

Electricity Line Business 2023 Information Disclosure Compendium

Information Disclosure Compendium

January 2024

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1. Introduction

We are pleased to release our 2023 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 2023, 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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CHRISTCHURCH TRAMWAY

QUAKE CITY

LET'S GUAC AND ROLL
CASA PUBLICA

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Disclaimer

The Electricity Line Business 2023 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.

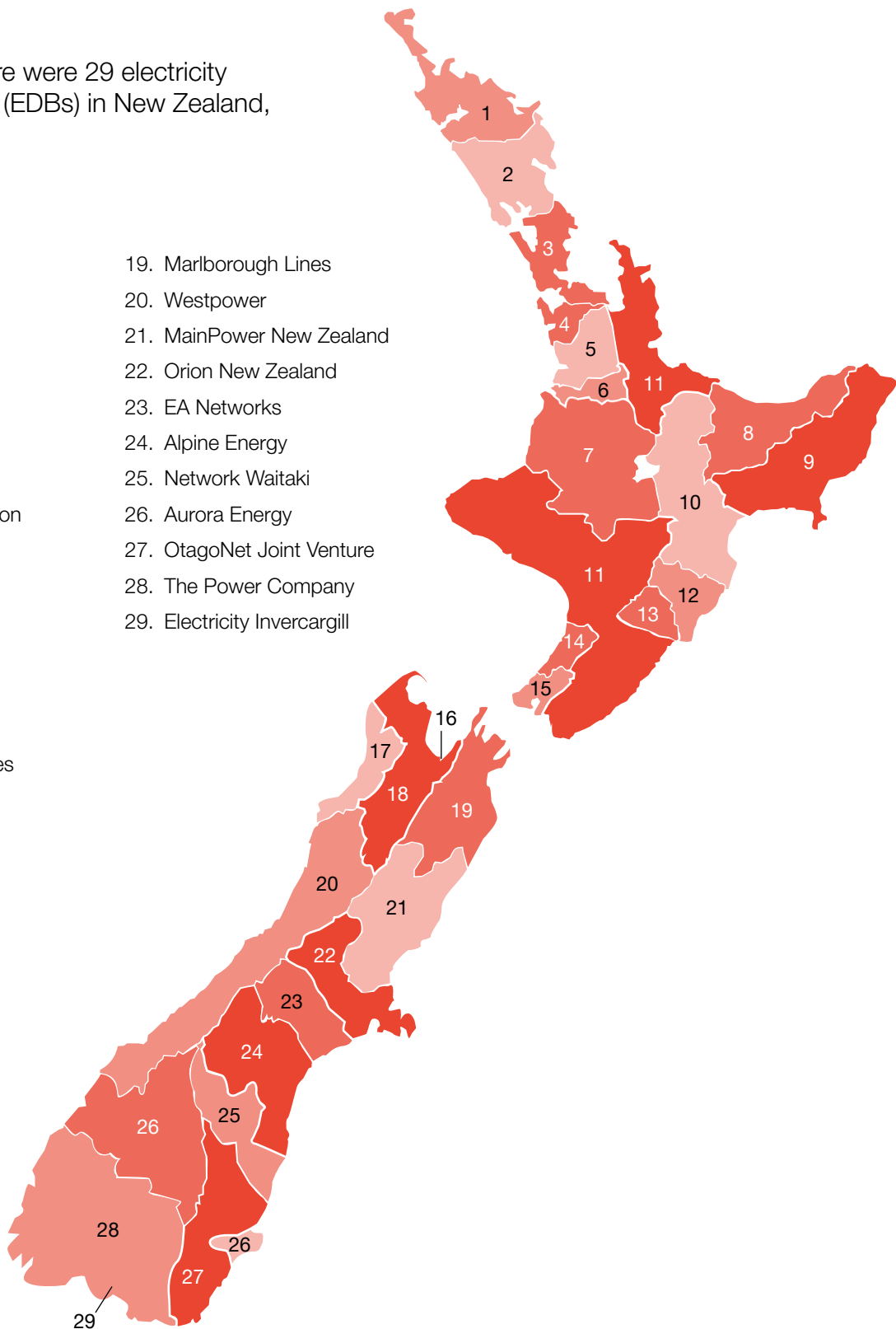
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2. Electricity industry updates

At 31 March 2023, 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 ¹ | 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 | |



¹ Eastland Network was renamed Firstlight Network on 31 March 2023

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, fixed fibre lines access services² 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 review began in February 2022, with a notice of intention setting out the high level process and timeframes for the review.

The Commission released the Draft Amendment Determination in June 2023, received submissions in July, and cross-submissions in August. Final decisions were published in December.

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
4. Transpower investments.

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 EDBs.

During the 2023 assessment period, the DPP did not apply to Powerco or Aurora Energy, as they were subject to CPPs. Powerco transitioned to a two-year DPP on 1 April 2023.

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.

² 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.

Powerco's and Aurora Energy's CPPs apply for five years, from 1 April 2018 to 31 March 2023 and from 1 April 2021 to 31 March 2026, respectively.

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 2023. All non-exempt EDBs complied with their price paths for the 2023 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.³

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 method adopted for the current DPP has a bigger impact than in prior regulatory periods, as it reduces the impact of major events on annual performance assessment. Accordingly, a major event standard has been introduced, 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 - 2023	Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2021 - 2023
Alpine Energy	824.9	235.3	3.49	0.83
EA Networks	1,376.1	328.2	4.89	1.14
Electricity Invercargill	114.5	44.2	0.52	0.27
Firstlight Network	1,290.7	581.2	7.47	3.82
Horizon Energy Distribution	858.6	169.6	5.44	1.10
Nelson Electricity	180.1	39.6	2.37	0.25
Network Tasman	1,129.1	336.2	4.90	1.09
Orion New Zealand	198.4	73.8	0.75	0.24
OtagoNet Joint Venture	2,114.4	462.4	9.62	2.36
The Lines Company	1,331.7	315.5	8.75	1.63
Top Energy	1,905.4	310.0	7.75	2.49
Unison Networks	625.8	191.5	4.46	1.64
Vector	585.4	130.9	2.88	0.87
Wellington Electricity Lines	55.8	17.0	0.44	0.13

	Accumulated Planned SAIDI Limit	Planned SAIDI Assess 2022-2023	Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2022-2023
Aurora Energy ⁴	979.8	234.8	5.54	1.43

	Accumulated Planned SAIDI Limit	Planned SAIDI Assess 2019-2023	Accumulated Planned SAIFI Limit	Planned SAIFI Assess 2019-2023	Exceeds 2/3 year test
Powerco ⁵	454.7	432.8	1.94	1.93	No

³ SAIDI and SAIFI measure the average duration and frequency of electricity outages.

⁴ Aurora Energy's accumulated planned SAIDI and SAIFI limits apply for the regulatory period 1 April 2021 to 31 March 2026. Aurora Energy's unplanned SAIDI and SAIFI limits apply for the 2023 assessment period.

⁵ Powerco's CPP specifies that Powerco must comply with the annual planned and unplanned interruptions reliability assessment every two out of three years, and the accumulated planned limits for the five year CPP period.

Unplanned interruptions quality standards

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2023	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2023	Exceed Unplanned SAIFI Limit
Alpine Energy	124.7	92.9	No	1.20	0.83	No
EA Networks	92.0	63.4	No	1.28	1.19	No
Electricity Invercargill	25.9	17.8	No	0.70	0.24	No
Firstlight Network	219.5	295.4	Yes	3.15	2.64	No
Horizon Energy Distribution	194.5	159.8	No	2.39	2.01	No
Nelson Electricity	19.6	6.2	No	0.43	0.11	No
Network Tasman	101.0	72.0	No	1.20	0.74	No
Orion New Zealand	84.7	43.4	No	1.03	0.51	No
OtagoNet Joint Venture	160.4	143.8	No	2.42	1.77	No
The Lines Company	181.5	238.9	Yes	3.27	3.44	Yes
Top Energy	380.2	514.0	Yes	5.07	5.50	Yes
Unison Networks	82.3	76.0	No	1.82	1.43	No
Vector	104.8	118.7	Yes	1.34	1.19	No
Wellington Electricity Lines	39.8	34.9	No	0.61	0.50	No

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2023	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2023	Exceed Unplanned SAIFI Limit
Aurora Energy ⁴	124.9	106.5	No	2.07	1.75	No

	Unplanned SAIDI Limit	Unplanned SAIDI Assess 2023	Exceed Unplanned SAIDI Limit	Unplanned SAIFI Limit	Unplanned SAIFI Assess 2023	Exceed Unplanned SAIFI Limit
Powerco ⁵	175.9	230.2	Yes	2.19	2.23	Yes

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. Thirteen EDBs met the consumer-owned criteria as at 31 March 2023. 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 was 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 IDD.

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 is 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 is undertaking a targeted ID review. This review was initially planned to be carried out in two tranches. After completing Tranche 1, the Commission considered that the work on amending the ID requirements would become an ongoing process and did not proceed with its plans for Tranche 2.

The Commission published its final decision on Tranche 1 in November 2022. This included the following changes to ID requirements:

- Quality of service: Refined reporting requirements on quality of service to improve the accuracy of information and to capture different dimensions of quality
- Decarbonisation: Expanded reporting requirements to capture more information on innovation and managing new network connections
- Asset management: Refined reporting requirements on asset management to capture more comprehensive and consistent information on EDB practices and capability.

These changes to the ID requirements are being implemented in a staged process. EDBs must first report against them between April 2023 and August 2024.

In August 2023 the Commission published its Targeted Information Disclosure Review (TIDR) (2024) draft decision. The decision included the following proposed changes to the ID requirements:

- Decarbonisation: Expanded reporting requirements to capture more information on network constraints, non-traditional solutions, and pricing
- Asset management: Refined reporting requirements on vegetation management to capture more information on EDB practices and capability
- Quality of service: Extended reporting requirements on quality of service to capture more granular information on quality and reliability of EDB services
- Other: Improved definitions and updated assurance standards.

The Commission expects to release its TIDR (2024) final decision in early 2024. Changes will come into effect across the FY24 and FY25 disclosure years.

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 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 =	$\frac{\text{Electricity Entering System for Supply to Connection Points (MWh)}}{\text{Demand on the Supply to Points} \times \text{Number of Hours in the Disclosure Year (MWh)}}$
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	4,374	33,539	812	142	669
Aurora Energy	6,256	94,323	1,355	309	1,025
Buller Electricity	650	4,815	49	11	48
Centralines	1,864	9,212	108	22	118
Counties Energy	3,545	46,963	651	134	502
EA Networks	3,172	20,538	564	156	611
Electra	2,380	46,333	429	108	351
Electricity Invercargill	665	17,562	250	72	158
Firstlight Network	3,945	25,872	286	65	273
Horizon Energy Distribution	2,624	25,179	537	94	354
MainPower New Zealand	5,198	44,109	620	122	599
Marlborough Lines	3,519	26,830	390	75	380
Nelson Electricity	296	9,297	135	34	100
Network Tasman	3,719	42,224	654	129	515
Network Waitaki	1,908	13,344	271	65	244
Northpower	6,190	63,002	792	157	605
Orion New Zealand	11,907	218,227	3,377	655	2,528
OtagoNet Joint Venture	4,619	19,361	463	73	245
Powerco	29,087	356,643	4,960	974	3,716
Scanpower	1,052	6,771	77	16	75
The Lines Company	4,426	24,016	365	75	271
The Power Company	8,882	37,327	822	160	501
Top Energy	4,228	33,740	332	78	298
Unison Networks	9,334	118,448	1,679	351	1,295
Vector	19,468	603,707	8,462	1,759	5,734
Waipa Networks	2,302	29,128	420	85	303
WEL Networks	5,617	98,601	1,323	281	1,020
Wellington Electricity Lines	4,835	173,512	2,287	538	1,526
Westpower	2,193	14,144	221	39	178
Average	5,457	77,820	1,127	234	836
Median	3,945	33,539	537	108	380
Minimum	296	4,815	49	11	48
Maximum	29,087	603,707	8,462	1,759	5,734
Industry Total	158,256	2,256,767	32,693	6,779	24,241

Network characteristics continued

	Proportion of Circuit Length Underground	Load Factor	Zone Substation Transformer Capacity Utilisation	Loss Ratio	Interruptions per 100 Circuit
	%	%	%	%	km
Alpine Energy	20.2	66.8	38.6	2.3	25.1
Aurora Energy	38.7	53.1	30.6	5.5	30.7
Buller Electricity	9.9	57.6	20.4	7.2	32.0
Centralines	8.6	59.2	47.5	6.8	19.5
Counties Energy	35.3	58.1	24.6	4.6	29.6
EA Networks	24.7	44.0	47.8	6.0	18.4
Electra	34.6	48.2	30.2	5.9	20.0
Electricity Invercargill	92.0	41.7	75.1	4.6	7.2
Firstlight Network	10.6	54.5	19.4	8.3	25.4
Horizon Energy Distribution	23.6	68.4	95.8	4.6	20.0
MainPower New Zealand	21.9	61.2	85.6	5.4	25.7
Marlborough Lines	19.9	62.2	22.3	5.0	20.6
Nelson Electricity	90.7	47.8	70.2	4.0	2.0
Network Tasman	28.5	61.4	40.2	5.7	8.9
Network Waitaki	10.4	50.0	28.4	4.7	22.4
Northpower	19.0	60.7	44.5	5.4	21.2
Orion New Zealand	54.9	61.4	55.5	4.1	13.5
OtagoNet Joint Venture	4.8	75.4	44.4	3.9	21.0
Powerco	25.4	61.2	40.3	5.1	22.9
Scanpower	9.5	58.1	-	7.3	18.8
The Lines Company	9.2	59.6	32.2	6.5	35.9
The Power Company	4.6	61.7	34.4	4.9	20.6
Top Energy	22.8	54.3	16.3	10.4	22.1
Unison Networks	41.2	56.2	53.5	2.9	20.4
Vector	57.7	57.2	37.6	4.0	19.6
Waipa Networks	23.0	59.0	-	4.8	16.3
WEL Networks	45.6	56.3	36.7	4.6	24.0
Wellington Electricity Lines	64.5	50.3	50.4	3.5	10.3
Westpower	12.6	70.2	23.5	7.9	16.1
Average	29.8	57.8	42.4	5.4	20.4
Median	23.0	58.1	38.6	5.0	20.6
Minimum	4.6	41.7	16.3	2.3	2.0
Maximum	92.0	75.4	95.8	10.4	35.9

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	32.5	185.7	7.7	24,215
Aurora Energy	49.4	216.6	15.1	14,369
Buller Electricity	16.2	75.7	7.4	10,214
Centralines	12.0	57.8	4.9	11,706
Counties Energy	37.8	183.5	13.2	13,857
EA Networks	49.1	177.9	6.5	27,475
Electra	45.4	180.2	19.5	9,259
Electricity Invercargill	105.7	375.9	26.4	14,225
Firstlight Network	16.6	72.6	6.6	11,068
Horizon Energy Distribution	35.8	204.5	9.6	21,312
MainPower New Zealand	23.5	119.3	8.5	14,057
Marlborough Lines	21.4	110.9	7.6	14,544
Nelson Electricity	113.8	457.8	31.4	14,570
Network Tasman	42.8	175.8	11.4	15,481
Network Waitaki	34.0	141.8	7.0	20,272
Northpower	25.4	127.9	10.2	12,570
Orion New Zealand	55.0	283.6	18.3	15,477
OtagoNet Joint Venture	15.6	100.1	4.2	23,889
Powerco	33.5	170.5	12.3	13,909
Scanpower	15.6	73.6	6.4	11,436
The Lines Company	16.9	82.6	5.4	15,214
The Power Company	18.2	92.6	4.2	22,035
Top Energy	18.5	78.6	8.0	9,853
Unison Networks	37.6	179.9	12.7	14,175
Vector	90.3	434.7	31.0	14,017
Waipa Networks	37.0	182.3	12.7	14,409
WEL Networks	50.0	235.5	17.6	13,416
Wellington Electricity Lines	111.2	473.0	35.9	13,180
Westpower	17.8	100.8	6.4	15,630
Average	40.6	184.5	12.7	15,374
Median	34.0	175.8	9.6	14,225
Minimum	12.0	57.8	4.2	9,259
Maximum	113.8	473.0	35.9	27,475

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

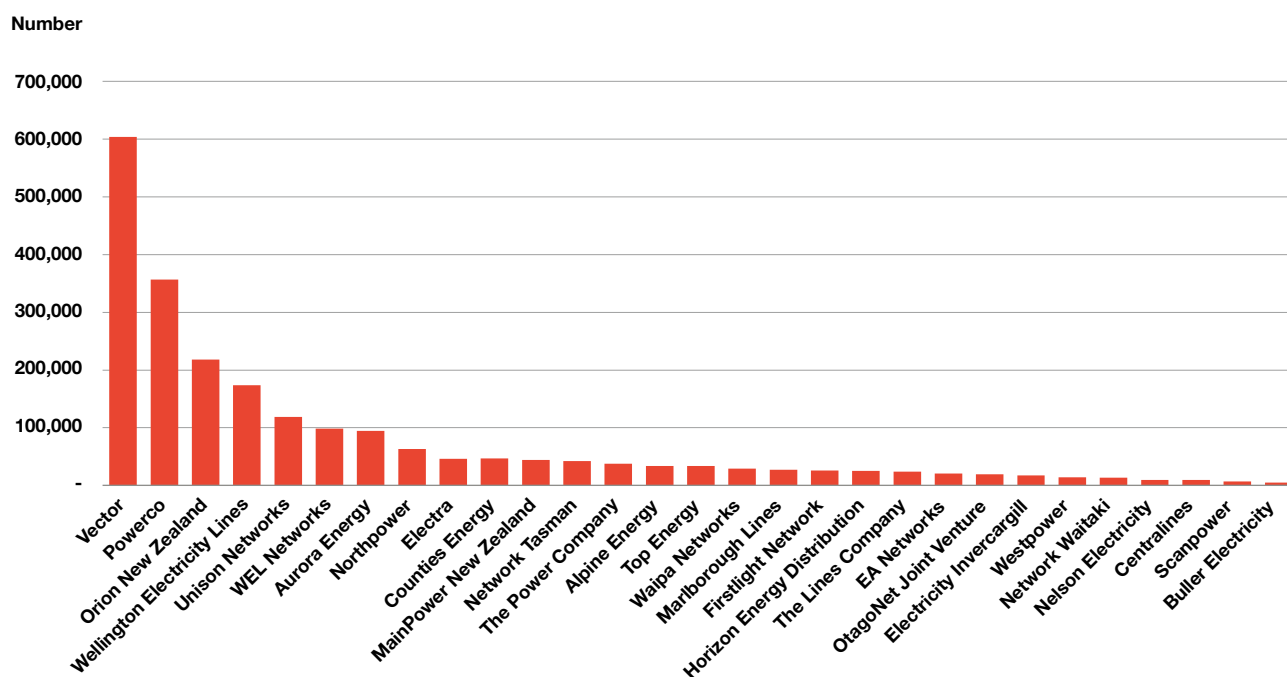


Financial measures

	Line Charge Revenue	Operational Expenditure	Capital Expenditure	Closing Regulatory Asset Base
	\$000	\$000	\$000	\$000
Alpine Energy	56,404	24,894	20,674	293,278
Aurora Energy	123,153	48,271	86,616	736,088
Buller Electricity	7,841	4,114	2,815	35,266
Centralines	13,759	6,346	9,698	88,898
Counties Energy	61,787	24,472	39,072	427,054
EA Networks	41,854	15,449	12,703	343,290
Electra	41,691	17,109	13,759	241,685
Electricity Invercargill	18,439	5,586	4,881	107,300
Firstlight Network	29,963	12,894	15,224	209,446
Horizon Energy Distribution	32,486	11,278	7,739	161,216
MainPower New Zealand	55,535	20,875	22,504	306,284
Marlborough Lines	38,277	19,979	11,900	264,231
Nelson Electricity	8,576	2,351	1,818	49,284
Network Tasman	37,891	13,000	14,615	209,789
Network Waitaki	21,964	10,725	7,021	120,992
Northpower	65,767	36,529	22,478	353,169
Orion New Zealand	230,137	71,706	117,289	1,450,079
OtagoNet Joint Venture	32,674	10,030	18,085	263,617
Powerco	390,730	111,324	239,700	2,589,537
Scanpower	8,753	3,804	3,016	53,996
The Lines Company	42,295	15,935	12,252	263,264
The Power Company	59,970	17,864	22,462	491,373
Top Energy	42,287	23,749	11,833	339,121
Unison Networks	146,080	50,436	73,426	805,807
Vector	612,823	145,942	207,179	3,891,833
Waipa Networks	30,730	13,522	13,851	162,242
WEL Networks	101,687	35,879	64,632	706,476
Wellington Electricity Lines	157,515	36,335	42,959	803,430
Westpower	21,685	11,345	4,349	116,341
Average	87,336	28,336	38,778	547,737
Median	41,854	17,109	14,615	264,231
Minimum	7,841	2,351	1,818	35,266
Maximum	612,823	145,942	239,700	3,891,833
Industry Total	2,532,751	821,744	1,124,549	15,884,387

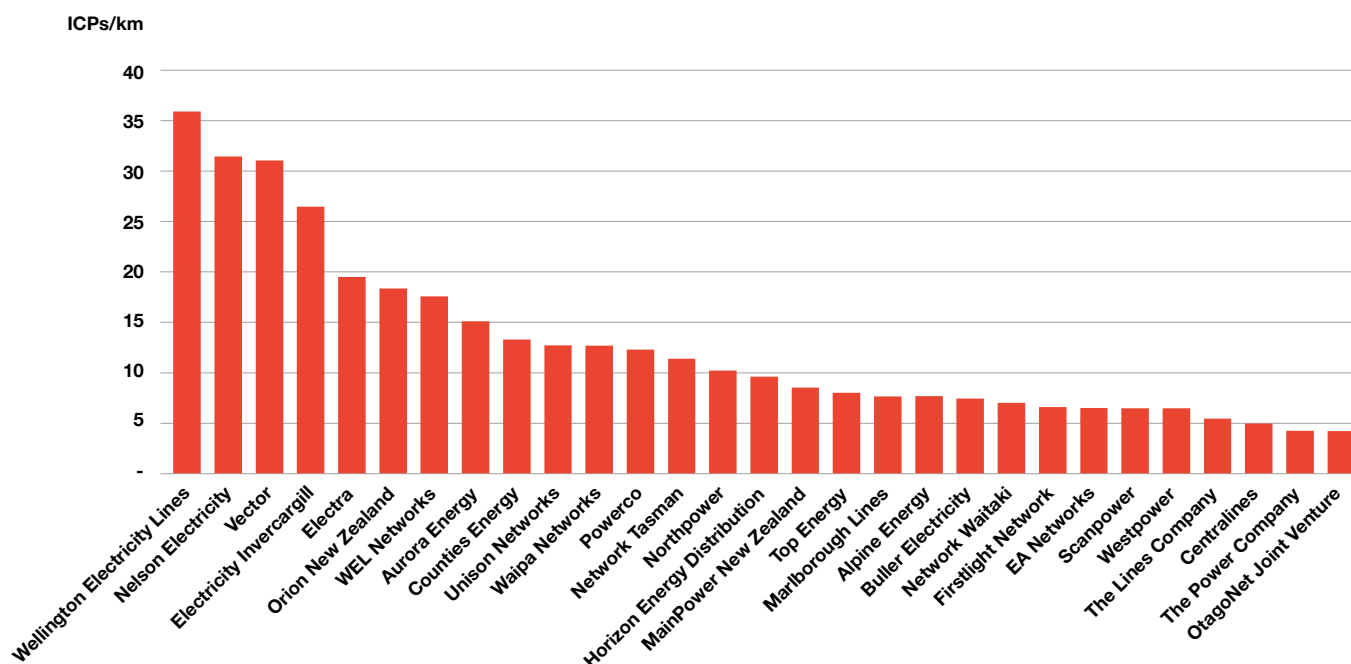
ICPs

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 2023. 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 15 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 2023 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
Electra	Trust	discount/dividend
Electricity Invercargill	Local Authority	dividend
Firstlight Network	Clarus	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

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	21,595	38.29	2.66	8.43	8.34	8.38	
Aurora Energy	55,890	45.38	4.12	8.71	7.38	7.47	
Buller Electricity	3,163	40.34	6.43	9.97	9.97	9.97	
Centralines	6,477	47.07	6.01	9.17	9.17	9.17	
Counties Energy	32,946	53.32	5.06	8.98	8.98	8.98	
EA Networks	27,273	65.16	4.83	8.91	9.28	9.15	
Electra	19,065	45.73	4.44	8.77	8.77	8.77	
Electricity Invercargill	8,859	48.04	3.55	9.28	9.11	9.21	
Firstlight Network	14,986	50.01	5.23	8.27	8.27	8.30	
Horizon Energy Distribution	16,041	49.38	2.99	10.62	9.91	9.84	
MainPower New Zealand	21,012	37.84	3.39	7.47	7.47	7.47	
Marlborough Lines	16,441	42.95	4.21	6.66	6.66	6.66	
Nelson Electricity	4,217	49.18	3.11	9.55	9.57	9.54	
Network Tasman	15,915	42.00	2.43	8.29	8.06	8.15	
Network Waitaki	8,680	39.52	3.21	8.03	8.03	8.03	
Northpower	20,680	31.44	2.61	6.43	6.43	6.43	
Orion New Zealand	116,332	50.55	3.44	9.13	9.05	9.01	
OtagoNet Joint Venture	19,311	59.10	4.18	8.67	9.44	9.52	
Powerco	201,980	51.69	4.07	8.88	8.92	8.94	
Scanpower	4,441	50.74	5.74	9.21	9.21	9.21	
The Lines Company	22,166	52.41	6.07	9.67	10.23	10.29	
The Power Company	37,655	62.79	4.58	8.66	8.66	8.66	
Top Energy	23,007	54.41	6.92	7.57	7.56	7.72	
Unison Networks	67,599	46.28	4.03	9.51	8.64	8.64	
Vector	313,288	51.12	3.70	8.88	8.85	8.84	
Waipa Networks	9,972	32.45	2.38	6.90	6.90	6.90	
WEL Networks	51,425	50.57	3.89	8.35	8.35	8.35	
Wellington Electricity Lines	71,221	45.22	3.11	10.10	10.01	10.04	
Westpower	8,527	39.32	3.86	7.41	7.41	7.41	
Average	42,764	47.32	4.15	8.64	8.57	8.59	
Median	20,680	48.04	4.03	8.77	8.77	8.77	
Minimum	3,163	31.44	2.38	6.43	6.43	6.43	
Maximum	313,288	65.16	6.92	10.62	10.23	10.29	
WACC 25th Percentile				4.71%			
WACC Mid-Point				5.39%			
WACC 75th Percentile				6.07%			

