501
Top Energy	284	0	284	518
Unison Networks	1,285	22	1,306	636
Vector	5,089	806	5,895	4,951
Waipa Networks	302	18	320	-
WEL Networks	982	49	1,031	766
Wellington Electricity Lines	1,535	28	1,563	1,321
Westpower	155	25	180	166
Average	791	63	854	660
Median	370	17	386	360
Minimum	37	0	47	47
Maximum	5,089	806	5,895	4,951
Industry Total	22,953	1,819	24,772	17,823

Network capacity and growth continued

	Zone Substation Utilisation				
	Current Peak Load	Installed Firm Capacity	Transfer Capacity	Utilisation of Installed Firm Capacity	Forecast Installed Firm Capacity + 5 Years
	MVA	MVA	MVA	%	MVA
Alpine Energy	143	125	0	114.6	194
Aurora Energy	382	451	99	84.6	460
Buller Electricity	13	24	1	56.2	24
Centralines	27	25	15	106.0	25
Counties Energy	143	269	50	53.2	269
EA Networks	207	123	189	168.0	122
Electra	119	189	92	63.1	189
Electricity Invercargill	65	82	86	79.3	80
Firstlight Network	147	126	184	116.8	126
Horizon Energy Distribution	87	76	48	114.3	94
MainPower New Zealand	114	109	21	104.6	137
Marlborough Lines	100	171	75	58.8	195
Nelson Electricity	35	48	4	72.9	48
Network Tasman	137	201	51	68.2	216
Network Waitaki	73	143	64	51.3	169
Northpower	263	336	124	78.3	463
Orion New Zealand	794	1,086	789	73.1	1,172
OtagoNet Joint Venture	105	68	2	155.4	68
Powerco	1,080	1,049	480	103.0	1,300
Scanpower	-	-	-	-	-
The Lines Company	105	48	48	216.6	61
The Power Company	241	291	68	82.8	264
Top Energy	156	171	84	91.2	231
Unison Networks	361	441	85	81.7	578
Vector	2,299	2,016	2,481	114.1	2,112
Waipa Networks	88	88	-	100.0	197
WEL Networks	296	352	198	84.3	354
Wellington Electricity Lines	454	517	281	87.8	609
Westpower	62	124	63	50.0	124
Average	289	312	210	93.9	353
Median	140	157	75	84.5	195
Minimum	13	24	0	50.0	24
Maximum	2,299	2,016	2,481	216.6	2,112
Industry Total	8,095	8,746	5,682		9,878

Electricity volumes

Definitions

Electricity Supplied from (to) GXPs (net) =	The total volume of electricity supplied through every GXP to which the network is connected net of the total volume of exports to the GXP (GWh)
Electricity Supplied From Distributed Generation =	Net volume of electricity supplied from all distributed generation connected to the network (GWh)
Electricity Supplied to (from) Other EDBs (net) =	The net volume of electricity supplied from (to) the network to (from) other EDBs (GWh)
Electricity Entering System for Supply to Consumers' Connection Points =	Electricity Supplied from (to) GXPs (net) + Electricity Supplied From Distributed Generation + Electricity Supplied to (from) Other EDBs (net) (GWh)
Total Energy Delivered to ICPs =	The volume of electricity supplied to connection points, as measured at connection points (GWh)
Electricity Losses =	Electricity Entering System for Supply to Consumers' Connection Points – Total Energy Delivered to ICPs (GWh)
Electricity Loss Ratio =	Electricity Losses Electricity Entering System for Supply to Consumers' Connection Points



Electricity volumes

	Electricity Volumes Supplied		
	From (to) GXP (net)	From Distributed Generation	To (from) Other EDBs (net)
	GWh	GWh	GWh
Alpine Energy	898	24	0
Aurora Energy	1,099	373	5
Buller Electricity	37	18	0
Centralines	120	1	0
Counties Energy	618	65	0
EA Networks	550	124	0
Electra	344	116	0
Electricity Invercargill	265	0	-2
Firstlight Network	304	16	0
Horizon Energy Distribution	235	283	0
MainPower New Zealand	653	25	0
Marlborough Lines	406	18	0
Nelson Electricity	138	1	0
Network Tasman	564	210	90
Network Waitaki	324	1	0
Northpower	822	15	0
Orion New Zealand	3,598	30	0
OtagoNet Joint Venture	401	92	-5
Powerco	4,511	777	0
Scanpower	84	0	0
The Lines Company	304	76	-18
The Power Company	439	462	2
Top Energy	-96	466	0
Unison Networks	1,332	419	0
Vector	8,926	182	0
Waipa Networks	454	5	0
WEL Networks	1,234	256	-15
Wellington Electricity Lines	2,177	240	0
Westpower	98	149	0
Average	1,063	153	2
Median	439	76	0
Minimum	-96	0	-18
Maximum	8,926	777	90
Industry Total	30,837	4,444	57

	Electricity Entering System for Supply to Consumers' Connection Points	Electricity Volumes Supplied		Electricity Loss Ratio
		Total Energy Delivered to ICPs	Electricity Losses	
		GWh	GWh	
	GWh	GWh	GWh	%
	922	892	30	3.2
	1,467	1,424	43	2.9
	54	51	3	5.8
	121	112	9	7.4
	683	650	33	4.9
	674	635	39	5.8
	460	428	32	7.0
	268	255	13	4.7
	321	293	27	8.6
	519	495	24	4.6
	678	640	38	5.6
	424	401	23	5.4
	139	133	6	4.2
	684	650	34	5.0
	325	308	17	5.3
	837	791	46	5.5
	3,627	3,479	148	4.1
	498	478	20	3.9
	5,288	5,003	285	5.4
	84	78	6	7.0
	398	369	29	7.3
	898	848	50	5.6
	370	331	39	10.6
	1,751	1,674	77	4.4
	9,108	8,754	354	3.9
	458	434	24	5.2
	1,505	1,434	71	4.7
	2,417	2,314	103	4.3
	247	230	17	6.9
	1,215	1,158	57	5.5
	519	495	32	5.3
	54	51	3	2.9
	9,108	8,754	354	10.6
	35,224	33,585	1,639	

14. Network reliability

Definitions

SAIDI =	$\frac{\text{Sum of Interruption Duration Factors for all Interruptions}}{\text{Average Number of Connection Points for Current Disclosure Year}}$
SAIFI =	$\frac{\text{Sum of Number of Connection Points Affected by the Interruptions}}{\text{Average Number of Connection Points for Current Disclosure Year}}$
CAIDI =	$\frac{\text{SAIDI}}{\text{SAIFI}}$
Class B =	Planned interruptions originating within the network
Class C =	Unplanned interruptions originating within the network
Normalised SAIDI =	The sum of daily SAIDI values with extreme event days normalised using the IDD method
Normalised SAIFI =	The sum of daily SAIFI values with extreme event days normalised using the IDD method
Quality Path Normalised Reliability Limit =	DPP or CPP SAIDI and SAIFI quality limits applying to non-exempt EDBs in the disclosure year, with extreme event days normalised using the DPP or CPP method



Reliability

	Total Interruptions (All Classes)			Class B (Planned Interruptions on the Network)		
	SAIDI Minutes	SAIFI Times	CAIDI Minutes	SAIDI Minutes	SAIFI Times	CAIDI Minutes
Alpine Energy	415.6	1.64	254.0	144.8	0.41	356.9
Aurora Energy	350.1	2.60	134.5	210.8	0.76	278.7
Buller Electricity	691.4	5.08	136.1	153.1	0.62	246.3
Centralines	319.6	5.14	62.2	121.6	0.53	231.3
Counties Energy	426.3	4.04	105.6	272.7	0.78	349.7
EA Networks	174.2	1.57	110.7	112.0	0.41	276.4
Electra	88.5	1.03	85.9	25.2	0.09	280.0
Electricity Invercargill	41.9	0.44	94.5	24.0	0.09	258.9
Firstlight Network	593.1	4.34	136.7	122.2	0.51	239.1
Horizon Energy Distribution	437.2	4.02	108.8	130.0	1.17	111.4
MainPower New Zealand	937.3	2.88	324.9	126.1	0.35	359.6
Marlborough Lines	181.4	2.33	78.0	95.0	0.85	111.5
Nelson Electricity	6.3	0.09	73.3	2.7	0.01	302.2
Network Tasman	252.6	1.89	133.5	104.7	0.31	342.4
Network Waitaki	174.3	1.78	98.0	60.5	0.24	256.3
Northpower	418.1	4.99	83.7	204.7	0.68	300.0
Orion New Zealand	88.3	0.88	100.1	24.1	0.08	310.8
OtagoNet Joint Venture	567.3	3.56	159.2	331.8	1.12	297.1
Powerco	280.7	2.16	129.7	104.3	0.43	244.2
Scanpower	85.1	0.88	97.1	26.6	0.20	132.6
The Lines Company	376.0	3.25	115.8	153.0	0.52	296.8
The Power Company	526.8	5.10	103.3	167.5	0.67	251.5
Top Energy	698.4	5.66	123.3	261.5	1.29	202.6
Unison Networks	216.1	3.08	70.1	117.7	0.69	170.8
Vector	207.1	1.67	124.3	94.7	0.33	283.9
Waipa Networks	215.0	1.98	108.5	61.7	0.42	148.1
WEL Networks	179.9	1.88	95.7	93.4	0.67	139.4
Wellington Electricity Lines	64.2	0.83	77.2	17.3	0.07	235.3
Westpower	207.8	2.11	98.3	72.3	0.24	304.4
Average	318.0	2.65	118.0	118.5	0.50	252.4
Median	252.6	2.16	105.6	112.0	0.43	258.9
Minimum	6.3	0.09	62.2	2.7	0.01	111.4
Maximum	937.3	5.66	324.9	331.8	1.29	359.6

