Orion New Zealand Limited

Information for disclosure

for the year ended 31 March 2019

Electricity distribution
information disclosure
determination 2012

Approved 28 August 2019

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 1: ANALYTICAL RATIOS

This schedule calculates expenditure, revenue and service ratios from the information disclosed. The disclosed ratios may vary for reasons that are company specific and, as a result, must be interpreted with care. The Commerce Commission will publish a summary and analysis of information disclosed in accordance with the ID determination. This will include information disclosed in accordance with this and other schedules, and information disclosed under the other requirements of the determination.

This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

1(i): Expenditure metrics

	Expenditure per GWh energy delivered to ICPs ($/GWh)	Expenditure per average no. of ICPs ($/ICP)	Expenditure per MW maximum coincident system demand ($/MW)	Expenditure per km circuit length ($/km)	Expenditure per MVA of capacity from EDB-owned distribution transformers ($/MVA)
Operational expenditure	18,743	294	102,457	5,211	27,805
Network	8,643	136	47,248	2,403	12,822
Non-network	10,100	158	55,209	2,808	14,983
Expenditure on assets	23,845	374	130,352	6,630	35,375
Network	22,682	356	123,991	6,306	33,649
Non-network	1,164	18	6,361	324	1,726

1(ii): Revenue metrics

	Revenue per GWh energy delivered to ICPs ($/GWh)	Revenue per average no. of ICPs ($/ICP)
Total consumer line charge revenue	80,563	1,264
Standard consumer line charge revenue	82,414	1,243
Non-standard consumer line charge revenue	34,279	299,796

1(iii): Service intensity measures

Demand density	51	*Maximum coincident system demand per km of circuit length (for supply) (kW/km)*
Volume density	278	*Total energy delivered to ICPs per km of circuit length (for supply) (MWh/km)*
Connection point density	18	*Average number of ICPs per km of circuit length (for supply) (ICPs/km)*
Energy intensity	15,688	*Total energy delivered to ICPs per average number of ICPs (kWh/ICP)*

1(iv): Composition of regulatory income

	($000)	% of revenue
Operational expenditure	59,678	23.01%
Pass-through and recoverable costs excluding financial incentives and wash-ups	77,515	29.89%
Total depreciation	40,616	15.66%
Total revaluations	15,577	6.01%
Regulatory tax allowance	22,993	8.87%
Regulatory profit/(loss) including financial incentives and wash-ups	73,342	28.28%
Total regulatory income	259,355	

1(v): Reliability

Interruption rate	14.46	*Interruptions per 100 circuit km*

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 2: REPORT ON RETURN ON INVESTMENT

This schedule requires information on the Return on Investment (ROI) for the EDB relative to the Commerce Commission's estimates of post tax WACC and vanilla WACC. EDBs must calculate their ROI based on a monthly basis if required by clause 2.3.3 of the ID Determination or if they elect to. If an EDB makes this election, information supporting this calculation must be provided in 2(iii).

EDBs must provide explanatory comment on their ROI in Schedule 14 (Mandatory Explanatory Notes).

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sch ref

sch ref		CY-2	CY-1	Current Year CY
7	**2(i): Return on Investment**			
8		**31 Mar 17**	**31 Mar 18**	**31 Mar 19**
9	**ROI – comparable to a post tax WACC**	**%**	**%**	**%**
10	Reflecting all revenue earned	7.76%	6.83%	6.73%
11	Excluding revenue earned from financial incentives	7.29%	6.46%	6.42%
12	Excluding revenue earned from financial incentives and wash-ups	7.25%	6.43%	6.39%
13				
14	**Mid-point estimate of post tax WACC**	4.77%	5.04%	4.75%
15	25th percentile estimate	4.05%	4.36%	4.07%
16	75th percentile estimate	5.48%	5.72%	5.43%
17				
18				
19	**ROI – comparable to a vanilla WACC**			
20	Reflecting all revenue earned	8.30%	7.42%	7.24%
21	Excluding revenue earned from financial incentives	7.83%	7.05%	6.93%
22	Excluding revenue earned from financial incentives and wash-ups	7.80%	7.02%	6.90%
23				
24	**WACC rate used to set regulatory price path**	6.92%	6.92%	6.92%
25				
26	**Mid-point estimate of vanilla WACC**	5.31%	5.60%	5.26%
27	25th percentile estimate	4.59%	4.92%	4.58%
28	75th percentile estimate	6.03%	6.29%	5.94%
29				

sch ref				($000)	
30	**2(ii): Information Supporting the ROI**			**($000)**	
31					
32		Total opening RAB value	1,051,194		
33	*plus*	Opening deferred tax	(43,149)		
34	**Opening RIV**			1,008,045	
35					
36	**Line charge revenue**			256,517	
37					
38		Expenses cash outflow	137,192		
39	*add*	Assets commissioned	63,637		
40	*less*	Asset disposals	1,378		
41	*add*	Tax payments	21,583		
42	*less*	Other regulated income	2,838		
43	**Mid-year net cash outflows**			218,196	
44					
45	**Term credit spread differential allowance**			788	
46					
47		Total closing RAB value	1,088,531		
48	*less*	Adjustment resulting from asset allocation	117		
49	*less*	Lost and found assets adjustment	–		
50	*plus*	Closing deferred tax	(44,559)		
51	**Closing RIV**			1,043,855	
52					
53	**ROI – comparable to a vanilla WACC**				7.24%
54					
55		Leverage (%)			42%
56		Cost of debt assumption (%)			4.33%
57		Corporate tax rate (%)			28%
58					
59	**ROI – comparable to a post tax WACC**				6.73%
60					

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 2: REPORT ON RETURN ON INVESTMENT

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EDBs must provide explanatory comment on their ROI in Schedule 14 (Mandatory Explanatory Notes).

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sch ref

61 2(iii): Information Supporting the Monthly ROI

sch ref		
63	**Opening RIV**	N/A

sch ref		Line charge revenue	Expenses cash outflow	Assets commissioned	Asset disposals	Other regulated income	Monthly net cash outflows
67	April						–
68	May						–
69	June						–
70	July						–
71	August						–
72	September						–
73	October						–
74	November						–
75	December						–
76	January						–
77	February						–
78	March						–
79	**Total**	–	–	–	–	–	–

sch ref		
81	**Tax payments**	N/A
83	**Term credit spread differential allowance**	N/A
85	**Closing RIV**	N/A
88	**Monthly ROI – comparable to a vanilla WACC**	N/A
90	**Monthly ROI – comparable to a post tax WACC**	N/A

92 2(iv): Year-End ROI Rates for Comparison Purposes

sch ref		
94	**Year-end ROI – comparable to a vanilla WACC**	6.60%
96	**Year-end ROI – comparable to a post tax WACC**	6.09%

98 ** these year-end ROI values are comparable to the ROI reported in pre 2012 disclosures by EDBs and do not represent the Commission's current view on ROI.*

100 2(v): Financial Incentives and Wash-Ups

sch ref			
102	Net recoverable costs allowed under incremental rolling incentive scheme	–	
103	Purchased assets – avoided transmission charge	4,235	
104	Energy efficiency and demand incentive allowance		
105	Quality incentive adjustment	–	
106	Other financial incentives	–	
107	**Financial incentives**		4,235
109	**Impact of financial incentives on ROI**		0.31%
111	Input methodology claw-back	–	
112	CPP application recoverable costs	440	
113	Catastrophic event allowance	–	
114	Capex wash-up adjustment	–	
115	Transmission asset wash-up adjustment	–	
116	2013–15 NPV wash-up allowance	–	
117	Reconsideration event allowance	–	
118	Other wash-ups	–	
119	**Wash-up costs**		440
121	**Impact of wash-up costs on ROI**		0.03%

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 3: REPORT ON REGULATORY PROFIT

This schedule requires information on the calculation of regulatory profit for the EDB for the disclosure year. All EDBs must complete all sections and provide explanatory comment on their regulatory profit in Schedule 14 (Mandatory Explanatory Notes).
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

3(i): Regulatory Profit

		($000)
	Income	
	Line charge revenue	256,517
plus	Gains / (losses) on asset disposals	(1,140)
plus	Other regulated income (other than gains / (losses) on asset disposals)	3,978
	Total regulatory income	259,355
	Expenses	
less	Operational expenditure	59,678
less	Pass-through and recoverable costs excluding financial incentives and wash-ups	77,515
	Operating surplus / (deficit)	122,163
less	Total depreciation	40,616
plus	Total revaluations	15,577
	Regulatory profit / (loss) before tax	97,124
less	Term credit spread differential allowance	788
less	Regulatory tax allowance	22,993
	Regulatory profit/(loss) including financial incentives and wash-ups	73,342

3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups

		($000)
Pass through costs		
Rates	3,895	
Commerce Act levies	423	
Industry levies	697	
CPP specified pass through costs	–	
Recoverable costs excluding financial incentives and wash-ups		
Electricity lines service charge payable to Transpower	70,167	
Transpower new investment contract charges	2,210	
System operator services	–	
Distributed generation allowance	122	
Extended reserves allowance	–	
Other recoverable costs excluding financial incentives and wash-ups	–	
Pass-through and recoverable costs excluding financial incentives and wash-ups		77,515

Company Name	Orion New Zealand Limited
For Year Ended	31 March 2019

SCHEDULE 3: REPORT ON REGULATORY PROFIT

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sch ref				
48	**3(iii): Incremental Rolling Incentive Scheme**		**($000)**	
49			**CY-1**	**CY**
50			**31 Mar 18**	**31 Mar 19**
51	Allowed controllable opex		57,997	58,854
52	Actual controllable opex		54,207	59,678
53				
54	Incremental change in year			(4,614)
55				
56			**Previous years' incremental change**	**Previous years' incremental change adjusted for inflation**
57	CY-5	31 Mar 14		
58	CY-4	31 Mar 15	4,081	
59	CY-3	31 Mar 16	2,425	
60	CY-2	31 Mar 17	(235)	
61	CY-1	31 Mar 18	1,600	
62	**Net incremental rolling incentive scheme**			–
63				
64	**Net recoverable costs allowed under incremental rolling incentive scheme**			–
65	**3(iv): Merger and Acquisition Expenditure**			
70				**($000)**
66	Merger and acquisition expenditure			–
67				
68	*Provide commentary on the benefits of merger and acquisition expenditure to the electricity distribution business, including required disclosures in accordance with section 2.7, in Schedule 14 (Mandatory Explanatory Notes)*			
69	**3(v): Other Disclosures**			
70				**($000)**
71	Self-insurance allowance			–

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (ROLLED FORWARD)

This schedule requires information on the calculation of the Regulatory Asset Base (RAB) value to the end of this disclosure year. This informs the ROI calculation in Schedule 2.