	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
	%	%	%	%	%
	7.92	7.83	7.86	8.27	7.75
	8.19	6.87	6.96	6.91	6.40
	9.46	9.46	9.46	9.70	9.18
	8.65	8.65	8.65	8.98	8.47
	8.46	8.46	8.46	8.82	8.30
	8.40	8.76	8.64	9.07	8.55
	8.26	8.26	8.26	8.60	8.09
	8.77	8.59	8.70	9.04	8.53
	7.97	7.97	8.01	8.15	7.85
	10.62	9.91	9.84	9.63	9.63
	6.95	6.95	6.95	7.32	6.81
	6.14	6.14	6.14	6.58	6.07
	9.04	9.06	9.02	9.38	8.86
	7.77	7.55	7.63	7.99	7.47
	7.52	7.52	7.52	7.95	7.43
	5.91	5.91	5.91	6.42	5.91
	8.61	8.53	8.49	8.80	8.29
	8.16	8.92	9.00	9.60	9.09
	8.37	8.41	8.43	8.76	8.25
	8.69	8.69	8.69	9.01	8.50
	9.15	9.71	9.78	10.30	9.79
	8.15	8.15	8.15	8.50	7.98
	7.06	7.04	7.21	7.68	7.16
	9.00	8.12	8.12	8.16	7.64
	8.37	8.34	8.33	8.67	8.15
	6.39	6.39	6.39	6.87	6.35
	7.84	7.84	7.84	8.23	7.72
	9.59	9.49	9.52	9.83	9.32
	6.90	6.90	6.90	7.32	6.80
	8.15	8.08	8.10	8.43	7.94
	8.26	8.26	8.26	8.60	8.09
	5.91	5.91	5.91	6.42	5.91
	10.62	9.91	9.84	10.30	9.79
	4.20%				
	4.88%				
	5.56%				



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	56,492	24,894	15,190	16,408	11,082	
Aurora Energy	121,374	48,271	29,931	43,172	25,779	
Buller Electricity	7,918	4,114	504	3,300	1,816	
Centralines	14,418	6,346	2,791	5,281	2,236	
Counties Energy	61,425	24,472	12,823	24,130	13,441	
EA Networks	41,884	15,449	8,375	18,060	11,591	
Electra	44,018	17,109	10,288	16,621	10,351	
Electricity Invercargill	18,514	5,586	6,058	6,870	3,729	
Firstlight Network	30,310	12,894	6,492	10,924	7,106	
Horizon Energy Distribution	32,080	11,278	7,583	13,220	7,153	
MainPower New Zealand	55,174	20,875	12,251	22,047	18,671	
Marlborough Lines	39,162	19,979	7,049	12,134	11,449	
Nelson Electricity	8,576	2,351	2,821	3,403	1,699	
Network Tasman	37,519	13,000	12,507	12,012	7,189	
Network Waitaki	21,964	10,725	4,907	6,332	4,589	
Northpower	66,479	36,529	18,819	11,131	12,204	
Orion New Zealand	234,825	71,706	69,704	93,415	50,427	
OtagoNet Joint Venture	32,591	10,030	8,683	13,878	9,688	
Powerco	393,491	111,324	110,598	171,569	103,563	
Scanpower	9,948	3,804	2,314	3,830	2,258	
The Lines Company	42,340	15,935	6,874	19,530	11,155	
The Power Company	60,288	17,864	13,429	28,995	17,599	
Top Energy	42,665	23,749	4,381	14,536	11,964	
Unison Networks	146,531	50,436	37,410	58,684	33,162	
Vector	599,321	145,942	205,188	248,191	145,856	
Waipa Networks	30,599	13,522	8,903	8,174	6,151	
WEL Networks	101,806	35,879	29,244	36,683	24,551	
Wellington Electricity Lines	158,407	36,335	61,637	60,434	30,305	
Westpower	22,177	11,345	3,851	6,981	5,831	
Average	87,321	28,336	24,848	34,136	20,779	
Median	42,340	17,109	8,903	14,536	11,155	
Minimum	7,918	2,351	504	3,300	1,699	
Maximum	599,321	145,942	205,188	248,191	145,856	
Industry Total	2,532,297	821,744	720,606	989,947	602,594	

	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
	17,777	23,103	0	1,508	21,595
	42,563	59,956	0	4,066	55,890
	2,161	3,645	0	482	3,163
	4,452	7,497	0	1,020	6,477
	24,806	35,494	0	2,548	32,946
	21,377	27,846	0	573	27,273
	14,961	21,230	118	2,047	19,065
	6,645	9,785	0	927	8,859
	12,500	16,319	0	1,333	14,986
	9,975	16,041	0	0	16,041
	18,788	22,165	0	1,153	21,012
	16,499	17,184	0	744	16,441
	3,079	4,783	0	565	4,217
	12,699	17,523	0	1,608	15,915
	7,366	9,110	0	430	8,680
	21,787	20,714	0	35	20,680
	86,682	129,670	861	12,478	116,332
	15,995	20,185	0	874	19,311
	151,386	219,392	2,509	14,903	201,980
	3,319	4,892	0	450	4,441
	16,669	25,044	0	2,879	22,166
	30,336	41,733	431	3,648	37,655
	21,280	23,852	0	845	23,007
	49,031	74,554	467	6,488	67,599
	241,014	343,349	3,171	26,890	313,288
	9,671	11,694	0	1,722	9,972
	42,790	54,922	0	3,496	51,425
	49,410	79,539	356	7,961	71,221
	7,377	8,527	0	0	8,527
	33,186	46,543	273	3,506	42,764
	16,669	21,230	0	1,333	20,680
	2,161	3,645	0	0	3,163
	241,014	343,349	3,171	26,890	313,288
	962,397	1,349,747	7,913	101,674	1,240,161

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	39,116	12,163	51,278	2,967	2,158	5,126
Aurora Energy	73,766	36,479	110,245	10,178	2,730	12,907
Buller Electricity	-	-	7,841	-	-	-
Centralines	-	-	13,759	-	-	-
Counties Energy	-	-	58,074	-	-	3,713
EA Networks	33,633	8,221	41,854	-	-	-
Electra	-	-	41,691	-	-	-
Electricity Invercargill	12,677	5,762	18,439	-	-	-
Firstlight Network	23,735	6,228	29,963	-	-	-
Horizon Energy Distribution	22,802	5,539	28,341	974	3,171	4,145
MainPower New Zealand	42,330	11,726	54,056	295	1,183	1,478
Marlborough Lines	-	-	38,199	-	-	78
Nelson Electricity	-	-	7,913	-	-	663
Network Tasman	23,752	10,252	34,004	1,940	1,948	3,887
Network Waitaki	14,196	4,428	18,623	2,072	1,268	3,340
Northpower	-	-	55,499	-	-	10,268
Orion New Zealand	164,492	62,116	226,608	2,098	1,432	3,529
OtagoNet Joint Venture	23,929	5,431	29,360	409	2,904	3,314
Powerco	238,224	82,540	320,764	42,139	27,827	69,965
Scanpower	-	-	8,753	-	-	-
The Lines Company	31,209	4,732	35,941	4,595	1,758	6,354
The Power Company	43,587	10,476	54,063	3,525	2,382	5,907
Top Energy	36,447	3,226	39,672	2,128	487	2,615
Unison Networks	-	-	143,027	-	-	3,053
Vector	427,207	168,184	595,353	10,296	7,136	17,470
Waipa Networks	-	-	28,630	-	-	2,099
WEL Networks	-	-	100,571	-	-	1,116
Wellington Electricity Lines	91,812	63,363	155,175	1,384	955	2,339
Westpower	17,836	3,850	21,685	-	-	-
Average	75,597	28,040	81,703	6,071	4,096	7,779
Median	35,040	9,237	39,672	2,113	2,053	3,529
Minimum			7,841			78
Maximum			595,353			69,965
Industry Total			2,369,385			163,367

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	42,083	14,321	56,404	21	67	56,492
Aurora Energy	83,944	39,209	123,153	-2,445	666	121,374
Buller Electricity	-	-	7,841	-115	192	7,918
Centralines	-	-	13,759	208	451	14,418
Counties Energy	-	-	61,787	-448	86	61,425
EA Networks	33,633	8,221	41,854	-361	391	41,884
Electra	-	-	41,691	-1,127	3,455	44,018
Electricity Invercargill	12,677	5,762	18,439	12	63	18,514
Firstlight Network	23,735	6,228	29,963	5	342	30,310
Horizon Energy Distribution	23,776	8,710	32,486	-649	243	32,080
MainPower New Zealand	42,626	12,909	55,535	-501	140	55,174
Marlborough Lines	-	-	38,277	-745	1,630	39,162
Nelson Electricity	-	-	8,576	0	0	8,576
Network Tasman	25,691	12,200	37,891	-589	217	37,519
Network Waitaki	16,268	5,696	21,964	0	0	21,964
Northpower	-	-	65,767	0	713	66,479
Orion New Zealand	166,590	63,548	230,137	-133	4,821	234,825
OtagoNet Joint Venture	24,339	8,335	32,674	-83	0	32,591
Powerco	280,363	110,367	390,730	1,100	1,661	393,491
Scanpower	-	-	8,753	-126	1,321	9,948
The Lines Company	35,805	6,491	42,295	44	0	42,340
The Power Company	47,112	12,858	59,970	-791	1,109	60,288
Top Energy	38,574	3,713	42,287	-337	715	42,665
Unison Networks	-	-	146,080	-1,446	1,897	146,531
Vector	437,503	175,320	612,823	-13,502	0	599,321
Waipa Networks	-	-	30,730	-130	0	30,599
WEL Networks	-	-	101,687	-492	611	101,806
Wellington Electricity Lines	93,196	64,319	157,515	0	892	158,407
Westpower	17,836	3,850	21,685	-56	548	22,177
Average	80,319	31,225	87,336	-782	767	87,321
Median	37,189	10,455	41,854	-130	391	42,340
Minimum			7,841	-13,502	0	7,918
Maximum			612,823	1,100	4,821	599,321
Industry Total			2,532,751	-22,685	22,232	2,532,297

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	439	14,751	0	0	178	14,929	15,367
Aurora Energy	1,762	23,180	4,955	0	10,745	38,880	40,642
Buller Electricity	58	446	0	0	0	446	504
Centralines	101	2,690	0	0	0	2,690	2,791
Counties Energy	1,022	11,250	551	0	0	11,801	12,823
EA Networks	473	7,902	0	0	-984	6,918	7,391
Electra	387	8,686	0	0	1,215	9,901	10,288
Electricity Invercargill	296	5,762	0	0	91	5,853	6,149
Firstlight Network	408	5,657	402	0	-70	5,989	6,397
Horizon Energy Distribution	446	3,640	3,449	738	438	8,265	8,712
MainPower New Zealand	627	11,624	0	0	0	11,624	12,251
Marlborough Lines	246	6,803	0	0	0	6,803	7,049
Nelson Electricity	100	2,691	0	0	42	2,733	2,832
Network Tasman	408	10,274	1,825	0	365	12,464	12,872
Network Waitaki	177	4,730	0	0	0	4,730	4,907
Northpower	477	17,929	413	0	0	18,342	18,819
Orion New Zealand	6,147	63,426	0	310	1,882	65,618	71,766
OtagoNet Joint Venture	371	7,398	914	0	-2,514	5,798	6,169
Powerco	4,329	101,130	5,138	0	-1,715	104,554	108,883
Scanpower	88	2,226	0	0	0	2,226	2,314
The Lines Company	531	5,252	1,075	0	-1,902	4,426	4,956
The Power Company	571	12,858	0	0	0	12,858	13,429
Top Energy	288	1,684	2,409	0	-617	3,475	3,763
Unison Networks	1,743	31,900	3,767	0	8,390	44,058	45,800
Vector	21,639	181,978	1,033	0	2,254	185,265	206,904
Waipa Networks	240	8,663	0	0	0	8,663	8,903
WEL Networks	1,508	22,377	5,359	0	0	27,736	29,244
Wellington Electricity Lines	3,985	55,547	2,052	0	687	58,287	62,272
Westpower	279	1,415	2,157	0	0	3,571	3,851
Average	1,695	21,858	1,224	36	637	23,755	25,450
Median	439	8,663	402	0	0	8,663	8,903
Minimum	58	446	0	0	-2,514	446	504
Maximum	21,639	181,978	5,359	738	10,745	185,265	206,904
Industry Total	49,146	633,870	35,500	1,048	18,484	688,902	738,048

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	6.59	2.05	8.63	1.36	0.99	2.35	5.18	1.76	6.94
Aurora Energy	5.48	2.71	8.19	106.65	28.61	135.25	6.19	2.89	9.09
Buller Electricity	-	-	15.94	-	-	-	-	-	15.94
Centralines	-	-	12.76	-	-	-	-	-	12.76
Counties Energy	-	-	10.52	-	-	3.77	-	-	9.49
EA Networks	5.96	1.46	7.42	-	-	-	5.96	1.46	7.42
Electra	-	-	9.72	-	-	-	-	-	9.72
Electricity Invercargill	5.07	2.31	7.38	-	-	-	5.07	2.31	7.38
Firstlight Network	8.29	2.17	10.46	-	-	-	8.29	2.17	10.46
Horizon Energy Distribution	8.60	2.09	10.69	0.36	1.17	1.53	4.43	1.62	6.05
MainPower New Zealand	7.42	2.05	9.47	0.60	2.40	3.01	6.87	2.08	8.96
Marlborough Lines	-	-	9.79	-	-	-	-	-	9.81
Nelson Electricity	-	-	6.27	-	-	7.14	-	-	6.33
Network Tasman	4.38	1.89	6.26	1.75	1.76	3.51	3.93	1.87	5.80
Network Waitaki	7.33	2.29	9.62	2.70	1.65	4.34	6.01	2.11	8.12
Northpower	-	-	9.57	-	-	4.84	-	-	8.30
Orion New Zealand	5.09	1.92	7.01	1.43	0.97	2.40	4.93	1.88	6.81
OtagoNet Joint Venture	9.06	2.06	11.12	0.21	1.46	1.67	5.26	1.80	7.06
Powerco	7.84	2.72	10.55	2.19	1.45	3.64	5.65	2.22	7.88
Scanpower	-	-	11.30	-	-	-	-	-	11.30
The Lines Company	12.04	1.83	13.86	4.33	1.66	5.99	9.80	1.78	11.58
The Power Company	6.74	1.62	8.36	2.01	1.36	3.36	5.73	1.56	7.29
Top Energy	12.78	1.13	13.91	4.50	1.03	5.53	11.60	1.12	12.72
Unison Networks	-	-	8.74	-	-	7.18	-	-	8.70
Vector	5.44	2.14	7.59	1.68	1.16	2.84	5.17	2.07	7.24
Waipa Networks	-	-	8.27	-	-	2.86	-	-	7.32
WEL Networks	-	-	7.80	-	-	3.39	-	-	7.69
Wellington Electricity Lines	4.07	2.81	6.88	4.22	2.92	7.14	4.08	2.81	6.89
Westpower	8.07	1.74	9.81	-	-	-	8.07	1.74	9.81
Average	7.24	2.05	9.58	9.57	3.47	10.59	6.24	1.96	8.79
Median	7.04	2.06	9.57	1.88	1.46	3.58	5.69	1.87	8.12
Minimum			6.26			1.53			5.80
Maximum			15.94			135.25			15.94

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	1,167	363	1,529	247,289	179,869	427,158	1,255	427	1,682
Aurora Energy	782	387	1,169	715,625	191,947	907,572	890	416	1,306
Buller Electricity	-	-	1,628	-	-	-	-	-	1,628
Centralines	-	-	1,494	-	-	-	-	-	1,494
Counties Energy	-	-	1,237	-	-	412,523	-	-	1,316
EA Networks	1,638	400	2,038	-	-	-	1,638	400	2,038
Electra	-	-	900	-	-	-	-	-	900
Electricity Invercargill	722	328	1,050	-	-	-	722	328	1,050
Firstlight Network	917	241	1,158	-	-	-	917	241	1,158
Horizon Energy Distribution	906	220	1,127	42,359	137,864	180,223	944	346	1,290
MainPower New Zealand	960	266	1,226	295,485	1,182,847	1,478,332	966	293	1,259
Marlborough Lines	-	-	1,424	77,938	0	77,938	-	-	1,427
Nelson Electricity	-	-	851	-	-	331,319	-	-	922
Network Tasman	563	243	805	484,876	486,875	971,751	608	289	897
Network Waitaki	1,071	334	1,404	24,672	15,095	39,767	1,219	427	1,646
Northpower	-	-	881	-	-	1,283,451	-	-	1,044
Orion New Zealand	754	285	1,038	139,847	95,445	235,293	763	291	1,055
OtagoNet Joint Venture	1,236	281	1,517	136,491	968,141	1,104,633	1,257	431	1,688
Powerco	669	232	901	61,159	40,387	101,546	786	309	1,096
Scanpower	-	-	1,293	-	-	-	-	-	1,293
The Lines Company	1,302	197	1,500	88,374	33,815	122,189	1,491	270	1,761
The Power Company	1,168	281	1,449	587,481	396,976	984,457	1,262	344	1,607
Top Energy	1,087	96	1,183	10,430	2,387	12,817	1,143	110	1,253
Unison Networks	-	-	1,208	-	-	95,402	-	-	1,233
Vector	708	279	986	355,034	246,069	602,414	725	290	1,015
Waipa Networks	-	-	983	-	-	699,783	-	-	1,055
WEL Networks	-	-	1,020	-	-	279,008	-	-	1,031
Wellington Electricity Lines	529	365	894	81,419	56,191	137,610	537	371	908
Westpower	1,261	272	1,533	-	-	-	1,261	272	1,533
Average	969	282	1,222	223,232	268,927	499,295	1,021	325	1,296
Median	939	280	1,183	136,491	137,864	331,319	955	319	1,259
Minimum			805			12,817			897
Maximum			2,038			1,478,332			2,038

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	6,819	23,833	30,652	165	577	742
Aurora Energy	15,224	20,392	35,615	219	293	512
Buller Electricity	26,293	57,351	83,644	269	586	854
Centralines	24,769	34,080	58,849	290	399	689
Counties Energy	13,283	24,323	37,606	184	337	521
EA Networks	7,035	20,343	27,378	193	559	752
Electra	15,081	24,802	39,883	140	230	369
Electricity Invercargill	8,327	14,033	22,360	118	200	318
Firstlight Network	21,520	23,509	45,029	238	260	498
Horizon Energy Distribution	7,392	13,624	21,016	158	290	448
MainPower New Zealand	9,736	23,931	33,667	137	336	473
Marlborough Lines	25,078	26,121	51,200	365	380	745
Nelson Electricity	6,681	10,675	17,356	97	156	253
Network Tasman	10,412	9,476	19,888	161	147	308
Network Waitaki	11,876	27,770	39,645	241	563	804
Northpower	24,179	21,946	46,125	304	276	580
Orion New Zealand	8,395	12,836	21,231	130	199	329
OtagoNet Joint Venture	13,429	8,257	21,686	321	197	518
Powerco	10,478	11,965	22,442	146	166	312
Scanpower	18,668	30,454	49,122	213	348	562
The Lines Company	17,225	26,387	43,613	262	401	664
The Power Company	13,185	8,534	21,719	291	188	479
Top Energy	27,666	43,771	71,437	273	431	704
Unison Networks	10,476	19,564	30,040	148	277	426
Vector	6,844	10,402	17,246	96	146	242
Waipa Networks	12,738	19,480	32,218	184	281	464
WEL Networks	8,329	18,794	27,123	112	252	364
Wellington Electricity Lines	7,179	8,709	15,888	95	115	209
Westpower	28,082	23,238	51,319	439	363	802
Average	14,359	21,331	35,690	206	309	515
Median	12,738	20,392	32,218	184	281	498
Minimum	6,681	8,257	15,888	95	115	209
Maximum	28,082	57,351	83,644	439	586	854

	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
	38,978	136,238	175,216	1,266	4,425	5,691	8,468	29,597	38,065
	66,841	89,534	156,376	3,298	4,418	7,716	21,561	28,881	50,442
	123,058	268,416	391,474	1,990	4,341	6,331	34,247	74,701	108,948
	119,722	164,724	284,446	1,433	1,971	3,404	24,963	34,346	59,308
	64,507	118,119	182,627	2,438	4,464	6,903	19,826	36,303	56,128
	25,493	73,713	99,206	1,252	3,619	4,870	6,637	19,191	25,829
	59,774	98,302	158,076	2,719	4,471	7,190	19,272	31,693	50,965
	29,003	48,874	77,877	3,131	5,275	8,406	13,332	22,467	35,799
	94,238	102,952	197,191	1,562	1,706	3,268	27,699	30,260	57,959
	42,267	77,900	120,167	1,512	2,786	4,298	14,530	26,780	41,310
	49,320	121,228	170,548	1,161	2,854	4,016	10,249	25,192	35,442
	129,729	135,125	264,854	2,781	2,897	5,677	27,131	28,259	55,390
	26,866	42,927	69,793	3,059	4,887	7,946	9,058	14,472	23,530
	52,811	48,062	100,874	1,830	1,666	3,496	14,450	13,151	27,601
	49,548	115,862	165,410	1,684	3,938	5,621	13,837	32,355	46,192
	121,583	110,356	231,939	3,093	2,808	5,901	31,937	28,988	60,925
	43,296	66,203	109,499	2,381	3,641	6,022	12,262	18,750	31,012
	85,186	52,379	137,564	1,345	827	2,172	26,303	16,173	42,476
	53,361	60,935	114,296	1,787	2,040	3,827	14,658	16,738	31,396
	88,137	143,784	231,922	1,374	2,242	3,616	19,273	31,441	50,714
	84,027	128,721	212,749	1,422	2,178	3,600	24,208	37,084	61,292
	67,810	43,889	111,700	1,221	790	2,011	22,709	14,698	37,407
	117,777	186,341	304,118	2,175	3,442	5,617	30,871	48,843	79,714
	50,131	93,622	143,753	1,884	3,519	5,403	13,893	25,946	39,839
	32,935	50,055	82,989	2,975	4,521	7,497	11,666	17,730	29,396
	62,733	95,942	158,675	2,322	3,551	5,874	18,057	27,616	45,673
	39,210	88,473	127,683	1,962	4,426	6,388	11,347	25,604	36,951
	30,526	37,032	67,558	3,396	4,119	7,515	10,965	13,302	24,267
	159,002	131,575	290,577	2,831	2,343	5,174	40,470	33,489	73,959
	69,237	101,079	170,316	2,113	3,247	5,360	19,099	27,726	46,825
	59,774	95,942	158,076	1,962	3,519	5,621	18,057	27,616	42,476
	25,493	37,032	67,558	1,161	790	2,011	6,637	13,151	23,530
	159,002	268,416	391,474	3,396	5,275	8,406	40,470	74,701	108,948

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	2,113	707	2,550	168	5,538
Aurora Energy	2,882	5,466	12,285	0	20,633
Buller Electricity	440	441	340	72	1,293
Centralines	721	792	40	1,118	2,671
Counties Energy	2,801	2,422	2,525	896	8,644
EA Networks	586	568	1,441	1,375	3,970
Electra	2,842	1,557	1,164	907	6,470
Electricity Invercargill	505	0	1,365	210	2,080
Firstlight Network	3,015	1,021	1,554	573	6,162
Horizon Energy Distribution	1,370	987	1,343	267	3,967
MainPower New Zealand	969	983	4,083	2	6,037
Marlborough Lines	1,998	2,617	4,229	942	9,786
Nelson Electricity	266	28	526	85	905
Network Tasman	1,444	1,224	2,593	1,545	6,806
Network Waitaki	787	727	1,117	582	3,213
Northpower	6,971	2,874	4,001	5,303	19,149
Orion New Zealand	10,680	4,507	12,281	884	28,352
OtagoNet Joint Venture	2,292	906	2,833	180	6,211
Powerco	9,568	10,283	16,342	15,781	51,973
Scanpower	255	744	159	288	1,445
The Lines Company	2,661	1,563	1,698	372	6,294
The Power Company	4,367	1,380	4,456	642	10,845
Top Energy	3,116	1,936	2,303	1,842	9,197
Unison Networks	5,687	2,577	6,051	3,273	17,589
Vector	21,262	6,046	20,603	10,007	57,918
Waipa Networks	2,411	1,541	593	801	5,346
WEL Networks	5,378	1,664	2,000	1,976	11,018
Wellington Electricity Lines	4,321	1,952	8,944	1,201	16,418
Westpower	814	1,084	4,097	213	6,208
Average	3,535	2,021	4,259	1,776	11,591
Median	2,411	1,380	2,525	801	6,294
Minimum	255	0	40	0	905
Maximum	21,262	10,283	20,603	15,781	57,918
Industry Total	102,520	58,598	123,517	51,505	336,139

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	8,912	10,444	19,356	24,894	0	0	0	284
Aurora Energy	13,864	13,774	27,638	48,271	0	0	0	501
Buller Electricity	241	2,580	2,821	4,114	0	0	0	234
Centralines	354	3,321	3,675	6,346	0	0	0	204
Counties Energy	4,106	11,722	15,828	24,472	0	0	0	583
EA Networks	4,236	7,243	11,479	15,449	7	0	1	347
Electra	4,834	5,805	10,640	17,109	0	0	0	740
Electricity Invercargill	1,116	2,390	3,506	5,586	63	0	0	164
Firstlight Network	2,053	4,679	6,732	12,894	0	0	0	469
Horizon Energy Distribution	3,253	4,058	7,311	11,278	0	0	0	0
MainPower New Zealand	10,497	4,341	14,838	20,875	0	0	0	836
Marlborough Lines	4,737	5,456	10,193	19,979	0	0	0	446
Nelson Electricity	389	1,057	1,446	2,351	0	0	0	232
Network Tasman	3,467	2,727	6,194	13,000	85	0	0	411
Network Waitaki	3,415	4,097	7,512	10,725	0	0	0	626
Northpower	4,398	12,983	17,381	36,529	0	0	0	0
Orion New Zealand	24,054	19,299	43,354	71,706	0	0	0	2,841
OtagoNet Joint Venture	1,389	2,430	3,819	10,030	0	0	0	222
Powerco	21,886	37,465	59,351	111,324	250	0	16	1,770
Scanpower	686	1,672	2,358	3,804	0	0	0	0
The Lines Company	4,577	5,064	9,641	15,935	20	0	0	398
The Power Company	2,986	4,033	7,019	17,864	63	0	0	425
Top Energy	6,946	7,605	14,551	23,749	0	0	0	701
Unison Networks	8,616	24,231	32,848	50,436	0	0	0	2,144
Vector	41,914	46,110	88,024	145,942	0	0	0	4,124
Waipa Networks	3,840	4,336	8,176	13,522	0	0	0	0
WEL Networks	9,673	15,188	24,861	35,879	387	0	0	738
Wellington Electricity Lines	8,848	11,070	19,917	36,335	0	0	0	2,375
Westpower	3,387	1,750	5,137	11,345	0	0	0	165
Average	7,196	9,549	16,745	28,336	30	0	1	758
Median	4,236	5,064	10,193	17,109	0	0	0	425
Minimum	241	1,057	1,446	2,351	0	0	0	0
Maximum	41,914	46,110	88,024	145,942	387	0	16	4,124
Industry Total	208,674	276,932	485,606	821,744	875	0	17	21,981