Reliability continued

	Class C (Unplanned Interruptions on the Network)			Class B and C (Network Planned and Unplanned Interruptions on the Network)			
	SAIDI Minutes	SAIFI Times	CAIDI Minutes	SAIDI Minutes	SAIFI Times	CAIDI Minutes	
Alpine Energy	215.6	1.05	205.9	360.4	1.45	248.1	
Aurora Energy	139.1	1.85	75.4	349.9	2.60	134.5	
Buller Electricity	119.7	1.49	80.3	272.8	2.11	129.2	
Centralines	146.8	3.37	43.6	268.4	3.90	68.9	
Counties Energy	135.2	2.53	53.4	407.9	3.31	123.2	
EA Networks	59.3	1.17	50.8	171.3	1.57	109.0	
Electra	62.8	0.90	69.8	88.0	0.99	88.9	
Electricity Invercargill	17.1	0.33	52.0	41.0	0.42	97.5	
Firstlight Network	470.9	3.83	123.1	593.1	4.34	136.7	
Horizon Energy Distribution	149.3	2.33	64.2	279.3	3.49	79.9	
MainPower New Zealand	811.2	2.53	320.1	937.3	2.88	324.9	
Marlborough Lines	86.4	1.47	58.6	181.4	2.33	78.0	
Nelson Electricity	3.6	0.08	46.5	6.3	0.09	73.3	
Network Tasman	128.5	1.53	84.1	233.2	1.83	127.2	
Network Waitaki	111.4	1.53	72.8	171.9	1.77	97.3	
Northpower	213.4	4.31	49.5	418.1	4.99	83.7	
Orion New Zealand	60.9	0.63	96.6	85.0	0.71	120.0	
OtagoNet Joint Venture	230.5	2.34	98.4	562.3	3.46	162.5	
Powerco	146.7	1.57	93.2	250.9	2.00	125.5	
Scanpower	58.5	0.68	86.6	85.1	0.88	97.1	
The Lines Company	196.3	2.29	85.6	349.2	2.81	124.3	
The Power Company	359.1	4.42	81.3	526.7	5.08	103.6	
Top Energy	437.0	4.37	99.9	698.4	5.66	123.3	
Unison Networks	89.9	1.81	49.6	207.6	2.50	83.0	
Vector	112.0	1.29	87.1	206.7	1.62	127.6	
Waipa Networks	153.3	1.57	97.9	215.0	1.98	108.5	
WEL Networks	85.5	1.14	75.0	178.9	1.81	98.8	
Wellington Electricity Lines	42.7	0.63	67.8	60.1	0.70	85.3	
Westpower	135.4	1.88	72.2	207.8	2.11	98.3	
Average	171.7	1.89	87.6	290.1	2.39	119.2	
Median	135.2	1.57	75.4	233.2	2.11	108.5	
Minimum	3.6	0.08	43.6	6.3	0.09	68.9	
Maximum	811.2	4.42	320.1	937.3	5.66	324.9	

	Normalised – Class B and C (Network Planned and Unplanned) ¹		Forecast 5 Year Average – Class B and C (Network Planned and Unplanned)		
	SAIDI Minutes	SAIFI Times	SAIDI Minutes	SAIFI Times	CAIDI Minutes
	287.8	1.45	191.9	1.90	101.0
	347.1	2.60	283.5	2.57	110.3
	272.8	2.11	776.4	4.55	170.6
	268.4	3.90	229.7	2.48	92.8
	407.9	3.31	285.3	2.45	116.3
	171.3	1.57	367.0	2.27	162.0
	88.5	1.04	83.0	1.66	50.0
	41.0	0.42	70.3	0.83	84.6
	530.3	3.70	316.1	3.67	86.1
	279.3	3.49	201.5	2.13	94.6
	303.3	2.05	250.2	1.90	131.4
	181.4	2.33	158.6	1.62	97.9
	5.2	0.09	30.0	0.90	33.3
	214.2	1.76	175.0	1.77	98.9
	110.6	1.41	160.0	1.80	88.9
	394.9	4.99	351.8	3.70	95.2
	66.2	0.71	80.1	0.88	91.0
	491.0	3.00	459.9	2.88	159.7
	249.6	2.00	302.6	2.72	111.4
	83.0	0.81	125.8	1.11	113.4
	339.9	2.81	267.6	3.25	82.4
	461.4	5.08	392.3	3.74	104.9
	668.6	5.66	676.0	5.06	133.6
	207.6	2.50	357.6	2.32	154.4
	204.6	1.62	221.9	4.22	52.6
	205.1	1.97	235.5	2.21	106.6
	178.9	1.81	121.5	1.47	82.7
	60.1	0.70	46.9	0.57	82.7
	207.8	2.11	177.0	2.10	84.3
	252.7	2.31	255.0	2.37	102.5
	214.2	2.05	229.7	2.21	97.9
	5.2	0.09	30.0	0.57	33.3
	668.6	5.66	776.4	5.06	170.6

¹ The IDD normalisation method differs from the method used for the 2021-25 DPP. It is consistent with the method used for the 2010-15 DPP. These values therefore are not directly comparable with the Quality Path Reliability Limits. The table on page 9 shows non-exempt EDBs' compliance with the quality standards.

Interruption causes

Definitions

Lightning =	Unplanned customer interruptions where the primary cause is a lightning strike
Vegetation =	All unplanned customer interruptions resulting from vegetation contact (including debris, grass and tree contact)
Adverse Weather =	Unplanned interruptions caused by adverse weather (not including lightning, vegetation contact or adverse environment)
Adverse Environment =	Unplanned interruptions caused by adverse environment, such as slips or seismic events
Third Party Interference =	Unplanned customer interruptions resulting from external contractors or members of the public (including dig-in, overhead contact, vandalism, and vehicle damage)
Wildlife =	All unplanned customer interruptions resulting from wildlife contact (including birds, possums, vermin, cats etc)
Human Error =	Unplanned customer interruptions resulting from contractors or staff, commissioning errors, incorrect protection settings, SCADA problems, switching errors, dig-in and overhead contact
Defective Equipment =	Unplanned customer interruptions resulting from equipment failure, either mechanical or electrical
Cause Unknown =	All unplanned interruptions where the cause is not known



SAIDI by cause

	SAIDI – Class C (Unplanned Interruptions on the Network)			
	Lightning Minutes	Vegetation Minutes	Adverse Weather Minutes	Adverse Environment Minutes
Alpine Energy	7.7	9.3	94.8	1.4
Aurora Energy	2.2	18.1	0.8	1.8
Buller Electricity	23.2	1.1	5.3	0.0
Centralines	4.9	56.9	7.0	0.2
Counties Energy	1.9	23.4	0.0	0.0
EA Networks	4.3	14.3	2.9	0.0
Electra	2.4	8.5	18.6	0.0
Electricity Invercargill	0.0	0.0	0.0	1.8
Firstlight Network	10.6	90.2	43.4	101.1
Horizon Energy Distribution	3.4	20.2	13.9	5.4
MainPower New Zealand	2.5	9.4	642.1	20.9
Marlborough Lines	0.5	8.7	17.2	0.0
Nelson Electricity	0.0	0.0	0.0	0.0
Network Tasman	8.3	0.2	12.9	0.0
Network Waitaki	2.6	6.6	75.6	0.0
Northpower	4.2	19.3	49.3	0.1
Orion New Zealand	0.2	6.6	26.6	0.4
OtagoNet Joint Venture	0.9	71.8	73.2	1.1
Powerco	2.8	36.9	1.4	1.1
Scanpower	0.0	35.0	0.5	0.9
The Lines Company	4.6	36.4	36.7	0.7
The Power Company	2.5	92.6	101.4	4.0
Top Energy	0.6	141.4	105.0	0.0
Unison Networks	2.3	31.7	3.0	0.0
Vector	0.4	18.3	4.1	0.3
Waipa Networks	0.8	21.0	1.0	0.8
WEL Networks	0.6	5.0	16.8	0.0
Wellington Electricity Lines	0.0	3.2	10.6	0.4
Westpower	19.7	20.5	20.0	0.0
Average	3.9	27.8	47.7	4.9
Median	2.4	18.3	13.9	0.3
Minimum	0.0	0.0	0.0	0.0
Maximum	23.2	141.4	642.1	101.1