EDBs must provide explanatory comment on the value of their RAB in Schedule 14 (Mandatory Explanatory Notes). This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

4(i): Regulatory Asset Base Value (Rolled Forward)

		RAB	RAB	RAB	RAB	RAB
	for year ended	**31 Mar 15**	**31 Mar 16**	**31 Mar 17**	**31 Mar 18**	**31 Mar 19**
		($000)	**($000)**	**($000)**	**($000)**	**($000)**
Total opening RAB value		890,508	907,756	986,595	1,004,182	1,051,194
less **Total depreciation**		35,910	37,026	37,063	38,762	40,616
plus **Total revaluations**		744	5,304	21,320	11,011	15,577
plus **Assets commissioned**		53,514	113,616	34,993	77,003	63,637
less **Asset disposals**		1,100	3,055	1,663	996	1,378
plus **Lost and found assets adjustment**		–	–	–	–	–
plus **Adjustment resulting from asset allocation**		–	–	–	(1,245)	117
Total closing RAB value		907,756	986,595	1,004,182	1,051,194	1,088,531

4(ii): Unallocated Regulatory Asset Base

	Unallocated RAB *		RAB	
	($000)	**($000)**	**($000)**	**($000)**
Total opening RAB value		1,052,439		1,051,194
less				
Total depreciation		40,648		40,616
plus				
Total revaluations		15,595		15,577
plus				
Assets commissioned (other than below)	40,892		40,861	
Assets acquired from a regulated supplier	599		599	
Assets acquired from a related party	22,177		22,177	
Assets commissioned		63,669		63,637
less				
Asset disposals (other than below)	1,378		1,378	
Asset disposals to a regulated supplier	–		–	
Asset disposals to a related party	–		–	
Asset disposals		1,378		1,378
plus **Lost and found assets adjustment**		–		–
plus **Adjustment resulting from asset allocation**				117
Total closing RAB value		1,089,677		1,088,531

** The 'unallocated RAB' is the total value of those assets used wholly or partially to provide electricity distribution services without any allowance being made for the allocation of costs to services provided by the supplier that are not electricity distribution services. The RAB value represents the value of these assets after applying this cost allocation. Neither value includes works under construction.*

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (ROLLED FORWARD)

This schedule requires information on the calculation of the Regulatory Asset Base (RAB) value to the end of this disclosure year. This informs the ROI calculation in Schedule 2.
EDBs must provide explanatory comment on the value of their RAB in Schedule 14 (Mandatory Explanatory Notes). This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref						
51						
52		**4(iii): Calculation of Revaluation Rate and Revaluation of Assets**				
53						
54		CPI_4				1,026
55		CPI_4^{-4}				1,011
56		Revaluation rate (%)				1.48%
57						
58			**Unallocated RAB ***		**RAB**	
59			**($000)**	**($000)**	**($000)**	**($000)**
60		Total opening RAB value	1,052,439		1,051,194	
61	*less*	Opening value of fully depreciated, disposed and lost assets	1,309		1,309	
62						
63		Total opening RAB value subject to revaluation	1,051,129		1,049,885	
64		**Total revaluations**		15,595		15,577
65						
66		**4(iv): Roll Forward of Works Under Construction**				
67			**Unallocated works under construction**		**Allocated works under construction**	
68		**Works under construction—preceding disclosure year**		42,120		42,120
69	*plus*	Capital expenditure	70,425		70,425	
70	*less*	Assets commissioned	63,669		63,637	
71	*plus*	Adjustment resulting from asset allocation				
72		**Works under construction - current disclosure year**		48,877		48,908
73						
74		Highest rate of capitalised finance applied				Nil
75						

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (ROLLED FORWARD)

This schedule requires information on the calculation of the Regulatory Asset Base (RAB) value to the end of this disclosure year. This informs the ROI calculation in Schedule 2.
EDBs must provide explanatory comment on the value of their RAB in Schedule 14 (Mandatory Explanatory Notes). This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

76 **4(v): Regulatory Depreciation**

sch ref		Unallocated RAB *		RAB	
78		($000)	($000)	($000)	($000)
79	Depreciation - standard	35,889		35,889	
80	Depreciation - no standard life assets	4,759		4,727	
81	Depreciation - modified life assets	–		–	
82	Depreciation - alternative depreciation in accordance with CPP	–		–	
83	**Total depreciation**		40,648		40,616

85 **4(vi): Disclosure of Changes to Depreciation Profiles**

($000 unless otherwise specified)

sch ref	Asset or assets with changes to depreciation*	Reason for non-standard depreciation (text entry)	Depreciation charge for the period (RAB)	Closing RAB value under 'non-standard' depreciation	Closing RAB value under 'standard' depreciation
87	N/A				
88					
89					
90					
91					
92					
93					
94					

95 ** include additional rows if needed*

96 **4(vii): Disclosure by Asset Category**

97 ($000 unless otherwise specified)

sch ref			Subtransmission lines	Subtransmission cables	Zone substations	Distribution and LV lines	Distribution and LV cables	Distribution substations and transformers	Distribution switchgear	Other network assets	Non-network assets	Total
99		**Total opening RAB value**	61,086	83,283	124,061	118,486	344,015	118,202	115,572	31,929	54,559	1,051,194
100	*less*	Total depreciation	2,319	2,360	6,043	4,943	11,537	3,428	4,957	1,235	3,794	40,616
101	*plus*	Total revaluations	902	1,235	1,836	1,757	5,103	1,751	1,704	472	815	15,577
102	*plus*	Assets commissioned	5,030	1,184	10,056	3,741	20,108	5,050	12,771	1,871	3,827	63,637
103	*less*	Asset disposals	220	–	238	8	–	124	630	75	83	1,378
104	*plus*	Lost and found assets adjustment	–	–	–	–	–	–	–	–	–	–
105	*plus*	Adjustment resulting from asset allocation	–	–	–	–	–	–	–	–	117	117
106	*plus*	Asset category transfers	–	–	–	–	–	–	–	–	–	–
107		**Total closing RAB value**	64,479	83,342	129,673	119,033	357,689	121,450	124,460	32,963	55,441.304	1,088,531
108												
109		**Asset Life**										
110		Weighted average remaining asset life	35.5	42.3	31.6	32.3	37.5	33.9	29.6	29.8	28.4	(years)
111		Weighted average expected total asset life	45.9	58.4	45.7	47.7	58.5	45.1	40.7	34.1	31.4	(years)

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5a: REPORT ON REGULATORY TAX ALLOWANCE

This schedule requires information on the calculation of the regulatory tax allowance. This information is used to calculate regulatory profit/loss in Schedule 3 (regulatory profit). EDBs must provide explanatory commentary on the information disclosed in this schedule, in Schedule 14 (Mandatory Explanatory Notes).
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8

sch ref					
7	**5a(i): Regulatory Tax Allowance**			**($000)**	
8	**Regulatory profit / (loss) before tax**			97,124	
9					
10	*plus*	Income not included in regulatory profit / (loss) before tax but taxable	–		*
11		Expenditure or loss in regulatory profit / (loss) before tax but not deductible	522		*
12		Amortisation of initial differences in asset values	15,323		
13		Amortisation of revaluations	4,274		
14				20,120	
15					
16	*less*	Total revaluations	15,577		
17		Income included in regulatory profit / (loss) before tax but not taxable	–		*
18		Discretionary discounts and customer rebates	–		
19		Expenditure or loss deductible but not in regulatory profit / (loss) before tax	828		*
20		Notional deductible interest	18,720		
21				35,125	
22					
23	**Regulatory taxable income**			82,119	
24					
25	*less*	Utilised tax losses	–		
26		Regulatory net taxable income		82,119	
27					
28		Corporate tax rate (%)	28%		
29	**Regulatory tax allowance**			22,993	
30					
31	*	Workings to be provided in Schedule 14			
32	**5a(ii): Disclosure of Permanent Differences**				
33		In Schedule 14, Box 5, provide descriptions and workings of items recorded in the asterisked categories in Schedule 5a(i).			
34	**5a(iii): Amortisation of Initial Difference in Asset Values**			**($000)**	
35					
36		Opening unamortised initial differences in asset values	375,112		
37	*less*	Amortisation of initial differences in asset values	15,323		
38	*plus*	Adjustment for unamortised initial differences in assets acquired	–		
39	*less*	Adjustment for unamortised initial differences in assets disposed	1,041		
40		Closing unamortised initial differences in asset values		358,748	
41					
42		Opening weighted average remaining useful life of relevant assets (years)		24	
43					

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5a: REPORT ON REGULATORY TAX ALLOWANCE

This schedule requires information on the calculation of the regulatory tax allowance. This information is used to calculate regulatory profit/loss in Schedule 3 (regulatory profit). EDBs must provide explanatory commentary on the information disclosed in this schedule, in Schedule 14 (Mandatory Explanatory Notes).
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sch ref				
44		**5a(iv): Amortisation of Revaluations**		**($000)**
45				
46		Opening sum of RAB values without revaluations	965,047	
47				
48		Adjusted depreciation	36,341	
49		Total depreciation	40,616	
50		Amortisation of revaluations		4,274
51				
52		**5a(v): Reconciliation of Tax Losses**		**($000)**
53				
54		**Opening tax losses**	–	
55	*plus*	Current period tax losses	–	
56	*less*	Utilised tax losses	–	
57		**Closing tax losses**		–
58		**5a(vi): Calculation of Deferred Tax Balance**		**($000)**
59				
60		**Opening deferred tax**	(43,149)	
61				
62	*plus*	Tax effect of adjusted depreciation	10,176	
63				
64	*less*	Tax effect of tax depreciation	8,961	
65				
66	*plus*	Tax effect of other temporary differences*	1,521	
67				
68	*less*	Tax effect of amortisation of initial differences in asset values	4,290	
69				
70	*plus*	Deferred tax balance relating to assets acquired in the disclosure year	–	
71				
72	*less*	Deferred tax balance relating to assets disposed in the disclosure year	(42)	
73				
74	*plus*	Deferred tax cost allocation adjustment	103	
75				
76		**Closing deferred tax**		(44,559)
77				
78		**5a(vii): Disclosure of Temporary Differences**		
79		*In Schedule 14, Box 6, provide descriptions and workings of items recorded in the asterisked category in Schedule 5a(vi) (Tax effect of other temporary differences).*		
80				
81		**5a(viii): Regulatory Tax Asset Base Roll-Forward**		
82				**($000)**
83		**Opening sum of regulatory tax asset values**	400,020	
84	*less*	Tax depreciation	32,004	
85	*plus*	Regulatory tax asset value of assets commissioned	64,063	
86	*less*	Regulatory tax asset value of asset disposals	99	
87	*plus*	Lost and found assets adjustment	–	
88	*plus*	Adjustment resulting from asset allocation	485	
89	*plus*	Other adjustments to the RAB tax value	–	
90		**Closing sum of regulatory tax asset values**		432,464

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5b: REPORT ON RELATED PARTY TRANSACTIONS

This schedule provides information on the valuation of related party transactions, in accordance with clause 2.3.6 of the ID determination.
This information is part of audited disclosure information (as defined in clause 1.4 of the ID determination), and so is subject to the assurance report required by clause 2.8.

sch ref	**5b(i): Summary—Related Party Transactions**	**($000)**	**($000)**
7			
8	**Total regulatory income**		2,696
9			
10	**Market value of asset disposals**		–
11			
12	Service interruptions and emergencies	8,404	
13	Vegetation management	1,025	
14	Routine and corrective maintenance and inspection	3,984	
15	Asset replacement and renewal (opex)	1,224	
16	**Network opex**		14,637
17	Business support	18	
18	System operations and network support	88	
19	**Operational expenditure**		14,742
20	Consumer connection	5,094	
21	System growth	4,071	
22	Asset replacement and renewal (capex)	9,173	
23	Asset relocations	3,656	
24	Quality of supply	115	
25	Legislative and regulatory	–	
26	Other reliability, safety and environment	–	
27	**Expenditure on non-network assets**		11
28	**Expenditure on assets**		22,119
29	Cost of financing		–
30	Value of capital contributions		554
31	Value of vested assets		–
32	**Capital Expenditure**		21,565
33	**Total expenditure**		36,307
34			
35	**Other related party transactions**		4,112

36 5b(iii): Total Opex and Capex Related Party Transactions

sch ref	**Name of related party**	**Nature of opex or capex service provided**	**Total value of transactions ($000)**
37			
38	Connetics Limited	Service interruptions and emergencies	8,404
39	Connetics Limited	Vegetation management	10
40	Connetics Limited	Routine and corrective maintenance and inspection	3,961
41	Connetics Limited	Asset replacement and renewal (opex)	1,224
42	Connetics Limited	Business support	16
43	Connetics Limited	System operations and network support	79
44	Connetics Limited	Consumer connection	4,923
45	Connetics Limited	System growth	4,062
46	Connetics Limited	Asset replacement and renewal (capex)	9,077
47	Connetics Limited	Asset relocations	3,603
48	Connetics Limited	Quality of supply	115
49	Connetics Limited	Expenditure on non-network assets	10
	Christchurch City Council	Asset replacement and renewal (capex)	95
	Christchurch City Council	Asset relocations	52
	Christchurch City Council	System growth	4
	Christchurch City Council	Expenditure on non-network assets	1
	Christchurch City Council	Routine and corrective maintenance and inspection	22
	Christchurch City Council	System operations and network support	9
	Christchurch City Council	Business support	2
	Selwyn District Council	Consumer connection	171
	Selwyn District Council	Vegetation management	1
	Selwyn District Council	Asset replacement and renewal (capex)	1
	City Care Limited	Vegetation management	1,014
	City Care Limited	System growth	5
	City Care Limited	Asset replacement and renewal (capex)	1
50	City Care Limited	Routine and corrective maintenance and inspection	1
51			
52	**Total value of related party transactions**		36,861
53	** include additional rows if needed*		
54			