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	5,539	9,197	14,736	0	10,160	10,160	0	0
Aurora Energy	20,633	27,638	48,271	0	0	0	0	0
Buller Electricity	1,293	2,821	4,114	0	0	0	0	0
Centralines	2,671	3,335	6,006	0	340	340	0	0
Counties Energy	8,644	4,704	13,348	0	11,124	11,124	0	0
EA Networks	3,970	5,341	9,311	0	6,138	6,138	0	0
Electra	6,470	7,817	14,287	0	2,823	2,823	0	0
Electricity Invercargill	2,080	3,003	5,084	0	502	502	0	0
Firstlight Network	6,162	6,732	12,894	0	0	0	0	0
Horizon Energy Distribution	3,967	6,895	10,861	0	416	416	0	0
MainPower New Zealand	6,037	5,668	11,705	0	9,170	9,170	0	0
Marlborough Lines	8,372	9,930	18,302	1,414	263	1,677	0	0
Nelson Electricity	905	1,446	2,351	0	0	0	0	0
Network Tasman	6,806	4,208	11,014	0	1,985	1,985	0	0
Network Waitaki	3,213	3,713	6,926	0	3,799	3,799	0	0
Northpower	19,149	12,288	31,436	0	5,093	5,093	0	0
Orion New Zealand	28,352	43,354	71,706	0	274	274	0	0
OtagoNet Joint Venture	6,211	3,819	10,030	0	0	0	0	0
Powerco	51,973	21,798	73,772	0	37,553	37,553	0	0
Scanpower	1,445	916	2,361	0	1,442	1,442	0	0
The Lines Company	6,294	5,599	11,893	0	4,042	4,042	0	0
The Power Company	10,845	6,281	17,126	0	739	739	0	0
Top Energy	9,197	7,997	17,195	0	6,554	6,554	0	0
Unison Networks	17,589	17,403	34,992	0	15,444	15,444	0	601
Vector	57,918	37,496	95,414	0	50,528	50,528	0	0
Waipa Networks	5,346	4,092	9,438	0	4,084	4,084	0	0
WEL Networks	11,018	9,673	20,691	0	15,188	15,188	0	0
Wellington Electricity Lines	14,897	19,184	34,081	1,522	733	2,255	0	0
Westpower	6,208	3,768	9,976	0	1,370	1,370	0	0
Average	11,490	10,211	21,701	101	6,544	6,645	0	21
Median	6,294	6,281	12,894	0	1,985	2,255	0	0
Minimum	905	916	2,351	0	0	0	0	0
Maximum	57,918	43,354	95,414	1,522	50,528	50,528	0	601
Industry Total	333,205	296,115	629,319	2,936	189,765	192,700	0	601

Forecast real operational expenditure by category (RY24-RY33 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	21,000	12,500	33,200	3,420	70,120
Aurora Energy	31,750	37,302	114,105	0	183,157
Buller Electricity	2,775	3,372	2,974	833	9,954
Centralines	4,150	7,542	1,903	8,940	22,535
Counties Energy	29,531	23,000	29,469	9,416	91,416
EA Networks	15,040	8,314	10,280	13,312	46,947
Electra	21,351	17,240	16,618	21,131	76,344
Electricity Invercargill	5,498	23	14,834	1,787	22,142
Firstlight Network	30,318	16,506	28,738	6,453	82,015
Horizon Energy Distribution	13,448	10,059	16,523	4,187	44,217
MainPower New Zealand	10,000	11,220	44,646	0	65,866
Marlborough Lines	13,000	21,800	42,050	7,500	84,350
Nelson Electricity	1,683	414	890	3,713	6,700
Network Tasman	20,297	13,246	26,234	21,416	81,193
Network Waitaki	4,636	7,116	13,267	2,255	27,274
Northpower	27,990	28,198	47,879	29,714	133,775
Orion New Zealand	100,084	97,266	277,559	28,314	503,223
OtagoNet Joint Venture	21,083	10,760	26,976	1,776	60,595
Powerco	79,887	124,790	231,174	109,958	545,809
Scanpower	3,869	6,555	2,420	4,370	17,214
The Lines Company	19,702	16,524	18,152	5,846	60,225
The Power Company	40,846	12,247	47,799	9,684	110,576
Top Energy	14,120	23,262	22,472	16,842	76,696
Unison Networks	27,589	31,763	37,016	50,601	146,970
Vector	160,395	66,625	231,404	127,988	586,413
Waipa Networks	14,260	15,323	7,775	7,241	44,599
WEL Networks	35,263	17,120	20,394	30,389	103,166
Wellington Electricity Lines	51,452	21,415	97,712	13,098	183,678
Westpower	6,031	9,900	38,826	2,610	57,367
Average	28,519	23,152	51,838	18,717	122,225
Median	20,297	15,323	26,976	7,500	76,344
Minimum	1,683	23	890	0	6,700
Maximum	160,395	124,790	277,559	127,988	586,413
Industry Total	827,047	671,403	1,503,289	542,797	3,544,534

Forecast real operational expenditure by category (RY24-RY33 in constant prices) continued

	Non-Network Operational Expenditure			Total Operational Expenditure
	System Operations and Network Support	Business Support	Total	
	\$000	\$000	\$000	
Alpine Energy	101,431	125,619	227,050	297,170
Aurora Energy	149,411	137,064	286,475	469,632
Buller Electricity	3,653	26,906	30,559	40,513
Centralines	3,200	32,190	35,390	57,925
Counties Energy	47,378	115,959	163,338	254,753
EA Networks	72,660	82,020	154,680	201,627
Electra	86,490	57,729	144,219	220,567
Electricity Invercargill	12,547	21,829	34,376	56,517
Firstlight Network	29,197	40,922	70,119	152,134
Horizon Energy Distribution	41,522	40,020	81,542	125,758
MainPower New Zealand	106,700	49,300	156,000	221,866
Marlborough Lines	52,200	53,000	105,200	189,550
Nelson Electricity	2,800	12,900	15,700	22,400
Network Tasman	37,721	29,310	67,031	148,224
Network Waitaki	45,957	45,885	91,842	119,116
Northpower	49,327	156,264	205,592	339,368
Orion New Zealand	301,503	433,112	734,615	1,237,838
OtagoNet Joint Venture	19,931	20,268	40,199	100,794
Powerco	281,610	457,720	739,330	1,285,139
Scanpower	11,423	19,074	30,497	47,711
The Lines Company	30,272	68,196	98,468	158,693
The Power Company	37,320	43,834	81,154	191,729
Top Energy	76,547	77,331	153,878	230,574
Unison Networks	97,068	251,222	348,290	495,259
Vector	536,118	474,227	1,010,345	1,596,760
Waipa Networks	36,016	85,570	121,586	166,185
WEL Networks	97,839	175,280	273,119	376,285
Wellington Electricity Lines	90,684	146,343	237,027	420,705
Westpower	43,910	22,648	66,557	123,924
Average	86,291	113,853	200,144	322,370
Median	47,378	57,729	121,586	191,729
Minimum	2,800	12,900	15,700	22,400
Maximum	536,118	474,227	1,010,345	1,596,760
Industry Total	2,502,434	3,301,741	5,804,176	9,348,717

Forecast nominal operational expenditure by category (RY24-RY33)

	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	23,335	13,938	36,837	3,800	77,910
Aurora Energy	37,069	43,552	132,327	0	212,949
Buller Electricity	3,089	3,753	3,306	927	11,075
Centralines	4,748	8,624	2,185	10,168	25,725
Counties Energy	33,913	26,198	33,931	10,708	104,750
EA Networks	17,389	9,609	11,872	15,377	54,247
Electra	24,450	19,723	18,891	25,102	88,168
Electricity Invercargill	6,229	26	16,804	2,011	25,070
Firstlight Network	37,442	20,333	35,345	7,713	100,833
Horizon Energy Distribution	14,763	11,043	18,194	4,597	48,597
MainPower New Zealand	11,963	13,419	53,237	0	78,619
Marlborough Lines	14,828	24,777	47,896	8,555	96,056
Nelson Electricity	1,892	465	1,001	4,175	7,532
Network Tasman	22,661	14,790	29,275	23,909	90,635
Network Waitaki	5,250	8,064	15,030	2,539	30,883
Northpower	31,725	31,899	54,328	33,652	151,604
Orion New Zealand	111,606	110,695	313,917	31,587	567,805
OtagoNet Joint Venture	23,784	12,103	30,552	1,992	68,431
Powerco	94,613	147,199	276,003	130,558	648,373
Scanpower	4,237	7,177	2,650	4,786	18,849
The Lines Company	22,111	18,544	20,371	6,561	67,587
The Power Company	46,079	13,816	53,908	10,910	124,714
Top Energy	16,016	26,391	25,490	19,104	87,000
Unison Networks	31,507	36,350	42,362	57,909	168,128
Vector	185,119	77,136	267,035	146,325	675,617
Waipa Networks	15,614	16,778	8,512	7,902	48,807
WEL Networks	38,778	18,796	22,453	33,438	113,466
Wellington Electricity Lines	60,178	24,983	113,944	15,364	214,469
Westpower	6,912	11,333	44,504	2,962	65,711
Average	32,666	26,604	59,730	21,470	140,469
Median	22,661	16,778	30,552	8,555	87,000
Minimum	1,892	26	1,001	0	7,532
Maximum	185,119	147,199	313,917	146,325	675,617
Industry Total	947,300	771,516	1,732,158	622,632	4,073,610

Forecast nominal operational expenditure by category (RY24-RY33) continued

	Non-Network Operational Expenditure			Total Operational Expenditure
	System Operations and Network Support	Business Support	Total	
	\$000	\$000	\$000	\$000
Alpine Energy	112,743	139,705	252,448	330,358
Aurora Energy	175,119	159,800	334,919	547,868
Buller Electricity	4,063	29,132	33,195	44,270
Centralines	3,661	36,806	40,467	66,192
Counties Energy	54,610	132,882	187,492	292,242
EA Networks	83,799	94,789	178,588	232,835
Electra	102,819	68,777	171,594	259,763
Electricity Invercargill	14,216	24,738	38,955	64,025
Firstlight Network	36,684	51,186	87,870	188,703
Horizon Energy Distribution	45,561	43,934	89,495	138,092
MainPower New Zealand	127,641	58,976	186,617	265,235
Marlborough Lines	59,569	60,453	120,023	216,079
Nelson Electricity	3,066	14,125	17,191	24,723
Network Tasman	42,011	32,638	74,649	165,284
Network Waitaki	51,591	53,311	104,902	135,785
Northpower	55,098	175,766	230,863	382,467
Orion New Zealand	348,625	500,249	848,874	1,416,679
OtagoNet Joint Venture	22,485	22,860	45,345	113,776
Powerco	317,377	511,655	829,032	1,477,405
Scanpower	12,507	20,885	33,393	52,242
The Lines Company	34,006	76,522	110,528	178,116
The Power Company	42,137	49,482	91,619	216,332
Top Energy	86,805	87,625	174,430	261,430
Unison Networks	111,143	287,650	398,793	566,922
Vector	619,234	546,876	1,166,110	1,841,726
Waipa Networks	39,421	93,697	133,118	181,924
WEL Networks	107,417	192,440	299,857	413,323
Wellington Electricity Lines	105,920	170,931	276,851	491,320
Westpower	50,338	26,193	76,531	142,242
Average	98,954	129,796	228,750	369,219
Median	54,610	68,777	133,118	216,332
Minimum	3,066	14,125	17,191	24,723
Maximum	619,234	546,876	1,166,110	1,841,726
Industry Total	2,869,667	3,764,082	6,633,746	10,707,357

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	32,591	1,403	33,994	789	34	823	
Aurora Energy	69,665	2,018	71,683	1,001	29	1,030	
Buller Electricity	46,026	19,562	65,588	470	200	670	
Centralines	66,741	37,094	103,835	781	434	1,215	
Counties Energy	82,355	12,572	94,926	1,141	174	1,315	
EA Networks	24,509	668	25,177	673	18	692	
Electra	26,952	4,730	31,682	250	44	293	
Electricity Invercargill	21,193	0	21,193	301	0	301	
Firstlight Network	52,941	223	53,165	586	2	588	
Horizon Energy Distribution	13,868	360	14,228	296	8	303	
MainPower New Zealand	43,264	4,243	47,507	608	60	668	
Marlborough Lines	26,634	4,618	31,252	387	67	455	
Nelson Electricity	13,312	110	13,422	194	2	196	
Network Tasman	20,416	737	21,153	316	11	327	
Network Waitaki	32,745	1,398	34,143	664	28	692	
Northpower	35,892	1,025	36,917	451	13	464	
Orion New Zealand	34,517	1,192	35,709	534	18	553	
OtagoNet Joint Venture	43,569	0	43,569	1,041	0	1,041	
Powerco	56,450	2,347	58,797	785	33	818	
Scanpower	33,282	5,664	38,945	381	65	445	
The Lines Company	36,889	1,574	38,463	561	24	585	
The Power Company	39,197	0	39,197	864	0	864	
Top Energy	45,129	3,166	48,295	445	31	476	
Unison Networks	44,076	5,909	49,985	625	84	709	
Vector	41,223	2,627	43,850	578	37	615	
Waipa Networks	32,674	13,281	45,955	471	191	662	
WEL Networks	50,225	8,873	59,098	674	119	793	
Wellington Electricity Lines	22,616	727	23,344	298	10	308	
Westpower	19,228	442	19,670	301	7	307	
Average	38,213	4,709	42,922	568	60	628	
Median	35,892	1,574	38,945	561	29	615	
Minimum	13,312	0	13,422	194	0	196	
Maximum	82,355	37,094	103,835	1,141	434	1,315	

	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
	186,301	8,017	194,318	6,051	260	6,312
	305,878	8,860	314,738	15,093	437	15,530
	215,412	91,553	306,965	3,483	1,481	4,964
	322,591	179,292	501,883	3,860	2,145	6,006
	399,940	61,052	460,993	15,116	2,308	17,424
	88,810	2,421	91,231	4,360	119	4,479
	107,056	18,787	125,843	4,858	853	5,711
	73,813	0	73,813	7,967	0	7,967
	231,841	978	232,820	3,843	16	3,859
	79,294	2,061	81,356	2,836	74	2,910
	219,167	21,495	240,662	5,161	506	5,667
	137,776	23,888	161,665	2,953	512	3,465
	53,530	442	53,972	6,094	50	6,144
	103,551	3,740	107,291	3,589	130	3,718
	136,620	5,832	142,452	4,643	198	4,841
	180,482	5,155	185,637	4,592	131	4,723
	178,019	6,148	184,167	9,790	338	10,129
	276,376	0	276,376	4,363	0	4,363
	287,490	11,954	299,445	9,627	400	10,027
	157,134	26,739	183,874	2,450	417	2,866
	179,949	7,679	187,628	3,045	130	3,175
	201,584	0	201,584	3,630	0	3,630
	192,123	13,477	205,599	3,549	249	3,798
	210,921	28,277	239,198	7,928	1,063	8,991
	198,364	12,642	211,006	17,918	1,142	19,060
	160,921	65,409	226,330	5,957	2,421	8,378
	236,438	41,772	278,211	11,828	2,090	13,918
	96,165	3,092	99,258	10,697	344	11,041
	108,871	2,504	111,375	1,938	45	1,983
	183,670	22,527	206,196	6,456	616	7,072
	180,482	8,017	194,318	4,643	338	5,667
	53,530	0	53,972	1,938	0	1,983
	399,940	179,292	501,883	17,918	2,421	19,060

Expenditure on Assets ratios continued

	Expenditure on Assets Per Distribution Transformer Capacity (EDB Owned)		
	Network	Non-Network	Total
	\$/MVA	\$/MVA	\$/MVA
Alpine Energy	40,473	1,742	42,215
Aurora Energy	98,667	2,858	101,525
Buller Electricity	59,950	25,479	85,429
Centralines	67,262	37,383	104,645
Counties Energy	122,917	18,764	141,681
EA Networks	23,122	630	23,752
Electra	34,411	6,039	40,449
Electricity Invercargill	33,931	0	33,931
Firstlight Network	68,143	288	68,431
Horizon Energy Distribution	27,259	709	27,968
MainPower New Zealand	45,545	4,467	50,012
Marlborough Lines	28,813	4,996	33,809
Nelson Electricity	18,047	149	18,196
Network Tasman	28,333	1,023	29,357
Network Waitaki	38,152	1,628	39,781
Northpower	47,408	1,354	48,763
Orion New Zealand	50,418	1,741	52,159
OtagoNet Joint Venture	85,337	0	85,337
Powerco	78,971	3,284	82,255
Scanpower	34,360	5,847	40,207
The Lines Company	51,842	2,212	54,054
The Power Company	67,508	0	67,508
Top Energy	50,358	3,532	53,890
Unison Networks	58,454	7,837	66,290
Vector	70,264	4,478	74,742
Waipa Networks	46,320	18,827	65,147
WEL Networks	68,423	12,089	80,512
Wellington Electricity Lines	34,542	1,111	35,653
Westpower	27,710	637	28,348
Average	51,964	5,831	57,795
Median	47,408	2,212	52,159
Minimum	18,047	0	18,196
Maximum	122,917	37,383	141,681

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	7,156	3,485	14,477	1	0	0
Aurora Energy	15,246	17,514	54,604	3,728	1,172	0
Buller Electricity	425	121	902	12	14	114
Centralines	2,151	543	4,492	11	0	0
Counties Energy	23,064	912	28,964	169	483	0
EA Networks	4,835	1,140	6,010	202	1,173	0
Electra	0	396	8,544	0	1,773	423
Electricity Invercargill	704	0	3,821	6	307	0
Firstlight Network	82	2,690	11,670	0	705	4
Horizon Energy Distribution	235	112	6,169	0	379	10
MainPower New Zealand	12,845	1,692	10,668	0	236	54
Marlborough Lines	425	530	4,450	481	4,070	0
Nelson Electricity	8	45	1,100	255	249	0
Network Tasman	1,141	3,416	6,091	0	2,095	0
Network Waitaki	1,766	1,046	4,812	1	965	268
Northpower	5,821	2,670	17,501	514	358	60
Orion New Zealand	45,521	5,636	33,441	957	22,780	0
OtagoNet Joint Venture	7,426	1,020	10,405	383	195	0
Powerco	76,847	85,401	96,181	8,704	8,167	106
Scanpower	145	145	2,121	0	166	0
The Lines Company	2,702	195	8,308	0	803	0
The Power Company	13,101	3,278	11,263	285	576	0
Top Energy	5,130	860	7,129	0	0	0
Unison Networks	26,825	1,047	40,306	4,207	1,209	0
Vector	129,468	45,442	145,389	25,548	26	6
Waipa Networks	8,141	2,281	2,102	492	446	0
WEL Networks	32,212	6,795	18,162	3,834	384	357
Wellington Electricity Lines	16,483	4,230	26,281	2,260	1,522	0
Westpower	494	578	1,676	0	311	0
Average	15,186	6,663	20,243	1,795	1,744	48
Median	5,130	1,047	8,544	169	446	0
Minimum	0	0	902	0	0	0
Maximum	129,468	85,401	145,389	25,548	22,780	423
Industry Total	440,399	193,221	587,041	52,051	50,563	1,402

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
	1,350	26,469	1,139	27,608	0	6,935	0	20,674
	2,156	94,420	2,735	97,155	400	10,939	0	86,616
	676	2,264	962	3,226	0	509	99	2,815
	0	7,197	4,000	11,197	0	1,499	0	9,698
	0	53,592	8,181	61,773	397	23,098	0	39,072
	470	13,830	377	14,207	0	1,504	0	12,703
	426	11,562	2,029	13,591	109	0	58	13,759
	456	5,294	0	5,294	0	413	0	4,881
	9	15,160	64	15,224	0	0	0	15,224
	537	7,442	193	7,635	104	0	0	7,739
	1,332	26,826	2,631	29,457	0	6,953	0	22,504
	437	10,393	1,802	12,195	0	295	0	11,900
	146	1,803	15	1,818	0	0	0	1,818
	602	13,345	482	13,827	0	31	819	14,615
	0	8,858	378	9,236	0	2,215	0	7,021
	1,500	28,425	812	29,237	633	7,392	0	22,478
	8,243	116,577	4,026	120,603	0	3,314	0	117,289
	722	20,151	0	20,151	0	2,066	0	18,085
	4,609	280,015	11,644	291,659	2,276	54,235	0	239,700
	0	2,577	439	3,016	0	0	0	3,016
	1,471	13,479	575	14,054	34	1,836	0	12,252
	3,735	32,239	0	32,239	0	9,778	0	22,462
	1,883	15,003	1,052	16,055	58	4,280	0	11,833
	407	74,003	9,921	83,924	862	11,360	0	73,426
	2,956	348,835	22,232	371,067	-117	163,771	0	207,179
	252	13,713	5,574	19,287	0	5,437	0	13,851
	4,695	66,439	11,738	78,177	0	13,545	0	64,632
	946	51,722	1,663	53,385	377	10,804	0	42,959
	1,192	4,251	98	4,349	0	0	0	4,349
	1,421	47,099	3,268	50,367	177	11,800	34	38,778
	676	15,003	1,052	16,055	0	2,215	0	14,615
	0	1,803	0	1,818	-117	0	0	1,818
	8,243	348,835	22,232	371,067	2,276	163,771	819	239,700
	41,208	1,365,884	94,762	1,460,646	5,133	342,207	976	1,124,549

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	245	0
Aurora Energy	0	0	0
Buller Electricity	0	0	0
Centralines	0	0	0
Counties Energy	0	601	0
EA Networks	0	2,754	0
Electra	0	0	0
Electricity Invercargill	0	0	0
Firstlight Network	0	0	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	0	0	0
Network Waitaki	0	0	0
Northpower	0	0	0
Orion New Zealand	0	0	0
OtagoNet Joint Venture	0	0	0
Powerco	59	1,736	727
Scanpower	0	0	0
The Lines Company	0	0	0
The Power Company	0	0	0
Top Energy	0	0	0
Unison Networks	0	1,973	0
Vector	0	11,133	8,835
Waipa Networks	0	1,109	0
WEL Networks	1,015	0	0
Wellington Electricity Lines	244	778	0
Westpower	0	0	0
Average	45	701	330
Median	0	0	0
Minimum	0	0	0
Maximum	1,015	11,133	8,835
Industry Total	1,318	20,329	9,562

Forecast real expenditure on assets by category (RY24-RY33 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	54,000	44,885	158,472	4,450	2,100	
Aurora Energy	141,992	95,499	528,445	33,989	7,823	
Buller Electricity	1,209	296	12,227	0	305	
Centralines	23,162	14,285	19,300	0	6,510	
Counties Energy	96,500	81,740	195,648	3,031	16,183	
EA Networks	38,083	36,545	39,320	0	7,668	
Electra	4,430	48,840	110,991	0	43,807	
Electricity Invercargill	7,992	2,736	51,551	70	2,635	
Firstlight Network	1,248	30,267	103,367	513	7,720	
Horizon Energy Distribution	3,140	32,570	69,326	312	4,410	
MainPower New Zealand	60,000	57,887	98,397	0	19,798	
Marlborough Lines	2,245	29,899	122,959	5,889	7,524	
Nelson Electricity	1,255	2,725	10,785	210	2,770	
Network Tasman	11,750	90,080	54,410	5,000	9,655	
Network Waitaki	15,090	55,199	62,220	221	4,853	
Northpower	58,030	64,387	288,466	3,340	3,020	
Orion New Zealand	762,656	1,025,441	787,026	95,891	155,181	
OtagoNet Joint Venture	58,447	20,216	123,407	2,162	3,767	
Powerco	1,028,464	1,030,358	1,078,806	28,849	182,389	
Scanpower	250	23,957	12,705	0	120	
The Lines Company	24,009	34,600	118,332	953	10,766	
The Power Company	72,862	39,509	166,334	1,301	6,516	
Top Energy	28,194	33,748	83,066	0	28,023	
Unison Networks	179,731	236,028	368,539	10,514	10,075	
Vector	948,922	900,900	1,162,917	334,529	0	
Waipa Networks	67,223	37,155	29,693	1,890	1,755	
WEL Networks	196,209	165,908	227,441	38,275	14,441	
Wellington Electricity Lines	219,662	555,225	334,008	8,133	25,521	
Westpower	2,600	2,400	10,504	0	7,660	
Average	141,702	165,286	221,678	19,984	20,448	
Median	38,083	39,509	110,991	1,301	7,660	
Minimum	250	296	10,504	0	0	
Maximum	1,028,464	1,030,358	1,162,917	334,529	182,389	
Industry Total	4,109,353	4,793,286	6,428,663	579,523	592,995	

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
0	12,770	276,677	26,680	303,357
0	0	807,749	26,125	833,874
433	1,309	15,778	10,159	25,937
0	1,785	65,042	6,813	71,855
300	4,035	397,437	50,709	448,146
325	4,188	126,128	5,072	131,200
2,519	3,701	214,288	30,681	244,967
0	7,611	72,595	0	72,595
573	4,127	147,814	2,943	150,758
1,519	8,355	119,631	3,303	122,934
0	9,514	245,596	5,225	250,821
0	14,682	183,199	26,855	210,054
0	1,550	19,295	460	19,755
0	5,715	176,610	11,018	187,628
0	0	137,583	11,949	149,532
0	8,388	425,629	10,708	436,337
0	45,801	2,871,997	111,604	2,983,601
0	9,958	217,956	27	217,983
9,313	71,860	3,430,039	106,938	3,536,977
0	200	37,232	2,080	39,312
0	11,313	199,973	18,769	218,742
0	26,747	313,268	15	313,283
0	0	173,031	12,242	185,273
0	46,431	851,319	115,377	966,696
0	608,447	3,955,715	323,928	4,279,643
0	10,180	147,896	19,403	167,299
5,258	44,218	691,750	71,287	763,037
1,300	2,420	1,146,269	38,237	1,184,506
225	4,710	28,099	0	28,099
751	33,449	603,296	36,159	639,455
0	7,611	199,973	11,949	217,983
0	0	15,778	0	19,755
9,313	608,447	3,955,715	323,928	4,279,643
21,766	970,014	17,495,597	1,048,606	18,544,201

Forecast nominal expenditure on assets by category (RY24-RY33)