SAIDI by cause continued

	SAIDI – Class C (Unplanned Interruptions on the Network)				
	Third Party Interference Minutes	Wildlife Minutes	Human Error Minutes	Defective Equipment Minutes	Cause Unknown Minutes
Alpine Energy	19.0	8.4	0.0	42.7	32.4
Aurora Energy	8.5	4.4	5.9	46.3	51.2
Buller Electricity	7.3	0.2	0.0	46.6	36.0
Centralines	11.6	14.8	0.0	31.4	20.0
Counties Energy	35.6	4.3	2.3	47.0	20.6
EA Networks	7.6	4.4	0.8	18.1	6.9
Electra	5.9	3.8	0.0	20.0	3.6
Electricity Invercargill	4.0	0.0	0.7	10.4	0.2
Firstlight Network	29.8	18.8	2.5	124.2	50.3
Horizon Energy Distribution	19.0	6.8	6.7	59.5	14.2
MainPower New Zealand	20.8	51.8	0.7	25.5	37.6
Marlborough Lines	14.1	6.8	0.5	24.7	13.9
Nelson Electricity	0.0	0.0	0.0	3.6	0.0
Network Tasman	14.8	3.5	0.0	75.1	13.7
Network Waitaki	8.6	1.9	0.1	11.5	4.6
Northpower	20.1	11.3	0.9	61.5	46.8
Orion New Zealand	6.1	1.9	0.5	16.4	2.2
OtagoNet Joint Venture	12.1	8.3	0.0	31.5	31.4
Powerco	19.6	4.4	3.0	53.9	23.4
Scanpower	2.6	0.0	0.0	15.1	0.0
The Lines Company	33.7	10.3	1.0	41.0	31.9
The Power Company	39.1	18.0	8.9	69.4	22.9
Top Energy	40.8	11.0	0.6	93.8	43.6
Unison Networks	15.2	4.6	0.9	21.2	11.0
Vector	18.3	4.5	1.2	43.5	21.3
Waipa Networks	56.6	5.2	0.8	54.7	12.5
WEL Networks	27.3	2.6	0.8	24.2	8.2
Wellington Electricity Lines	4.7	0.9	0.2	18.7	4.0
Westpower	32.9	5.0	0.2	29.1	8.1
Average	18.5	7.5	1.3	40.0	19.7
Median	15.2	4.5	0.7	31.5	14.2
Minimum	0.0	0.0	0.0	3.6	0.0
Maximum	56.6	51.8	8.9	124.2	51.2

SAIFI by cause

	SAIFI – Class C (Unplanned Interruptions on the Network)			
	Lightning Times	Vegetation Times	Adverse Weather Times	Adverse Environment Times
Alpine Energy	0.04	0.11	0.19	0.00
Aurora Energy	0.01	0.20	0.02	0.03
Buller Electricity	0.16	0.01	0.10	0.00
Centralines	0.14	0.71	0.07	0.00
Counties Energy	0.02	0.46	0.00	0.00
EA Networks	0.03	0.16	0.02	0.00
Electra	0.04	0.09	0.23	0.00
Electricity Invercargill	0.00	0.00	0.00	0.01
Firstlight Network	0.10	0.50	0.20	0.16
Horizon Energy Distribution	0.03	0.21	0.23	0.03
MainPower New Zealand	0.07	0.16	0.97	0.06
Marlborough Lines	0.00	0.05	0.29	0.00
Nelson Electricity	0.00	0.00	0.00	0.00
Network Tasman	0.27	0.00	0.07	0.00
Network Waitaki	0.08	0.19	0.51	0.00
Northpower	0.16	0.34	0.78	0.00
Orion New Zealand	0.00	0.08	0.07	0.00
OtagoNet Joint Venture	0.01	0.36	0.84	0.00
Powerco	0.02	0.28	0.01	0.01
Scanpower	0.00	0.24	0.00	0.01
The Lines Company	0.05	0.33	0.26	0.01
The Power Company	0.04	1.01	0.82	0.03
Top Energy	0.02	1.01	0.72	0.00
Unison Networks	0.05	0.39	0.03	0.00
Vector	0.00	0.19	0.03	0.00
Waipa Networks	0.01	0.24	0.02	0.01
WEL Networks	0.00	0.03	0.23	0.00
Wellington Electricity Lines	0.00	0.04	0.10	0.00
Westpower	0.37	0.09	0.08	0.00
Average	0.06	0.26	0.24	0.01
Median	0.03	0.19	0.10	0.00
Minimum	0.00	0.00	0.00	0.00
Maximum	0.37	1.01	0.97	0.16

SAIFI by cause continued

	SAIFI – Class C (Unplanned Interruptions on the Network)				
	Third Party Interference	Wildlife	Human Error	Defective Equipment	Cause Unknown
	Times	Times	Times	Times	Times
Alpine Energy	0.14	0.09	0.00	0.24	0.24
Aurora Energy	0.12	0.05	0.18	0.61	0.64
Buller Electricity	0.04	0.00	0.00	0.60	0.58
Centralines	0.12	0.57	0.00	0.93	0.83
Counties Energy	0.56	0.15	0.13	0.77	0.44
EA Networks	0.19	0.10	0.28	0.26	0.13
Electra	0.05	0.12	0.00	0.27	0.10
Electricity Invercargill	0.02	0.00	0.06	0.23	0.00
Firstlight Network	0.49	0.29	0.10	1.29	0.70
Horizon Energy Distribution	0.23	0.07	0.16	0.98	0.39
MainPower New Zealand	0.21	0.30	0.08	0.30	0.39
Marlborough Lines	0.23	0.09	0.37	0.28	0.17
Nelson Electricity	0.00	0.00	0.00	0.07	0.00
Network Tasman	0.13	0.06	0.00	0.81	0.18
Network Waitaki	0.13	0.05	0.02	0.33	0.23
Northpower	0.26	0.32	0.02	0.83	1.61
Orion New Zealand	0.08	0.04	0.01	0.31	0.03
OtagoNet Joint Venture	0.12	0.12	0.00	0.49	0.40
Powerco	0.19	0.07	0.07	0.57	0.33
Scanpower	0.01	0.00	0.00	0.30	0.00
The Lines Company	0.26	0.16	0.07	0.41	0.73
The Power Company	0.58	0.26	0.10	1.24	0.35
Top Energy	0.42	0.22	0.02	0.96	1.00
Unison Networks	0.28	0.13	0.03	0.50	0.40
Vector	0.16	0.07	0.05	0.44	0.33
Waipa Networks	0.37	0.06	0.04	0.63	0.20
WEL Networks	0.23	0.04	0.07	0.37	0.17
Wellington Electricity Lines	0.07	0.01	0.01	0.33	0.06
Westpower	0.34	0.08	0.00	0.61	0.30
Average	0.21	0.12	0.06	0.55	0.38
Median	0.19	0.08	0.03	0.49	0.33
Minimum	0.00	0.00	0.00	0.07	0.00
Maximum	0.58	0.57	0.37	1.29	1.61

SAIDI by main equipment involved

Subtransmission Lines =	Overhead power lines operated at a subtransmission voltage
Subtransmission Cables =	Underground power cables operated at a subtransmission voltage
Subtransmission Other =	Other equipment operated at a subtransmission voltage
Distribution Lines =	Overhead power lines operated at distribution voltage
Distribution Cables =	Underground power cables operated at distribution voltage
Distribution Other =	Other equipment operated at a distribution voltage