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5c: REPORT ON TERM CREDIT SPREAD DIFFERENTIAL ALLOWANCE

This schedule is only to be completed if, as at the date of the most recently published financial statements, the weighted average original tenor of the debt portfolio (both qualifying debt and non-qualifying debt) is greater than five years.
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

7

8 **5c(i): Qualifying Debt (may be Commission only)**

9

sch ref	Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	Book value at date of financial statements (NZD)	Term Credit Spread Difference	Debt issue cost readjustment
10									
11	US Private Placement (USPP) 2018 Series A - NZD $45m	12/9/2018	27/7/2018	10.0	BKBM + margin	45,000,000	45,000,000	168,750	(45,000)
12	US Private Placement (USPP) 2018 Series B - NZD $95m	12/9/2018	27/7/2018	12.0	BKBM + margin	95,000,000	95,000,000	498,750	(110,833)
13									
14									
15									
16	** include additional rows if needed*						140,000,000	667,500	(155,833)

17

18 **5c(ii): Attribution of Term Credit Spread Differential**

19

sch ref			
20	**Gross term credit spread differential**		511,667
21			
22	Total book value of interest bearing debt	291,600,000	
23	Leverage	42%	
24	Average opening and closing RAB values	1,069,862	
25	**Attribution Rate (%)**		0%
26			
27	**Term credit spread differential allowance**		788

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5d: REPORT ON COST ALLOCATIONS

This schedule provides information on the allocation of operational costs. EDBs must provide explanatory comment on their cost allocation in Schedule 14 (Mandatory Explanatory Notes), including on the impact of any reclassifications.
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref						
7	**5d(i): Operating Cost Allocations**					
8			**Value allocated ($000s)**			
9		**Arm's length deduction**	**Electricity distribution services**	**Non-electricity distribution services**	**Total**	**OVABAA allocation increase ($000s)**
10	**Service interruptions and emergencies**					
11	Directly attributable		8,452			
12	Not directly attributable		–		–	
13	**Total attributable to regulated service**		8,452			
14	**Vegetation management**					
15	Directly attributable		3,809			
16	Not directly attributable		–		–	
17	**Total attributable to regulated service**		3,809			
18	**Routine and corrective maintenance and inspection**					
19	Directly attributable		12,591			
20	Not directly attributable		–		–	
21	**Total attributable to regulated service**		12,591			
22	**Asset replacement and renewal**					
23	Directly attributable		2,668			
24	Not directly attributable		–		–	
25	**Total attributable to regulated service**		2,668			
26	**System operations and network support**					
27	Directly attributable		17,888			
28	Not directly attributable		–		–	
29	**Total attributable to regulated service**		17,888			
30	**Business support**					
31	Directly attributable		14,269			
32	Not directly attributable		–		–	
33	**Total attributable to regulated service**		14,269			
34						
35	**Operating costs directly attributable**		59,678			
36	**Operating costs not directly attributable**	–	–	–	–	–
37	**Operational expenditure**		59,678			
38						

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5d: REPORT ON COST ALLOCATIONS

This schedule provides information on the allocation of operational costs. EDBs must provide explanatory comment on their cost allocation in Schedule 14 (Mandatory Explanatory Notes), including on the impact of any reclassifications.
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

5d(ii): Other Cost Allocations

Pass through and recoverable costs	($000)
Pass through costs	
Directly attributable	5,015
Not directly attributable	–
Total attributable to regulated service	5,015
Recoverable costs	
Directly attributable	72,499
Not directly attributable	–
Total attributable to regulated service	72,499

5d(iii): Changes in Cost Allocations* †

Change in cost allocation 1			($000) CY-1	Current Year (CY)
Cost category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

Change in cost allocation 2			($000) CY-1	Current Year (CY)
Cost category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

Change in cost allocation 3			($000) CY-1	Current Year (CY)
Cost category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

** a change in cost allocation must be completed for each cost allocator change that has occurred in the disclosure year. A movement in an allocator metric is not a change in allocator or component.*
† include additional rows if needed

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 5e: REPORT ON ASSET ALLOCATIONS

This schedule requires information on the allocation of asset values. This information supports the calculation of the RAB value in Schedule 4.
EDBs must provide explanatory comment on their cost allocation in Schedule 14 (Mandatory Explanatory Notes), including on the impact of any changes in asset allocations. This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

5e(i): Regulated Service Asset Values

	Value allocated ($000s) Electricity distribution services
Subtransmission lines	
Directly attributable	64,479
Not directly attributable	–
Total attributable to regulated service	64,479
Subtransmission cables	
Directly attributable	83,342
Not directly attributable	–
Total attributable to regulated service	83,342
Zone substations	
Directly attributable	129,673
Not directly attributable	–
Total attributable to regulated service	129,673
Distribution and LV lines	
Directly attributable	119,033
Not directly attributable	–
Total attributable to regulated service	119,033
Distribution and LV cables	
Directly attributable	357,689
Not directly attributable	–
Total attributable to regulated service	357,689
Distribution substations and transformers	
Directly attributable	121,450
Not directly attributable	–
Total attributable to regulated service	121,450
Distribution switchgear	
Directly attributable	124,460
Not directly attributable	–
Total attributable to regulated service	124,460
Other network assets	
Directly attributable	32,963
Not directly attributable	–
Total attributable to regulated service	32,963
Non-network assets	
Directly attributable	46,711
Not directly attributable	8,731
Total attributable to regulated service	55,442
Regulated service asset value directly attributable	1,079,800
Regulated service asset value not directly attributable	8,731
Total closing RAB value	1,088,531.372

5e(ii): Changes in Asset Allocations* †

			($000)	
Change in asset value allocation 1			**CY-1**	**Current Year (CY)**
Asset category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

			($000)	
Change in asset value allocation 2			**CY-1**	**Current Year (CY)**
Asset category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

			($000)	
Change in asset value allocation 3			**CY-1**	**Current Year (CY)**
Asset category		Original allocation		
Original allocator or line items		New allocation		
New allocator or line items		Difference	–	–
Rationale for change				

** a change in asset allocation must be completed for each allocator or component change that has occurred in the disclosure year. A movement in an allocator metric is not a change in allocator or compone*
† include additional rows if needed

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 6a: REPORT ON CAPITAL EXPENDITURE FOR THE DISCLOSURE YEAR

This schedule requires a breakdown of capital expenditure on assets incurred in the disclosure year, including any assets in respect of which capital contributions are received, but excluding assets that are vested assets. Information on expenditure on assets must be provided on an accounting accruals basis and must exclude finance costs.
EDBs must provide explanatory comment on their expenditure on assets in Schedule 14 (Explanatory Notes to Templates).
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref				
7		**6a(i): Expenditure on Assets**	**($000)**	**($000)**
8		Consumer connection		23,170
9		System growth		15,912
10		Asset replacement and renewal		28,159
11		Asset relocations		4,819
12		Reliability, safety and environment:		
13		Quality of supply	147	
14		Legislative and regulatory	–	
15		Other reliability, safety and environment	13	
16		**Total reliability, safety and environment**		161
17		**Expenditure on network assets**		72,220
18		Expenditure on non-network assets		3,705
19				
20		**Expenditure on assets**		75,925
21	*plus*	Cost of financing		–
22	*less*	Value of capital contributions		5,500
23	*plus*	Value of vested assets		–
24				
25		**Capital expenditure**		70,425

26	**6a(ii): Subcomponents of Expenditure on Assets (where known)**		**($000)**
27	Energy efficiency and demand side management, reduction of energy losses		N/A
28	Overhead to underground conversion		3,986
29	Research and development		N/A

30		**6a(iii): Consumer Connection**		
31		*Consumer types defined by EDB**	**($000)**	**($000)**
32		Subdivisions	7,410	
33		Large customers	7,227	
34		General connections	6,826	
35		Switchgear	1,374	
36		Transformers	333	
37		** include additional rows if needed*		
38		**Consumer connection expenditure**		23,170
39				
40	*less*	Capital contributions funding consumer connection expenditure	1,651	
41		**Consumer connection less capital contributions**		21,519

42		**6a(iv): System Growth and Asset Replacement and Renewal**		**Asset Replacement and**
43			**System Growth**	**Renewal**
44			**($000)**	**($000)**
45		Subtransmission	262	1,689
46		Zone substations	3,585	3,481
47		Distribution and LV lines	209	3,118
48		Distribution and LV cables	5,130	74
49		Distribution substations and transformers	5,823	1,690
50		Distribution switchgear	147	5,927
51		Other network assets	755	12,180
52		**System growth and asset replacement and renewal expenditure**	15,912	28,159
53	*less*	Capital contributions funding system growth and asset replacement and renewal	620	133
54		**System growth and asset replacement and renewal less capital contributions**	15,292	28,026
55				

56		**6a(v): Asset Relocations**		
57		*Project or programme**	**($000)**	**($000)**
58		NZTA and others	3,057	
59		CERA/SCIRT/Otakaro (Rebuild)	957	
60		Selwyn District Council	581	
61		Chriustchurch City Council	223	
62				
63		** include additional rows if needed*		
64		All other projects or programmes - asset relocations		
65		**Asset relocations expenditure**		4,819
66	*less*	Capital contributions funding asset relocations	3,096	
67		**Asset relocations less capital contributions**		1,723

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 6a: REPORT ON CAPITAL EXPENDITURE FOR THE DISCLOSURE YEAR

This schedule requires a breakdown of capital expenditure on assets incurred in the disclosure year, including any assets in respect of which capital contributions are received, but excluding assets that are vested assets. Information on expenditure on assets must be provided on an accounting accruals basis and must exclude finance costs.
EDBs must provide explanatory comment on their expenditure on assets in Schedule 14 (Explanatory Notes to Templates).
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref			($000)	($000)
68				
69	**6a(vi): Quality of Supply**			
70		*Project or programme**	($000)	($000)
71		Rural township reliability improvements	147	
72				
73				
74				
75				
76		** include additional rows if needed*		
77		All other projects programmes - quality of supply		
78	**Quality of supply expenditure**			147
79	*less*	Capital contributions funding quality of supply		
80	**Quality of supply less capital contributions**			147
81	**6a(vii): Legislative and Regulatory**			
82		*Project or programme**	($000)	($000)
83		No projects with this as the primary driver	–	
84				
85				
86				
87				
88		** include additional rows if needed*		
89		All other projects or programmes - legislative and regulatory		
90	**Legislative and regulatory expenditure**			–
91	*less*	Capital contributions funding legislative and regulatory		
92	**Legislative and regulatory less capital contributions**			–
93	**6a(viii): Other Reliability, Safety and Environment**			
94		*Project or programme**	($000)	($000)
95		Boundary boxes	13	
96				
97				
98				
99				
100		** include additional rows if needed*		
101		All other projects or programmes - other reliability, safety and environment		
102	**Other reliability, safety and environment expenditure**			13
103	*less*	Capital contributions funding other reliability, safety and environment		
104	**Other reliability, safety and environment less capital contributions**			13
105				
106	**6a(ix): Non-Network Assets**			
107	**Routine expenditure**			
108		*Project or programme**	($000)	($000)
109		Vehicles and mobile plant	1,229	
110		Information solutions	896	
111		Sundry tools and equipment	1,176	
112		Sundry land and buildings	403	
113				
114		** include additional rows if needed*		
115		All other projects or programmes - routine expenditure	–	
116	**Routine expenditure**			3,705
117	**Atypical expenditure**			
118		*Project or programme**	($000)	($000)
119		N/A		
120				
121				
122				
123				
124		** include additional rows if needed*		
125		All other projects or programmes - atypical expenditure		
126	**Atypical expenditure**			–
127				
128	**Expenditure on non-network assets**			3,705

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 6b: REPORT ON OPERATIONAL EXPENDITURE FOR THE DISCLOSURE YEAR

This schedule requires a breakdown of operational expenditure incurred in the disclosure year.