	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	60,070	49,335	175,750	4,951	2,301	
Aurora Energy	166,981	108,101	592,054	39,461	9,082	
Buller Electricity	1,299	330	13,621	0	330	
Centralines	26,499	16,439	21,734	0	7,374	
Counties Energy	109,766	90,540	223,457	3,475	16,835	
EA Networks	43,764	42,374	44,170	0	8,587	
Electra	5,079	57,286	127,526	0	50,120	
Electricity Invercargill	8,760	3,108	59,461	77	2,876	
Firstlight Network	1,540	37,953	125,970	632	9,039	
Horizon Energy Distribution	3,458	35,373	76,630	341	4,983	
MainPower New Zealand	71,776	68,467	118,309	0	23,665	
Marlborough Lines	2,554	32,670	139,604	6,641	8,189	
Nelson Electricity	1,459	3,205	12,752	234	3,260	
Network Tasman	13,084	100,938	60,322	5,567	10,089	
Network Waitaki	17,100	62,453	70,336	232	5,366	
Northpower	65,780	71,045	329,617	3,788	3,192	
Orion New Zealand	887,102	1,197,734	903,068	107,428	172,972	
OtagoNet Joint Venture	66,131	23,205	140,592	2,208	4,139	
Powerco	1,189,288	1,226,018	1,285,430	32,514	219,722	
Scanpower	274	25,670	14,257	0	142	
The Lines Company	25,880	38,469	132,727	1,054	11,908	
The Power Company	79,935	44,967	187,613	1,468	7,229	
Top Energy	31,310	39,319	92,206	0	30,784	
Unison Networks	204,285	272,827	423,220	11,754	11,264	
Vector	1,170,219	1,131,150	1,453,984	420,351	0	
Waipa Networks	74,326	38,259	32,155	2,075	1,882	
WEL Networks	217,083	184,217	250,500	41,990	15,750	
Wellington Electricity Lines	253,351	650,075	390,378	9,500	29,868	
Westpower	2,937	2,751	11,620	0	8,208	
Average	165,555	194,975	258,933	23,991	23,419	
Median	43,764	44,967	127,526	1,468	8,208	
Minimum	274	330	11,620	0	0	
Maximum	1,189,288	1,226,018	1,453,984	420,351	219,722	
Industry Total	4,801,089	5,654,278	7,509,065	695,741	679,155	

Network Expenditure on Assets			Non-Network	Total
Reliability, Safety and Environment (Legislative and Regulatory)	Reliability, Safety and Environment (Other)	Total		
\$000	\$000	\$000	\$000	\$000
0	14,044	306,451	31,295	337,746
0	0	915,679	30,482	946,161
461	1,443	17,483	11,248	28,730
0	1,927	73,972	7,675	81,647
300	4,554	448,926	57,458	506,384
343	4,830	144,069	5,072	149,141
2,668	4,105	246,781	33,058	279,840
0	8,113	82,395	0	82,395
635	5,235	181,005	3,576	184,581
1,638	9,107	131,530	3,434	134,964
0	11,253	293,470	6,187	299,657
0	17,574	207,233	30,248	237,482
0	1,824	22,734	538	23,272
0	6,352	196,352	12,089	208,441
0	0	155,487	12,216	167,703
0	9,589	483,007	11,942	494,949
0	48,516	3,316,820	125,638	3,442,458
0	11,032	247,307	27	247,333
10,028	85,253	4,048,253	117,816	4,166,069
0	237	40,580	2,224	42,804
0	12,158	222,196	18,769	240,965
0	29,969	351,180	15	351,195
0	0	193,620	13,615	207,235
0	54,269	977,619	130,947	1,108,566
0	775,421	4,951,125	400,776	5,351,901
0	11,121	159,818	20,863	180,681
5,437	48,081	763,058	77,423	840,481
1,439	2,636	1,337,247	42,796	1,380,043
50	5,134	30,700	0	30,700
793	40,820	708,486	41,635	750,122
0	8,113	222,196	12,216	240,965
0	0	17,483	0	23,272
10,028	775,421	4,951,125	400,776	5,351,901
23,000	1,183,776	20,546,097	1,207,426	21,753,524

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	267,127	9,322	1,761	0	0	11,082
Aurora Energy	645,301	23,643	2,136	0	0	25,779
Buller Electricity	33,068	1,816	0	0	0	1,816
Centralines	67,163	2,236	0	0	0	2,236
Counties Energy	374,478	10,691	2,750	0	0	13,441
EA Networks	321,934	10,242	1,349	0	0	11,591
Electra	226,821	10,351	0	0	0	10,351
Electricity Invercargill	99,905	3,729	0	0	0	3,729
Firstlight Network	188,035	7,106	0	0	0	7,106
Horizon Energy Distribution	150,720	6,501	652	0	0	7,153
MainPower New Zealand	282,321	14,246	4,425	0	0	18,671
Marlborough Lines	248,723	11,449	0	0	0	11,449
Nelson Electricity	46,261	1,699	0	0	0	1,699
Network Tasman	191,545	6,854	335	0	0	7,189
Network Waitaki	110,927	4,057	532	0	0	4,589
Northpower	328,448	11,584	620	0	0	12,204
Orion New Zealand	1,307,972	44,711	5,716	0	0	50,427
OtagoNet Joint Venture	240,495	9,688	0	0	0	9,688
Powerco	2,285,796	72,277	31,286	0	0	103,563
Scanpower	49,990	1,375	883	0	0	2,258
The Lines Company	250,864	9,779	1,375	0	0	11,155
The Power Company	457,373	17,599	0	0	0	17,599
Top Energy	320,021	11,964	0	0	0	11,964
Unison Networks	740,115	33,162	0	0	0	33,162
Vector	3,641,987	93,337	52,519	0	0	145,856
Waipa Networks	145,410	4,639	1,512	0	0	6,151
WEL Networks	644,346	19,194	5,357	0	0	24,551
Wellington Electricity Lines	743,607	25,793	4,512	0	0	30,305
Westpower	110,847	5,110	721	0	0	5,831
Average	500,745	16,695	4,084	0	0	20,779
Median	250,864	10,242	652	0	0	11,155
Minimum	33,068	1,375	0	0	0	1,699
Maximum	3,641,987	93,337	52,519	0	0	145,856
Industry Total	14,521,603	484,154	118,441	0	0	602,594

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	17,777	0	8,572	10,893	19,465
Aurora Energy	42,563	0	32,787	44,086	76,873
Buller Electricity	2,161	0	0	2,287	2,288
Centralines	4,452	0	3,200	16,456	19,656
Counties Energy	24,806	0	0	41,748	41,748
EA Networks	21,377	0	4,566	7,483	12,049
Electra	14,961	0	0	11,471	11,471
Electricity Invercargill	6,645	0	4,522	0	4,522
Firstlight Network	12,500	0	0	16,078	16,078
Horizon Energy Distribution	9,975	0	8,083	140	8,223
MainPower New Zealand	18,788	0	0	24,095	24,095
Marlborough Lines	16,499	0	0	11,297	11,297
Nelson Electricity	3,079	0	0	1,644	1,644
Network Tasman	12,699	0	0	13,863	13,863
Network Waitaki	7,366	0	488	6,831	7,319
Northpower	21,787	0	13,372	2,295	15,667
Orion New Zealand	86,682	0	45,349	60,871	106,220
OtagoNet Joint Venture	15,995	0	16,920	0	16,920
Powerco	151,386	0	535	255,212	255,747
Scanpower	3,319	0	0	3,014	3,014
The Lines Company	16,669	0	0	6,934	6,934
The Power Company	30,336	0	22,097	0	22,097
Top Energy	21,280	0	0	9,801	9,801
Unison Networks	49,031	0	47,078	7,547	54,625
Vector	241,014	0	2,259	167,028	169,287
Waipa Networks	9,671	0	7,881	5,561	13,442
WEL Networks	42,790	0	8,632	36,090	44,722
Wellington Electricity Lines	49,410	0	0	41,143	41,143
Westpower	7,377	0	3,609	395	4,004
Average	33,186	0	7,929	27,733	35,663
Median	16,669	0	2,259	9,801	15,667
Minimum	2,161	0	0	0	1,644
Maximum	241,014	0	47,078	255,212	255,747
Industry Total	962,396	0	229,948	804,265	1,034,213

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	7	7	0	0	293,278
Aurora Energy	505	0	2,366	2,871	0	0	736,088
Buller Electricity	0	0	434	434	0	-1	35,266
Centralines	0	0	138	138	0	0	88,898
Counties Energy	0	0	537	537	0	0	427,054
EA Networks	0	46	476	522	0	43	343,290
Electra	0	0	1,215	1,215	0	0	241,685
Electricity Invercargill	0	0	43	43	0	0	107,300
Firstlight Network	0	0	24	24	-38	0	209,446
Horizon Energy Distribution	0	0	549	549	0	0	161,216
MainPower New Zealand	0	0	10	10	0	-239	306,284
Marlborough Lines	0	0	839	839	0	0	264,231
Nelson Electricity	0	0	0	0	0	0	49,284
Network Tasman	0	0	1,120	1,120	0	-9	209,789
Network Waitaki	0	0	0	0	-5	-26	120,992
Northpower	0	0	151	151	0	-379	353,169
Orion New Zealand	0	0	368	368	0	0	1,450,079
OtagoNet Joint Venture	0	0	105	105	0	0	263,617
Powerco	0	0	-745	-745	0	-574	2,589,537
Scanpower	0	0	71	71	0	0	53,996
The Lines Company	0	0	126	126	171	-94	263,264
The Power Company	0	0	834	834	0	0	491,373
Top Energy	0	0	1	1	0	-16	339,121
Unison Networks	0	0	2,068	2,068	-251	-2,483	805,807
Vector	0	0	15,317	15,317	0	719	3,891,833
Waipa Networks	0	0	130	130	0	0	162,242
WEL Networks	0	0	831	831	0	0	706,476
Wellington Electricity Lines	0	0	0	0	0	-425	803,430
Westpower	0	0	56	56	0	0	116,341
Average	17	2	933	952	-4	-120	547,737
Median	0	0	138	138	0	0	264,231
Minimum	0	0	-745	-745	-251	-2,483	35,266
Maximum	505	46	15,317	15,317	171	719	3,891,833
Industry Total	505	46	27,068	27,619	-122	-3,485	15,884,387

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	13,186	5,720	63,493	67,289	67,599	
Aurora Energy	40,212	27,907	119,363	225,618	176,310	
Buller Electricity	3,567	0	7,025	8,821	2,873	
Centralines	1,805	597	6,017	33,114	10,181	
Counties Energy	19,519	225	74,836	151,052	55,791	
EA Networks	16,343	3,854	30,552	55,256	96,261	
Electra	10,948	13,238	33,289	61,913	41,897	
Electricity Invercargill	1,456	7,408	23,404	2,850	47,841	
Firstlight Network	22,040	1,597	31,387	77,410	30,507	
Horizon Energy Distribution	7,517	1,371	10,512	27,665	45,920	
MainPower New Zealand	20,705	702	38,655	77,821	63,552	
Marlborough Lines	27,767	15,701	49,487	57,092	47,970	
Nelson Electricity	0	5,528	10,496	846	17,832	
Network Tasman	8,997	12,040	31,388	30,976	67,097	
Network Waitaki	13,692	1,642	19,068	36,500	10,326	
Northpower	8,458	10,745	40,155	143,194	53,718	
Orion New Zealand	81,007	104,129	178,917	155,607	468,494	
OtagoNet Joint Venture	32,243	3,223	38,982	118,443	20,907	
Powerco	104,143	72,080	207,654	603,370	435,799	
Scanpower	0	0	0	26,356	5,416	
The Lines Company	21,115	867	39,280	102,812	25,164	
The Power Company	66,724	5,548	126,181	168,298	22,230	
Top Energy	68,468	10,269	44,977	91,521	42,241	
Unison Networks	25,590	25,940	99,944	182,272	180,790	
Vector	79,923	386,334	388,304	600,930	794,740	
Waipa Networks	21,043	0	0	32,609	26,507	
WEL Networks	23,696	52,553	85,253	143,432	226,974	
Wellington Electricity Lines	4,708	54,912	71,660	215,197	239,173	
Westpower	18,018	0	27,082	35,014	5,618	
Average	26,307	28,418	65,426	121,837	114,818	
Median	19,519	5,548	38,982	77,410	47,841	
Minimum	0	0	0	846	2,873	
Maximum	104,143	386,334	388,304	603,370	794,740	
Industry Total	762,890	824,131	1,897,361	3,533,277	3,329,730	

	Network Assets				Non-Network Assets	All Assets
	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets	Total		
	\$000	\$000	\$000	\$000	\$000	\$000
	26,056	21,126	11,689	276,158	17,121	293,278
	78,226	40,056	22,142	729,834	6,254	736,088
	3,320	2,773	2,742	31,121	4,145	35,266
	11,423	7,857	536	71,530	17,368	88,898
	47,792	26,057	7,977	383,249	43,805	427,054
	75,162	39,276	2,740	319,444	23,846	343,290
	31,182	19,350	16,262	228,079	13,606	241,685
	11,697	9,065	3,579	107,300	0	107,300
	20,479	10,431	6,575	200,426	9,020	209,446
	32,791	23,817	9,323	158,917	2,299	161,216
	43,884	14,075	18,633	278,028	28,257	306,284
	21,593	17,632	7,521	244,764	19,467	264,231
	5,941	4,011	4,260	48,914	370	49,284
	31,170	11,329	13,349	206,346	3,443	209,789
	19,150	13,626	2,746	116,750	4,242	120,992
	57,361	10,272	7,655	331,558	21,611	353,169
	166,524	191,658	42,494	1,388,830	61,249	1,450,079
	26,702	16,705	5,165	262,370	1,247	263,617
	320,222	202,309	532,506	2,478,083	111,454	2,589,537
	9,205	4,590	4,754	50,319	3,676	53,996
	37,624	24,154	9,947	260,964	2,300	263,264
	62,461	31,044	8,887	491,373	0	491,373
	37,498	35,254	5,310	335,537	3,584	339,121
	124,465	80,645	27,695	747,342	58,465	805,807
	335,921	359,314	896,540	3,842,006	49,828	3,891,833
	36,882	21,620	7,686	146,347	15,895	162,242
	75,458	49,299	14,480	671,145	35,331	706,476
	150,090	34,841	23,148	793,729	9,701	803,430
	15,344	6,932	6,663	114,672	1,669	116,341
	66,056	45,832	59,414	528,108	19,629	547,738
	36,882	21,126	7,977	262,370	9,701	264,231
	3,320	2,773	536	31,121	0	35,266
	335,921	359,314	896,540	3,842,006	111,454	3,891,833
	1,915,622	1,329,118	1,723,005	15,315,135	569,253	15,884,388

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	31.7	37.7	33.0	34.9	39.8	
Aurora Energy	29.0	34.1	26.3	32.4	30.3	
Buller Electricity	30.0	-	26.2	32.0	37.8	
Centralines	49.8	42.3	36.2	46.5	43.8	
Counties Energy	42.8	23.3	38.5	44.5	36.1	
EA Networks	32.6	47.8	33.4	29.7	44.0	
Electra	31.6	41.7	33.2	36.3	37.5	
Electricity Invercargill	31.7	39.1	34.9	35.9	36.5	
Firstlight Network	39.6	38.4	33.1	41.1	39.9	
Horizon Energy Distribution	31.5	41.7	39.2	27.4	38.3	
MainPower New Zealand	19.1	19.1	18.8	15.8	24.9	
Marlborough Lines	44.9	44.9	33.4	41.0	33.5	
Nelson Electricity	-	30.2	24.6	24.5	19.5	
Network Tasman	41.6	52.0	36.8	63.8	49.9	
Network Waitaki	43.1	51.1	36.7	36.8	39.8	
Northpower	33.2	38.2	32.0	41.7	32.1	
Orion New Zealand	34.9	39.8	31.7	32.2	38.3	
OtagoNet Joint Venture	35.6	44.8	39.0	31.5	44.7	
Powerco	41.8	43.5	30.0	40.3	33.1	
Scanpower	-	-	-	43.9	30.1	
The Lines Company	31.7	41.5	28.8	36.5	34.9	
The Power Company	35.8	37.9	32.3	24.6	42.1	
Top Energy	43.4	51.8	24.8	29.2	24.5	
Unison Networks	36.9	41.4	34.5	40.8	40.2	
Vector	40.0	46.0	32.0	47.0	34.0	
Waipa Networks	48.2	-	-	25.0	26.4	
WEL Networks	39.6	40.0	32.1	42.7	42.7	
Wellington Electricity Lines	23.0	25.7	24.0	38.5	23.6	
Westpower	34.4	-	21.9	30.1	22.8	
Average	33.7	34.3	29.2	36.1	35.2	
Median	34.9	39.8	32.1	36.3	36.5	
Minimum	19.1	19.1	18.8	15.8	19.5	
Maximum	49.8	52.0	39.2	63.8	49.9	

Network Assets					Non-Network Assets	All Assets ¹
	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets	Total		
	years	years	years	years	years	years
	25.9	34.4	32.6	34.5	23.6	33.8
	26.8	20.1	9.4	28.7	2.7	28.5
	25.8	23.4	24.9	28.9	17.1	27.5
	33.6	31.8	10.0	41.2	15.9	39.8
	31.0	29.1	8.0	38.4	13.0	36.0
	35.7	25.7	12.6	35.3	19.9	34.2
	33.4	30.4	24.9	34.5	8.5	32.9
	27.5	26.1	18.4	33.9	-	33.9
	31.0	26.3	15.0	36.8	14.5	35.7
	34.9	31.6	15.9	33.1	6.7	32.6
	18.3	10.7	15.7	18.7	6.4	17.4
	25.5	26.4	15.6	35.3	18.3	34.0
	26.1	14.2	18.4	22.2	1.6	22.1
	51.3	46.3	18.3	47.6	21.9	47.1
	33.2	29.0	22.9	36.3	42.7	36.5
	35.2	27.0	16.1	36.4	28.9	36.0
	34.3	32.0	25.3	34.9	26.0	34.5
	29.7	27.2	30.5	33.8	19.2	33.7
	33.2	29.3	39.5	36.4	17.6	35.5
	35.3	29.1	28.8	38.0	17.6	36.5
	27.9	29.8	15.5	32.1	8.7	31.8
	32.8	27.2	16.0	30.1	-	30.1
	22.4	29.1	11.3	30.5	2.5	30.2
	30.5	30.6	19.0	36.2	12.3	34.3
	34.0	29.0	40.0	37.8	6.0	37.3
	26.4	21.7	20.6	28.4	8.1	26.8
	35.3	33.0	13.9	38.8	13.1	37.4
	28.2	17.4	41.1	28.8	3.1	28.4
	28.0	24.2	11.0	26.7	10.0	26.5
	30.8	27.3	20.4	33.6	13.3	32.8
	31.0	29.0	18.3	34.5	13.0	33.9
	18.3	10.7	8.0	18.7	1.6	17.4
	51.3	46.3	41.1	47.6	42.7	47.1

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	276,158	1,101	277,258	0	16,020	16,020
Aurora Energy	727,117	6,255	733,372	2,716	0	2,716
Buller Electricity	31,121	4,145	35,266	0	0	0
Centralines	71,530	17,368	88,898	0	0	0
Counties Energy	383,249	31,949	415,198	0	11,856	11,856
EA Networks	319,442	16,690	336,132	2	7,156	7,158
Electra	228,079	13,606	241,685	0	0	0
Electricity Invercargill	107,300	0	107,300	0	0	0
Firstlight Network	200,426	9,020	209,446	0	0	0
Horizon Energy Distribution	158,917	0	158,917	0	2,299	2,299
MainPower New Zealand	278,027	0	278,027	0	28,257	28,257
Marlborough Lines	244,764	19,467	264,231	0	0	0
Nelson Electricity	48,914	370	49,284	0	0	0
Network Tasman	204,391	1,057	205,448	1,955	2,386	4,341
Network Waitaki	116,750	1,483	118,233	0	2,759	2,759
Northpower	322,033	18,066	340,099	9,525	3,545	13,070
Orion New Zealand	1,388,830	50,986	1,439,816	0	10,263	10,263
OtagoNet Joint Venture	262,370	1,247	263,617	0	0	0
Powerco	2,478,083	35,386	2,513,469	0	76,067	76,067
Scanpower	50,321	3,675	53,996	0	0	0
The Lines Company	260,964	887	261,851	0	1,413	1,413
The Power Company	491,373	0	491,373	0	0	0
Top Energy	335,537	0	335,537	0	3,584	3,584
Unison Networks	745,106	23,058	768,164	2,236	35,407	37,643
Vector	3,750,722	24,152	3,774,874	91,284	25,676	116,959
Waipa Networks	146,347	14,803	161,150	0	1,092	1,092
WEL Networks	668,176	26,196	694,372	2,969	9,135	12,104
Wellington Electricity Lines	628,644	9,701	638,345	165,085	0	165,085
Westpower	114,672	1,669	116,341	0	0	0
Average	518,599	11,460	530,059	9,509	8,169	17,679
Median	262,370	6,255	264,231	0	1,413	2,716
Minimum	31,121	0	35,266	0	0	0
Maximum	3,750,722	50,986	3,774,874	165,085	76,067	165,085
Industry Total	15,039,363	332,337	15,371,700	275,772	236,915	512,687

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	23,103	0	2,718	1,800	-17,777	
Aurora Energy	59,956	0	4,929	4,371	-42,563	
Buller Electricity	3,645	0	569	305	-2,161	
Centralines	7,497	0	1,255	465	-4,452	
Counties Energy	35,494	0	2,663	1,949	-24,806	
EA Networks	27,846	2,999	2,076	1,997	-21,377	
Electra	21,230	0	2,602	1,713	-14,961	
Electricity Invercargill	9,785	0	1,249	640	-6,645	
Firstlight Network	16,319	0	1,901	904	-12,500	
Horizon Energy Distribution	16,041	0	4,219	1,686	-9,975	
MainPower New Zealand	22,165	0	1,048	4,642	-18,788	
Marlborough Lines	17,184	0	3,387	2,955	-16,499	
Nelson Electricity	4,783	0	693	414	-3,079	
Network Tasman	17,523	0	3,238	982	-12,699	
Network Waitaki	9,110	0	1,132	532	-7,366	
Northpower	20,714	0	4,532	2,302	-21,787	
Orion New Zealand	129,670	0	15,209	8,721	-86,682	
OtagoNet Joint Venture	20,185	0	1,330	1,590	-15,995	
Powerco	219,392	0	9,489	14,740	-151,386	
Scanpower	4,892	0	546	350	-3,319	
The Lines Company	25,044	0	4,086	1,966	-16,669	
The Power Company	41,733	0	6,934	2,992	-30,336	
Top Energy	23,852	0	3,399	2,493	-21,280	
Unison Networks	74,554	0	5,670	4,947	-49,031	
Vector	343,349	0	31,571	24,603	-241,014	
Waipa Networks	11,694	-32	1,601	2,107	-9,671	
WEL Networks	54,922	0	7,095	4,100	-42,790	
Wellington Electricity Lines	79,539	0	7,151	4,018	-49,410	
Westpower	8,527	4,978	1,556	1,195	-7,377	
Average	46,543	274	4,615	3,499	-33,186	
Median	21,230	0	2,718	1,966	-16,669	
Minimum	3,645	-32	546	305	-241,014	
Maximum	343,349	4,978	31,571	24,603	-2,161	
Industry Total	1,349,747	7,945	133,846	101,477	-962,396	

	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
	33	4,489	0	5,387	1,508	249,302
	-1,096	11,074	0	14,523	4,066	615,014
	-69	567	0	1,721	482	31,483
	0	1,121	0	3,643	1,020	62,276
	154	6,354	0	9,101	2,548	352,875
	6	5,501	0	2,048	573	305,520
	729	4,003	0	7,312	2,047	215,889
	-15	1,705	0	3,310	927	94,688
	4	1,865	0	4,761	1,333	177,056
	52	2,714	0	9,309	0	150,720
	0	4,950	0	4,116	1,153	274,922
	23	4,394	0	2,656	744	244,052
	0	793	0	2,019	565	44,032
	81	3,381	0	5,743	1,608	187,789
	28	1,900	0	1,535	430	105,534
	22	5,658	0	125	35	314,238
	900	23,255	0	44,564	12,478	1,244,715
	-48	3,940	0	3,122	874	218,831
	3,009	42,020	0	53,224	14,903	2,197,284
	0	860	0	1,608	450	47,767
	0	4,146	0	10,281	2,879	230,268
	-93	8,203	0	13,027	3,648	432,130
	6	5,452	0	3,018	845	302,766
	65	13,032	0	23,172	6,488	698,403
	3,842	66,315	0	96,036	26,890	3,510,608
	2,882	2,494	0	6,152	1,722	138,502
	7	10,847	0	12,487	3,496	602,426
	42	12,907	0	28,433	7,961	697,429
	-15	2,063	0	0	0	114,559
	364	8,828	0	12,842	3,506	477,968
	7	4,394	0	5,387	1,333	244,052
	-1,096	567	0	0	0	31,483
	3,842	66,315	0	96,036	26,890	3,510,608
	10,549	256,004	0	372,431	101,674	13,861,078

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	5,138	12,608	0	140
Aurora Energy	0	17,854	30,205	0	911
Buller Electricity	1,680	787	0	0	0
Centralines	0	1,588	3,200	0	0
Counties Energy	0	0	0	0	0
EA Networks	183	2,629	4,566	40	867
Electra	0	535	0	0	0
Electricity Invercargill	0	4,257	5,294	0	0
Firstlight Network	734	3,157	0	0	152
Horizon Energy Distribution	0	3,581	8,234	0	0
MainPower New Zealand	0	0	0	0	0
Marlborough Lines	0	15	39	0	0
Nelson Electricity	0	211	0	0	0
Network Tasman	80	0	0	0	0
Network Waitaki	0	20	488	0	0
Northpower	0	18,824	16,356	0	0
Orion New Zealand	2,810	24,050	44,572	0	5,140
OtagoNet Joint Venture	0	8,947	20,151	0	0
Powerco	5	0	535	0	0
Scanpower	0	744	1,127	0	0
The Lines Company	0	900	0	0	0
The Power Company	38	16,138	32,239	0	0
Top Energy	0	1,322	0	0	0
Unison Networks	0	23,999	47,078	0	0
Vector	0	11,321	2,267	0	0
Waipa Networks	0	5,860	7,881	0	0
WEL Networks	2,206	7,540	8,632	0	0
Wellington Electricity Lines	0	12,158	3,706	0	0
Westpower	0	6,392	3,650	0	543
Average	267	6,137	8,718	1	267
Median	0	3,157	3,200	0	0
Minimum	0	0	0	0	0
Maximum	2,810	24,050	47,078	40	5,140
Industry Total	7,736	177,967	252,829	40	7,754