	SAIDI – Class B (Planned Interruptions on the Network)					
	Subtransmission Lines	Subtransmission Cables	Subtransmission Other	Distribution Lines	Distribution Cables	Distribution Other
Alpine Energy	0.0	0.0	0.0	95.8	49.0	0.0
Aurora Energy	0.4	0.0	0.0	156.3	37.3	16.7
Buller Electricity	35.8	0.0	0.0	107.2	10.2	0.0
Centralines	0.0	0.0	0.0	117.0	4.6	0.0
Counties Energy	2.9	0.0	0.0	264.0	0.5	5.3
EA Networks	7.6	0.0	0.0	102.4	2.0	0.0
Electra	0.0	0.0	0.0	2.5	0.0	22.6
Electricity Invercargill	0.0	0.0	0.0	13.5	2.0	8.4
Firstlight Network	0.8	0.0	0.0	121.2	0.2	0.0
Horizon Energy Distribution	0.0	0.0	0.0	118.7	11.3	0.0
MainPower New Zealand	0.0	0.0	0.0	105.5	18.9	1.6
Marlborough Lines	3.1	0.0	0.0	59.6	6.7	25.7
Nelson Electricity	-	0.0	0.0	0.0	0.0	2.7
Network Tasman	0.8	0.0	0.0	89.3	11.6	3.1
Network Waitaki	0.0	0.0	0.0	60.0	0.4	0.0
Northpower	0.0	13.9	0.0	167.7	23.2	0.0
Orion New Zealand	0.0	0.0	0.0	16.1	0.3	7.7
OtagoNet Joint Venture	32.4	0.0	6.2	273.5	0.0	19.7
Powerco	1.8	0.0	0.0	102.5	0.0	0.0
Scanpower	-	-	-	22.4	0.0	4.2
The Lines Company	2.3	0.0	0.0	150.7	0.0	0.0
The Power Company	1.4	0.0	0.0	152.8	3.6	9.7
Top Energy	0.0	0.0	0.0	249.8	11.6	0.0
Unison Networks	1.9	0.0	0.1	85.7	30.0	0.0
Vector	0.0	0.0	0.0	46.9	2.5	45.3
Waipa Networks	0.0	-	-	36.9	8.5	16.3
WEL Networks	0.0	0.0	0.0	62.9	0.0	30.5
Wellington Electricity Lines	0.0	0.0	0.0	14.1	3.2	0.0
Westpower	0.9	-	5.7	59.1	3.7	2.9
Average	3.4	0.5	0.4	98.4	8.3	7.7
Median	0.0	0.0	0.0	95.8	3.2	2.7
Minimum	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	35.8	13.9	6.2	273.5	49.0	45.3

SAIDI by main equipment involved continued

	SAIDI – Class C (Unplanned Interruptions on the Network)					
	Subtransmission Lines	Subtransmission Cables	Subtransmission Other	Distribution Lines	Distribution Cables	Distribution Other
Alpine Energy	0.3	0.0	7.3	174.8	3.5	29.8
Aurora Energy	32.9	0.0	6.7	76.5	12.0	11.0
Buller Electricity	8.8	0.0	0.0	110.9	0.0	0.0
Centralines	14.6	0.0	0.0	132.2	0.0	0.0
Counties Energy	10.4	0.0	4.4	111.6	1.8	7.0
EA Networks	4.4	0.0	0.0	53.5	1.4	0.0
Electra	0.0	0.0	0.4	22.5	2.6	37.3
Electricity Invercargill	0.0	0.0	0.0	8.4	7.6	1.1
Firstlight Network	56.5	0.0	0.0	391.3	23.0	0.0
Horizon Energy Distribution	28.8	0.0	0.0	113.4	7.1	0.0
MainPower New Zealand	295.7	0.0	0.0	503.1	11.4	1.1
Marlborough Lines	0.2	1.3	0.6	51.2	2.7	30.4
Nelson Electricity	-	0.0	0.0	0.0	3.6	0.0
Network Tasman	70.5	0.0	0.0	51.2	5.3	1.5
Network Waitaki	12.8	0.0	0.0	98.6	0.1	0.0
Northpower	42.6	2.7	0.0	157.4	10.6	0.0
Orion New Zealand	2.8	0.1	0.3	44.0	9.2	4.5
OtagoNet Joint Venture	64.6	1.8	0.2	142.8	0.9	20.2
Powerco	9.5	0.0	0.1	128.4	5.8	2.8
Scanpower	-	-	-	51.2	0.0	7.3
The Lines Company	19.2	0.8	0.0	174.3	1.9	0.0
The Power Company	57.2	0.0	2.7	266.8	1.7	30.7
Top Energy	22.8	8.0	0.0	355.2	50.9	0.0
Unison Networks	4.6	0.0	0.5	76.0	8.7	0.0
Vector	17.2	0.0	1.2	58.1	16.3	19.2
Waipa Networks	0.0	-	-	19.1	9.2	25.6
WEL Networks	2.9	0.9	0.8	63.6	2.1	15.2
Wellington Electricity Lines	0.0	4.4	0.0	27.4	10.9	0.0
Westpower	61.6	-	1.5	67.6	2.7	2.1
Average	31.1	0.8	1.0	121.8	7.4	8.5
Median	12.8	0.0	0.0	76.5	3.6	1.5
Minimum	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	295.7	8.0	7.3	503.1	50.9	37.3

SAIFI by main equipment involved

	SAIFI – Class B (Planned Interruptions on the Network)					
	Subtransmission Lines	Subtransmission Cables	Subtransmission Other	Distribution Lines	Distribution Cables	Distribution Other
Alpine Energy	0.00	0.00	0.00	0.28	0.13	0.00
Aurora Energy	0.00	0.00	0.00	0.52	0.14	0.09
Buller Electricity	0.19	0.00	0.00	0.38	0.05	0.00
Centralines	0.00	0.00	0.00	0.50	0.03	0.00
Counties Energy	0.01	0.00	0.00	0.75	0.00	0.02
EA Networks	0.02	0.00	0.00	0.37	0.01	0.00
Electra	0.00	0.00	0.00	0.01	0.00	0.08
Electricity Invercargill	0.00	0.00	0.00	0.04	0.01	0.04
Firstlight Network	0.00	0.00	0.00	0.51	0.00	0.00
Horizon Energy Distribution	0.00	0.00	0.00	1.11	0.06	0.00
MainPower New Zealand	0.00	0.00	0.00	0.30	0.05	0.00
Marlborough Lines	0.04	0.00	0.00	0.59	0.03	0.19
Nelson Electricity	-	0.00	0.00	0.00	0.00	0.01
Network Tasman	0.00	0.00	0.00	0.26	0.03	0.01
Network Waitaki	0.00	0.00	0.00	0.23	0.00	0.00
Northpower	0.00	0.04	0.00	0.56	0.09	0.00
Orion New Zealand	0.00	0.00	0.00	0.05	0.00	0.02
OtagoNet Joint Venture	0.07	0.00	0.03	0.91	0.00	0.10
Powerco	0.00	0.00	0.00	0.42	0.00	0.00
Scanpower	-	-	-	0.16	0.00	0.04
The Lines Company	0.01	0.00	0.00	0.51	0.00	0.00
The Power Company	0.00	0.00	0.00	0.59	0.01	0.06
Top Energy	0.00	0.00	0.00	1.21	0.08	0.00
Unison Networks	0.02	0.00	0.06	0.40	0.21	0.00
Vector	0.00	0.00	0.00	0.14	0.01	0.18
Waipa Networks	0.00	-	-	0.24	0.06	0.12
WEL Networks	0.00	0.00	0.00	0.27	0.00	0.40
Wellington Electricity Lines	0.00	0.00	0.00	0.05	0.03	0.00
Westpower	0.02	-	0.02	0.18	0.01	0.01
Average	0.01	0.00	0.00	0.40	0.04	0.05
Median	0.00	0.00	0.00	0.37	0.01	0.01
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	0.19	0.04	0.06	1.21	0.21	0.40