EDBs must provide explanatory comment on their operational expenditure in Schedule 14 (Explanatory notes to templates). This includes explanatory comment on any atypical operational expenditure and assets replaced or renewed as part of asset replacement and renewal operational expenditure, and additional information on insurance.

This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref			
7	**6b(i): Operational Expenditure**	**($000)**	**($000)**
8	Service interruptions and emergencies	8,452	
9	Vegetation management	3,809	
10	Routine and corrective maintenance and inspection	12,591	
11	Asset replacement and renewal	2,668	
12	**Network opex**		27,520
13	System operations and network support	17,888	
14	Business support	14,269	
15	**Non-network opex**		32,158
16			
17	**Operational expenditure**		59,678
18	**6b(ii): Subcomponents of Operational Expenditure (where known)**		
19	Energy efficiency and demand side management, reduction of energy losses		–
20	Direct billing*		–
21	Research and development		–
22	Insurance		1,848
23	** Direct billing expenditure by suppliers that directly bill the majority of their consumers*		

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**

SCHEDULE 7: COMPARISON OF FORECASTS TO ACTUAL EXPENDITURE

This schedule compares actual revenue and expenditure to the previous forecasts that were made for the disclosure year. Accordingly, this schedule requires the forecast revenue and expenditure information from previous disclosures to be inserted.
EDBs must provide explanatory comment on the variance between actual and target revenue and forecast expenditure in Schedule 14 (Mandatory Explanatory Notes). This information is part of the audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8. For the purpose of this audit, target revenue and forecast expenditures only need to be verified back to previous disclosures.

sch ref				
7	**7(i): Revenue**	**Target ($000) [1]**	**Actual ($000)**	**% variance**
8	Line charge revenue	261,783	256,517	(2%)
9	**7(ii): Expenditure on Assets**	**Forecast ($000) [2]**	**Actual ($000)**	**% variance**
10	Consumer connection	15,000	23,170	54%
11	System growth	8,813	15,912	81%
12	Asset replacement and renewal	28,661	28,159	(2%)
13	Asset relocations	8,208	4,819	(41%)
14	Reliability, safety and environment:			
15	Quality of supply	–	147	–
16	Legislative and regulatory	–	–	–
17	Other reliability, safety and environment	325	13	(96%)
18	**Total reliability, safety and environment**	325	161	(51%)
19	**Expenditure on network assets**	61,007	72,220	18%
20	Expenditure on non-network assets	4,607	3,705	(20%)
21	Expenditure on assets	65,614	75,925	16%
22	**7(iii): Operational Expenditure**			
23	Service interruptions and emergencies	8,975	8,452	(6%)
24	Vegetation management	3,560	3,809	7%
25	Routine and corrective maintenance and inspection	13,150	12,591	(4%)
26	Asset replacement and renewal	3,350	2,668	(20%)
27	**Network opex**	29,035	27,520	(5%)
28	System operations and network support	18,354	17,888	(3%)
29	Business support	15,455	14,269	(8%)
30	**Non-network opex**	33,809	32,158	(5%)
31	**Operational expenditure**	62,844	59,678	(5%)
32	**7(iv): Subcomponents of Expenditure on Assets (where known)**			
33	Energy efficiency and demand side management, reduction of energy losses	–	N/A	–
34	Overhead to underground conversion	8,208	3,986	(51%)
35	Research and development	–	N/A	–
36				
37	**7(v): Subcomponents of Operational Expenditure (where known)**			
38	Energy efficiency and demand side management, reduction of energy losses	–	–	–
39	Direct billing	–	–	–
40	Research and development	–	–	–
41	Insurance	1,654	1,848	12%
42				
43	*1 From the nominal dollar target revenue for the disclosure year disclosed under clause 2.4.3(3) of this determination*			
44	*2 From the CY+1 nominal dollar expenditure forecasts disclosed in accordance with clause 2.6.6 for the forecast period starting at the beginning of the disclosure year (the second to last disclosure of Schedules 11a and 11b)*			

SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES

This schedule requires the billed quantities and associated line charge revenues for each price category code used by the EDB in its pricing schedules. Information is also required on the number of ICPs that are included in each consumer group or price category code, and the energy delivered to these ICPs.

sch ref

8(i): Billed Quantities by Price Component

Consumer group name or price category code	Consumer type or types (eg, residential, commercial etc.)	Standard or non-standard consumer group (specify)	Average no. of ICPs in disclosure year	Energy delivered to ICPs in disclosure year (MWh)
LIG	Streetlighting	Standard	540	
GEN	Residential and commercial	Standard	200,848	2,295,912
IRR	Commercial irrigation	Standard	1,082	
MCC	Large commercial and industrial	Standard	472	765,719
LCC	Large capacity	Non-standard	14	122,442
		[Select one]		
		[Select one]		
		[Select one]		
		[Select one]		
		[Select one]		
Add extra rows for additional consumer groups or price category codes as necessary				
		Standard consumer totals	202,942	3,061,631
		Non-standard consumer totals	14	122,442
		Total for all consumers	202,956	3,184,073

Billed quantities by price component

Price component	Streetlighting Fixed charge (STFXD)	Streetlighting/ general Peak charge (GENPK)	Streetlighting/ general/irrigation Weekday day volume (VOLWD)	Streetlighting/ general/irrigation Night and weekend (VOLNW)	General Low power factor charge (LOWPF)	Irrigation Capacity charge (ICCAP)	Irrigation Power factor correction capacitance (ICPFC)	Irrigation Interruptibility rebate (ICIRR)	Major customer fixed charge (MCFXD)
Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Connection	kW	kWh	kWh	kVAr	kW	kVAr	kW	Connection
LIG	48,659								
GEN		469,089	1,119,164,385	1,273,359,264	-				
IRR						77,756	25,377	49,903	
MCC									432
LCC									
Standard consumer totals	48,659	469,089	1,119,164,385	1,273,359,264	–	77,756	25,377	49,903	432
Non-standard consumer totals	–	–	–	–	–	–	–	–	–
Total for all consumers	48,659	469,089	1,119,164,385	1,273,359,264	–	77,756	25,377	49,903	432

8(ii): Line Charge Revenues ($000) by Price Component

Consumer group name or price category code	Consumer type or types (eg, residential, commercial etc.)	Standard or non-standard consumer group (specify)	Total line charge revenue in disclosure year	Notional revenue foregone from posted discounts (if applicable)	Total distribution line charge revenue	Total transmission line charge revenue (if available)
LIG	Streetlighting	Standard	$2,151		$2,227	($76)
GEN	Residential and commercial	Standard	$208,164		$149,935	$58,230
IRR	Commercial irrigation	Standard	$4,921		$4,085	$836
MCC	Large commercial and industrial	Standard	$37,084		$22,637	$14,447
LCC	Large capacity	Non-standard	$4,197		$1,696	$2,502
		[Select one]	–			
		[Select one]	–			
		[Select one]	–			
		[Select one]	–			
		[Select one]	–			
Add extra rows for additional consumer groups or price category codes as necessary						
		Standard consumer totals	$252,320	–	$178,884	$73,436
		Non-standard consumer totals	$4,197	–	$1,696	$2,502
		Total for all consumers	$256,517	–	$180,579	$75,938

Line charge revenues ($000) by price component

Price component	Streetlighting Fixed charge (STFXD)	Streetlighting/ general Peak charge (GENPK)	Streetlighting/ general/irrigation Weekday day volume (VOLWD)	Streetlighting/ general/irrigation Night and weekend (VOLNW)	General Low power factor charge (LOWPF)	Irrigation Capacity charge (ICCAP)	Irrigation Power factor correction capacitance (ICPFC)	Irrigation Interruptibility rebate (ICIRR)	Major customer fixed charge (MCFXD)
Rate (eg, $ per day, $ per kWh, etc.)	$/conn/day	$/kW/day	$/kWh	$/kWh	$/kVAr/day	$/kW/day	$/kVAr/day	$/kW/day	$/conn/day
LIG	2,151								
GEN		88,708	104,261	15,191	-				
IRR						6,156	(828)	(407)	
MCC									1,183
LCC									
Standard consumer totals	$2,151	$88,708	$104,261	$15,191	–	$6,156	($828)	($407)	$1,183
Non-standard consumer totals	–	–	–	–	–	–	–	–	–
Total for all consumers	$2,151	$88,708	$104,261	$15,191	–	$6,156	($828)	($407)	$1,183

Check OK

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end 34

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-Network Name	**Entire network**

Major customer Peak charge (MCCPD)	Major customer Nominated maximum demand (MCNMD)	Major customer Metered maximum demand (MCMMD)	Major customer Extra switches (EQESW)	Major customer 11kV Metering equipment (EQMET)	Major customer 11kV Underground cabling (EQUGC)	Major customer 11kV Overhead lines (EQOHL)	Major customer Transformer capacity (EQTFC)	Large capacity Operations, maintenance & administration (dedicated assets)	Large capacity Operations, maintenance & administration (shared assets)	Large capacity Asset charge (dedicated assets)	Large capacity Asset charge (shared assets)	Large capacity Interconnection charge (winter)	Large capacity Interconnection charge (summer)	Connection charge	Customer investment contract charge	30 - 750 kW generators Control period export (EXPCP1)	30 - 750 kW generators Control period export (EXPCP2)	500 - 1200 kW generators Generation period (GEN1)	Monthly invoice charge (INVFXD)
kVA	kVA	kVA	Switches	Connection	km	km	kVA	kVA	kVA	kVA	kVA	kVA	kVA	kVA	kVA	kW	kVAr	kWh	Invoice
																149	49		309
103,567	239,702	213,951	107	47	6	3	300,705									1,182	252	76,784	108
								28,000	27,932	28,000	27,932	5,582	21,091	21,091	16,000				
103,567	239,702	213,951	107	47	6	3	300,705	–	–	–	–	–	–	–	–	1,331	301	76,784	417
–	–	–	–	–	–	–	–	28,000	27,932	28,000	27,932	5,582	21,091	21,091	16,000	–	–	–	–
103,567	239,702	213,951	107	47	6	3	300,705	28,000	27,932	28,000	27,932	5,582	21,091	21,091	16,000	1,331	301	76,784	417

Add extra columns for additional billed quantities by price component as necessary

Major customer Peak charge (MCCPD)	Major customer Nominated maximum demand (MCNMD)	Major customer Metered maximum demand (MCMMD)	Major customer Extra switches (EQESW)	Major customer 11kV Metering equipment (EQMET)	Major customer 11kV Underground cabling (EQUGC)	Major customer 11kV Overhead lines (EQOHL)	Major customer Transformer capacity (EQTFC)	Large capacity Operations, maintenance & administration (dedicated assets)	Large capacity Operations, maintenance & administration (shared assets)	Large capacity Asset charge (dedicated assets)	Large capacity Asset charge (shared assets)	Large capacity Interconnection charge (winter)	Large capacity Interconnection charge (summer)	Connection charge	Customer investment contract charge	30 - 750 kW generators Control period export (EXPCP1)	30 - 750 kW generators Control period export (EXPCP2)	500 - 1200 kW generators Generation period (GEN1)	Monthly invoice charge (INVFXD)
$/kVA/day	$/kVA/day	$/kVA/day	$/switch/day	$/conn/day	$/km/day	$/km/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kVA/day	$/kW/yr	$/kVAr/yr	$/kWh	$/Invoice
																(5)	(0)		9
17,880	9,642	6,732	141	75	7	2	1,482									(36)	(3)	(23)	3
								161	439	315	781	386	1,160	85	871				
$17,880	$9,642	$6,732	$141	$75	$7	$2	$1,482	–	–	–	–	–	–	–	–	($41)	($3)	($23)	$13
–	–	–	–	–	–	–	–	$161	$439	$315	$781	$386	$1,160	$85	$871	–	–	–	–
$17,880	$9,642	$6,732	$141	$75	$7	$2	$1,482	$161	$439	$315	$781	$386	$1,160	$85	$871	($41)	($3)	($23)	$13

Add extra columns for additional line charge revenues by price component as necessary