12. Network assets

Asset quantities by asset category

	Subtransmission			Distribution			
	Lines km	Cables km	Total km	Lines km	Cables km	Total km	
Alpine Energy	248	32	280	2,895	462	3,357	
Aurora Energy	522	89	611	2,285	1,195	3,480	
Buller Electricity	106	1	107	368	22	391	
Centralines	94	2	96	1,407	43	1,451	
Counties Energy	120	1	121	1,485	321	1,806	
EA Networks	391	9	400	1,938	342	2,280	
Electra	186	31	217	848	263	1,111	
Electricity Invercargill	1	27	28	22	160	182	
Firstlight Network	643	1	644	2,387	142	2,529	
Horizon Energy Distribution	249	4	253	1,498	228	1,726	
MainPower New Zealand	386	4	390	3,433	373	3,806	
Marlborough Lines	277	31	308	2,134	204	2,337	
Nelson Electricity	0	18	18	6	76	83	
Network Tasman	281	41	322	1,887	308	2,195	
Network Waitaki	232	4	236	1,256	86	1,343	
Northpower	324	25	349	3,507	312	3,820	
Orion New Zealand	500	138	638	3,134	2,856	5,990	
OtagoNet Joint Venture	698	18	716	3,240	91	3,331	
Powerco	1,501	308	1,809	14,727	2,292	17,020	
Scanpower	0	0	0	841	19	860	
The Lines Company	437	15	452	3,093	202	3,295	
The Power Company	897	14	911	6,732	158	6,890	
Top Energy	387	23	410	2,640	230	2,870	
Unison Networks	427	72	499	3,888	881	4,769	
Vector	389	607	996	3,717	3,920	7,637	
Waipa Networks	36	0	36	1,233	171	1,403	
WEL Networks	178	268	446	1,926	757	2,683	
Wellington Electricity Lines	57	138	195	589	1,211	1,799	
Westpower	322	0	323	1,424	70	1,494	
Average	341	66	407	2,570	600	3,170	
Median	281	18	323	1,938	230	2,337	
Minimum	0	0	0	6	19	83	
Maximum	1,501	607	1,809	14,727	3,920	17,020	
Industry Total	9,889	1,923	11,812	74,541	17,397	91,938	

	Low Voltage			Street Lighting	Poles
	Lines km	Cables km	Total km	km	No.
	350	374	724	0	44,733
	1,028	1,136	2,163	1,071	53,655
	111	41	152	0	6,908
	202	116	317	73	19,973
	690	898	1,588	53	27,968
	58	434	492	341	27,603
	523	528	1,051	64	21,609
	30	425	454	170	940
	505	277	782	8	35,138
	258	387	645	245	20,418
	242	762	1,004	572	56,444
	409	390	799	71	30,646
	21	175	196	68	836
	486	712	1,198	0	28,450
	222	107	329	111	21,608
	1,185	837	2,022	418	54,944
	1,733	3,546	5,279	3,872	87,382
	465	110	574	118	50,462
	5,473	4,785	10,258	3,093	264,924
	111	81	192	0	11,265
	488	192	679	79	34,963
	849	232	1,082	363	110,098
	218	692	910	321	37,095
	1,174	2,901	4,075	1,882	66,312
	4,121	6,714	10,835	503	125,708
	507	358	865	92	22,292
	954	1,534	2,489	1,317	39,196
	1,072	1,770	2,842	1,959	39,968
	170	207	377	0	20,460
	816	1,059	1,875	582	46,965
	486	425	865	118	34,963
	21	41	152	0	836
	5,473	6,714	10,835	3,872	264,924
	23,652	30,719	54,371	16,866	1,361,998

Asset quantities by asset category continued

	Zone Substation			Distribution			
	Buildings No.	Switchgear No.	Transformers No.	Substations No.	Transformers No.	Switchgear No.	
Alpine Energy	25	330	27	0	6,223	7,693	
Aurora Energy	36	592	68	345	7,335	8,727	
Buller Electricity	4	76	12	19	806	1,055	
Centralines	3	64	7	13	2,536	3,676	
Counties Energy	10	162	18	1,029	4,239	5,602	
EA Networks	20	447	31	577	6,634	8,267	
Electra	10	207	19	0	2,636	3,247	
Electricity Invercargill	5	72	7	40	447	591	
Firstlight Network	30	167	36	0	3,630	4,838	
Horizon Energy Distribution	12	107	14	857	3,476	4,575	
MainPower New Zealand	15	177	25	880	8,470	10,521	
Marlborough Lines	16	278	31	0	4,019	2,922	
Nelson Electricity	1	36	3	193	197	309	
Network Tasman	14	267	27	25	4,693	1,769	
Network Waitaki	20	248	23	0	3,029	4,306	
Northpower	22	489	41	116	7,603	8,888	
Orion New Zealand	80	1,214	81	5,004	12,104	15,021	
OtagoNet Joint Venture	45	386	44	15	4,465	5,294	
Powerco	154	2,227	214	4,067	37,232	46,681	
Scanpower	0	0	0	0	1,509	2,001	
The Lines Company	25	414	47	0	5,687	8,351	
The Power Company	58	631	61	7	11,482	13,311	
Top Energy	16	459	38	23	6,381	2,184	
Unison Networks	40	658	61	101	10,344	13,171	
Vector	111	2,001	224	14,269	22,739	22,068	
Waipa Networks	0	0	0	0	3,758	5,758	
WEL Networks	26	195	49	0	6,208	8,015	
Wellington Electricity Lines	27	354	52	532	4,516	6,367	
Westpower	16	167	23	0	2,519	840	
Average	29	428	44	969	6,721	7,795	
Median	20	267	31	23	4,516	5,602	
Minimum	0	0	0	0	197	309	
Maximum	154	2,227	224	14,269	37,232	46,681	
Industry Total	841	12,425	1,283	28,112	194,917	226,048	

	Protection	Load Control		Connections
	No.	Centralised Plant Lot.	Relays No.	No.
	449	6	0	34,346
	751	21	2,285	96,311
	0	1	0	4,894
	49	1	11	8,788
	197	6	3,028	48,892
	827	2	400	20,988
	175	0	0	47,426
	174	1	0	17,929
	191	8	17,013	26,300
	120	3	0	25,813
	336	8	10,904	47,337
	220	3	0	26,925
	86	1	0	9,302
	123	5	0	43,073
	172	3	9,735	13,722
	381	6	39,561	63,445
	2,804	46	2,132	220,689
	258	5	0	19,638
	2,769	38	4,072	357,865
	0	0	0	6,824
	317	14	5,813	4,235
	703	5	0	38,968
	472	2	0	35,151
	643	16	5,349	116,044
	4,600	32	0	609,550
	155	3	18,952	28,791
	877	9	60,036	101,861
	1,459	24	0	174,464
	0	5	0	14,215
	666	9	6,182	78,062
	258	5	0	34,346
	0	0	0	4,235
	4,600	46	60,036	609,550
	19,308	274	179,291	2,263,786

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	4,361	0.0	0.0	20.6	15.0	13.9	
Aurora Energy	6,255	2.6	2.3	7.3	13.3	13.0	
Buller Electricity	650	0.0	0.2	1.4	15.9	17.5	
Centralines	1,864	0.2	10.4	18.9	12.8	9.2	
Counties Energy	3,515	0.8	1.2	2.0	6.6	7.2	
EA Networks	3,172	0.0	0.1	0.7	1.4	3.7	
Electra	2,380	0.0	3.8	4.1	14.5	21.7	
Electricity Invercargill	664	0.2	0.0	1.5	11.9	16.2	
Firstlight Network	3,942	1.8	3.3	20.0	31.4	16.6	
Horizon Energy Distribution	2,624	0.0	0.3	1.2	12.5	15.8	
MainPower New Zealand	5,200	0.5	0.1	0.6	3.9	15.1	
Marlborough Lines	3,444	1.6	1.4	4.8	15.6	21.4	
Nelson Electricity	296	0.4	0.0	0.6	13.3	21.8	
Network Tasman	3,715	1.0	5.3	19.0	17.4	8.5	
Network Waitaki	1,908	1.0	0.2	3.4	23.4	15.7	
Northpower	6,190	0.2	0.3	2.8	13.5	15.9	
Orion New Zealand	11,907	0.4	0.4	2.1	9.8	20.0	
OtagoNet Joint Venture	4,620	0.1	1.0	11.4	11.1	11.0	
Powerco	29,087	0.3	1.5	4.9	14.7	25.5	
Scanpower	1,052	0.0	0.0	0.2	7.9	11.0	
The Lines Company	4,427	0.1	2.7	16.7	21.1	17.0	
The Power Company	8,882	0.0	0.0	3.8	10.3	44.5	
Top Energy	4,190	0.0	3.3	4.8	14.4	19.3	
Unison Networks	9,342	0.3	0.9	3.9	14.4	18.7	
Vector	19,468	0.1	0.2	1.8	9.3	20.2	
Waipa Networks	2,305	0.2	0.0	0.0	0.3	3.0	
WEL Networks	5,618	0.0	0.1	0.1	3.8	33.0	
Wellington Electricity Lines	4,836	1.4	1.1	7.9	28.0	24.2	
Westpower	2,193	0.6	0.0	1.5	3.9	14.1	
Average	5,452	0.5	1.4	5.8	12.8	17.1	
Median	3,942	0.2	0.3	3.4	13.3	16.2	
Minimum	296	0.0	0.0	0.0	0.3	3.0	
Maximum	29,087	2.6	10.4	20.6	31.4	44.5	

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 – 2023	Age Unknown	
	%	%	%	%	%	%	%
	9.9	7.5	17.4	11.8	3.7	0.0	0.0
	12.8	14.7	15.1	11.3	7.5	0.0	0.0
	26.7	10.8	9.5	14.2	3.8	0.0	0.0
	20.2	8.8	9.1	7.4	2.9	0.2	0.0
	8.8	32.9	15.3	16.3	8.4	0.6	0.0
	14.4	22.4	32.8	18.9	5.6	0.0	0.0
	17.1	8.7	13.5	10.5	4.5	0.3	0.0
	22.8	13.4	24.6	7.6	1.0	0.9	0.0
	10.5	7.3	5.9	2.4	0.7	0.0	0.0
	22.0	18.7	12.1	6.9	3.6	7.0	0.0
	27.2	19.7	15.7	14.3	2.3	0.5	0.0
	12.7	6.4	15.9	13.3	3.3	3.7	0.0
	23.7	5.8	11.1	12.9	2.4	8.0	0.0
	15.4	6.9	13.4	8.1	4.6	0.4	0.0
	12.6	3.1	16.4	16.9	4.5	2.7	5.8
	21.1	14.8	16.2	11.6	3.5	0.0	5.8
	14.0	12.8	16.1	16.4	5.6	2.4	0.0
	12.0	11.1	15.7	16.8	2.8	6.9	0.0
	19.8	10.4	8.5	9.2	4.5	0.7	0.0
	25.7	23.3	22.0	7.9	1.4	0.7	0.0
	21.5	5.4	6.8	5.1	2.2	1.6	64.3
	15.0	5.7	12.4	6.5	1.1	0.6	0.0
	16.7	13.8	17.4	8.2	1.7	0.4	0.0
	24.2	10.6	12.2	7.7	4.1	3.1	0.0
	25.5	12.5	14.4	10.3	5.2	0.6	0.0
	51.4	27.2	7.7	7.8	2.3	0.0	0.0
	17.9	7.3	16.7	15.4	5.8	0.0	0.1
	12.5	9.0	7.9	5.6	2.3	0.0	0.7
	19.0	23.4	18.3	7.9	0.9	10.4	0.0
	19.1	12.9	14.5	10.7	3.5	1.8	2.6
	17.9	10.8	15.1	10.3	3.5	0.6	0.0
	8.8	3.1	5.9	2.4	0.7	0.0	0.0
	51.4	32.9	32.8	18.9	8.4	10.4	64.3

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	3.92	4.96	4.39	2.98
Aurora Energy	4.29	4.15	3.49	4.28
Buller Electricity	3.92	3.00	3.96	3.75
Centralines	3.59	5.00	4.53	3.56
Counties Energy	3.31	3.00	2.65	3.64
EA Networks	4.31	4.39	4.29	3.78
Electra	3.93	4.31	3.91	4.01
Electricity Invercargill	4.00	3.34	3.41	2.71
Firstlight Network	3.34	4.00	3.17	3.13
Horizon Energy Distribution	3.58	4.42	3.91	3.76
MainPower New Zealand	4.27	4.10	3.52	3.72
Marlborough Lines	3.51	4.87	4.57	3.24
Nelson Electricity	-	3.84	5.00	4.11
Network Tasman	3.90	4.18	4.24	3.68
Network Waitaki	4.37	4.07	3.85	3.19
Northpower	4.58	3.69	3.68	4.65
Orion New Zealand	4.22	4.57	4.11	4.29
OtagoNet Joint Venture	3.07	4.98	3.40	3.46
Powerco	3.96	4.74	3.81	3.42
Scanpower	-	-	-	3.82
The Lines Company	3.75	4.83	4.12	3.95
The Power Company	3.30	4.71	3.68	3.47
Top Energy	3.95	5.00	4.16	3.54
Unison Networks	3.43	4.23	4.15	3.43
Vector	3.14	4.25	3.94	3.18
Waipa Networks	4.98	-	-	4.02
WEL Networks	4.58	4.85	4.47	4.37
Wellington Electricity Lines	3.18	3.19	3.17	3.01
Westpower	3.77	-	3.61	3.66
Average	3.86	4.27	3.90	3.65
Median	3.92	4.28	3.91	3.66
Minimum	3.07	3.00	2.65	2.71
Maximum	4.98	5.00	5.00	4.65

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
	4.19	3.81	3.37	3.91
	4.49	4.30	3.96	4.01
	3.43	3.82	4.46	4.02
	4.18	3.93	4.47	4.01
	3.88	3.45	3.39	2.88
	4.57	4.22	4.21	4.46
	4.09	4.00	4.25	4.03
	3.29	4.05	3.41	3.40
	3.61	2.80	2.87	2.78
	3.88	3.78	3.70	3.89
	4.39	3.29	3.43	4.20
	4.53	3.77	3.45	4.30
	3.77	4.11	4.09	4.42
	3.91	3.84	3.84	3.69
	4.13	3.04	3.80	3.68
	4.91	4.81	3.84	3.72
	4.62	4.15	4.30	4.23
	4.87	3.91	2.96	3.74
	4.71	4.55	4.65	4.60
	4.32	4.30	3.44	4.02
	4.27	3.95	4.13	4.13
	4.25	3.93	3.47	3.96
	4.35	3.89	3.89	3.98
	3.90	3.97	3.98	3.59
	4.22	4.21	3.51	3.78
	4.52	4.27	3.49	3.54
	4.41	4.49	4.76	4.62
	3.34	3.92	3.34	3.34
	3.52	3.63	3.13	3.41
	4.16	3.94	3.78	3.87
	4.22	3.93	3.80	3.96
	3.29	2.80	2.87	2.78
	4.91	4.81	4.76	4.62

Proportion of assets forecast to be replaced in next five years

	Subtransmission Lines	Subtransmission Cables	Zone Substations	Distribution and LV Lines	
	%	%	%	%	
Alpine Energy	0.0	0.0	2.1	2.0	
Aurora Energy	3.5	12.1	15.2	6.8	
Buller Electricity	0.0	0.0	0.0	2.3	
Centralines	0.0	0.0	12.2	1.0	
Counties Energy	0.0	0.0	12.3	6.5	
EA Networks	0.1	0.0	0.2	2.3	
Electra	10.0	0.0	2.5	6.0	
Electricity Invercargill	0.0	0.0	14.3	13.8	
Firstlight Network	0.0	0.0	12.0	1.3	
Horizon Energy Distribution	3.9	0.0	15.0	4.3	
MainPower New Zealand	0.0	0.0	5.8	1.9	
Marlborough Lines	4.0	0.0	1.9	5.6	
Nelson Electricity	-	0.0	0.0	0.0	
Network Tasman	0.0	0.0	1.4	4.2	
Network Waitaki	0.0	0.0	10.5	7.2	
Northpower	5.0	9.3	6.2	3.8	
Orion New Zealand	0.0	4.0	25.5	5.6	
OtagoNet Joint Venture	7.5	0.0	9.3	6.2	
Powerco	4.6	4.4	14.2	10.5	
Scanpower	-	-	-	1.9	
The Lines Company	0.0	0.0	11.0	0.8	
The Power Company	0.6	0.0	5.5	2.8	
Top Energy	0.0	0.0	0.0	2.5	
Unison Networks	1.0	4.4	6.3	2.0	
Vector	0.0	6.0	10.8	0.7	
Waipa Networks	0.0	-	-	3.4	
WEL Networks	0.0	0.0	0.0	1.2	
Wellington Electricity Lines	0.0	29.0	4.5	1.7	
Westpower	0.0	0.0	0.4	0.0	
Average	1.5	2.6	7.4	3.7	
Median	0.0	0.0	6.2	2.5	
Minimum	0.0	0.0	0.0	0.0	
Maximum	10.0	29.0	25.5	13.8	

	Distribution and LV Cables	Poles	Distribution Substations and Transformers	Distribution Switchgear	Other Network Assets
	%	%	%	%	%
	0.6	1.6	1.0	4.7	0.1
	1.0	12.5	5.3	12.0	6.2
	0.0	3.3	8.7	9.9	2.9
	0.4	2.1	2.9	2.1	0.5
	0.0	7.8	1.5	10.6	0.0
	0.2	1.7	2.2	0.5	0.0
	1.6	4.7	4.6	4.6	23.9
	2.3	0.6	10.9	8.3	0.9
	1.8	10.3	4.1	7.1	1.4
	7.2	1.9	7.2	2.7	0.1
	0.9	6.0	4.8	2.1	1.0
	0.9	3.7	2.0	2.3	0.1
	4.7	1.0	1.0	6.0	0.0
	0.8	2.4	2.5	7.8	5.0
	0.2	8.1	5.3	11.3	1.3
	0.3	1.4	3.2	7.6	0.1
	0.0	9.8	4.6	8.3	5.2
	0.0	3.5	4.0	8.1	5.3
	1.7	5.7	5.0	7.2	0.2
	0.0	3.5	6.7	0.0	10.0
	1.1	8.6	0.9	6.1	1.2
	0.0	2.5	0.7	17.4	0.2
	0.0	2.2	0.7	6.2	0.4
	0.7	2.2	7.1	5.7	1.1
	4.0	7.4	6.4	9.4	0.0
	1.3	2.1	4.3	3.5	0.8
	0.0	4.2	4.6	5.5	0.1
	0.4	4.8	6.3	8.8	0.1
	0.0	0.0	0.0	0.0	0.0
	1.1	4.3	4.1	6.4	2.4
	0.6	3.5	4.3	6.2	0.5
	0.0	0.0	0.0	0.0	0.0
	7.2	12.5	10.9	17.4	23.9

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	0	0	284	7	
Aurora Energy	0	130	482	9	
Buller Electricity	1	0	106	0	
Centralines	0	0	96	0	
Counties Energy	66	0	55	0	
EA Networks	0	331	69	0	
Electra	0	0	217	0	
Electricity Invercargill	0	0	28	0	
Firstlight Network	307	303	34	1	
Horizon Energy Distribution	0	71	182	64	
MainPower New Zealand	0	224	168	118	
Marlborough Lines	0	0	308	536	
Nelson Electricity	0	0	18	0	
Network Tasman	0	158	164	0	
Network Waitaki	0	0	236	0	
Northpower	28	75	246	0	
Orion New Zealand	0	354	284	88	
OtagoNet Joint Venture	0	74	642	895	
Powerco	13	169	1,628	85	
Scanpower	0	0	0	0	
The Lines Company	0	0	452	938	
The Power Company	0	531	380	9	
Top Energy	69	0	343	424	
Unison Networks	0	0	490	111	
Vector	76	0	801	0	
Waipa Networks	36	0	0	0	
WEL Networks	0	0	446	0	
Wellington Electricity Lines	0	0	195	1	
Westpower	9	60	253	0	
Average	21	86	297	113	
Median	0	0	236	0	
Minimum	0	0	0	0	
Maximum	307	531	1,628	938	
Total Industry	605	2,480	8,608	3,287	

Total Overhead and Underground				
	22kV (Other Than SWER) km	6.6V to 11kV Inclusive (Other Than SWER) km	Low Voltage (< 1kV) km	Total km
	160	3,199	724	4,374
	0	3,471	2,164	6,256
	0	391	152	650
	0	1,451	317	1,864
	836	1,000	1,588	3,545
	1,727	553	492	3,172
	0	1,111	1,051	2,380
	0	182	454	665
	0	2,521	779	3,945
	0	1,662	645	2,624
	913	2,772	1,003	5,198
	0	1,804	871	3,519
	0	83	196	296
	31	2,167	1,197	3,719
	0	1,343	329	1,908
	0	3,819	2,022	6,190
	0	5,901	5,279	11,907
	47	2,388	573	4,619
	122	16,812	10,258	29,087
	0	860	192	1,052
	0	2,356	680	4,426
	1	6,881	1,082	8,882
	17	2,466	910	4,228
	0	4,658	4,075	9,334
	174	7,582	10,835	19,468
	0	1,404	862	2,302
	0	2,683	2,488	5,617
	0	1,798	2,842	4,835
	0	1,494	377	2,193
	139	2,925	1,877	5,457
	0	2,167	871	3,945
	0	83	152	296
	1,727	16,812	10,835	29,087
	4,028	84,812	54,435	158,256

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	304	8.7	3,089	88.5	0	0.0
Aurora Energy	1,158	30.2	2,590	67.5	0	0.0
Buller Electricity	89	15.1	412	70.4	10	1.7
Centralines	139	8.2	1,159	68.1	44	2.6
Counties Energy	169	7.4	2,061	89.8	0	0.0
EA Networks	72	3.0	2,268	95.0	48	2.0
Electra	452	29.0	482	31.0	0	0.0
Electricity Invercargill	49	92.7	2	3.2	0	0.0
Firstlight Network	193	5.5	1,490	42.2	312	8.8
Horizon Energy Distribution	197	9.8	1,107	55.2	184	9.2
MainPower New Zealand	49	1.2	2,436	60.0	1,445	35.6
Marlborough Lines	326	11.6	851	30.2	0	0.0
Nelson Electricity	26	92.7	0	0.0	2	7.3
Network Tasman	176	6.6	2,285	86.0	70	2.6
Network Waitaki	351	20.5	1,357	79.4	2	0.1
Northpower	570	11.4	4,446	88.6	0	0.0
Orion New Zealand	1,662	31.0	3,141	58.5	144	2.7
OtagoNet Joint Venture	328	7.5	903	20.6	593	13.5
Powerco	2,649	12.2	7,277	33.5	0	0.0
Scanpower	45	4.7	907	95.3	0	0.0
The Lines Company	480	11.9	2,922	72.7	234	5.8
The Power Company	475	5.6	4,552	53.7	805	9.5
Top Energy	121	3.7	3,139	96.2	2	0.1
Unison Networks	1,379	25.1	1,321	24.1	248	4.5
Vector	4,632	56.3	3,595	43.7	0	0.0
Waipa Networks	213	12.0	1,480	83.5	0	0.0
WEL Networks	484	15.8	1,907	62.4	0	0.0
Wellington Electricity Lines	1,327	77.2	391	22.8	0	0.0
Westpower	139	7.3	1,377	71.9	147	7.7
Average	629	21.5	2,033	58.4	148	3.9
Median	304	11.6	1,490	62.4	2	0.1
Minimum	26	1.2	0	0.0	0	0.0
Maximum	4,632	92.7	7,277	96.2	1,445	35.6
Industry Total	18,252		58,946		4,289	

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	96	2.8	0	0.0	0	0.0	0	0	0
Aurora Energy	88	2.3	0	0.0	0	0.0	531	540	1,071
Buller Electricity	51	8.7	0	0.1	23	4.0	0	0	0
Centralines	361	21.2	0	0.0	0	0.0	44	29	73
Counties Energy	64	2.8	0	0.0	0	0.0	0	53	53
EA Networks	0	0.0	0	0.0	0	0.0	16	325	341
Electra	0	0.0	622	39.9	0	0.0	14	50	64
Electricity Invercargill	2	4.0	0	0.0	0	0.0	25	146	170
Firstlight Network	1,182	33.5	347	9.8	5	0.1	13	9	22
Horizon Energy Distribution	400	20.0	116	5.8	0	0.0	0	21	21
MainPower New Zealand	129	3.2	0	0.0	0	0.0	63	510	573
Marlborough Lines	782	27.8	846	30.0	13	0.5	0	71	71
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	75	35	111
Northpower	0	0.0	0	0.0	0	0.0	0	0	0
Orion New Zealand	183	3.4	237	4.4	0	0.0	894	2,978	3,872
OtagoNet Joint Venture	1,798	40.9	672	15.3	102	2.3	81	37	118
Powerco	11,448	52.8	327	1.5	0	0.0	1,067	2,027	3,093
Scanpower	0	0.0	0	0.0	0	0.0	0	0	0
The Lines Company	284	7.1	96	2.4	0	0.0	31	48	79
The Power Company	2,029	23.9	614	7.2	0	0.0	271	92	363
Top Energy	0	0.0	0	0.0	0	0.0	10	311	321
Unison Networks	2,541	46.3	0	0.0	0	0.0	358	1,525	1,883
Vector	0	0.0	0	0.0	0	0.0	17	486	503
Waipa Networks	80	4.5	0	0.0	0	0.0	67	92	159
WEL Networks	665	21.8	0	0.0	0	0.0	279	1,038	1,317
Wellington Electricity Lines	0	0.0	0	0.0	0	0.0	818	1,141	1,959
Westpower	224	11.7	27	1.4	2	0.1	0	0	0
Average	777	11.8	135	4.1	5	0.2	161	401	562
Median	96	4.0	0	0.0	0	0.0	17	67	111
Minimum	0	0.0	0	0.0	0	0.0	0	0	0
Maximum	11,448	52.8	846	39.9	102	4.0	1,067	2,978	3,872
Industry Total	22,526		3,913		146		4,675	11,631	16,306

Circuit length by special feature

	Circuit Length by Special Feature					
	Requiring Vegetation Management		Within 10km of Coastline or Geothermal		In Sensitive Areas	
	km	% of overhead	km	% of total	km	% of total
Alpine Energy	755	21.6	1,780	40.7	36	0.8
Aurora Energy	3,836	100.0	1,469	23.5	58	0.9
Buller Electricity	585	100.0	650	100.0	0	0.0
Centralines	1,703	100.0	275	14.7	32	1.7
Counties Energy	2,294	100.0	1,608	45.4	2	0.1
EA Networks	2,403	100.7	476	15.0	0	0.0
Electra	1,557	100.0	1,930	81.1	16	0.7
Electricity Invercargill	4	7.7	664	100.0	0	0.0
Firstlight Network	3,528	100.0	0	0.0	1,000	25.3
Horizon Energy Distribution	2,005	100.0	1,982	75.5	498	19.0
MainPower New Zealand	2,010	49.5	2,317	44.6	0	0.0
Marlborough Lines	2,818	100.0	2,338	66.4	0	0.0
Nelson Electricity	28	100.0	296	100.0	0	0.0
Network Tasman	2,657	100.0	1,671	44.9	18	0.5
Network Waitaki	13	0.8	768	40.3	0	0.0
Northpower	5,016	100.0	3,417	55.2	0	0.0
Orion New Zealand	5,367	100.0	1,888	15.9	89	0.7
OtagoNet Joint Venture	663	15.1	1,121	24.3	0	0.0
Powerco	21,701	100.0	11,727	40.3	0	0.0
Scanpower	0	0.0	0	0.0	0	0.0
The Lines Company	1,083	27.0	240	5.4	598	13.5
The Power Company	1,573	18.6	1,542	17.4	0	0.0
Top Energy	470	14.4	3,879	91.7	1,324	31.3
Unison Networks	5,490	100.0	1,862	19.9	365	3.9
Vector	8,227	100.0	19,448	99.9	5,192	26.7
Waipa Networks	1,269	71.6	162	7.0	0	0.0
WEL Networks	2,048	67.0	378	6.7	859	15.3
Wellington Electricity Lines	1,546	90.0	4,255	88.0	0	0.0
Westpower	989	51.6	961	43.8	266	12.1
Average	2,815	70.2	2,383	45.1	357	5.3
Median	1,703	100.0	1,542	40.7	2	0.1
Minimum	0	0.0	0	0.0	0	0.0
Maximum	21,701	100.7	19,448	100.0	5,192	31.3
Industry Total	81,638		69,102		10,353	