SAIFI by main equipment involved continued

	SAIFI – Class C (Unplanned Interruptions on the Network)					
	Subtransmission Lines	Subtransmission Cables	Subtransmission Other	Distribution Lines	Distribution Cables	Distribution Other
Alpine Energy	0.00	0.00	0.04	0.88	0.07	0.06
Aurora Energy	0.37	0.00	0.15	0.96	0.16	0.21
Buller Electricity	0.25	0.00	0.00	1.24	0.00	0.00
Centralines	0.75	0.00	0.00	2.62	0.00	0.00
Counties Energy	0.24	0.00	0.20	1.90	0.01	0.18
EA Networks	0.43	0.00	0.00	0.69	0.05	0.00
Electra	0.00	0.00	0.01	0.28	0.04	0.57
Electricity Invercargill	0.00	0.00	0.00	0.10	0.16	0.07
Firstlight Network	1.35	0.00	0.00	2.28	0.20	0.00
Horizon Energy Distribution	0.27	0.00	0.00	1.74	0.32	0.00
MainPower New Zealand	0.80	0.00	0.00	1.62	0.10	0.01
Marlborough Lines	0.02	0.12	0.45	0.42	0.05	0.41
Nelson Electricity	-	0.00	0.00	0.00	0.07	0.00
Network Tasman	0.89	0.00	0.00	0.55	0.07	0.02
Network Waitaki	0.54	0.00	0.00	0.99	0.00	0.00
Northpower	0.67	0.06	0.00	3.43	0.15	0.00
Orion New Zealand	0.03	0.04	0.01	0.30	0.21	0.05
OtagoNet Joint Venture	0.83	0.13	0.01	1.20	0.01	0.17
Powerco	0.22	0.00	0.00	1.18	0.10	0.07
Scanpower	-	-	-	0.47	0.00	0.21
The Lines Company	0.61	0.02	0.00	1.64	0.02	0.00
The Power Company	0.91	0.00	0.11	2.98	0.03	0.39
Top Energy	0.61	0.15	0.00	3.08	0.54	0.00
Unison Networks	0.19	0.00	0.04	1.36	0.22	0.00
Vector	0.20	0.00	0.03	0.64	0.20	0.22
Waipa Networks	0.00	-	-	0.27	0.08	0.26
WEL Networks	0.08	0.07	0.01	0.67	0.03	0.28
Wellington Electricity Lines	0.00	0.12	0.00	0.31	0.20	0.00
Westpower	0.45	-	0.10	1.28	0.01	0.03
Average	0.40	0.03	0.04	1.21	0.11	0.11
Median	0.27	0.00	0.00	0.99	0.07	0.03
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	1.35	0.15	0.45	3.43	0.54	0.57

Interruptions and faults

	Number of Interruptions			Number of Faults by Main Equipment Involved						
	Class B (Planned Interruptions on the Network)	Class C (Unplanned Interruptions on the Network)	All Classes	Subtransmission			Distribution			Total Faults
	No.	No.	No.	Lines No.	Cables No.	Other No.	Lines No.	Cables No.	Other No.	No.
Alpine Energy	824	562	1,444	4	2	6	1,115	305	10	1,442
Aurora Energy	1,151	738	1,902	22	0	6	255	41	200	524
Buller Electricity	75	103	181	5	0	0	97	1	0	103
Centralines	163	169	347	5	0	0	164	0	0	169
Counties Energy	563	363	988	6	0	2	340	5	15	368
EA Networks	294	282	579	11	0	0	276	4	0	291
Electra	165	264	430	0	0	1	44	4	216	265
Electricity Invercargill	32	26	60	0	0	0	9	4	13	26
Firstlight Network	313	724	1,037	17	0	0	693	14	0	724
Horizon Energy Distribution	262	195	489	7	0	0	173	15	0	195
MainPower New Zealand	578	1,074	1,652	82	0	0	963	24	5	1,074
Marlborough Lines	344	316	660	2	1	4	136	8	165	316
Nelson Electricity	5	4	9	-	0	0	0	3	0	3
Network Tasman	199	134	341	5	0	0	99	11	3	118
Network Waitaki	215	139	437	10	0	0	106	1	0	117
Northpower	486	510	996	16	2	0	470	22	0	510
Orion New Zealand	861	1,067	1,934	3	1	3	734	112	85	938
OtagoNet Joint Venture	392	625	1,020	27	3	3	345	5	242	625
Powerco	2,194	3,098	5,902	124	0	2	4,008	141	208	4,483
Scanpower	67	62	129	-	-	-	48	0	14	62
The Lines Company	296	684	1,075	24	1	0	655	4	0	684
The Power Company	531	1,463	1,996	19	0	2	1,089	11	342	1,463
Top Energy	311	471	782	11	2	0	709	60	0	782
Unison Networks	909	685	1,696	24	0	5	567	89	0	685
Vector	1,854	1,645	3,503	19	0	9	973	292	352	1,645
Waipa Networks	451	205	656	0	-	-	82	18	85	185
WEL Networks	732	643	1,381	4	2	5	241	22	369	643
Wellington Electricity Lines	277	219	499	3	4	0	144	68	0	219
Westpower	143	199	345	14	-	2	148	9	25	198
Average	506	575	1,120	17	1	2	506	45	81	650
Median	313	363	782	10	0	0	255	11	10	368
Minimum	5	4	9	0	0	0	0	0	0	3
Maximum	2,194	3,098	5,902	124	4	9	4,008	305	369	4,483

Interruptions and faults continued

	Class C Interruptions Restored Within		Faults per 100km of Circuit by Main Equipment Involved			
	≤3Hrs	>3hrs	Subtransmission		Distribution	
	No.	No.	Lines Per 100km	Cables Per 100km	Lines Per 100km	Cables Per 100km
Alpine Energy	337	225	1.61	6.06	38.47	63.94
Aurora Energy	521	217	4.21	0.00	11.19	3.36
Buller Electricity	66	37	4.77	0.00	25.92	4.60
Centralines	123	46	5.31	0.00	11.65	0.00
Counties Energy	196	167	5.16	0.00	22.85	1.37
EA Networks	216	66	2.87	0.00	14.37	1.15
Electra	196	68	0.00	0.00	5.18	1.48
Electricity Invercargill	17	9	0.00	0.00	41.04	2.50
Firstlight Network	385	339	2.66	0.00	29.23	8.99
Horizon Energy Distribution	148	47	2.77	0.00	11.56	6.54
MainPower New Zealand	657	417	21.40	0.00	28.06	6.22
Marlborough Lines	190	126	0.72	3.13	6.38	3.76
Nelson Electricity	4	0	-	0.00	0.00	3.94
Network Tasman	100	34	1.78	0.00	5.24	3.51
Network Waitaki	102	37	4.02	0.00	8.37	1.11
Northpower	362	148	4.95	7.69	13.40	6.96
Orion New Zealand	720	347	0.58	0.72	23.47	3.88
OtagoNet Joint Venture	431	193	3.87	16.01	10.68	4.09
Powerco	1,771	1,327	8.24	0.00	27.27	6.07
Scanpower	37	25	-	-	5.72	0.00
The Lines Company	442	242	5.53	6.51	21.12	1.97
The Power Company	960	503	2.09	0.00	16.18	7.18
Top Energy	338	444	2.89	8.70	27.45	26.20
Unison Networks	412	273	5.59	0.00	14.56	9.87
Vector	858	787	4.80	0.00	26.30	7.36
Waipa Networks	113	92	0.00	-	6.59	10.72
WEL Networks	392	251	2.25	0.75	12.49	2.86
Wellington Electricity Lines	128	91	5.28	2.92	24.52	5.58
Westpower	142	57	4.47	-	10.40	12.75
Average	357	228	3.99	2.02	17.23	7.52
Median	216	148	3.87	0.00	14.37	4.09
Minimum	4	0	0.00	0.00	0.00	0.00
Maximum	1,771	1,327	21.40	16.01	41.04	63.94



15. Ranked data

Total Circuit Length		Number of Connection Points				Connection Point Density		Energy Delivered to ICPS		GWh	
				ICPs				ICPs/km			
1	Powerco	29,202	1	Vector	616,705	1	Wellington Electricity Lines	36.0	1	Vector	8,754
2	Vector	19,594	2	Powerco	359,857	2	Vector	31.5	2	Powerco	5,003
3	Orion New Zealand	11,992	3	Orion New Zealand	223,047	3	Nelson Electricity	31.4	3	Orion New Zealand	3,479
4	Unison Networks	9,403	4	Wellington Electricity Lines	175,249	4	Electricity Invercargill	26.6	4	Wellington Electricity Lines	2,314
5	The Power Company	8,915	5	Unison Networks	119,182	5	Electra	19.5	5	Unison Networks	1,674
6	Aurora Energy	6,312	6	WEL Networks	100,250	6	Orion New Zealand	18.6	6	WEL Networks	1,434
7	Northpower	6,218	7	Aurora Energy	95,241	7	WEL Networks	17.7	7	Aurora Energy	1,424
8	WEL Networks	5,670	8	Northpower	63,782	8	Aurora Energy	15.1	8	Alpine Energy	892
9	MainPower New Zealand	5,234	9	Counties Energy	48,147	9	Counties Energy	13.4	9	The Power Company	848
10	Wellington Electricity Lines	4,864	10	Electra	46,749	10	Unison Networks	12.7	10	Northpower	791
11	OtagoNet Joint Venture	4,688	11	MainPower New Zealand	44,918	11	Waipa Networks	12.4	11	Network Tasman	650
12	The Lines Company	4,443	12	Network Tasman	42,816	12	Powerco	12.3	12	Counties Energy	650
13	Alpine Energy	4,379	13	The Power Company	37,720	13	Network Tasman	11.5	13	MainPower New Zealand	640
14	Top Energy	4,240	14	Top Energy	34,094	14	Northpower	10.3	14	EA Networks	635
15	Firstlight Network	3,976	15	Alpine Energy	33,883	15	Horizon Energy Distribution	9.6	15	Horizon Energy Distribution	495
16	Network Tasman	3,733	16	Waipa Networks	28,972	16	MainPower New Zealand	8.6	16	OtagoNet Joint Venture	478
17	Counties Energy	3,586	17	Marlborough Lines	27,034	17	Top Energy	8.0	17	Waipa Networks	434
18	Marlborough Lines	3,539	18	Firstlight Network	25,934	18	Alpine Energy	7.7	18	Electra	428
19	EA Networks	3,160	19	Horizon Energy Distribution	25,300	19	Marlborough Lines	7.6	19	Marlborough Lines	401
20	Horizon Energy Distribution	2,627	20	The Lines Company	24,145	20	Buller Electricity	7.5	20	The Lines Company	369
21	Electra	2,393	21	EA Networks	21,105	21	Network Waitaki	6.9	21	Top Energy	331
22	Waipa Networks	2,341	22	OtagoNet Joint Venture	20,029	22	EA Networks	6.7	22	Network Waitaki	308
23	Westpower	2,187	23	Electricity Invercargill	17,645	23	Westpower	6.6	23	Firstlight Network	293
24	Network Waitaki	1,939	24	Westpower	14,326	24	Firstlight Network	6.5	24	Electricity Invercargill	255
25	Centralines	1,869	25	Network Waitaki	13,446	25	Scanpower	6.5	25	Westpower	230
26	Scanpower	1,050	26	Nelson Electricity	9,312	26	The Lines Company	5.4	26	Nelson Electricity	133
27	Electricity Invercargill	665	27	Centralines	9,285	27	Centralines	5.0	27	Centralines	112
28	Buller Electricity	650	28	Scanpower	6,791	28	OtagoNet Joint Venture	4.3	28	Scanpower	78
29	Nelson Electricity	297	29	Buller Electricity	4,889	29	The Power Company	4.2	29	Buller Electricity	51