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 9a: ASSET REGISTER

This schedule requires a summary of the quantity of assets that make up the network, by asset category and asset class. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

sch ref

8	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
9	All	Overhead Line	Concrete poles / steel structure	No.	29,554	29,028	(526)	4
10	All	Overhead Line	Wood poles	No.	60,085	59,988	(97)	4
11	All	Overhead Line	Other pole types	No.	–	–	–	N/A
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	520	511	(9)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	N/A
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	86	88	1	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	40	40	–	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	2	2	(0)	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	N/A
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	81	80	(1)	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	N/A
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	109	112	3	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	336	381	45	4
29	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	N/A
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	25	30	5	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	38	49	11	4
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	724	704	(20)	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	85	86	1	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	3,089	3,076	(13)	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	N/A
37	HV	Distribution Line	SWER conductor	km	100	88	(12)	3
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,088	1,158	69	4
39	HV	Distribution Cable	Distribution UG PILC	km	1,559	1,545	(14)	4
40	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	N/A
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	57	59	2	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	910	872	(38)	4
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	9,337	9,261	(76)	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	25	14	(11)	4
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4,491	4,592	101	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	6,457	6,432	(25)	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	5,139	5,233	94	4
48	HV	Distribution Transformer	Voltage regulators	No.	15	15	–	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	4,571	4,667	96	4
50	LV	LV Line	LV OH Conductor	km	1,785	1,762	(23)	4
51	LV	LV Cable	LV UG Cable	km	3,087	3,182	94	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3,437	3,511	74	4
53	LV	Connections	OH/UG consumer service connections	No.	201,255	204,294	3,039	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,717	2,701	(16)	4
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	303	385	82	4
56	All	Capacitor Banks	Capacitors including controls	No	2	6	4	4
57	All	Load Control	Centralised plant	Lot	44	45	1	4
58	All	Load Control	Relays	No	2,072	2,088	16	3
59	All	Civils	Cable Tunnels	km	1	1	–	4

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 9b: ASSET AGE PROFILE

This schedule requires a summary of the age profile (based on year of installation) of the assets that make up the network, by asset category and asset class. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

sch ref

8 **Disclosure Year (year ended)** 31 March 2019

Number of assets at disclosure year end by installation date

sch ref	Voltage	Asset category	Asset class	Units	pre-1940	1940–1949	1950–1959	1960–1969	1970–1979	1980–1989	1990–1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	No. with age unknown	Items at end of year	No. with default dates	Data accuracy (1–4)
9																																									
10	All	Overhead Line	Concrete poles / steel structure	No.	–	718	1,686	8,058	7,373	8,066	2,976	1	–	–	1	38	16	24	11	4	2	7	5	13	12	–	8	1	–	4	4								29,028		4
11	All	Overhead Line	Wood poles	No.	–	–	513	7,751	7,362	2,401	13,338	2,371	2,939	3,642	1,255	1,277	1,594	1,408	1,471	1,358	1,649	1,426	1,007	787	751	821	821	881	1,038	979	1,148								59,988		4
12	All	Overhead Line	Other pole types	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	–	58	85	130	49	40	3	1	41	13	–	16	13	–	21	–	7	–	12	1	0	3	4	0	16	–								511		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km																																			–		N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	–	–	9	–	5	2	2	0	3	0	2	4	0	1	3	2	2	5	18	21	1	3	2								88		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	5	26	9	–	–	–	0	–	–	–	0	0	0	–	0	0	–	0	–	–	–	0	–	–								40		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km																																			–		N/A
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	–	–	–	–	2	0	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–								2		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	1	–	4	10	25	12	2	–	1	2	–	2	–	1	2	4	1	4	1	4	–	2	–	1	–	1	–								80		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	5	8	1	3	–	4	9	–	6	4	1	1	14	6	11	5	16	4	–	7	4	2	–	1								112		4
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	2	92	89	32	1	–	21	4	6	4	14	5	2	31	11	9	1	20	14	6	8	–	7	–	2								381		4
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	5	5	1	1	2	–	–	–	–	1	–	4	–	–	–	–	–	–	–	–	–	11	–								30		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	4	10	8	–	–	6	1	–	–	5	8	–	2	–	3	2	–	–	–	–	–	–	–	–								49		4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	10	191	47	39	10	11	61	–	42	34	7	41	26	49	–	53	13	20	2	26	18	1	3	–								704		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	1	19	17	16	3	1	2	2	–	–	5	1	3	4	–	–	2	–	2	2	3	1	–	1	1								86		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	–	–	27	157	756	533	573	56	44	60	73	33	61	49	58	55	42	42	33	30	88	77	48	67	22	57	34								3,076		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km																																			–		N/A
38	HV	Distribution Line	SWER conductor	km	–	–	1	1	14	15	33	8	–	–	–	3	4	1	2	0	3	–	1	–	–	–	–	–	–	–	–								88		3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1	0	0	0	2	16	51	25	35	41	51	54	58	47	50	44	46	46	49	76	56	53	73	97	58	69	61								1,158		4
40	HV	Distribution Cable	Distribution UG PILC	km	29	37	137	388	401	307	198	15	12	11	2	2	0	0	1	1	1	1	0	0	0	0	0	0	1	1	0								1,545		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								–		N/A
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionaliser	No.	–	–	–	–	–	2	2	2	3	5	6	3	3	–	1	–	–	11	–	–	2	–	–	4	5	7	3								59		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	–	82	348	135	58	9	45	32	46	29	25	16	13	11	1	–	1	2	7	–	4	–	8	–	–								872		4
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	7	70	489	629	1,750	424	528	505	472	473	466	567	369	421	334	193	156	181	165	143	275	197	142	178	127								9,261		4
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	–	13	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								14		4
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	–	–	202	965	805	498	136	144	121	132	58	35	81	68	63	81	97	81	126	77	159	150	144	178	132	59								4,592		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	53	25	573	985	1,097	1,227	154	117	178	179	139	215	181	160	97	160	77	119	113	68	106	140	71	109	80	9								6,432		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	1	36	131	711	862	792	554	87	68	121	104	78	88	93	107	108	110	65	92	129	75	169	203	140	153	132	24								5,233		4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	3	1	–	5	–	–	–	–	2	1	–	–	1	2	–	–	–	–	–	–	–	–	–	–								15		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	38	21	117	540	809	700	652	62	78	82	52	61	56	68	71	85	72	58	67	79	105	146	133	165	115	109	126								4,667		4
51	LV	LV Line	LV OH Conductor	km	2	3	17	354	610	158	231	14	11	7	11	8	13	8	3	3	2	1	1	1	0	1	1	1	3	1	1							297	1,762		2
52	LV	LV Cable	LV UG Cable	km	4	2	13	211	505	612	444	43	81	73	56	73	85	89	62	65	55	26	31	41	64	86	101	116	76	76	91								3,182		3
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	0	2	4	414	675	492	561	43	77	67	55	66	70	87	51	58	55	24	29	42	94	93	98	129	82	54	88								3,511		3
54	LV	Connections	OH/UG consumer service connections	No.	–	–	–	101,719	74	6,070	27,764	2,707	2,441	2,517	2,622	3,163	3,576	3,378	3,288	3,433	2,857	2,138	2,331	1,870	2,204	3,779	5,763	6,454	5,405	4,469	4,272								204,294	108,717	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	114	323	184	21	9	19	120	195	71	123	213	89	101	97	123	107	109	196	84	112	122	68	52	43							6	2,701		3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	–	–	–	–	–	–	9	6	11	16	23	41	19	22	16	13	9	9	8	8	4	8	12	45	38	41	27								385		4
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	4								6		4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	–	7	–	–	–	3	1	18	1	2	3	2	–	–	1	2	1	1	1	1	–	1	–								45		4
59	All	Load Control	Relays	No	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	160	153	49	60	16							1,650	2,088		3
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–								1		4

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 9c: REPORT ON OVERHEAD LINES AND UNDERGROUND CABLES

This schedule requires a summary of the key characteristics of the overhead line and underground cable network. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

sch ref				
9				
10	**Circuit length by operating voltage (at year end)**	**Overhead (km)**	**Underground (km)**	**Total circuit length (km)**
11	> 66kV	–	–	–
12	50kV & 66kV	244	91	335
13	33kV	267	40	307
14	SWER (all SWER voltages)	88	2	90
15	22kV (other than SWER)	–	–	–
16	6.6kV to 11kV (inclusive—other than SWER)	3,076	2,701	5,777
17	Low voltage (< 1kV)	1,762	3,182	4,944
18	**Total circuit length (for supply)**	5,438	6,015	11,452
19				
20	Dedicated street lighting circuit length (km)	906	2,604	3,511
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			88
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	1,703	31%	
25	Rural	3,170	58%	
26	Remote only	144	3%	
27	Rugged only	184	3%	
28	Remote and rugged	238	4%	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	5,438	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	1,914	17%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	5,438	100%	

Company Name **Orion New Zealand Limited**
For Year Ended **31 March 2019**

SCHEDULE 9d: REPORT ON EMBEDDED NETWORKS

This schedule requires information concerning embedded networks owned by an EDB that are embedded in another EDB’s network or in another embedded network.

sch ref	Location *	Number of ICPs served	Line charge revenue ($000)
9	Rakaia Gorge Embedded Network, upper Rakaia river	2	5
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

26 ** Extend embedded distribution networks table as necessary to disclose each embedded network owned by the EDB which is embedded in another EDB’s network or in another embedded network*

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 9e: REPORT ON NETWORK DEMAND

This schedule requires a summary of the key measures of network utilisation for the disclosure year (number of new connections including distributed generation, peak demand and electricity volumes conveyed).

sch ref				
8	**9e(i): Consumer Connections**			
9	*Number of ICPs connected in year by consumer type*			
10	*Consumer types defined by EDB**		**Number of connections (ICPs)**	
11	Streetlighting		10	
12	General		4,390	
13	Irrigation		15	
14	Major customer		23	
15	Large capacity		2	
16	** include additional rows if needed*			
17	**Connections total**		4,440	
18				
19	**Distributed generation**			
20	Number of connections made in year		504	**connections**
21	Capacity of distributed generation installed in year		12.19	**MVA**
22	**9e(ii): System Demand**			
23				
24				
25	**Maximum coincident system demand**		**Demand at time of maximum coincident demand (MW)**	
26		GXP demand	580	
27	*plus*	Distributed generation output at HV and above	2	
28	**Maximum coincident system demand**		582	
29	*less*	Net transfers to (from) other EDBs at HV and above	0	
30	**Demand on system for supply to consumers' connection points**		582	
31	**Electricity volumes carried**		**Energy (GWh)**	
32		Electricity supplied from GXPs	3,307	
33	*less*	Electricity exports to GXPs	0	
34	*plus*	Electricity supplied from distributed generation	10	
35	*less*	Net electricity supplied to (from) other EDBs	0	
36	**Electricity entering system for supply to consumers' connection points**		3,317	
37	*less*	Total energy delivered to ICPs	3,184	
38	**Electricity losses (loss ratio)**		133	4.0%
39				
40	**Load factor**		0.65	
41	**9e(iii): Transformer Capacity**			
42			**(MVA)**	
43		Distribution transformer capacity (EDB owned)	2,146	
44		Distribution transformer capacity (Non-EDB owned, estimated)	223	
45	**Total distribution transformer capacity**		2,370	
46				
47	**Zone substation transformer capacity**		1,143	

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 10: REPORT ON NETWORK RELIABILITY