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	33,539	0
Aurora Energy	94,323	0
Buller Electricity	4,815	0
Centralines	9,212	0
Counties Energy	46,963	0
EA Networks	20,538	14
Electra	46,333	0
Electricity Invercargill	17,562	0
Firstlight Network	25,872	0
Horizon Energy Distribution	25,179	0
MainPower New Zealand	44,109	0
Marlborough Lines	26,830	0
Nelson Electricity	9,297	0
Network Tasman	42,224	0
Network Waitaki	13,344	0
Northpower	63,002	0
Orion New Zealand	218,227	2
OtagoNet Joint Venture	19,361	646
Powerco	356,643	0
Scanpower	6,771	0
The Lines Company	24,016	0
The Power Company	37,327	0
Top Energy	33,740	2
Unison Networks	118,448	0
Vector	603,707	0
Waipa Networks	29,128	66
WEL Networks	98,601	1,903
Wellington Electricity Lines	173,512	0
Westpower	14,144	0
Average	77,820	91
Median	33,539	0
Minimum	4,815	0
Maximum	603,707	1,903
Industry Total	2,256,767	2,633

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)



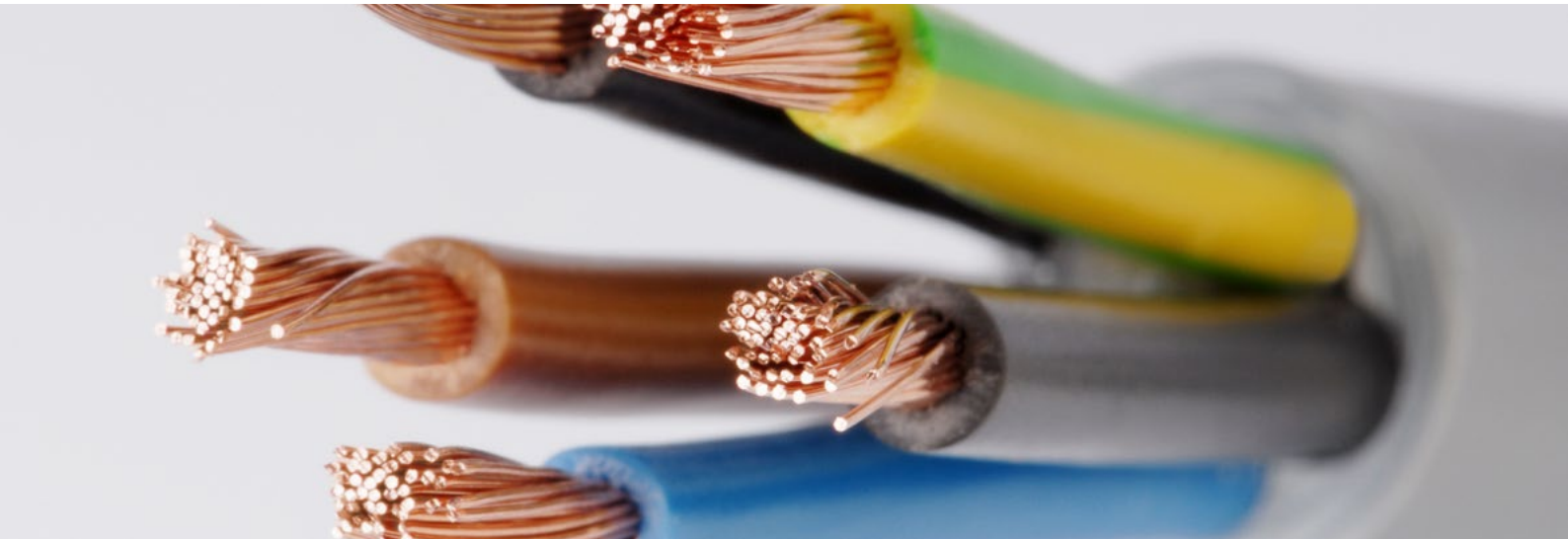
Network demand

	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	135	7	142	0	142
Aurora Energy	261	48	309	1	309
Buller Electricity	7	4	11	0	11
Centralines	22	0	22	0	22
Counties Energy	126	8	134	0	134
EA Networks	155	1	156	0	156
Electra	82	26	108	0	108
Electricity Invercargill	70	0	70	-2	72
Firstlight Network	58	7	65	0	65
Horizon Energy Distribution	64	29	94	0	94
MainPower New Zealand	122	0	122	0	122
Marlborough Lines	72	3	75	0	75
Nelson Electricity	34	0	34	0	34
Network Tasman	133	26	159	30	129
Network Waitaki	65	0	65	0	65
Northpower	153	5	157	0	157
Orion New Zealand	655	0	655	0	655
OtagoNet Joint Venture	68	4	72	-1	73
Powerco	860	114	974	0	974
Scanpower	16	0	16	0	16
The Lines Company	61	14	75	0	75
The Power Company	148	13	161	1	160
Top Energy	21	57	78	0	78
Unison Networks	293	58	351	0	351
Vector	1,747	12	1,759	0	1,759
Waipa Networks	85	0	85	0	85
WEL Networks	241	40	281	0	281
Wellington Electricity Lines	481	57	538	0	538
Westpower	29	10	39	0	39
Average	216	19	235	1	234
Median	85	7	108	0	108
Minimum	7	0	11	-2	11
Maximum	1,747	114	1,759	30	1,759
Industry Total	6,264	544	6,808	30	6,779

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 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	654	15	669	368
Aurora Energy	957	68	1,025	1,010
Buller Electricity	38	10	48	52
Centralines	107	11	118	47
Counties Energy	436	66	502	545
EA Networks	598	13	611	326
Electra	336	15	351	358
Electricity Invercargill	156	2	158	94
Firstlight Network	222	50	273	337
Horizon Energy Distribution	273	81	354	98
MainPower New Zealand	589	10	599	143
Marlborough Lines	361	19	380	338
Nelson Electricity	100	0	100	48
Network Tasman	471	44	515	396
Network Waitaki	232	12	244	228
Northpower	600	5	605	354
Orion New Zealand	2,312	216	2,528	1,181
OtagoNet Joint Venture	236	9	245	162
Powerco	3,546	170	3,716	2,418
Scanpower	75	0	75	-
The Lines Company	260	12	271	233
The Power Company	478	24	501	468
Top Energy	298	0	298	478
Unison Networks	1,266	29	1,295	656
Vector	4,965	770	5,734	4,677
Waipa Networks	296	7	303	-
WEL Networks	971	49	1,020	766
Wellington Electricity Lines	1,497	28	1,526	1,067
Westpower	153	25	178	166
Average	775	61	836	630
Median	361	15	380	354
Minimum	38	0	48	47
Maximum	4,965	770	5,734	4,677
Industry Total	22,483	1,758	24,241	17,012

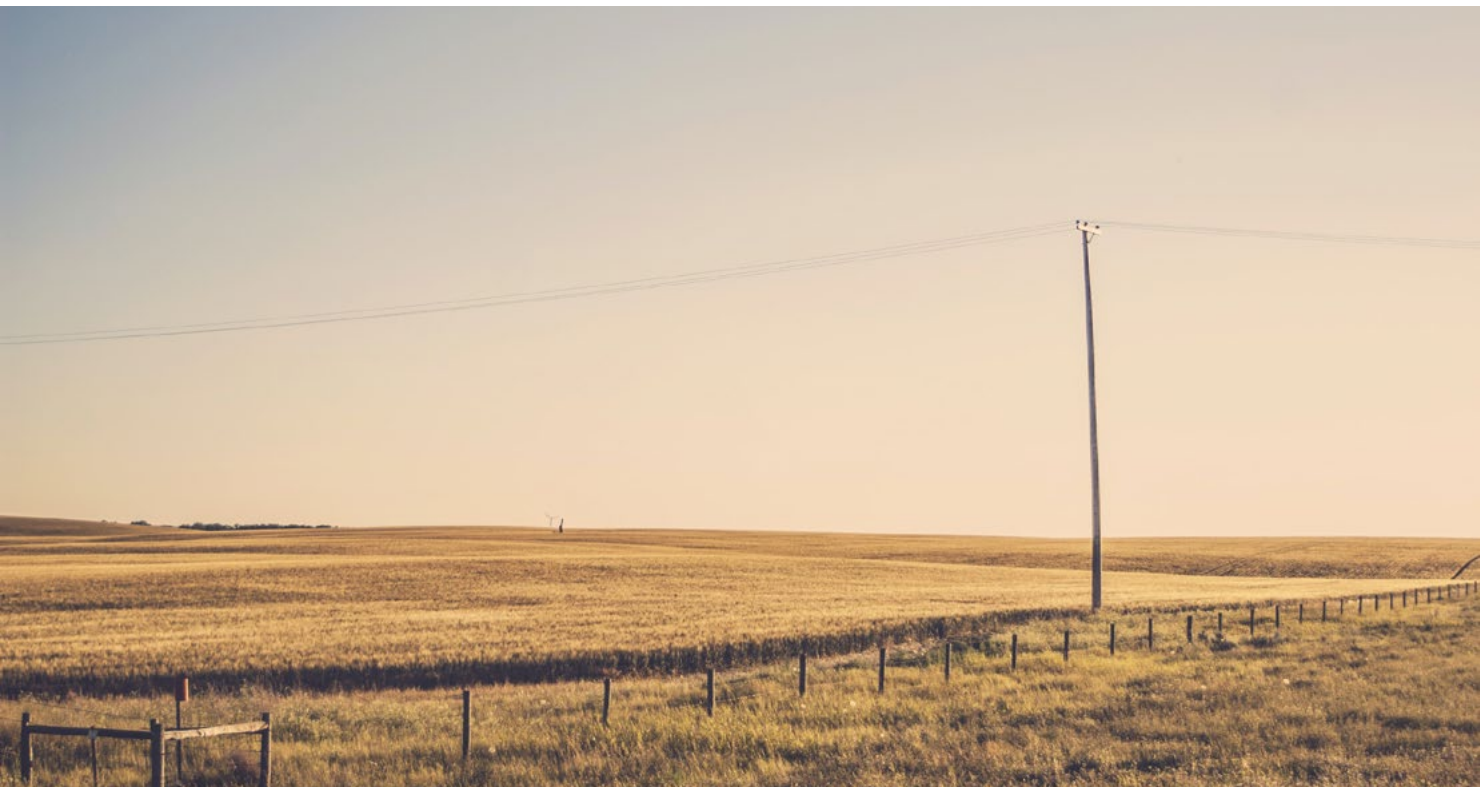
Network capacity and growth continued

	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	139	125	0	79.9	226
Aurora Energy	355	451	195	78.6	478
Buller Electricity	13	24	1	56.0	24
Centralines	25	25	15	100.8	25
Counties Energy	142	234	50	60.7	260
EA Networks	207	123	189	168.0	102
Electra	112	189	92	59.5	189
Electricity Invercargill	65	82	86	79.5	80
Firstlight Network	142	126	184	113.2	126
Horizon Energy Distribution	86	76	48	113.7	90
MainPower New Zealand	114	109	21	104.6	126
Marlborough Lines	104	171	78	61.0	193
Nelson Electricity	35	48	4	72.9	48
Network Tasman	135	201	54	67.3	220
Network Waitaki	68	136	68	49.7	147
Northpower	261	321	124	81.3	401
Orion New Zealand	763	993	731	76.8	1,053
OtagoNet Joint Venture	102	68	2	151.4	68
Powerco	1,048	1,049	476	99.9	1,297
Scanpower	-	-	-	-	-
The Lines Company	124	62	46	198.8	56
The Power Company	232	264	77	87.9	297
Top Energy	155	171	84	90.9	171
Unison Networks	380	441	85	86.1	570
Vector	2,150	2,617	2,462	82.2	2,692
Waipa Networks	91	88	0	103.7	197
WEL Networks	338	378	197	89.4	379
Wellington Electricity Lines	456	520	281	87.7	570
Westpower	64	124	13	51.9	124
Average	282	329	202	91.2	364
Median	137	153	77	84.1	191
Minimum	13	24	0	49.7	24
Maximum	2,150	2,617	2,462	198.8	2,692
Industry Total	7,907	9,213	5,662		10,206

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	798	33	0
Aurora Energy	1,137	301	3
Buller Electricity	36	17	0
Centralines	115	1	0
Counties Energy	633	49	0
EA Networks	455	145	0
Electra	338	119	0
Electricity Invercargill	249	0	-13
Firstlight Network	287	25	0
Horizon Energy Distribution	279	283	0
MainPower New Zealand	633	23	0
Marlborough Lines	393	17	0
Nelson Electricity	140	1	0
Network Tasman	612	173	92
Network Waitaki	283	1	0
Northpower	816	21	0
Orion New Zealand	3,501	20	0
OtagoNet Joint Venture	419	59	-4
Powerco	4,491	734	0
Scanpower	84	0	0
The Lines Company	300	75	-16
The Power Company	652	226	13
Top Energy	-86	457	0
Unison Networks	1,252	476	0
Vector	8,660	153	0
Waipa Networks	441	0	0
WEL Networks	1,009	362	-15
Wellington Electricity Lines	2,147	224	0
Westpower	95	145	0
Average	1,040	143	2
Median	441	59	0
Minimum	-86	0	-16
Maximum	8,660	734	92
Industry Total	30,170	4,140	60

	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	%
	832	812	19	2.3
	1,435	1,355	79	5.5
	53	49	4	7.2
	116	108	8	6.8
	682	651	32	4.6
	600	564	36	6.0
	456	429	27	5.9
	262	250	12	4.6
	312	286	26	8.3
	562	537	26	4.6
	656	620	36	5.4
	411	390	21	5.0
	141	135	6	4.0
	693	654	40	5.7
	284	271	13	4.7
	837	792	46	5.4
	3,521	3,377	144	4.1
	482	463	19	3.9
	5,225	4,960	265	5.1
	84	77	6	7.3
	391	365	25	6.5
	865	822	42	4.9
	371	332	39	10.4
	1,728	1,679	49	2.9
	8,813	8,462	351	4.0
	441	420	21	4.8
	1,386	1,323	63	4.6
	2,371	2,287	84	3.5
	240	221	19	7.9
	1,181	1,127	54	5.4
	562	537	27	5.0
	53	49	4	2.3
	8,813	8,462	351	10.4
	34,249	32,694	1,556	

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	241.5	1.50	161.1	89.5	0.32	282.8
Aurora Energy	343.7	3.21	107.0	174.1	0.60	289.2
Buller Electricity	793.7	4.46	177.9	264.6	0.76	348.8
Centralines	935.6	6.02	155.5	97.5	0.49	198.4
Counties Energy	535.4	4.04	132.4	228.3	0.77	296.5
EA Networks	238.0	1.78	133.8	121.4	0.46	264.8
Electra	102.0	1.35	75.5	17.8	0.08	222.1
Electricity Invercargill	65.6	0.65	100.3	27.8	0.08	341.7
Firstlight Network	1,598.6	5.51	290.3	133.5	0.74	181.4
Horizon Energy Distribution	485.2	3.36	144.2	95.6	0.62	153.9
MainPower New Zealand	306.6	2.13	144.0	165.7	0.47	352.5
Marlborough Lines	315.5	2.12	149.1	58.6	0.47	124.0
Nelson Electricity	62.5	0.38	162.5	42.1	0.13	323.7
Network Tasman	304.9	1.82	167.2	154.0	0.56	277.0
Network Waitaki	120.5	1.39	87.0	58.5	0.18	318.3
Northpower	1,215.0	7.79	156.0	115.6	0.44	265.2
Orion New Zealand	69.7	0.58	119.8	25.9	0.07	354.6
OtagoNet Joint Venture	520.0	3.22	161.6	251.4	0.86	291.3
Powerco	564.1	3.51	160.6	94.4	0.40	236.4
Scanpower	231.2	0.78	296.4	51.7	0.27	191.4
The Lines Company	956.6	5.57	171.8	192.3	0.62	309.6
The Power Company	496.4	4.41	112.5	147.7	0.64	229.9
Top Energy	1,917.6	7.02	273.1	126.4	0.67	187.9
Unison Networks	3,617.7	4.17	867.0	93.5	0.65	144.3
Vector	486.2	1.90	255.9	74.1	0.26	285.0
Waipa Networks	464.4	2.31	201.0	59.6	0.22	270.8
WEL Networks	201.2	1.73	116.0	50.5	0.29	172.3
Wellington Electricity Lines	54.3	0.64	85.2	13.1	0.07	190.1
Westpower	361.0	2.68	134.8	86.6	0.30	292.4
Average	607.1	2.97	182.7	107.3	0.43	255.0
Median	361.0	2.31	155.5	94.4	0.46	270.8
Minimum	54.3	0.38	75.5	13.1	0.07	124.0
Maximum	3,617.7	7.79	867.0	264.6	0.86	354.6

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	104.7	0.88	118.8	194.2	1.20	162.2	
Aurora Energy	156.3	2.48	63.1	330.5	3.08	107.3	
Buller Electricity	483.1	2.50	193.1	747.7	3.26	229.3	
Centralines	683.8	4.21	162.4	781.4	4.70	166.1	
Counties Energy	297.8	3.20	93.1	526.2	3.97	132.5	
EA Networks	116.3	1.32	88.1	237.7	1.78	133.7	
Electra	84.2	1.27	66.3	102.0	1.35	75.5	
Electricity Invercargill	35.7	0.49	72.8	63.5	0.57	111.0	
Firstlight Network	1,465.1	4.77	307.1	1,598.6	5.51	290.3	
Horizon Energy Distribution	235.2	2.12	110.8	330.8	2.74	120.5	
MainPower New Zealand	141.0	1.66	85.0	306.6	2.13	144.0	
Marlborough Lines	256.9	1.64	156.3	315.5	2.12	149.1	
Nelson Electricity	20.4	0.25	80.0	62.5	0.38	162.5	
Network Tasman	121.1	1.17	103.6	275.1	1.73	159.5	
Network Waitaki	59.1	1.18	49.9	117.6	1.37	86.0	
Northpower	1,099.4	7.35	149.5	1,215.0	7.79	156.0	
Orion New Zealand	43.4	0.51	85.7	69.3	0.58	119.7	
OtagoNet Joint Venture	256.2	2.12	120.7	507.6	2.99	170.0	
Powerco	395.7	2.47	160.5	490.1	2.87	171.1	
Scanpower	179.5	0.51	352.0	231.2	0.78	296.4	
The Lines Company	656.0	3.98	164.7	848.3	4.60	184.3	
The Power Company	348.7	3.77	92.5	496.4	4.41	112.5	
Top Energy	1,791.3	6.35	282.1	1,917.6	7.02	273.1	
Unison Networks	1,820.9	2.59	704.3	1,914.4	3.23	592.1	
Vector	410.6	1.61	255.0	484.7	1.87	259.2	
Waipa Networks	404.8	2.09	193.7	464.4	2.31	201.0	
WEL Networks	149.2	1.43	104.0	199.6	1.73	115.6	
Wellington Electricity Lines	40.2	0.54	74.2	53.3	0.61	87.3	
Westpower	252.7	1.76	143.3	339.3	2.06	164.8	
Average	417.6	2.28	159.7	524.9	2.71	177.0	
Median	252.7	1.76	118.8	330.8	2.13	159.5	
Minimum	20.4	0.25	49.9	53.3	0.38	75.5	
Maximum	1,820.9	7.35	704.3	1,917.6	7.79	592.1	

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
194.2	1.20	146.9	1.90	77.3
330.5	3.08	266.7	2.32	115.1
469.1	2.30	786.9	4.54	173.3
268.0	4.49	206.1	2.88	71.5
468.2	3.97	289.0	2.47	117.0
237.7	1.78	210.0	1.65	127.3
102.0	1.35	83.0	1.66	50.0
63.5	0.57	70.9	0.84	84.8
489.8	3.77	301.1	3.38	89.1
329.7	2.74	201.5	2.13	94.6
292.5	2.13	255.8	1.86	137.2
258.2	2.12	160.2	1.64	97.7
29.4	0.22	30.0	0.90	33.3
269.4	1.73	170.0	1.74	97.8
117.6	1.37	160.0	1.80	88.9
334.8	5.35	255.0	3.00	85.0
69.3	0.58	79.7	0.99	80.5
455.3	2.89	292.3	2.68	109.0
314.7	2.84	288.1	2.69	107.0
139.8	0.78	132.6	1.18	112.8
580.5	4.52	270.9	3.33	81.4
403.4	4.41	330.2	3.44	95.9
924.9	7.02	500.0	5.01	99.8
202.1	3.05	184.9	2.23	83.0
232.5	1.87	221.9	4.22	52.6
175.7	2.23	235.5	2.21	106.5
156.2	1.73	106.2	1.37	77.5
53.3	0.61	46.2	0.58	79.6
283.2	1.93	177.0	2.10	84.3
284.3	2.50	222.7	2.30	93.4
268.0	2.13	206.1	2.13	89.1
29.4	0.22	30.0	0.58	33.3
924.9	7.02	786.9	5.01	173.3

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	2.4	2.6	24.0	0.0
Aurora Energy	1.1	24.0	12.3	0.0
Buller Electricity	54.6	6.2	358.1	0.0
Centralines	1.6	86.9	513.6	0.0
Counties Energy	3.8	114.3	1.0	16.0
EA Networks	1.9	48.5	6.7	0.4
Electra	19.8	27.3	6.3	0.0
Electricity Invercargill	0.0	0.0	2.6	0.0
Firstlight Network	2.5	645.0	530.1	124.0
Horizon Energy Distribution	20.2	11.2	91.2	12.8
MainPower New Zealand	2.2	26.3	35.1	0.8
Marlborough Lines	6.4	11.5	54.4	113.4
Nelson Electricity	0.0	0.0	0.0	0.0
Network Tasman	2.5	0.1	37.5	0.0
Network Waitaki	2.8	8.8	7.0	0.2
Northpower	0.5	21.9	992.5	0.0
Orion New Zealand	0.4	4.5	9.4	0.8
OtagoNet Joint Venture	7.4	88.4	54.3	1.8
Powerco	10.4	170.8	24.2	1.4
Scanpower	0.0	131.6	0.0	0.0
The Lines Company	10.7	374.6	108.8	1.6
The Power Company	8.6	53.3	115.1	0.0
Top Energy	20.1	884.7	613.0	7.9
Unison Networks	4.1	425.9	1,278.9	0.4
Vector	0.4	188.4	21.7	41.7
Waipa Networks	2.5	43.6	231.2	2.5
WEL Networks	1.6	18.3	54.6	0.0
Wellington Electricity Lines	1.6	7.2	0.2	0.0
Westpower	38.4	21.5	21.1	0.0
Average	7.9	118.9	179.5	11.2
Median	2.5	26.3	35.1	0.2
Minimum	0.0	0.0	0.0	0.0
Maximum	54.6	884.7	1,278.9	124.0

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	33.9	3.0	0.0	31.4	7.5
Aurora Energy	10.7	1.3	17.0	58.2	31.7
Buller Electricity	8.9	10.6	4.9	32.1	7.5
Centralines	16.8	17.9	0.0	29.1	18.0
Counties Energy	54.8	5.0	2.5	68.8	31.7
EA Networks	10.6	5.1	2.0	34.0	7.2
Electra	8.6	1.1	2.4	17.7	1.1
Electricity Invercargill	1.6	0.1	0.1	31.0	0.2
Firstlight Network	33.3	16.0	7.8	73.0	33.4
Horizon Energy Distribution	27.4	4.3	9.4	46.3	12.4
MainPower New Zealand	25.5	2.9	0.1	31.1	16.9
Marlborough Lines	19.0	13.6	2.7	28.6	7.3
Nelson Electricity	0.0	0.0	0.0	20.4	0.0
Network Tasman	12.2	14.5	1.5	25.3	27.6
Network Waitaki	7.0	5.6	0.3	20.4	7.0
Northpower	29.9	7.4	0.3	27.0	19.9
Orion New Zealand	4.6	1.1	1.2	18.7	2.7
OtagoNet Joint Venture	9.8	8.9	1.0	58.9	25.6
Powerco	28.5	11.8	1.3	115.1	32.3
Scanpower	18.9	0.0	0.0	28.1	0.0
The Lines Company	23.9	13.6	4.2	91.2	27.5
The Power Company	41.4	7.1	3.6	86.2	33.4
Top Energy	36.9	17.9	0.4	158.1	52.2
Unison Networks	16.2	3.5	0.4	17.4	74.0
Vector	19.6	2.8	0.6	88.8	46.6
Waipa Networks	37.0	5.7	6.2	51.7	21.0
WEL Networks	27.5	3.5	2.5	33.4	7.9
Wellington Electricity Lines	6.0	1.0	0.8	19.3	4.0
Westpower	4.8	22.1	2.4	43.1	7.1
Average	19.8	7.2	2.6	47.7	19.4
Median	18.9	5.1	1.3	32.1	16.9
Minimum	0.0	0.0	0.0	17.4	0.0
Maximum	54.8	22.1	17.0	158.1	74.0