Gross Line Charge Revenue		Gross Line Charge Revenue		Total Distribution Revenue ¹		Total Distribution Revenue	
	c/kWh		\$/ICP		c/kWh		\$/ICP
1	Buller Electricity	1	EA Networks	1	Buller Electricity	1	EA Networks
2	Centralines	2	Alpine Energy	2	Centralines	2	Alpine Energy
3	Top Energy	3	Network Waitaki	3	Top Energy	3	Westpower
4	Scanpower	4	Buller Electricity	4	Scanpower	4	The Lines Company
5	The Lines Company	5	The Lines Company	5	The Lines Company	5	Network Waitaki
6	Electra	6	Westpower	6	Westpower	6	Centralines
7	Westpower	7	OtagoNet Joint Venture	7	Electra	7	The Power Company
8	Counties Energy	8	The Power Company	8	Marlborough Lines	8	OtagoNet Joint Venture
9	Marlborough Lines	9	Centralines	9	Counties Energy	9	Marlborough Lines
10	Firstlight Network	10	Marlborough Lines	10	Firstlight Network	10	Buller Electricity
11	Aurora Energy	11	Aurora Energy	11	Aurora Energy	11	Aurora Energy
12	MainPower New Zealand	12	Counties Energy	12	MainPower New Zealand	12	Counties Energy
13	Northpower	13	Horizon Energy Distribution	13	Unison Networks	13	MainPower New Zealand
14	Unison Networks	14	Scanpower	14	Powerco	14	Scanpower
15	Powerco	15	MainPower New Zealand	15	Northpower	15	Horizon Energy Distribution
16	Waipa Networks	16	Top Energy	16	The Power Company	16	Top Energy
17	Network Waitaki	17	Unison Networks	17	Waipa Networks	17	Unison Networks
18	WEL Networks	18	Waipa Networks	18	Network Waitaki	18	Firstlight Network
19	The Power Company	19	Powerco	19	WEL Networks	19	Waipa Networks
20	Vector	20	Firstlight Network	20	EA Networks	20	Powerco
21	EA Networks	21	Northpower	21	Alpine Energy	21	WEL Networks
22	Alpine Energy	22	WEL Networks	22	OtagoNet Joint Venture	22	Electra
23	Electricity Invercargill	23	Vector	23	Horizon Energy Distribution	23	Northpower
24	OtagoNet Joint Venture	24	Orion New Zealand	24	Electricity Invercargill	24	Orion New Zealand
25	Horizon Energy Distribution	25	Electricity Invercargill	25	Vector	25	Electricity Invercargill
26	Orion New Zealand	26	Electra	26	Orion New Zealand	26	Vector
27	Wellington Electricity Lines	27	Network Tasman	27	Network Tasman	27	Network Tasman
28	Nelson Electricity	28	Nelson Electricity	28	Nelson Electricity	28	Nelson Electricity
29	Network Tasman	29	Wellington Electricity Lines	29	Wellington Electricity Lines	29	Wellington Electricity Lines

1 Total distribution revenue is derived as Line Charge Revenue less Recoverable Costs – Transpower Charges, Recoverable Costs – Distributed Generation Allowance, and Recoverable Costs – Purchased Assets Avoided Transmission Charge.

Closing RAB		Regulatory Investment Value		ROI — Comparable to a Vanilla WACC - Reflecting All Revenue Earned		ROI — Comparable to a Vanilla WACC - Excluding Revenue Earned from Financial Incentives and Wash-Ups		
	\$000		\$000		%		%	
1	Vector	4,193,945	1	Vector	4,018,756	1	Centralines	8.23
2	Powerco	2,796,870	2	Powerco	2,675,653	2	Horizon Energy Distribution	8.23
3	Orion New Zealand	1,566,054	3	Orion New Zealand	1,485,801	3	Aurora Energy	8.04
4	Unison Networks	886,495	4	Unison Networks	841,168	4	Electra	7.04
5	Wellington Electricity Lines	847,276	5	Wellington Electricity Lines	795,042	5	WEL Networks	6.99
6	Aurora Energy	830,127	6	Aurora Energy	791,635	6	Electricity Invercargill	6.92
7	WEL Networks	750,681	7	WEL Networks	701,087	7	Unison Networks	6.85
8	The Power Company	517,957	8	The Power Company	487,244	8	Alpine Energy	6.66
9	Counties Energy	505,781	9	Counties Energy	478,984	9	Counties Energy	6.61
10	Northpower	386,466	10	Northpower	368,442	10	Powerco	6.45
11	Top Energy	362,368	11	EA Networks	341,647	11	The Power Company	6.39
12	EA Networks	360,224	12	Top Energy	341,631	12	OtagoNet Joint Venture	6.39
13	MainPower New Zealand	327,861	13	MainPower New Zealand	320,781	13	Wellington Electricity Lines	6.34
14	Alpine Energy	313,092	14	Alpine Energy	293,238	14	Orion New Zealand	6.29
15	OtagoNet Joint Venture	285,678	15	Marlborough Lines	273,337	15	EA Networks	6.24
16	The Lines Company	284,366	16	The Lines Company	262,826	16	Vector	6.21
17	Marlborough Lines	279,151	17	OtagoNet Joint Venture	259,473	17	Network Tasman	5.88
18	Electra	256,946	18	Electra	244,410	18	The Lines Company	5.69
19	Network Tasman	225,439	19	Network Tasman	219,768	19	Scanpower	5.55
20	Firstlight Network	222,587	20	Firstlight Network	203,933	20	Waipa Networks	5.54
21	Waipa Networks	171,859	21	Horizon Energy Distribution	167,394	21	Northpower	5.32
22	Horizon Energy Distribution	167,394	22	Waipa Networks	161,122	22	Firstlight Network	5.31
23	Network Waitaki	134,034	23	Network Waitaki	128,056	23	MainPower New Zealand	5.21
24	Westpower	120,038	24	Westpower	123,517	24	Nelson Electricity	4.99
25	Electricity Invercargill	113,034	25	Electricity Invercargill	105,622	25	Westpower	4.92
26	Centralines	97,761	26	Centralines	91,584	26	Network Waitaki	4.91
27	Scanpower	57,126	27	Scanpower	54,373	27	Marlborough Lines	4.88
28	Nelson Electricity	50,132	28	Nelson Electricity	47,689	28	Top Energy	4.11
29	Buller Electricity	37,215	29	Buller Electricity	35,004	29	Buller Electricity	3.11

16. Time series data

Time series data for 2021, 2022 and 2023 is extracted from disclosures made under the IDD.