This schedule requires a summary of the key measures of network reliability (interruptions, SAIDI, SAIFI and fault rate) for the disclosure year. EDBs must provide explanatory comment on their network reliability for the disclosure year in Schedule 14 (Explanatory notes to templates). The SAIFI and SAIDI information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref			
8	**10(i): Interruptions**		
9	**Interruptions by class**	**Number of interruptions**	
10	Class A (planned interruptions by Transpower)	1	
11	Class B (planned interruptions on the network)	705	
12	Class C (unplanned interruptions on the network)	938	
13	Class D (unplanned interruptions by Transpower)	4	
14	Class E (unplanned interruptions of EDB owned generation)	–	
15	Class F (unplanned interruptions of generation owned by others)	–	
16	Class G (unplanned interruptions caused by another disclosing entity)	–	
17	Class H (planned interruptions caused by another disclosing entity)	–	
18	Class I (interruptions caused by parties not included above)	8	
19	**Total**	1,656	
20			
21	**Interruption restoration**	**≤3Hrs**	**>3hrs**
22	Class C interruptions restored within	672	266
23			
24	**SAIFI and SAIDI by class**	**SAIFI**	**SAIDI**
25	Class A (planned interruptions by Transpower)	0.00	0.1
26	Class B (planned interruptions on the network)	0.07	20.9
27	Class C (unplanned interruptions on the network)	0.72	55.1
28	Class D (unplanned interruptions by Transpower)	0.00	1.5
29	Class E (unplanned interruptions of EDB owned generation)	–	–
30	Class F (unplanned interruptions of generation owned by others)	–	–
31	Class G (unplanned interruptions caused by another disclosing entity)	–	–
32	Class H (planned interruptions caused by another disclosing entity)	–	–
33	Class I (interruptions caused by parties not included above)	0.00	0.1
34	**Total**	0.80	77.6
35			
36	**Normalised SAIFI and SAIDI**	**Normalised SAIFI**	**Normalised SAIDI**
37	Classes B & C (interruptions on the network)	0.79	74.5
38			

Company Name	**Orion New Zealand Limited**
For Year Ended	**31 March 2019**
Network / Sub-network Name	**Entire network**

SCHEDULE 10: REPORT ON NETWORK RELIABILITY

This schedule requires a summary of the key measures of network reliability (interruptions, SAIDI, SAIFI and fault rate) for the disclosure year. EDBs must provide explanatory comment on their network reliability for the disclosure year in Schedule 14 (Explanatory notes to templates). The SAIFI and SAIDI information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

39 **10(ii): Class C Interruptions and Duration by Cause**

40

		SAIFI	SAIDI
41	**Cause**		
42	Lightning	0.01	0.5
43	Vegetation	0.11	9.4
44	Adverse weather	0.04	6.1
45	Adverse environment	0.00	0.2
46	Third party interference	0.06	5.4
47	Wildlife	0.02	1.3
48	Human error	0.10	2.4
49	Defective equipment	0.32	23.3
50	Cause unknown	0.08	6.4

51

52 **10(iii): Class B Interruptions and Duration by Main Equipment Involved**

53

		SAIFI	SAIDI
54	**Main equipment involved**		
55	Subtransmission lines	0.00	0.3
56	Subtransmission cables	–	–
57	Subtransmission other	0.00	0.4
58	Distribution lines (excluding LV)	0.04	10.0
69	Distribution cables (excluding LV)	0.00	0.6
60	Distribution other (excluding LV)	0.03	9.6

61 **10(iv): Class C Interruptions and Duration by Main Equipment Involved**

62

		SAIFI	SAIDI
63	**Main equipment involved**		
64	Subtransmission lines	0.04	1.1
65	Subtransmission cables	–	–
66	Subtransmission other	0.06	2.5
67	Distribution lines (excluding LV)	0.31	37.4
68	Distribution cables (excluding LV)	0.17	7.8
69	Distribution other (excluding LV)	0.15	6.3

70 **10(v): Fault Rate**

		Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
71	**Main equipment involved**			
72	Subtransmission lines	9	511	1.76
73	Subtransmission cables	–	130	–
74	Subtransmission other	6		
75	Distribution lines (excluding LV)	611	3,164	19.31
76	Distribution cables (excluding LV)	55	2,703	2.03
77	Distribution other (excluding LV)	113		
78	**Total**	794		

Company	Orion New Zealand Limited
Year ended	31 March 2019

Schedule 14 Mandatory Explanatory Notes

1. This schedule requires EDBs to provide explanatory notes to information provided in accordance with clauses 2.3.1, 2.4.21, 2.4.22, and subclauses 2.5.1(1)(f),and 2.5.2(1)(e).

2. This schedule is mandatory—EDBs must provide the explanatory comment specified below, in accordance with clause 2.7.1. Information provided in boxes 1 to 11 of this schedule is part of the audited disclosure information, and so is subject to the assurance requirements specified in section 2.8.

3. Schedule 15 (Voluntary Explanatory Notes to Schedules) provides for EDBs to give additional explanation of disclosed information should they elect to do so.

Return on Investment

4. In the box below, comment on return on investment as disclosed in Schedule 2. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 1: Comment on return on investment (ROI)

Our FY11 to FY19 financial performance has been affected by the Canterbury quakes, including:
- higher capex
- higher opex
- lower network delivery revenues in FY11 to FY14 – due to quake effects on demand
- higher network delivery revenues in FY15 to FY19 – due to our CPP price resets
- quake insurance cash settlement revenues (affected disclosures in FY15, FY13 and FY12).

Our FY19 post-tax regulatory ROI was 6.7% (FY18: 6.8%; FY17: 7.8%). FY19's ROI includes a 1.5% CPI movement (FY18: 1.1%).

No items were reclassified in FY19.

Regulatory Profit (Schedule 3)

5. In the box below, comment on regulatory profit for the disclosure year as disclosed in Schedule 3. This comment must include-

   5.1 a description of material items included in other regulated income (other than gains / (losses) on asset disposals), as disclosed in 3(i) of Schedule 3

   5.2 information on reclassified items in accordance with subclause 2.7.1(2).

Box 2: Comment on regulatory profit

Other regulated income included (pre-tax):

	FY19 $m
Rental revenue and recovery of outgoings	2.3
Recoveries from third parties who cause to damage to our network	0.9
Other	0.8
Total	4.0

Some significant items have affected regulatory profit post-quake. Our high level summary to normalise for these to derive "underlying regulatory profit" is as follows – all figures post-tax:

	FY19 $m	FY18 $m	FY17 $m	FY16 $m	FY15 $m	FY14 $m	FY13 $m	FY12 $m
Regulatory profit – as disclosed	74	72	78	63	81	51	49	62
Less quake insurance cash settlements	-	-	-	-	(24)	-	(2)	(21)
Less indexed asset revaluations	(16)	(11)	(21)	(5)	(1)	(13)	(7)	(13)
Add back loss on asset disposals	1	1	1	3	1	5	2	2
Add back identified quake related opex	-	-	-	-	-	-	-	10
Underlying regulatory profit	59	62	58	61	57	43	42	40

No items were reclassified in FY19.

Merger and acquisition expenses (3(iv) of Schedule 3)

6. If the EDB incurred merger and acquisitions expenditure during the disclosure year, provide the following information in the box below-

   6.1 information on reclassified items in accordance with subclause 2.7.1(2)

   6.2 any other commentary on the benefits of the merger and acquisition expenditure to the EDB.

Box 3: Comment on merger and acquisition expenditure

Not applicable

Value of the Regulatory Asset Base (Schedule 4)

7. In the box below, comment on the value of the regulatory asset base (rolled forward) in Schedule 4. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 4: Comment on the value of the regulatory asset base (rolled forward)

During FY19 our RAB value increased as follows:

	FY19 $m
Opening RAB value	1,051
Add new assets commissioned	64
Add indexed asset revaluation (at CPI)	16
Less asset disposals at RAB value	(1)
Less depreciation and amortisation	(41)
Closing RAB value	1,089

Our $63m of commissioned assets in FY19 is significantly lower than FY18 ($77m). FY18 was abnormally high due to the completion of our Waterloo depot ($21m), leased to Connetics on a negotiated arms-length basis.

Regulatory tax allowance: disclosure of permanent differences (5a(i) of Schedule 5a)

8. In the box below, provide descriptions and workings of the material items recorded in the following asterisked categories of 5a(i) of Schedule 5a-

   8.1 Income not included in regulatory profit / (loss) before tax but taxable;

   8.2 Expenditure or loss in regulatory profit / (loss) before tax but not deductible;

   8.3 Income included in regulatory profit / (loss) before tax but not taxable;

   8.4 Expenditure or loss deductible but not in regulatory profit / (loss) before tax.

Box 5: Regulatory tax: permanent differences

	FY19 $m
Taxable income that is not in regulatory profit before tax	-
Expenditure that is not deductible:	
Accounting depreciation on land assets	0.4
Legal and entertainment expenses	0.1
	0.5
Income that is not taxable	-
Deductible expenditure that is not in regulatory profit before tax:	
Tax depreciation on land improvements	0.6
Costs to obtain land easements	0.2
	0.8

Regulatory tax allowance: disclosure of temporary differences (5a(vi) of Schedule 5a)

9. In the box below, provide descriptions and workings of material items recorded in the asterisked category 'Tax effect of other temporary differences' in 5a(vi) of Schedule 5a.

Box 6: Regulatory tax: temporary differences

	FY19 $m
Insurance cash settlement proceeds – assessable for tax purposes	0.2
Expenditure timing differences for tax deductibility	0.1
Finance lease payments – operating leases for tax purposes	(0.2)
Capex – deductible for tax purposes	(0.8)
Internal profits on capex – deductible for tax purposes	(0.8)
Net total	(1.5)

Cost allocation (Schedule 5d)

10. In the box below, comment on cost allocation as disclosed in Schedule 5d. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 7: Comment on cost allocation

We have two wholly-owned subsidiary companies:

- Connetics Limited, an electricity construction and maintenance company
- Orion NZ Ventures Limited, which holds a minor legacy investment in a US venture capital fund.

Both are *ring fenced*, with no shared assets and minimal shared costs. Any shared costs are charged to the relevant subsidiary on an arms-length basis, with the revenue treated as regulatory income by Orion. The income received from the lease of the depot by Connetics is recognised as Other regulated income as part of rental income in Schedule 3.

No items were reclassified in FY18 or FY19.

Asset allocation (Schedule 5e)

11. In the box below, comment on asset allocation as disclosed in Schedule 5e. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 8: Comment on asset allocation

During FY18 we re-allocated two groups of assets from electricity distribution services to non-electricity distribution services, and therefore excluded their values from our RAB.

Firstly, based on advice from PwC we assigned $0.9m of land not currently in use at our Waterloo Rd depot to non-electricity distribution activities.

Secondly, based on the Commerce Commission's Open letter (dated 9 May 2018) we re-allocated the values of EV chargers (other than those at our head office site) to non-electricity distribution activities. We excluded FY18 expenditure related to EV chargers from EDB expenditure values. We submitted to the Commission that our expenditure to date has been immaterial (less than 0.1% of our RAB) and is intended to help us understand what impacts EVs will have on our network, as well as to "seed" and encourage the update of EVs. The Mar 17 value of EV chargers re-allocated to non-electricity distribution assets at the end of FY18 was $0.3m. We also did not assign additional FY18 expenditure to RAB.

In FY19 we reassessed the value of EV chargers we removed in FY18, following our response to the Commission's 2018 technology-related s53ZD notice. Clarifying the boundary between the network assets and the charger/plinth assets has resulted in us reassigning $0.1m of assets previously classified outside RAB as now being part of our RAB.

Capital Expenditure for the Disclosure Year (Schedule 6a)

12. In the box below, comment on expenditure on assets for the disclosure year, as disclosed in Schedule 6a. This comment must include-

    12.1 a description of the materiality threshold applied to identify material projects and programmes described in Schedule 6a;

    12.2 information on reclassified items in accordance with subclause 2.7.1(2).

Box 9: Comment on capex

Schedule 6a discloses our capex spend (not necessarily commissioned) as follows:

- $72m (last year: $59m) for network assets
- $3m (last year: $17m) for non-network assets.

Schedules 6a(iii), and 6a(v) to 6a(viii) disclose the large items for each category.

Schedule 6a(iv) discloses $16m of capex for system growth and $28m for asset replacement and renewal. Our major projects and programmes in these areas which exceeded $2m were

	System growth $m	**Replacement & renewal $m**
Supply fuse relocation		6
Distribution switchgear		6
Zone substation assets		4
LV and 11kV conductor and poles		3
Waimakariri zone substation	2	
Dunsandel zone substation upgrade	2	
Lyttelton tunnel 11kV cable	2	
Other projects and programmes	10	9
Total	16	28

In FY18 we incurred $14m of costs for the construction of a works depot. Construction was completed in FY18, and we now lease the depot to Connetics, on an arms-length basis. This atypical project accounted for most of our non-network capex spend in FY18. Our other non-network fixed asset expenditure in FY18 was $2.7m, slightly below FY19's level.

No capex items were reclassified in FY19.