SAIFI by cause

	SAIFI – Class C (Unplanned Interruptions on the Network)			
	Lightning Times	Vegetation Times	Adverse Weather Times	Adverse Environment Times
Alpine Energy	0.03	0.03	0.14	0.00
Aurora Energy	0.03	0.29	0.06	0.01
Buller Electricity	0.34	0.05	1.47	0.00
Centralines	0.10	0.57	0.84	0.00
Counties Energy	0.05	0.90	0.01	0.02
EA Networks	0.04	0.22	0.05	0.00
Electra	0.36	0.21	0.15	0.00
Electricity Invercargill	0.00	0.00	0.02	0.00
Firstlight Network	0.07	0.95	2.14	0.07
Horizon Energy Distribution	0.17	0.09	0.36	0.06
MainPower New Zealand	0.02	0.27	0.16	0.01
Marlborough Lines	0.02	0.14	0.11	0.24
Nelson Electricity	0.00	0.00	0.00	0.00
Network Tasman	0.02	0.00	0.28	0.00
Network Waitaki	0.07	0.10	0.04	0.00
Northpower	0.03	0.41	4.70	0.00
Orion New Zealand	0.00	0.07	0.05	0.00
OtagoNet Joint Venture	0.06	0.49	0.23	0.00
Powerco	0.09	0.53	0.08	0.00
Scanpower	0.00	0.17	0.00	0.00
The Lines Company	0.06	1.14	0.59	0.00
The Power Company	0.08	0.36	0.81	0.00
Top Energy	0.09	1.90	1.43	0.02
Unison Networks	0.07	0.75	0.49	0.00
Vector	0.00	0.45	0.07	0.04
Waipa Networks	0.08	0.41	0.33	0.03
WEL Networks	0.03	0.11	0.30	0.00
Wellington Electricity Lines	0.01	0.10	0.00	0.00
Westpower	0.31	0.28	0.16	0.00
Average	0.08	0.38	0.52	0.02
Median	0.05	0.27	0.16	0.00
Minimum	0.00	0.00	0.00	0.00
Maximum	0.36	1.90	4.70	0.24

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	0.28	0.03	0.00	0.26	0.11
Aurora Energy	0.15	0.02	0.39	0.94	0.59
Buller Electricity	0.07	0.21	0.10	0.23	0.06
Centralines	0.44	0.50	0.00	1.01	0.74
Counties Energy	0.36	0.19	0.18	0.74	0.75
EA Networks	0.15	0.11	0.14	0.45	0.16
Electra	0.11	0.01	0.04	0.35	0.03
Electricity Invercargill	0.11	0.00	0.00	0.35	0.00
Firstlight Network	0.32	0.16	0.16	0.57	0.32
Horizon Energy Distribution	0.18	0.04	0.06	0.78	0.37
MainPower New Zealand	0.37	0.05	0.01	0.43	0.35
Marlborough Lines	0.22	0.25	0.20	0.31	0.16
Nelson Electricity	0.00	0.00	0.00	0.25	0.00
Network Tasman	0.08	0.14	0.09	0.20	0.35
Network Waitaki	0.16	0.09	0.02	0.44	0.26
Northpower	0.37	0.17	0.02	0.59	1.05
Orion New Zealand	0.07	0.01	0.02	0.24	0.04
OtagoNet Joint Venture	0.11	0.08	0.00	0.53	0.62
Powerco	0.23	0.21	0.07	0.93	0.33
Scanpower	0.12	0.00	0.00	0.21	0.00
The Lines Company	0.08	0.44	0.16	0.81	0.69
The Power Company	0.53	0.10	0.11	1.17	0.61
Top Energy	0.36	0.34	0.07	1.25	0.88
Unison Networks	0.29	0.09	0.09	0.42	0.37
Vector	0.18	0.04	0.05	0.41	0.36
Waipa Networks	0.24	0.06	0.14	0.38	0.43
WEL Networks	0.28	0.07	0.04	0.44	0.17
Wellington Electricity Lines	0.08	0.02	0.01	0.25	0.06
Westpower	0.02	0.18	0.01	0.19	0.13
Average	0.21	0.12	0.07	0.52	0.35
Median	0.18	0.09	0.05	0.43	0.33
Minimum	0.00	0.00	0.00	0.19	0.00
Maximum	0.53	0.50	0.39	1.25	1.05

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	72.9	14.8	1.8
Aurora Energy	1.9	0.5	0.7	124.5	36.3	10.3
Buller Electricity	33.9	0.0	0.0	205.4	25.3	0.0
Centralines	0.1	0.0	0.0	96.7	0.7	0.0
Counties Energy	0.0	0.0	0.0	175.0	49.8	3.5
EA Networks	6.2	0.0	0.0	110.8	4.4	0.0
Electra	0.0	0.0	0.0	4.0	0.0	13.8
Electricity Invercargill	0.0	0.0	0.0	6.8	1.4	19.5
Firstlight Network	0.2	0.0	0.0	131.9	1.3	0.0
Horizon Energy Distribution	0.4	0.0	0.0	81.7	13.6	0.0
MainPower New Zealand	0.0	0.0	0.0	141.8	23.4	0.5
Marlborough Lines	0.3	0.0	0.0	41.9	2.9	13.6
Nelson Electricity	0.0	0.0	0.0	2.6	39.6	0.0
Network Tasman	54.2	0.0	0.0	93.1	3.7	3.0
Network Waitaki	0.0	0.0	0.0	58.2	0.3	0.0
Northpower	3.4	0.0	0.0	103.0	9.2	0.0
Orion New Zealand	0.0	0.0	0.0	13.7	0.1	12.0
OtagoNet Joint Venture	27.7	0.0	20.7	183.1	0.0	19.8
Powerco	3.6	0.0	0.0	90.3	0.5	0.0
Scanpower	-	-	-	30.6	0.0	21.1
The Lines Company	16.2	0.0	0.0	176.1	0.0	0.0
The Power Company	5.2	0.0	0.0	130.5	0.9	11.1
Top Energy	0.0	0.0	0.0	107.5	18.9	0.0
Unison Networks	2.1	0.0	0.1	75.1	16.2	0.0
Vector	0.0	0.0	0.0	34.3	2.1	37.7
Waipa Networks	-	-	-	53.1	1.9	4.6
WEL Networks	0.0	0.0	0.0	27.1	0.0	23.4
Wellington Electricity Lines	0.0	0.0	0.0	12.1	1.0	0.0
Westpower	0.0	0.0	10.6	73.2	0.9	1.9
Average	5.8	0.0	1.2	84.7	9.3	6.8
Median	0.1	0.0	0.0	81.7	1.9	1.8
Minimum	0.0	0.0	0.0	2.6	0.0	0.0
Maximum	54.2	0.5	20.7	205.4	49.8	37.7

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	0.0	0.0	0.0	88.9	15.1	0.0
Aurora Energy	9.4	1.3	20.5	93.7	8.7	22.7
Buller Electricity	119.0	0.0	0.0	364.1	0.0	0.0
Centralines	15.2	0.0	0.0	667.0	1.6	0.0
Counties Energy	19.4	0.0	5.2	246.9	1.7	24.6
EA Networks	6.5	0.0	0.0	104.8	5.0	0.0
Electra	2.8	0.0	0.0	45.3	3.5	32.7
Electricity Invercargill	0.0	0.0	0.0	9.6	22.9	3.3
Firstlight Network	158.6	0.0	0.0	1,298.7	7.8	0.0
Horizon Energy Distribution	19.9	0.0	0.0	210.8	4.4	0.0
MainPower New Zealand	23.0	0.0	0.0	100.0	18.1	0.0
Marlborough Lines	2.5	0.0	1.3	225.1	1.3	26.8
Nelson Electricity	0.0	0.0	0.0	0.0	20.4	0.0
Network Tasman	43.1	0.0	0.0	74.5	3.3	0.3
Network Waitaki	8.8	0.0	0.0	49.3	0.9	0.0
Northpower	149.1	0.0	0.0	943.8	6.5	0.0
Orion New Zealand	3.0	0.0	0.3	31.2	5.7	3.2
OtagoNet Joint Venture	116.7	0.0	3.2	119.2	0.8	16.4
Powerco	83.2	0.4	1.1	294.3	7.6	9.1
Scanpower	-	-	-	169.9	0.0	9.7
The Lines Company	131.4	0.0	0.0	523.1	1.6	0.0
The Power Company	67.8	0.2	2.2	256.1	1.0	21.4
Top Energy	116.8	6.3	0.0	1,233.3	434.9	0.0
Unison Networks	362.6	0.1	0.2	1,452.4	5.6	0.0
Vector	43.6	0.4	8.2	289.8	15.6	52.9
Waipa Networks	-	-	-	94.5	2.1	304.6
WEL Networks	6.4	0.0	0.1	118.2	7.1	17.4
Wellington Electricity Lines	0.0	0.0	0.0	29.7	10.5	0.0
Westpower	122.0	0.0	38.7	89.3	0.5	2.2
Average	60.4	0.3	3.0	318.1	21.2	18.9
Median	19.9	0.0	0.0	119.2	5.0	0.3
Minimum	0.0	0.0	0.0	0.0	0.0	0.0
Maximum	362.6	6.3	38.7	1,452.4	434.9	304.6

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	0.04	0.00
Aurora Energy	0.00	0.00	0.00	0.41	0.15	0.03
Buller Electricity	0.09	0.00	0.00	0.59	0.08	0.00
Centralines	0.00	0.00	0.00	0.49	0.00	0.00
Counties Energy	0.00	0.00	0.00	0.53	0.20	0.04
EA Networks	0.02	0.00	0.00	0.43	0.01	0.00
Electra	0.00	0.00	0.00	0.01	0.00	0.07
Electricity Invercargill	0.00	0.00	0.00	0.02	0.01	0.06
Firstlight Network	0.02	0.00	0.00	0.71	0.01	0.00
Horizon Energy Distribution	0.00	0.00	0.00	0.53	0.09	0.00
MainPower New Zealand	0.00	0.00	0.00	0.39	0.08	0.00
Marlborough Lines	0.00	0.00	0.00	0.24	0.13	0.10
Nelson Electricity	0.00	0.00	0.00	0.03	0.10	0.00
Network Tasman	0.25	0.00	0.00	0.29	0.01	0.01
Network Waitaki	0.00	0.00	0.00	0.18	0.00	0.00
Northpower	0.01	0.00	0.00	0.38	0.04	0.00
Orion New Zealand	0.00	0.00	0.00	0.04	0.00	0.03
OtagoNet Joint Venture	0.08	0.00	0.06	0.63	0.00	0.10
Powerco	0.01	0.00	0.00	0.38	0.00	0.00
Scanpower	-	-	-	0.17	0.00	0.10
The Lines Company	0.04	0.00	0.00	0.58	0.00	0.00
The Power Company	0.02	0.00	0.00	0.57	0.01	0.04
Top Energy	0.00	0.00	0.00	0.61	0.06	0.00
Unison Networks	0.12	0.00	0.01	0.38	0.14	0.00
Vector	0.00	0.00	0.00	0.09	0.01	0.16
Waipa Networks	-	-	-	0.19	0.01	0.02
WEL Networks	0.00	0.00	0.00	0.11	0.00	0.18
Wellington Electricity Lines	0.00	0.00	0.00	0.05	0.01	0.00
Westpower	0.00	0.00	0.04	0.25	0.00	0.01
Average	0.02	0.00	0.00	0.33	0.04	0.03
Median	0.00	0.00	0.00	0.38	0.01	0.00
Minimum	0.00	0.00	0.00	0.01	0.00	0.00
Maximum	0.25	0.00	0.06	0.71	0.20	0.18

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	0.00	0.79	0.09	0.00
Aurora Energy	0.13	0.02	0.26	1.33	0.15	0.58
Buller Electricity	0.61	0.00	0.00	1.89	0.00	0.00
Centralines	0.40	0.00	0.00	3.72	0.09	0.00
Counties Energy	0.42	0.00	0.25	2.30	0.04	0.18
EA Networks	0.14	0.00	0.00	1.10	0.08	0.00
Electra	0.25	0.00	0.00	0.45	0.10	0.47
Electricity Invercargill	0.00	0.00	0.00	0.08	0.30	0.11
Firstlight Network	2.31	0.00	0.00	2.27	0.20	0.00
Horizon Energy Distribution	0.26	0.00	0.00	1.79	0.07	0.00
MainPower New Zealand	0.25	0.00	0.00	1.21	0.21	0.00
Marlborough Lines	0.04	0.00	0.26	1.01	0.05	0.29
Nelson Electricity	0.00	0.00	0.00	0.00	0.25	0.00
Network Tasman	0.41	0.00	0.00	0.71	0.03	0.01
Network Waitaki	0.48	0.00	0.00	0.68	0.03	0.00
Northpower	0.91	0.00	0.00	6.35	0.10	0.00
Orion New Zealand	0.02	0.00	0.01	0.30	0.12	0.05
OtagoNet Joint Venture	0.76	0.00	0.14	1.05	0.01	0.17
Powerco	0.65	0.00	0.03	1.57	0.09	0.11
Scanpower	-	-	-	0.40	0.00	0.11
The Lines Company	1.48	0.00	0.00	2.49	0.01	0.00
The Power Company	0.61	0.00	0.13	2.64	0.02	0.37
Top Energy	0.59	0.27	0.00	5.01	0.48	0.00
Unison Networks	0.22	0.02	0.05	2.14	0.14	0.00
Vector	0.29	0.02	0.05	0.90	0.15	0.20
Waipa Networks	-	-	-	0.17	0.01	1.91
WEL Networks	0.21	0.00	0.00	0.87	0.14	0.22
Wellington Electricity Lines	0.00	0.00	0.00	0.37	0.17	0.00
Westpower	0.41	0.00	0.30	0.08	0.00	0.06
Average	0.44	0.01	0.06	1.51	0.11	0.17
Median	0.33	0.00	0.00	1.05	0.09	0.01
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	2.31	0.27	0.30	6.35	0.48	1.91

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	567	447	1,100	2	1	0	953	126	13	1,095
Aurora Energy	1,059	853	1,919	16	1	12	243	32	199	503
Buller Electricity	86	121	208	8	0	0	111	2	0	121
Centralines	149	197	363	5	0	0	189	3	0	197
Counties Energy	422	546	1,051	20	0	5	494	6	33	558
EA Networks	282	300	584	7	0	0	305	7	0	319
Electra	151	324	475	1	0	0	68	5	250	324
Electricity Invercargill	21	24	48	0	0	0	9	6	9	24
Firstlight Network	296	708	1,004	17	0	0	679	12	0	708
Horizon Energy Distribution	242	255	526	7	0	0	232	16	0	255
MainPower New Zealand	625	710	1,335	6	0	0	665	30	9	710
Marlborough Lines	282	442	724	2	0	6	164	10	260	442
Nelson Electricity	4	2	6	0	0	0	0	2	0	2
Network Tasman	196	128	330	10	0	0	115	1	2	128
Network Waitaki	207	135	427	4	0	0	89	2	0	95
Northpower	379	932	1,311	37	0	0	884	23	0	944
Orion New Zealand	642	954	1,605	2	0	2	637	75	94	810
OtagoNet Joint Venture	370	592	969	25	0	3	407	5	152	592
Powerco	1,997	3,916	6,658	194	1	8	4,885	125	228	5,441
Scanpower	114	84	198	-	-	-	63	0	21	84
The Lines Company	302	1,188	1,591	39	0	0	1,138	11	0	1,188
The Power Company	483	1,347	1,831	20	1	3	1,045	6	272	1,347
Top Energy	262	671	933	12	7	0	612	40	0	671
Unison Networks	949	808	1,908	27	1	1	694	85	0	808
Vector	1,471	2,333	3,814	59	3	7	1,612	258	394	2,333
Waipa Networks	121	255	376	-	-	-	11	2	242	255
WEL Networks	513	833	1,349	17	0	4	314	41	457	833
Wellington Electricity Lines	248	246	496	0	0	0	191	55	0	246
Westpower	161	188	353	12	0	9	150	1	16	188
Average	435	674	1,155	20	1	2	585	34	91	732
Median	282	447	933	10	0	0	305	10	9	503
Minimum	4	2	6	0	0	0	0	0	0	2
Maximum	1,997	3,916	6,658	194	7	12	4,885	258	457	5,441

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	279	168	0.81	3.13	32.99	27.27
Aurora Energy	596	257	3.06	1.12	10.63	2.68
Buller Electricity	64	57	7.64	0.00	29.97	9.07
Centralines	130	67	5.31	0.00	13.43	6.89
Counties Energy	289	257	16.69	0.00	33.27	1.71
EA Networks	227	73	1.80	0.00	15.79	2.11
Electra	219	105	0.54	0.00	8.02	1.90
Electricity Invercargill	14	10	0.00	0.00	41.04	3.75
Firstlight Network	372	336	2.64	0.00	28.54	8.51
Horizon Energy Distribution	180	75	2.81	0.00	15.49	7.02
MainPower New Zealand	529	181	1.55	0.00	19.39	8.02
Marlborough Lines	255	187	0.72	0.00	7.69	4.81
Nelson Electricity	0	2	0.00	0.00	0.00	2.63
Network Tasman	96	32	3.56	0.00	6.09	0.32
Network Waitaki	95	40	1.72	0.00	7.08	2.32
Northpower	674	258	11.42	0.00	25.20	7.34
Orion New Zealand	634	320	0.40	0.00	20.33	2.63
OtagoNet Joint Venture	429	163	3.58	0.00	12.59	5.21
Powerco	1,940	1,976	12.92	0.32	33.17	5.45
Scanpower	54	30	-	-	7.49	0.00
The Lines Company	661	527	8.92	0.00	36.79	5.45
The Power Company	943	404	2.23	7.29	15.53	3.70
Top Energy	274	397	3.15	30.43	23.69	17.47
Unison Networks	443	365	6.32	1.58	18.37	9.65
Vector	1,018	1,315	15.17	0.49	43.36	6.58
Waipa Networks	179	76	-	-	0.89	1.16
WEL Networks	493	340	9.57	0.00	16.31	5.41
Wellington Electricity Lines	141	105	0.00	0.00	32.51	4.54
Westpower	128	60	1.86	0.00	5.26	0.72
Average	392	282	4.61	1.64	19.34	5.67
Median	274	168	2.81	0.00	16.31	4.81
Minimum	0	2	0.00	0.00	0.00	0.00
Maximum	1,940	1,976	16.69	30.43	43.36	27.27



15. Ranked data

Total Circuit Length		Number of Connection Points			Connection Point Density		Energy Delivered to ICPs				
	km		ICPs		ICPs/km		GWh				
1	Powerco	29,087	1	Vector	603,707	1	Wellington Electricity Lines	35.9	1	Vector	8,462
2	Vector	19,468	2	Powerco	356,643	2	Nelson Electricity	31.4	2	Powerco	4,960
3	Orion New Zealand	11,907	3	Orion New Zealand	218,227	3	Vector	31.0	3	Orion New Zealand	3,377
4	Unison Networks	9,334	4	Wellington Electricity Lines	173,512	4	Electricity Invercargill	26.4	4	Wellington Electricity Lines	2,287
5	The Power Company	8,882	5	Unison Networks	118,448	5	Electra	19.5	5	Unison Networks	1,679
6	Aurora Energy	6,256	6	WEL Networks	98,601	6	Orion New Zealand	18.3	6	Aurora Energy	1,355
7	Northpower	6,190	7	Aurora Energy	94,323	7	WEL Networks	17.6	7	WEL Networks	1,323
8	WEL Networks	5,617	8	Northpower	63,002	8	Aurora Energy	15.1	8	The Power Company	822
9	MainPower New Zealand	5,198	9	Counties Energy	46,963	9	Counties Energy	13.2	9	Alpine Energy	812
10	Wellington Electricity Lines	4,835	10	Electra	46,333	10	Unison Networks	12.7	10	Northpower	792
11	OtagoNet Joint Venture	4,619	11	MainPower New Zealand	44,109	11	Waipa Networks	12.7	11	Network Tasman	654
12	The Lines Company	4,426	12	Network Tasman	42,224	12	Powerco	12.3	12	Counties Energy	651
13	Alpine Energy	4,374	13	The Power Company	37,327	13	Network Tasman	11.4	13	MainPower New Zealand	620
14	Top Energy	4,228	14	Top Energy	33,740	14	Northpower	10.2	14	EA Networks	564
15	Firstlight Network	3,945	15	Alpine Energy	33,539	15	Horizon Energy Distribution	9.6	15	Horizon Energy Distribution	537
16	Network Tasman	3,719	16	Waipa Networks	29,128	16	MainPower New Zealand	8.5	16	OtagoNet Joint Venture	463
17	Counties Energy	3,545	17	Marlborough Lines	26,830	17	Top Energy	8.0	17	Electra	429
18	Marlborough Lines	3,519	18	Firstlight Network	25,872	18	Alpine Energy	7.7	18	Waipa Networks	420
19	EA Networks	3,172	19	Horizon Energy Distribution	25,179	19	Marlborough Lines	7.6	19	Marlborough Lines	390
20	Horizon Energy Distribution	2,624	20	The Lines Company	24,016	20	Buller Electricity	7.4	20	The Lines Company	365
21	Electra	2,380	21	EA Networks	20,538	21	Network Waitaki	7.0	21	Top Energy	332
22	Waipa Networks	2,302	22	OtagoNet Joint Venture	19,361	22	Firstlight Network	6.6	22	Firstlight Network	286
23	Westpower	2,193	23	Electricity Invercargill	17,562	23	EA Networks	6.5	23	Network Waitaki	271
24	Network Waitaki	1,908	24	Westpower	14,144	24	Westpower	6.4	24	Electricity Invercargill	250
25	Centralines	1,864	25	Network Waitaki	13,344	25	Scanpower	6.4	25	Westpower	221
26	Scanpower	1,052	26	Nelson Electricity	9,297	26	The Lines Company	5.4	26	Nelson Electricity	135
27	Electricity Invercargill	665	27	Centralines	9,212	27	Centralines	4.9	27	Centralines	108
28	Buller Electricity	650	28	Scanpower	6,771	28	The Power Company	4.2	28	Scanpower	77
29	Nelson Electricity	296	29	Buller Electricity	4,815	29	OtagoNet Joint Venture	4.2	29	Buller Electricity	49

Gross Line Charge Revenue			Gross Line Charge Revenue			Total Distribution Revenue ¹			Total Distribution Revenue		
		c/kWh			\$/ICP			c/kWh			\$/ICP
1	Buller Electricity	15.9	1	EA Networks	2,038	1	Buller Electricity	15.0	1	EA Networks	1,653
2	Centralines	12.8	2	The Lines Company	1,761	2	Top Energy	11.5	2	Buller Electricity	1,536
3	Top Energy	12.7	3	OtagoNet Joint Venture	1,688	3	Centralines	10.3	3	The Lines Company	1,498
4	The Lines Company	11.6	4	Alpine Energy	1,682	4	The Lines Company	9.8	4	Network Waitaki	1,292
5	Scanpower	11.3	5	Network Waitaki	1,646	5	Scanpower	8.4	5	Westpower	1,281
6	Firstlight Network	10.5	6	Buller Electricity	1,628	6	Firstlight Network	8.3	6	The Power Company	1,262
7	Marlborough Lines	9.8	7	The Power Company	1,607	7	Westpower	8.2	7	OtagoNet Joint Venture	1,258
8	Westpower	9.8	8	Westpower	1,533	8	Marlborough Lines	8.1	8	Alpine Energy	1,242
9	Electra	9.7	9	Centralines	1,494	9	Electra	7.7	9	Centralines	1,202
10	Counties Energy	9.5	10	Marlborough Lines	1,427	10	Counties Energy	7.7	10	Marlborough Lines	1,173
11	Aurora Energy	9.1	11	Counties Energy	1,316	11	MainPower New Zealand	7.1	11	Top Energy	1,132
12	MainPower New Zealand	9.0	12	Aurora Energy	1,306	12	Aurora Energy	7.0	12	Counties Energy	1,064
13	Unison Networks	8.7	13	Scanpower	1,293	13	Unison Networks	6.6	13	Aurora Energy	1,007
14	Northpower	8.3	14	Horizon Energy Distribution	1,290	14	Network Waitaki	6.4	14	MainPower New Zealand	995
15	Network Waitaki	8.1	15	MainPower New Zealand	1,259	15	EA Networks	6.0	15	Horizon Energy Distribution	979
16	Powerco	7.9	16	Top Energy	1,253	16	Northpower	6.0	16	Scanpower	964
17	WEL Networks	7.7	17	Unison Networks	1,233	17	Powerco	5.7	17	Unison Networks	932
18	EA Networks	7.4	18	Firstlight Network	1,158	18	The Power Company	5.7	18	Firstlight Network	924
19	Electricity Invercargill	7.4	19	Powerco	1,096	19	WEL Networks	5.6	19	Powerco	798
20	Waipa Networks	7.3	20	Waipa Networks	1,055	20	OtagoNet Joint Venture	5.3	20	Orion New Zealand	763
21	The Power Company	7.3	21	Orion New Zealand	1,055	21	Waipa Networks	5.3	21	Waipa Networks	758
22	Vector	7.2	22	Electricity Invercargill	1,050	22	Alpine Energy	5.1	22	Northpower	753
23	OtagoNet Joint Venture	7.1	23	Northpower	1,044	23	Vector	5.1	23	WEL Networks	750
24	Alpine Energy	6.9	24	WEL Networks	1,031	24	Electricity Invercargill	5.1	24	Electricity Invercargill	722
25	Wellington Electricity Lines	6.9	25	Vector	1,015	25	Orion New Zealand	4.9	25	Electra	712
26	Orion New Zealand	6.8	26	Nelson Electricity	922	26	Horizon Energy Distribution	4.6	26	Vector	712
27	Nelson Electricity	6.3	27	Wellington Electricity Lines	908	27	Wellington Electricity Lines	4.4	27	Nelson Electricity	633
28	Horizon Energy Distribution	6.1	28	Electra	900	28	Nelson Electricity	4.3	28	Network Tasman	611
29	Network Tasman	5.8	29	Network Tasman	897	29	Network Tasman	3.9	29	Wellington Electricity Lines	576

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	3,891,833	1	Vector	3,745,365	1	The Lines Company	10.29
2	Powerco	2,589,537	2	Powerco	2,483,506	2	Wellington Electricity Lines	10.04
3	Orion New Zealand	1,450,079	3	Orion New Zealand	1,379,734	3	Buller Electricity	9.97
4	Unison Networks	805,807	4	Unison Networks	763,837	4	Horizon Energy Distribution	9.84
5	Wellington Electricity Lines	803,430	5	Wellington Electricity Lines	754,557	5	Nelson Electricity	9.54
6	Aurora Energy	736,088	6	Aurora Energy	702,638	6	OtagoNet Joint Venture	9.52
7	WEL Networks	706,476	7	WEL Networks	661,574	7	Electricity Invercargill	9.21
8	The Power Company	491,373	8	The Power Company	463,931	8	Scanpower	9.21
9	Counties Energy	427,054	9	Counties Energy	402,932	9	Centralines	9.17
10	Northpower	353,169	10	Northpower	337,594	10	EA Networks	9.15
11	EA Networks	343,290	11	EA Networks	325,872	11	Orion New Zealand	9.01
12	Top Energy	339,121	12	Top Energy	320,094	12	Counties Energy	8.98
13	MainPower New Zealand	306,284	13	MainPower New Zealand	298,752	13	Powerco	8.94
14	Alpine Energy	293,278	14	Alpine Energy	274,138	14	Vector	8.84
15	Marlborough Lines	264,231	15	Marlborough Lines	259,164	15	Electra	8.77
16	OtagoNet Joint Venture	263,617	16	The Lines Company	242,260	16	The Power Company	8.66
17	The Lines Company	263,264	17	OtagoNet Joint Venture	239,691	17	Unison Networks	8.64
18	Electra	241,685	18	Electra	230,082	18	Alpine Energy	8.38
19	Network Tasman	209,789	19	Network Tasman	205,221	19	WEL Networks	8.35
20	Firstlight Network	209,446	20	Firstlight Network	195,041	20	Firstlight Network	8.30
21	Waipa Networks	162,242	21	Horizon Energy Distribution	161,216	21	Network Tasman	8.15
22	Horizon Energy Distribution	161,216	22	Waipa Networks	154,760	22	Network Waitaki	8.03
23	Network Waitaki	120,992	23	Westpower	119,993	23	Top Energy	7.72
24	Westpower	116,341	24	Network Waitaki	115,185	24	Aurora Energy	7.47
25	Electricity Invercargill	107,300	25	Electricity Invercargill	101,519	25	MainPower New Zealand	7.47
26	Centralines	88,898	26	Centralines	83,287	26	Westpower	7.41
27	Scanpower	53,996	27	Scanpower	51,505	27	Waipa Networks	6.90
28	Nelson Electricity	49,284	28	Nelson Electricity	46,838	28	Marlborough Lines	6.66
29	Buller Electricity	35,266	29	Buller Electricity	33,629	29	Northpower	6.43