	Total Circuit Length km			Number of Connection Points ICPs			Electricity Supplied to Customers' Connection Points GWh			Maximum Coincident System Demand MW		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Alpine Energy	4,326	4,374	4,379	33,269	33,539	33,883	772	812	892	135	142	155
Aurora Energy	6,213	6,256	6,312	93,287	94,311	95,241	1,307	1,355	1,424	309	309	311
Buller Electricity	649	650	650	4,757	4,815	4,889	50	49	51	11	11	11
Centralines	1,836	1,864	1,869	9,054	9,212	9,285	108	108	112	22	22	23
Counties Energy	3,500	3,545	3,586	45,785	46,963	48,147	656	651	650	129	134	144
EA Networks	3,105	3,172	3,160	20,247	20,538	21,105	554	564	635	160	156	172
Electra	2,354	2,380	2,393	45,950	46,333	46,749	424	429	428	111	108	111
Electricity Invercargill	663	665	665	17,491	17,562	17,645	252	250	255	62	70	64
Firstlight Network	3,942	3,945	3,976	25,775	25,872	25,934	288	286	293	66	65	67
Horizon Energy Distribution	2,612	2,624	2,627	25,081	25,179	25,300	556	537	495	97	94	86
MainPower New Zealand	5,170	5,198	5,234	43,131	44,109	44,918	624	620	640	124	122	117
Marlborough Lines	3,424	3,519	3,539	26,630	26,830	27,034	387	390	401	75	75	74
Nelson Electricity	296	296	297	9,285	9,297	9,312	138	135	133	33	34	33
Network Tasman	3,688	3,719	3,733	41,622	42,224	42,816	652	654	650	149	159	155
Network Waitaki	1,903	1,908	1,939	13,201	13,344	13,446	238	271	308	61	65	70
Northpower	6,151	6,190	6,218	62,040	63,002	63,782	1,042	792	791	182	157	158
Orion New Zealand	11,740	11,907	11,992	213,669	218,227	223,047	3,281	3,377	3,479	713	655	692
OtagoNet Joint Venture	4,638	4,619	4,688	18,567	19,361	20,029	450	463	478	68	72	72
Powerco	28,935	29,087	29,202	352,563	356,643	359,857	4,994	4,960	5,003	986	974	967
Scanpower	1,049	1,052	1,050	6,731	6,771	6,791	77	77	78	16	16	17
The Lines Company	4,440	4,426	4,443	23,999	24,016	24,145	368	365	369	78	75	75
The Power Company	8,862	8,882	8,915	36,897	37,327	37,720	794	822	848	161	161	162
Top Energy	4,101	4,228	4,240	33,263	33,740	34,094	330	332	331	77	78	77
Unison Networks	9,377	9,334	9,403	116,893	118,448	119,182	1,647	1,679	1,674	354	351	338
Vector	19,280	19,468	19,594	593,440	603,707	616,705	8,375	8,462	8,754	1,807	1,759	1,918
Waipa Networks	2,292	2,302	2,341	28,033	29,128	28,972	420	420	434	86	85	88
WEL Networks	5,570	5,617	5,670	96,894	98,601	100,250	1,331	1,323	1,434	308	281	313
Wellington Electricity Lines	4,806	4,835	4,864	171,955	173,512	175,249	2,267	2,287	2,314	579	538	563
Westpower	2,205	2,193	2,187	14,007	14,144	14,326	220	221	230	45	39	36
Average	5,418	5,457	5,488	76,673	77,819	78,960	1,124	1,127	1,158	242	235	244
Median	3,942	3,945	3,976	33,263	33,539	33,883	554	537	495	111	108	111
Minimum	296	296	297	4,757	4,815	4,889	50	49	51	11	11	11
Maximum	28,935	29,087	29,202	593,440	603,707	616,705	8,375	8,462	8,754	1,807	1,759	1,918

	Total Distribution Transformer Capacity MVA				Load Factor %				Loss Ratio %				ROI Comparable to a Vanilla WACC Reflecting All Revenue Earned %				Year-End ROI Excluding Revenue Earned from Financial Incentives and Wash-Ups Comparable to a Vanilla WACC %			
	2022	2023	2024		2022	2023	2024		2022	2023	2024		2022	2023	2024		2022	2023	2024	
Alpine Energy	620	669	653		68.0	66.8	67.9		3.6	2.3	3.2		8.7	8.4	6.7		8.1	8.4	6.7	
Aurora Energy	1,011	1,025	1,046		51.2	53.1	53.8		5.4	5.5	2.9		7.3	8.7	8.0		10.3	8.7	8.0	
Buller Electricity	47	48	47		56.1	57.6	58.3		6.8	7.2	5.8		10.7	10.0	3.1		10.4	10.0	3.1	
Centralines	115	118	116		61.2	59.2	59.2		8.1	6.8	7.4		9.8	9.2	8.2		9.7	9.2	8.2	
Counties Energy	769	502	527		60.9	58.1	54.1		4.9	4.6	4.9		9.9	9.0	6.6		9.7	9.0	6.6	
EA Networks	605	611	617		40.7	44.0	44.6		2.8	6.0	5.8		9.8	8.9	6.2		9.8	8.9	6.2	
Electra	344	351	358		47.6	48.2	47.3		8.0	5.9	7.0		9.6	8.8	7.0		9.4	8.8	7.0	
Electricity Invercargill	158	158	160		46.8	41.7	50.1		3.2	4.6	4.7		9.6	9.3	6.9		9.9	9.3	6.9	
Firstlight Network	275	273	288		54.5	54.5	55.0		8.8	8.3	8.6		9.7	8.3	5.3		9.6	8.3	5.3	
Horizon Energy Distribution	349	354	360		68.6	68.4	69.0		4.4	4.6	4.6		13.4	10.6	8.8		11.9	10.6	8.8	
MainPower New Zealand	588	599	672		61.2	61.2	66.0		5.8	5.4	5.6		6.6	7.5	5.2		6.5	7.5	5.2	
Marlborough Lines	369	380	386		61.5	62.2	65.1		4.4	5.0	5.4		8.3	6.7	4.9		8.1	6.7	4.9	
Nelson Electricity	100	100	100		48.9	47.8	47.5		3.4	4.0	4.2		10.0	9.6	5.0		10.1	9.6	5.0	
Network Tasman	505	515	520		60.7	61.4	58.6		5.6	5.7	5.0		8.6	8.3	5.9		8.6	8.3	5.9	
Network Waitaki	236	244	245		46.8	50.0	53.0		4.6	4.7	5.3		8.4	8.0	4.9		8.3	8.0	4.9	
Northpower	594	605	618		68.4	60.7	60.6		4.5	5.4	5.5		8.8	6.4	5.3		8.7	6.4	5.3	
Orion New Zealand	2,493	2,528	2,574		54.7	61.4	59.8		4.0	4.1	4.1		10.3	9.1	6.3		10.0	9.1	6.3	
OtagoNet Joint Venture	239	245	254		78.7	75.4	77.9		4.4	3.9	3.9		10.0	8.7	6.4		10.7	8.7	6.4	
Powerco	3,640	3,716	3,790		61.0	61.2	62.4		5.2	5.1	5.4		8.4	8.9	6.4		8.3	8.9	6.4	
Scanpower	75	75	78		58.1	58.1	56.7		7.3	7.3	7.0		8.3	9.2	5.6		8.2	9.2	5.6	
The Lines Company	267	271	276		57.4	59.6	60.2		6.4	6.5	7.3		9.6	9.7	5.7		10.5	9.7	5.7	
The Power Company	517	501	508		59.6	61.7	62.6		5.0	4.9	5.6		9.0	8.7	6.4		8.8	8.7	6.4	
Top Energy	325	298	284		54.4	54.3	55.0		10.4	10.4	10.6		9.3	7.6	4.1		9.0	7.6	4.1	
Unison Networks	1,265	1,295	1,306		56.4	56.2	59.2		5.9	2.9	4.4		10.3	9.5	6.9		9.1	9.5	6.9	
Vector	5,513	5,734	5,895		55.1	57.2	54.2		4.0	4.0	3.9		9.5	8.9	6.2		9.2	8.9	6.2	
Waipa Networks	291	303	320		58.0	59.0	59.3		3.9	4.8	5.2		9.2	6.9	5.5		9.1	6.9	5.5	
WEL Networks	996	1,020	1,031		51.6	56.3	54.9		4.5	4.6	4.7		9.9	8.4	7.0		9.7	8.4	7.0	
Wellington Electricity Lines	1,470	1,526	1,563		46.9	50.3	49.0		4.7	3.5	4.3		11.2	10.1	6.3		10.8	10.1	6.3	
Westpower	194	178	180		58.6	70.2	79.3		5.0	7.9	6.9		8.3	7.4	4.9		8.2	7.4	4.9	
Average	827	836	854		57.0	57.8	58.6		5.3	5.4	5.5		9.4	8.6	6.1		9.3	8.6	6.1	
Median	369	380	386		57.4	58.1	58.6		4.9	5.0	5.3		9.6	8.8	6.2		9.4	8.8	6.2	
Minimum	47	48	47		40.7	41.7	44.6		2.8	2.3	2.9		6.6	6.4	3.1		6.5	6.4	3.1	
Maximum	5,513	5,734	5,895		78.7	75.4	79.3		10.4	10.4	10.6		13.4	10.6	8.8		11.9	10.6	8.8	