Operational Expenditure for the Disclosure Year (Schedule 6b)

13. In the box below, comment on operational expenditure for the disclosure year, as disclosed in Schedule 6b. This comment must include-

    13.1 Commentary on assets replaced or renewed with asset replacement and renewal operational expenditure, as reported in 6b(i) of Schedule 6b;

    13.2 Information on reclassified items in accordance with subclause 2.7.1(2);

    13.3 Commentary on any material atypical expenditure included in operational expenditure disclosed in Schedule 6b, a including the value of the expenditure the purpose of the expenditure, and the operational expenditure categories the expenditure relates to.

Box 10: Comment on operational expenditure for the disclosure year

Schedule 6b(i) discloses $2.7m of FY19 maintenance opex as asset replacement and renewal:

	FY19 $m
Retightening and cross-arm and insulator work on 11kV overhead lines	1.1
66kV underground cable joint refurbishment	0.7
Other	0.9
	2.7

All categories of network opex in Schedule 6b have some minor ongoing impacts from the Canterbury earthquakes. However, it is difficult to separately attribute costs to the earthquakes, so from FY13 on we have not attempted to do so.

There were no material atypical items of expenditure in FY19.

No items were reclassified during FY19.

Variance between forecast and actual expenditure (Schedule 7)

14. In the box below, comment on variance in actual to forecast expenditure for the disclosure year, as reported in Schedule 7. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 11: Comment on the variance between forecast and actual capex and opex

CAPEX

Schedule 7(ii)) discloses our AMP forecast capex at $66m and actual capex at $76m. The key offsetting reasons for this overspend of $10m are:

	FY19 $m
Higher connection expenditure (customer driven)	5
Higher subdivision expenditure (customer driven)	3
Springston zone sub (delayed from prior year)	3
Dunsandel transformer (customer driven)	2
Lyttelton tunnel 11kV (delayed start)	1
Lower undergrounding and asset relocations	(3)
Other (net)	(1)
Overspend relative to our AMP forecast	10

OPEX

Schedule 7(iii) discloses our AMP forecast opex of $62.8m and actual opex of $59.7m. Of this $3.2m underspend, $1.5m is due to network opex and $1.7m is due to non-network opex.

The key reasons for these two variances are:

Network opex	**FY19 $m**
Asset replacement and renewal opex	0.7
Service interruptions and emergencies	0.5
Routine and corrective maintenance and inspection	0.5
Vegetation management	(0.2)
Underspend relative to our AMP forecast	1.5

Our asset replacement and renewal opex is below our AMP forecast, largely due to $0.3m of planned transformer maintenance on a large transformer, which we decided instead to replace in FY20.

Service interruptions and emergency expenditure was below budget due to a relatively storm-free year.

Non-network opex	FY19 $m
Business improvement process	1.2
Commercial and regulatory	0.9
Salaries and wages	0.8
Salaries and wages	(1.2)
Underspend relative to AMP forecast	1.7

In FY18 we changed our accounting treatment and now capitalise an assessment of the salaries and wages of Orion employees associated with planning and administering capex projects. We made this change for financial reporting, tax and regulatory reporting purposes, and have continued to do so in FY19.

No opex items were reclassified during FY19.

Information relating to revenues and quantities for the disclosure year

15. In the box below provide-

15.1 a comparison of the target revenue disclosed before the start of the disclosure year, in accordance with clause 2.4.1 and subclause 2.4.3(3) to total billed line charge revenue for the disclosure year, as disclosed in Schedule 8; and

15.2 explanatory comment on reasons for any material differences between target revenue and total billed line charge revenue.

Box 12: Comment on revenue for the disclosure year

In order to compare actual revenue with target revenue (as disclosed in our "Methodology for deriving delivery prices" document) on a like-for-like basis, we have added back irrigation rebates and export and generation credits (totalling $1.3m) to actual revenue and made some other minor adjustments to target revenue.

The following table shows our restated target and actual revenue after allowing for these adjustments:

	Target $m	Actual $m	Difference $m
Distribution	184.7	181.9	(2.8)
Transmission	76.9	75.9	(1.0)
Delivery revenue	**261.6**	**257.8**	**(3.8)**

The main reason for our above target delivery revenue in FY19 was general connection volume revenue, which was $3.0m below target, because chargeable volumes were 68GWh (2%) lower than forecast.

Network Reliability for the Disclosure Year (Schedule 10)

16. In the box below, comment on network reliability for the disclosure year, as disclosed in Schedule 10.

Box 13: Comment on network reliability for the disclosure year

Our comment on our network reliability are included in schedule 15, in accordance with the Commission's *Information Disclosure exemption: Disclosure of reliability information within Schedule 10* dated 22 August 2019.

Insurance cover

17. In the box below, provide details of any insurance cover for the assets used to provide electricity distribution services, including-

    17.1 The EDB's approaches and practices in regard to the insurance of assets used to provide electricity distribution services, including the level of insurance;

    17.2 In respect of any self insurance, the level of reserves, details of how reserves are managed and invested, and details of any reinsurance.

Box 14: Comment on our insurance cover

A summary of our insurance cover is as follows.

We insure our corporate and network buildings and our key substations for their respective estimated replacement values, subject to natural disaster deductibles as follows:

- 1.0% of insured value for post-2004 buildings
- 2.5% of insured value for pre-2004 buildings
- 10.0% of insured value for pre-1935 buildings.

We also insure our other corporate assets and our key liability risks.

Our business interruption indemnity period is 18 months.

We have two key uninsured risks that are economically uninsurable for our industry:

- damage to our overhead lines and underground cables – for example, due to a major earthquake
- general lost revenues – for example, due to significant depopulation following a catastrophic event.

We continue to insure our key risks where it is economic to do so, in line with good industry practice.

Amendments to previously disclosed information

18. In the box below, provide information about amendments to previously disclosed information in accordance with clause 2.12.1 in the last 7 years, including:

    18.1 a description of each error; and

    18.2 for each error, reference to the web address where the disclosure made in accordance with clause 2.12.1 is publicly disclosed.

Box 15: Disclosure of amendment to previously disclosed information
We have made no amendments to previously disclosed information to correct errors. We have identified some immaterial errors in prior year disclosures – refer Schedule 15.

Company Name	Orion New Zealand Limited
For Year Ended	31 March 2019

Schedule 15 Voluntary Explanatory Notes

1. This schedule enables EDBs to provide, should they wish to-

   1.1 additional explanatory comment to reports prepared in accordance with clauses 2.3.1, 2.4.21, 2.4.22, 2.5.1 and 2.5.2;

   1.2 information on any substantial changes to information disclosed in relation to a prior disclosure year, as a result of final wash-ups.

2. Information in this schedule is not part of the audited disclosure information, and so is not subject to the assurance requirements specified in section 2.8.

3. Provide additional explanatory comment in the box below.

Voluntary other comments on disclosed information

Schedule 2(v)

Recoverable costs in schedule 2(v) are the annualised recovery of some of our CPP application costs over five years, FY15 to FY19 inclusive, as follows:

	Total $000	Annualised $000
Application fee	20	5
Assessment fee	1,288	318
Verifier	204	52
Auditor	244	62
Independent engineer	15	4
Total	**1,771**	**440**

Schedule 3(iii)

In our FY17 disclosures we identified an error with previously disclosed information.

In FY16, we disclosed \$2,425k in row 54 as the incremental change in FY16. This amount was the difference between our allowed controllable opex for FY16 (\$58,104k) and our actual controllable opex for FY16 (\$55,679k).

However, the incremental change for FY16 should have been calculated as:

(allowed opex FY16 - actual opex FY16) - (allowed opex FY15 - actual opex FY15)

= (\$58,104k - \$55,679k) - (\$54,909k - \$50,828k)

= (\$1,656k).

We have carried forward the incorrect amount of \$2,425k in row 61 in our FY17 disclosures, row 60 of our FY18 disclosures, and row 59 of our current disclosures.

We have not restated/corrected this information in our FY16/FY17/FY18/FY19 disclosures because the error is not material.

This error has no impact on any other disclosed information.

The information will become relevant when the Commerce Commission assesses any allowance for us to recover costs under the Orion-specific incremental rolling incentive scheme (IRIS) which is prescribed in our CPP. This assessment will occur after the end of FY19.

Schedule 5a(viii)

In our FY19 disclosures we identified two immaterial errors with our FY18 disclosures in Schedule 5a(viii), the regulatory tax roll-forward.

In FY18 we agreed with the IRD that we would capitalise \$2.6m of internal labour per annum from FY16 to FY19 inclusive. Our regulatory tax commissioned assets for FY18 were reduced by the reversal of the provision we included within our FY17 commissioned asset disclosure, but at the time our asset register report was run the correct additions for FY16 and FY17 had not been included. This error <u>understated</u> our commissioned tax assets for FY18 by \$5.2m.

We hold some tax assets and asset offsets outside our asset register, in a schedule managed by our tax advisors. The tax depreciation impact of these adjustments was incorrectly added to tax depreciation rather than subtracted. This error overstated our tax depreciation by \$5.8m. This overstatement is partially offset by \$0.6m of tax depreciation on the assets described in the last paragraph, so the net <u>overstatement</u> of tax depreciation was \$5.2m.

The cumulative effect of both of these errors was that our FY18 closing regulatory tax asset value was understated by \$10.4m (2.5%). If corrected, tax depreciation, commissioned tax assets and closing tax asset values would change respectively as follows: 42,233 to 37,061; 62,189 to 67,402 and 400,020 to 410,406.

Tax depreciation expense from schedule 5a(viii) flows into schedule 5a(vi) – the calculation of deferred tax balance. If adjusted, schedule 5a(vi) row 64 (tax effect of tax depreciation) would change from 11,825 to 10,377 and closing deferred tax liability would change from 43,149 to 41,701. If this flowed through to the calculation of ROIs in schedule 2, our disclosed ROIs would drop by 0.01% - our ROI comparable to a post-tax WACC reflecting all revenue earned would fall from 6.83% to 6.82%.

As this impact is immaterial we have adjusted these errors within our FY19 disclosures without adjusting opening balances. Note that these errors only affect our regulatory tax values, not our RAB values.

Schedule 5b (iii)

Our Other related party transactions disclosed in row 35 of schedule 5b are rates levied by our shareholders, as follows:

	$000
Selwyn District Council	220
Christchurch City Council	3,892
Total	**4,112**

We have attached a separate disclosure schedule which provides additional disclosures about transactions with our related parties, as required by following the Commission's *Input methodologies review – related party transactions*, published 21 December 2017.

Schedule 8

Our:
- kWh volume-based revenues for general connections, streetlighting connections and irrigation connections and
- kW peak-demand-based revenues for general and streetlighting connections

are calculated from total energy volumes injected into our electricity distribution network, measured at Transpower GXPs and other embedded generation points, minus loss-adjusted half-hourly metered major customer and large capacity connection revenues. Revenues for the latter two categories are calculated and charged separately.

It is not possible to accurately apportion the kWh or the kWh chargeable volumes between general, streetlighting and irrigation connection categories. In any case, we apply the same volume and peak demand prices to all three categories.

General connections represent 99% of the number of connections on our network. For information disclosure purposes, we have disclosed all quantities and revenues for the three categories in the general connection category.

Schedule 9a and 9b

An error in a factor used in the calculation of our lengths of our low voltage cable network and streetlighting cable network resulted in a small understatement of the total length of these assets by 1.5% in our FY17 disclosures. This small variation partially offset the normal annual growth in these asset lengths. While it would be normal to expect to observe reductions in quantities of older assets in the age profile, this year, as a result of the correction of this factor, the age profile shows small increases in quantities for old assets in rows 52 and 53. We have not restated/corrected this information in our FY17 disclosures because the error is not material.

Schedule 9b

In FY17 we identified and disclosed an error with previously disclosed information. In FY15 and FY16 we had 111,581 and 111,569 consumer service connections respectively where we used default dates to develop our age profile. Due to transposition errors, we did not disclose these quantities in the default date column in schedule 9b in either year. We have not restated/corrected this information in our FY15 and FY16 disclosures because the error is not material.

Schedule 10 - comment on network reliability for the disclosure year

Schedule 10 sets out our CPP network reliability limits for information disclosure (IDD) purposes.