Operational Expenditure per Total Circuit Length		Operational Expenditure per Connection Point		Total Operating Expenditure	
	\$/km		\$/ICP		\$000
1	Electricity Invercargill	8,406	1	Buller Electricity	854
2	Nelson Electricity	7,946	2	Network Waitaki	804
3	Aurora Energy	7,716	3	Westpower	802
4	Wellington Electricity Lines	7,515	4	EA Networks	752
5	Vector	7,497	5	Marlborough Lines	745
6	Electra	7,190	6	Alpine Energy	742
7	WEL Networks	6,388	7	Centralines	689
8	Buller Electricity	6,331	8	The Lines Company	664
9	Counties Energy	6,903	9	Top Energy	704
10	Orion New Zealand	6,022	10	Northpower	580
11	Northpower	5,901	11	Scanpower	562
12	Waipa Networks	5,874	12	Counties Energy	521
13	Alpine Energy	5,691	13	OtagoNet Joint Venture	518
14	Marlborough Lines	5,677	14	Aurora Energy	512
15	Network Waitaki	5,621	15	Firstlight Network	498
16	Top Energy	5,617	16	The Power Company	479
17	Unison Networks	5,403	17	MainPower New Zealand	473
18	Westpower	5,174	18	Waipa Networks	464
19	EA Networks	4,870	19	Horizon Energy Distribution	448
20	Horizon Energy Distribution	4,298	20	Unison Networks	426
21	MainPower New Zealand	4,016	21	Electra	369
22	Powerco	3,827	22	WEL Networks	364
23	Scanpower	3,616	23	Orion New Zealand	329
24	The Lines Company	3,600	24	Electricity Invercargill	318
25	Network Tasman	3,496	25	Powerco	312
26	Centralines	3,404	26	Network Tasman	308
27	Firstlight Network	3,268	27	Nelson Electricity	253
28	OtagoNet Joint Venture	2,172	28	Vector	242
29	The Power Company	2,011	29	Wellington Electricity Lines	209
1	Vector	145,942	1	Vector	145,942
2	Powerco	111,324	2	Powerco	111,324
3	Orion New Zealand	71,706	3	Orion New Zealand	71,706
4	Unison Networks	50,436	4	Unison Networks	50,436
5	Aurora Energy	48,271	5	Aurora Energy	48,271
6	Northpower	36,529	6	Northpower	36,529
7	WEL Networks	35,879	7	WEL Networks	35,879
8	Alpine Energy	24,894	8	Alpine Energy	24,894
9	Wellington Electricity Lines	36,335	9	Wellington Electricity Lines	36,335
10	Counties Energy	24,472	10	Counties Energy	24,472
11	Top Energy	23,749	11	Top Energy	23,749
12	MainPower New Zealand	20,875	12	MainPower New Zealand	20,875
13	Marlborough Lines	19,979	13	Marlborough Lines	19,979
14	The Power Company	17,864	14	The Power Company	17,864
15	Electra	17,109	15	Electra	17,109
16	The Lines Company	15,935	16	The Lines Company	15,935
17	EA Networks	15,449	17	EA Networks	15,449
18	Waipa Networks	13,522	18	Waipa Networks	13,522
19	Network Tasman	13,000	19	Network Tasman	13,000
20	Firstlight Network	12,894	20	Firstlight Network	12,894
21	Westpower	11,345	21	Westpower	11,345
22	Horizon Energy Distribution	11,278	22	Horizon Energy Distribution	11,278
23	Network Waitaki	10,725	23	Network Waitaki	10,725
24	OtagoNet Joint Venture	10,030	24	OtagoNet Joint Venture	10,030
25	Centralines	6,346	25	Centralines	6,346
26	Electricity Invercargill	5,586	26	Electricity Invercargill	5,586
27	Buller Electricity	4,114	27	Buller Electricity	4,114
28	Scanpower	3,804	28	Scanpower	3,804
29	Nelson Electricity	2,351	29	Nelson Electricity	2,351

Network Planned and Unplanned (Class B and Class C)		Network Planned and Unplanned (Class B and Class C)		Network Planned and Unplanned (Class B and Class C)	
		SAIDI		SAIFI	CAIDI
1	Top Energy	1,918	1	Northpower	7.79
2	Unison Networks	1,914	2	Top Energy	7.02
3	Firstlight Network	1,599	3	Firstlight Network	5.51
4	Northpower	1,215	4	Centralines	4.70
5	The Lines Company	848	5	The Lines Company	4.60
6	Centralines	781	6	The Power Company	4.41
7	Counties Energy	526	7	Buller Electricity	3.26
8	OtagoNet Joint Venture	508	8	Unison Networks	3.23
9	Buller Electricity	748	9	Counties Energy	3.97
10	The Power Company	496	10	Aurora Energy	3.08
11	Powerco	490	11	OtagoNet Joint Venture	2.99
12	Vector	485	12	Powerco	2.87
13	Waipa Networks	464	13	Horizon Energy Distribution	2.74
14	Westpower	339	14	Waipa Networks	2.31
15	Horizon Energy Distribution	331	15	MainPower New Zealand	2.13
16	Aurora Energy	330	16	Marlborough Lines	2.12
17	Marlborough Lines	316	17	Westpower	2.06
18	MainPower New Zealand	307	18	Vector	1.87
19	Network Tasman	275	19	EA Networks	1.78
20	EA Networks	238	20	WEL Networks	1.73
21	Scanpower	231	21	Network Tasman	1.73
22	WEL Networks	200	22	Network Waitaki	1.37
23	Alpine Energy	194	23	Electra	1.35
24	Network Waitaki	118	24	Alpine Energy	1.20
25	Electra	102	25	Scanpower	0.78
26	Orion New Zealand	69	26	Wellington Electricity Lines	0.61
27	Electricity Invercargill	63	27	Orion New Zealand	0.58
28	Nelson Electricity	62	28	Electricity Invercargill	0.57
29	Wellington Electricity Lines	53	29	Nelson Electricity	0.38
			1	Unison Networks	592
			2	Scanpower	296
			3	Firstlight Network	290
			4	Top Energy	273
			5	Vector	259
			6	Buller Electricity	229
			7	The Lines Company	184
			8	Powerco	171
			9	Waipa Networks	201
			10	OtagoNet Joint Venture	170
			11	Centralines	166
			12	Westpower	165
			13	Nelson Electricity	163
			14	Alpine Energy	162
			15	Network Tasman	159
			16	Northpower	156
			17	Marlborough Lines	149
			18	MainPower New Zealand	144
			19	EA Networks	134
			20	Counties Energy	133
			21	Horizon Energy Distribution	121
			22	Orion New Zealand	120
			23	WEL Networks	116
			24	The Power Company	112
			25	Electricity Invercargill	111
			26	Aurora Energy	107
			27	Wellington Electricity Lines	87
			28	Network Waitaki	86
			29	Electra	76

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		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Alpine Energy	4,349	4,326	4,374	33,700	33,269	33,539	801	772	812	144	135	142
Aurora Energy	6,161	6,213	6,256	92,096	93,287	94,323	1,305	1,307	1,355	299	309	309
Buller Electricity	646	649	650	4,709	4,757	4,815	50	50	49	11	11	11
Centralines	1,828	1,836	1,864	8,889	9,054	9,212	111	108	108	22	22	22
Counties Energy	3,427	3,500	3,545	44,514	45,785	46,963	636	656	651	141	129	134
EA Networks	3,110	3,105	3,172	20,001	20,247	20,538	627	554	564	181	160	156
Electra	2,330	2,354	2,380	45,562	45,950	46,333	421	424	429	104	111	108
Electricity Invercargill	664	663	665	17,419	17,491	17,562	250	252	250	62	62	70
Firstlight Network	3,945	3,942	3,945	25,783	25,775	25,872	284	288	286	62	66	65
Horizon Energy Distribution	2,605	2,612	2,624	25,416	25,081	25,179	545	556	537	101	97	94
MainPower New Zealand	5,165	5,170	5,198	42,117	43,131	44,109	626	624	620	128	124	122
Marlborough Lines	3,391	3,424	3,519	26,426	26,630	26,830	399	387	390	75	75	75
Nelson Electricity	298	296	296	9,271	9,285	9,297	136	138	135	33	33	34
Network Tasman	3,674	3,688	3,719	40,597	41,622	42,224	629	652	654	129	149	159
Network Waitaki	1,879	1,903	1,908	13,097	13,201	13,344	291	238	271	67	61	65
Northpower	6,113	6,151	6,190	61,115	62,040	63,002	947	1,042	792	175	182	157
Orion New Zealand	11,622	11,740	11,907	209,584	213,669	218,227	3,249	3,281	3,377	625	713	655
OtagoNet Joint Venture	4,624	4,638	4,619	17,842	18,567	19,361	444	450	463	66	68	72
Powerco	28,514	28,935	29,087	348,191	352,563	356,643	4,880	4,994	4,960	944	986	974
Scanpower	1,038	1,049	1,052	6,697	6,731	6,771	76	77	77	16	16	16
The Lines Company	4,359	4,440	4,426	23,841	23,999	24,016	366	368	365	75	78	75
The Power Company	8,850	8,862	8,882	36,585	36,897	37,327	794	794	822	163	161	161
Top Energy	4,088	4,101	4,228	32,877	33,263	33,740	318	330	332	75	77	78
Unison Networks	9,347	9,377	9,334	115,724	116,893	118,448	1,633	1,647	1,679	339	354	351
Vector	19,144	19,280	19,468	583,483	593,440	603,707	8,210	8,375	8,462	1,730	1,807	1,759
Waipa Networks	2,271	2,292	2,302	27,553	28,033	29,128	398	420	420	83	86	85
WEL Networks	5,523	5,570	5,617	95,226	96,894	98,601	1,283	1,331	1,323	280	308	281
Wellington Electricity Lines	4,780	4,806	4,835	170,188	171,955	173,512	2,264	2,267	2,287	557	579	538
Westpower	2,298	2,205	2,193	13,867	14,007	14,144	226	220	221	47	45	39
Average	5,381	5,418	5,457	75,599	76,673	77,820	1,110	1,124	1,127	232	242	235
Median	3,945	3,942	3,945	32,877	33,263	33,539	545	554	537	104	111	108
Minimum	298	296	296	4,709	4,757	4,815	50	50	49	11	11	11
Maximum	28,514	28,935	29,087	583,483	593,440	603,707	8,210	8,375	8,462	1,730	1,807	1,759

	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 %		
	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
Alpine Energy	618	620	669	66.1	68.0	67	4.3	3.6	2.3	6.0	8.7	8.4	5.7	8.1	8.4
Aurora Energy	999	1,011	1,025	53.0	51.2	53	5.8	5.4	5.5	1.8	7.3	8.7	5.6	10.3	8.7
Buller Electricity	46	47	48	57.7	56.1	58	6.8	6.8	7.2	8.7	10.7	10.0	8.3	10.4	10.0
Centralines	113	115	118	61.9	61.2	59	6.7	8.1	6.8	6.6	9.8	9.2	5.4	9.7	9.2
Counties Energy	546	769	502	54.4	60.9	58	5.4	4.9	4.6	4.0	9.9	9.0	3.9	9.7	9.0
EA Networks	612	605	611	41.7	40.7	44	4.9	2.8	6.0	4.7	9.8	8.9	4.6	9.8	8.9
Electra	339	344	351	50.0	47.6	48	7.3	8.0	5.9	2.8	9.6	8.8	2.7	9.4	8.8
Electricity Invercargill	153	158	158	47.4	46.8	42	4.8	3.2	4.6	6.0	9.6	9.3	5.7	9.9	9.3
Firstlight Network	272	275	273	57.1	54.5	55	8.5	8.8	8.3	4.2	9.7	8.3	4.0	9.6	8.3
Horizon Energy Distribution	345	349	354	64.2	68.6	68	4.1	4.4	4.6	6.8	13.4	10.6	6.8	11.9	10.6
MainPower New Zealand	580	588	599	59.6	61.2	61	5.9	5.8	5.4	2.9	6.6	7.5	2.8	6.5	7.5
Marlborough Lines	364	369	380	63.9	61.5	62	4.5	4.4	5.0	3.6	8.3	6.7	3.6	8.1	6.7
Nelson Electricity	100	100	100	48.8	48.9	48	3.9	3.4	4.0	5.6	10.0	9.6	4.1	10.1	9.6
Network Tasman	490	505	515	66.8	60.7	61	5.8	5.6	5.7	3.2	8.6	8.3	3.1	8.6	8.3
Network Waitaki	249	236	244	52.7	46.8	50	5.4	4.6	4.7	5.0	8.4	8.0	4.9	8.3	8.0
Northpower	582	594	605	65.2	68.4	61	5.2	4.5	5.4	3.3	8.8	6.4	3.3	8.7	6.4
Orion New Zealand	2,444	2,493	2,528	61.8	54.7	61	4.0	4.0	4.1	5.1	10.3	9.1	4.7	10.0	9.1
OtagoNet Joint Venture	264	239	245	80.2	78.7	75	4.6	4.4	3.9	4.8	10.0	8.7	4.7	10.7	8.7
Powerco	3,465	3,640	3,716	62.3	61.0	61	5.3	5.2	5.1	2.9	8.4	8.9	2.8	8.3	8.9
Scanpower	75	75	75	57.4	58.1	58	7.3	7.3	7.3	3.7	8.3	9.2	3.6	8.2	9.2
The Lines Company	260	267	271	60.0	57.4	60	7.0	6.4	6.5	3.9	9.6	9.7	3.6	10.5	9.7
The Power Company	509	517	501	59.1	59.6	62	5.0	5.0	4.9	3.5	9.0	8.7	3.4	8.8	8.7
Top Energy	323	325	298	54.2	54.4	54	11.1	10.4	10.4	3.9	9.3	7.6	3.9	9.0	7.6
Unison Networks	1,262	1,265	1,295	57.6	56.4	56	4.5	5.9	2.9	5.2	10.3	9.5	3.9	9.1	9.5
Vector	5,328	5,513	5,734	56.4	55.1	57	3.9	4.0	4.0	3.7	9.5	8.9	3.7	9.2	8.9
Waipa Networks	286	291	303	57.1	58.0	59	4.7	3.9	4.8	3.5	9.2	6.9	3.4	9.1	6.9
WEL Networks	994	996	1,020	54.8	51.6	56	4.5	4.5	4.6	5.6	9.9	8.4	5.5	9.7	8.4
Wellington Electricity Lines	1,447	1,470	1,526	48.8	46.9	50	4.8	4.7	3.5	4.7	11.2	10.1	4.4	10.8	10.1
Westpower	197	194	178	59.8	58.6	70	7.4	5.0	7.9	3.9	8.3	7.4	3.8	8.2	7.4
Average	802	827	836	57.9	57.0	58	5.6	5.3	5.4	4.5	9.4	8.6	4.3	9.3	8.6
Median	364	369	380	57.6	57.4	58	5.2	4.9	5.0	4.0	9.6	8.8	3.9	9.4	8.8
Minimum	46	47	48	41.7	40.7	42	3.9	2.8	2.3	1.8	6.6	6.4	2.7	6.5	6.4
Maximum	5,328	5,513	5,734	80.2	78.7	75	11.1	10.4	10.4	8.7	13.4	10.6	8.3	11.9	10.6

	Gross Line Charge Revenue c/kWh			Regulatory Asset Base \$000			Expenditure on Assets per Connection Point \$/ICP		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Alpine Energy	7.4	6.8	6.9	210,581	238,090	293,278	580	724	823
Aurora Energy	7.5	8.1	9.1	539,722	645,301	736,088	718	915	1,030
Buller Electricity	15.9	15.6	15.9	30,897	33,068	35,266	551	603	670
Centralines	13.5	12.8	12.8	61,954	67,163	88,898	662	1,430	1,215
Counties Energy	8.0	8.6	9.5	330,036	374,478	427,054	1,078	1,353	1,315
EA Networks	7.6	7.5	7.4	300,961	321,934	343,290	866	781	692
Electra	8.4	9.0	9.7	209,173	226,821	241,685	313	294	293
Electricity Invercargill	7.8	7.0	7.4	91,117	99,905	107,300	248	382	301
Firstlight Network	10.1	10.8	10.5	172,870	188,035	209,446	358	349	588
Horizon Energy Distribution	5.7	6.0	6.1	141,247	150,720	161,216	312	280	303
MainPower New Zealand	8.0	8.3	9.0	257,036	282,321	306,284	627	696	668
Marlborough Lines	10.3	10.4	9.8	234,860	248,723	264,231	353	389	455
Nelson Electricity	6.6	6.3	6.3	43,164	46,261	49,284	114	156	196
Network Tasman	5.7	5.9	5.8	177,306	191,545	209,789	236	287	327
Network Waitaki	7.0	8.3	8.1	100,426	110,927	120,992	691	679	692
Northpower	6.8	6.3	8.3	298,438	328,448	353,169	403	483	464
Orion New Zealand	7.1	7.0	6.8	1,177,019	1,307,972	1,450,079	389	424	553
OtagoNet Joint Venture	7.7	7.5	7.1	226,099	240,495	263,617	1,184	1,058	1,041
Powerco	7.2	7.3	7.9	2,053,806	2,285,796	2,589,537	694	715	818
Scanpower	10.8	10.8	11.3	44,798	49,990	53,996	564	631	445
The Lines Company	10.2	11.1	11.6	225,659	250,864	263,264	810	664	585
The Power Company	7.1	7.3	7.3	420,819	457,373	491,373	687	672	864
Top Energy	14.4	14.3	12.7	302,160	320,021	339,121	507	415	476
Unison Networks	8.4	8.3	8.7	672,135	740,115	805,807	457	508	709
Vector	6.8	7.2	7.2	3,385,969	3,641,987	3,891,833	508	548	615
Waipa Networks	6.7	7.1	7.3	126,979	145,410	162,242	420	679	662
WEL Networks	8.5	7.7	7.7	592,314	644,346	706,476	450	566	793
Wellington Electricity Lines	6.5	7.0	6.9	681,366	743,607	803,430	292	294	308
Westpower	9.1	9.5	9.8	105,683	110,847	116,341	194	237	307
Average	8.5	8.6	8.8	455,676	499,744	547,737	526	594	628
Median	7.7	7.7	8.1	226,099	248,723	264,231	507	566	615
Minimum	5.7	5.9	5.8	30,897	33,068	35,266	114	156	196
Maximum	15.9	15.6	15.9	3,385,969	3,641,987	3,891,833	1,184	1,430	1,315

	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)			
	2021	2022	2023		2021	2022	2023		2021	2022	2023	
Alpine Energy	592	669	742		196.2	297.1	194.2		1.23	1.11	1.20	
Aurora Energy	502	496	512		248.4	321.0	330.5		2.22	2.67	3.08	
Buller Electricity	594	840	854		457.4	282.3	747.7		2.41	2.09	3.26	
Centralines	533	585	689		156.7	215.6	781.4		1.86	2.18	4.70	
Counties Energy	399	415	521		272.8	422.9	526.2		3.04	3.93	3.97	
EA Networks	648	673	752		175.2	235.7	237.7		1.46	2.01	1.78	
Electra	294	301	369		74.3	94.7	102.0		0.97	1.45	1.35	
Electricity Invercargill	272	293	318		49.7	105.2	63.5		0.76	1.15	0.57	
Firstlight Network	408	470	498		326.3	556.1	1,598.6		3.43	5.79	5.51	
Horizon Energy Distribution	410	424	448		253.4	386.8	330.8		2.39	2.72	2.74	
MainPower New Zealand	437	496	473		321.4	381.8	306.6		2.30	2.48	2.13	
Marlborough Lines	611	674	745		138.4	242.8	315.5		1.71	1.93	2.12	
Nelson Electricity	216	246	253		11.1	51.1	62.5		0.03	0.56	0.38	
Network Tasman	282	288	308		203.5	176.2	275.1		1.18	1.31	1.73	
Network Waitaki	541	655	804		197.0	166.9	117.6		1.17	1.96	1.37	
Northpower	448	463	580		266.3	375.8	1,215.0		3.01	4.54	7.79	
Orion New Zealand	311	301	329		57.4	77.9	69.3		0.60	0.68	0.58	
OtagoNet Joint Venture	499	472	518		326.1	434.5	507.6		2.66	3.16	2.99	
Powerco	261	293	312		257.6	410.8	490.1		2.21	2.60	2.87	
Scanpower	560	571	562		90.9	180.2	231.2		0.66	0.91	0.78	
The Lines Company	612	676	664		354.8	335.4	848.3		3.18	3.35	4.60	
The Power Company	458	447	479		314.0	366.9	496.4		3.53	3.46	4.41	
Top Energy	557	588	704		432.8	907.9	1,917.6		4.93	5.44	7.02	
Unison Networks	358	379	426		189.5	195.5	1,914.4		1.74	2.03	3.23	
Vector	218	230	242		164.1	221.8	484.7		1.45	1.56	1.87	
Waipa Networks	337	392	464		257.3	339.8	464.4		1.73	2.37	2.31	
WEL Networks	290	334	364		86.3	250.6	199.6		1.03	2.15	1.73	
Wellington Electricity Lines	196	206	209		36.9	40.3	53.3		0.43	0.47	0.61	
Westpower	686	744	802		180.3	230.8	339.3		1.61	1.98	2.06	
Average	432	470	515		210.2	286.4	525		1.89	2.35	2.7	
Median	437	463	498		197.0	250.6	331		1.73	2.09	2.1	
Minimum	196	206	209		11.1	40.3	53		0.03	0.47	0.4	
Maximum	686	840	854		457.4	907.9	1,918		4.93	5.79	7.8	

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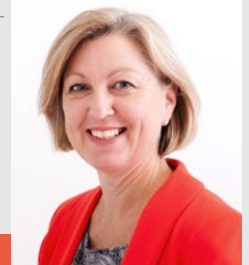
18. Glossary

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

19. Members of our energy team

Lynne Taylor Executive Director, Consulting

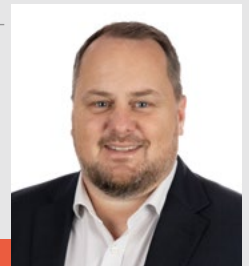
Lynne specialises in regulatory development and compliance including valuations and corporate and operational strategy in the energy and water sectors and general economic advice.



+64 21 779 088
lynne.taylor@pwc.com

Aaron Webb Director, Consulting

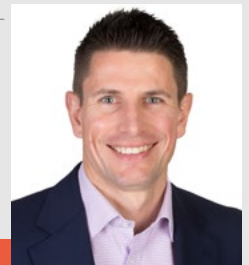
Aaron works closely with a number of energy and infrastructure sector clients advising on pricing, regulation, corporate strategy, valuations, and transactions.



+64 21 869 705
aaron.m.webb@pwc.com

Mark Robinson Director, Consulting

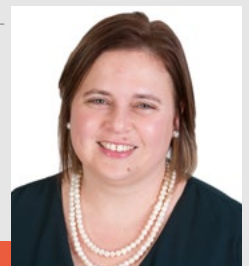
Mark assists a number of energy sector clients with technical regulatory methods, including development and compliance, as well as general financial, commercial and valuation advice.



+64 21 665 786
mark.d.robinson@pwc.com

Adri Smit Partner, Assurance

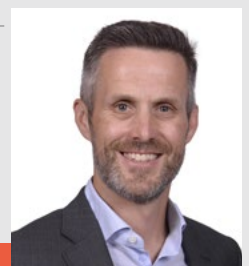
Adri is an assurance Partner based in our Christchurch office. She provides a wide range of assurance services including regulatory compliance across the energy sector in the South Island.



+64 21 242 0240
adri.e.smit@pwc.com

Simon Healy Partner, Deals

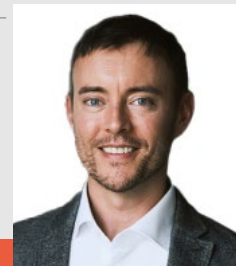
Simon is a Partner in the Corporate Finance and Infrastructure team. He works with management teams to develop and deliver major strategic investment decisions for their organisations. He has significant expertise in the energy and utilities sectors.



+64 21 242 6075
simon.m.healy@pwc.com

Andrew Wilshire
Partner, Technology
and Transformation

Andrew is a Partner in the Technology and Transformation team. He is a recognised strategy and technology leader with specific experience in energy and utilities, telco, financial services and manufacturing.



+64 21 416 241
andrew.p.wilshire@pwc.com

Pip Cameron
Partner, Assurance

Pip is the lead Partner in our energy group for Assurance Services. She provides audit and advisory services to a number of energy companies.



+64 21 358 010
pip.cameron@pwc.com

Nathan Wylie
Partner, Assurance

Nathan is an audit Partner in our South Island practice. He provides audit services to various energy sector clients across the South Island.



+64 21 948 357
nathan.j.wylie@pwc.com

Nick Horwood
Director, Assurance

Nick is an assurance Director based in our Christchurch office. He provides financial statement audit and regulatory compliance services to a number of energy sector clients.



+64 27 541 6836
nick.j.horwood@pwc.com

Helen Johnson
Partner, Taxation

Helen leads the PwC Legal tax practice in New Zealand. She works closely with several clients with an energy or infrastructure focus, advising on all aspects of New Zealand tax.



+64 27 501 9007
helen.n.johnson@pwc.com

Get in touch

Auckland

PwC Tower
15 Customs Street West
Private Bag 92162
Auckland
T: +64 9 355 8000

Wellington

PwC Centre
10 Waterloo Quay
PO Box 243
Wellington 6011
T: +64 4 462 7000

Christchurch

PwC Centre
60 Cashel Street
PO Box 13244
Christchurch 8013
T: +64 3 374 3000



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