	Gross Line Charge Revenue c/kWh			Regulatory Asset Base \$000			Expenditure on Assets per Connection Point \$/ICP		
	2022	2023	2024	2022	2023	2024	2022	2023	2024
Alpine Energy	6.8	6.9	7.4	238,090	293,278	313,092	724	823	861
Aurora Energy	8.1	9.1	10.1	645,301	736,088	830,127	915	1,030	1,129
Buller Electricity	15.6	15.9	16.5	33,068	35,266	37,215	603	670	555
Centralines	12.8	12.8	13.6	67,163	88,898	97,761	1,430	1,215	962
Counties Energy	8.6	9.5	10.6	374,478	427,054	505,781	1,353	1,315	1,382
EA Networks	7.5	7.4	7.4	321,934	343,290	360,224	781	692	786
Electra	9.0	9.7	11.3	226,821	241,685	256,946	294	293	329
Electricity Invercargill	7.0	7.4	7.3	99,905	107,300	113,034	382	301	401
Firstlight Network	10.8	10.5	10.1	188,035	209,446	222,587	349	588	548
Horizon Energy Distribution	6.0	6.1	7.1	150,720	161,216	167,394	280	303	365
MainPower New Zealand	8.3	9.0	9.5	282,321	306,284	327,861	696	668	830
Marlborough Lines	10.4	9.8	10.5	248,723	264,231	279,151	389	455	634
Nelson Electricity	6.3	6.3	6.2	46,261	49,284	50,132	156	196	189
Network Tasman	5.9	5.8	6.0	191,545	209,789	225,439	287	327	341
Network Waitaki	8.3	8.1	8.0	110,927	120,992	134,034	679	692	1,587
Northpower	6.3	8.3	9.0	328,448	353,169	386,466	483	464	684
Orion New Zealand	7.0	6.8	6.8	1,307,972	1,450,079	1,566,054	424	553	614
OtagoNet Joint Venture	7.5	7.1	7.2	240,495	263,617	285,678	1,058	1,041	1,081
Powerco	7.3	7.9	8.5	2,285,796	2,589,537	2,796,870	715	818	783
Scanpower	10.8	11.3	12.2	49,990	53,996	57,126	631	445	534
The Lines Company	11.1	11.6	11.3	250,864	263,264	284,366	664	585	940
The Power Company	7.3	7.3	7.6	457,373	491,373	517,957	672	864	1,112
Top Energy	14.3	12.7	13.2	320,021	339,121	362,368	415	476	689
Unison Networks	8.3	8.7	8.7	740,115	805,807	886,495	508	709	861
Vector	7.2	7.2	7.6	3,641,987	3,891,833	4,193,945	548	615	784
Waipa Networks	7.1	7.3	8.0	145,410	162,242	171,859	679	662	548
WEL Networks	7.7	7.7	7.8	644,346	706,476	750,681	566	793	963
Wellington Electricity Lines	7.0	6.9	6.3	743,607	803,430	847,276	294	308	401
Westpower	9.5	9.8	10.7	110,847	116,341	120,038	237	307	339
Average	8.6	8.8	9.2	499,744	547,737	591,309	594	628	732
Median	7.7	8.1	8.5	248,723	264,231	285,678	566	615	689
Minimum	5.9	5.8	6.0	33,068	35,266	37,215	156	196	189
Maximum	15.6	15.9	16.5	3,641,987	3,891,833	4,193,945	1,430	1,315	1,587

	Operational Expenditure per Connection Point \$/ICP				SAIDI – Network Planned and Unplanned (Class B and Class C)				SAIFI – Network Planned and Unplanned (Class B and Class C)			
	2022	2023	2024		2022	2023	2024		2022	2023	2024	
Alpine Energy	669	742	897		297.1	194.2	360.4		1.11	1.20	1.45	
Aurora Energy	496	512	504		321.0	330.5	349.9		2.67	3.08	2.60	
Buller Electricity	840	854	934		282.3	747.7	272.8		2.09	3.26	2.11	
Centralines	585	689	624		215.6	781.4	268.4		2.18	4.70	3.90	
Counties Energy	415	521	536		422.9	526.2	407.9		3.93	3.97	3.31	
EA Networks	673	752	732		235.7	237.7	171.3		2.01	1.78	1.57	
Electra	301	369	415		94.7	102.0	88.0		1.45	1.35	0.99	
Electricity Invercargill	293	318	334		105.2	63.5	41.0		1.15	0.57	0.42	
Firstlight Network	470	498	576		556.1	1,598.6	593.1		5.79	5.51	4.34	
Horizon Energy Distribution	424	448	484		386.8	330.8	279.3		2.72	2.74	3.49	
MainPower New Zealand	496	473	551		381.8	306.6	937.3		2.48	2.13	2.88	
Marlborough Lines	674	745	819		242.8	315.5	181.4		1.93	2.12	2.33	
Nelson Electricity	246	253	265		51.1	62.5	6.3		0.56	0.38	0.09	
Network Tasman	288	308	354		176.2	275.1	233.2		1.31	1.73	1.83	
Network Waitaki	655	804	952		166.9	117.6	171.9		1.96	1.37	1.77	
Northpower	463	580	567		375.8	1,215.0	418.1		4.54	7.79	4.99	
Orion New Zealand	301	329	366		77.9	69.3	85.0		0.68	0.58	0.71	
OtagoNet Joint Venture	472	518	505		434.5	507.6	562.3		3.16	2.99	3.46	
Powerco	293	312	342		410.8	490.1	250.9		2.60	2.87	2.00	
Scanpower	571	562	701		180.2	231.2	85.1		0.91	0.78	0.88	
The Lines Company	676	664	740		335.4	848.3	349.2		3.35	4.60	2.81	
The Power Company	447	479	529		366.9	496.4	526.7		3.46	4.41	5.08	
Top Energy	588	704	688		907.9	1,917.6	698.4		5.44	7.02	5.66	
Unison Networks	379	426	427		195.5	1,914.4	207.6		2.03	3.23	2.50	
Vector	230	242	274		221.8	484.7	206.7		1.56	1.87	1.62	
Waipa Networks	392	464	512		339.8	464.4	215.0		2.37	2.31	1.98	
WEL Networks	334	364	370		250.6	199.6	178.9		2.15	1.73	1.81	
Wellington Electricity Lines	206	209	220		40.3	53.3	60.1		0.47	0.61	0.70	
Westpower	744	802	993		230.8	339.3	207.8		1.98	2.06	2.11	
Average	470	515	559		286.4	524.9	290.1		2.35	2.71	2.39	
Median	463	498	529		250.6	330.8	233.2		2.09	2.13	2.11	
Minimum	206	209	220		40.3	53.3	6.3		0.47	0.38	0.09	
Maximum	840	854	993		907.9	1,917.6	937.3		5.79	7.79	5.66	

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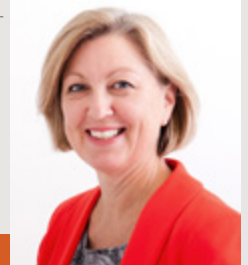
18. Glossary

CAIDI	Customer Average Interruption Duration Index
CPP	Customised Price-Quality Path
DPP	Default Price-Quality Path
EDB	Electricity Distribution Business
GAAP	Generally Accepted Accounting Practice
GWh	Gigawatt Hour
GXP	Grid Exit Point
ICP	Installation Control Point, denoting an electricity consumer connected to the network
ID	Information Disclosure
IM	Input Methodology
km	Kilometre
kVA	Kilovolt Ampere
kW	Kilowatt
kWh	Kilowatt Hour
MVA	Megavolt Ampere
MW	Megawatt
MWh	Megawatt Hour
RAB	Regulatory Asset Base
RIV	Regulatory Investment Value
ROI	Return on Investment
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory Control And Data Acquisition
SWER	Single Wire Earth Return
WACC	Weighted Average Cost of Capital

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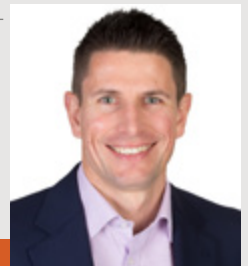
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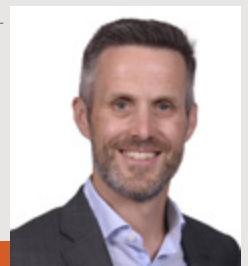
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