Our normalisation adjustments in Schedule 10 differ slightly from our CPP compliance statement for FY19, as follows:

	CPP limit	IDD	CPP compliance statement
SAIDI	73.4	74.5	74.0
SAIFI	0.87	0.79	0.79

The different results between information disclosure and our CPP compliance statement are caused by different boundary values when normalising for major event days.

Our CPP determination requires that we must either comply with the reliability limits in the current assessment period, or have complied with the reliability limits in both of the two prior assessment periods. This year our reliability results slightly exceeded our reliability limit, and we instead demonstrate compliance on the basis that we complied with reliability limits in both prior assessment periods (FY18 and FY17).

Our reliability information in Schedule 10 has been prepared on a basis consistent with the previous year's disclosure.

In particular, when one event has resulted in successive interruptions which individually exceed one minute, we treat each of the successive interruptions as a separate incident in the determination of our SAIFI and SAIDI.

Additional related party disclosures

In accordance with clauses 2.3.8 – 2.3.18 of the Electricity Distribution Information Disclosure Determination 2012.

1. Introduction

This document discloses additional information to meet the related party disclosure requirements of the Electricity Distribution Information Disclosure Determination 2012 (IDD).

The IDD requires Orion to publicly disclose:

Description	IDD reference
• Diagram or description of related party transactions	2.3.8
• Report on related party transactions	Schedule 5b
• Summary of procurement policy for procurement from related parties	2.3.10
• Example of procurement policy in practice	2.3.12(1)
• Representative transactions	2.3.12(3) & (5)
• Policies or procedures that require or have the effect of requiring purchase	2.3.12(2)
• Testing of arms-length representative transactions	2.3.12(4)
• Map of anticipated expenditure and network constraints	2.3.13 – 2.3.16
• Full disclosure of procurement policy*	2.3.11

*disclose to the Commission only

2. Threshold analysis

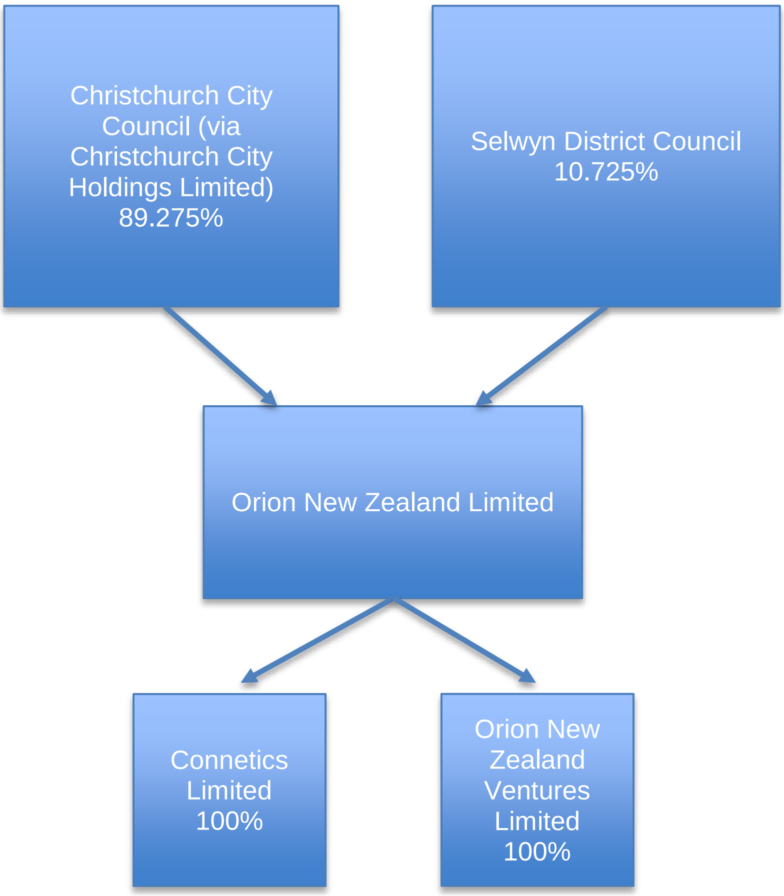
In FY19 the sum of Orion's opex and capex exceeded the Commission's $20m de minimis threshold (IDD 2.3.9(1)), and our total related party expenditure exceeded 10% of our total opex and capex, so we are required to make these related party disclosures.

In FY19 we spent a total of:

	$m
Opex (from IDD schedule 6b(i), row 17)	60
Capex (from IDD schedule 6a(i), row 20)	75
Total expenditure	**135**

Orion's expenditure with related parties in FY19, as disclosed in IDD schedule 5b, amounted to $41m, around 30% of our overall capex and opex. This includes $4m of rates paid to related parties.

3. Clause 2.3.8 Diagram or description of related party transactions



Orion is owned by:

- Christchurch City Holdings Limited (CCHL) – 89.275%
- Selwyn District Council (SDC) – 10.725%.

CCHL is in turn owned 100% by the Christchurch City Council (CCC).

Orion has two wholly-owned subsidiaries:

- Connetics Limited, which undertakes the construction and maintenance of overhead and underground lines and associated equipment required for the delivery of utility and infrastructure services. Connetics was established in 1996
- Orion New Zealand Ventures Limited, which holds Orion's long-term investment in a US-based technology fund (now in its final stage of settlement).

CCC and SDC both have subsidiary companies and other related parties with which Orion also transacts business.

These related parties include:

- Christchurch International Airport Limited (CCHL 75%)
- Lyttelton Port Company Limited (CCHL 100%)
- Enable Services Limited (CCHL 100%)
- City Care Limited (CCHL 100%)
- Red Bus Limited (CCHL 100%)
- EcoCentral Limited (CCHL 100%)
- Development Christchurch Limited (CCHL 100%)
- Vbase Ltd (CCC 100%)
- Civic Building Ltd (CCC 100%)
- ChristchurchNZ Holdings Ltd (CCC 100%)
- Transwaste Canterbury Ltd (CCC 38.9%)
- Riccarton Bush Trust (CCC appoints five of eight members)
- The World Buskers' Festival Trust (CCC, wound up 30 June 2018)
- Rod Donald Banks Peninsula Trust (administered by CCC)
- Christchurch Agency for Energy Trust (administered by CCC)
- Gardens Event Trust (CCC, wound up August 2018)
- Central Plains Water Trust (established by the CCC and SDC)
- Canterbury Economic Development (CCC, wound up in 2017/2018)
- Sicon Limited (SDC 100%)
- Tramway Reserve Trust (administered by SDC)
- Selwyn District Charitable Trust (administered by SDC).

Orion also has relationships with a large number of related parties where our directors, as Orion key management personnel, are either key management personnel or shareholders. These related parties are listed in our annual report, available on our website (oriongroup.co.nz).

However, other than for Connetics, CCC, SDC and City Care, our transactions with all of our related parties are infrequent and immaterial. Where transactions do occur with these other related parties, they are provided on an arms-length basis. Orion provides delivery services to many of these entities, although in most cases the service is provided through an interposed retailer rather than invoiced and negotiated directly. Lyttelton Port is billed directly as a major customer, but pricing is identical with the methodology and assessment periods applied to all other Orion major customers. A number of CCC sites, Vbase sites, City Care and Christchurch International Airport are also major customers but are charged on a basis consistent with all other major customers and are not invoiced directly by Orion.

For this reason, we have not provided additional analysis on these related parties, but instead focus our disclosures around Connetics, CCC, SDC and City Care as these are more material.

Business relationships with Connetics Limited

Orion established Connetics as a standalone company in 1996 in order to introduce competition to maintenance and construction works. A significant amount of the revenue which Connetics receives from Orion is the result of successful tenders awarded on a lowest-price conforming tender basis. We seek tenders from multiple approved contractors for virtually all works above $20,000.

In addition, Orion has negotiated certain contracts with Connetics which cover circumstances where the lowest-price conforming tender approach does not work satisfactorily. We have had PwC review each of these contracts in FY19 to ensure that these contracts operate on an arms-length basis. These contracts cover:

- emergency response works, which uses a schedule of rates. Orion has also negotiated contracts with unrelated parties for similar works, although as our largest contractor with expertise in a diverse range of fields the largest single emergency response work contract is with Connetics. During FY19 Orion engaged PwC to perform a review of the arrangements in place for FY19, and also to review the proposed basis for a three-year extension of the contract. PwC considered that Connetics' margins are reasonable and the contract meets the arms-length test

- cable supply. As discussed in section 7 below, Orion has negotiated a contract with Connetics to provide cable to all contractors working on its network to ensure the cable is of an appropriate standard. Connetics' contracting section is charged at the same rates as external parties – which helps keep a competitive market for construction services. During FY19 PwC reviewed the arrangements and concluded that the risk that Connetics earns excessive margins on the cable supply contract that help it subsidise work in other markets is low

- network storage and supply. This requires Connetics to provide certain minimum levels of emergency spares and to manage Orion-owned equipment – such as transformers and switchgear. During FY19 Orion engaged PwC to perform a review of the arrangements in place. PwC considered that the contract meets the arms-length standard

- design work, which uses a schedule of rates. Orion uses a number of other design consultants as well. Orion engaged PwC to perform a review of the intercompany arrangements. PwC determined that rates charged are comparable with those charged by other design contractors and the contract meets the arms-length standard.

During FY19 Orion paid Connetics $35.5m for opex and capex. Refer to schedule 5b (iii) of our FY19 Information Disclosures for additional information.

Connetics has its own management, IT and support infrastructure. Accordingly, Orion charges to Connetics for services performed are minimal.

A key exception to this is the provision by Orion of a depot for Connetics' use in Islington. The rental on the property has been negotiated on an arms-length basis with both parties taking independent advice. During FY18 Orion engaged PwC to perform a review of the arrangements. PwC confirmed that the lease contract and negotiations reflect arms-length principles.

Orion provides debt funding to Connetics via an intercompany loan, repayable on demand, at a margin above the 90 day bank bill FRA rate intended to replicate genuine funding costs that Connetics would face as a standalone business.

As our former contracting division, Connetics has a wider range of skills our other more specialist providers, but doesn't compete in all market segments. This is discussed further in the next section.

Business relationships with CCC, SDC and CCHL

Orion pays rates to both CCC and SDC on an arms-length basis consistent with the Local Government (Rating) Act 2002. Orion also pays other council fees – eg, licenses, resource consents – on an arms-length basis based on the Council's posted terms and conditions.

During FY19 Orion paid CCC $3.9m for rates (including rates collected on behalf of Environment Canterbury) and a further $0.2m for other opex and capex.

During FY19 Orion paid SDC $0.2m for rates (including rates collected on behalf of Environment Canterbury) and a further $0.2m for other opex and capex.

Refer to schedule 5b (iii) of our FY19 Information Disclosures for additional information.

Orion invoices the CCC and SDC for delivery services through electricity retailers using standard terms and conditions.

Orion also invoices SDC and CCC for:

- a service to the CCC and Meridian for managing a database containing the number/types of streetlights, charged to both parties on an arms-length basis

- contributions towards asset relocations. As Roading Authorities, the Councils and NZTA can require Orion to relocate assets we have in the road reserve on a like for like basis. Under the Electricity Act Orion can negotiate with the council (and with NZTA) to contribute towards the cost of these projects. We require a more significant contribution where the assets are placed underground instead of replacing overhead with overhead. Orion determines a charge based on the actual costs of the project, taking into account the age and condition of the assets being removed and any improvement in capacity or functionality of the new assets. This is consistent with how we work with unrelated parties

- contributions towards discretionary asset undergrounding. We negotiate with the council using the principles discussed in the previous bullet point to agree a contribution towards the costs of this change. In FY19 we undertook two discretionary undergrounding projects for SDC (CCC: nil), where overhead assets approximately halfway through their useful lives were replaced with underground assets. SDC contributed a substantial share of the replacement costs, which we treated as a capital contribution. This is consistent with how we work with unrelated parties

- new connections to the network, using the same price schedule as for unrelated parties

- repair costs when the activities of these parties lead to damage to Orion's network. These repairs are invoiced on an identical basis to other damage caused by third parties – a cost recovery of repair costs undertaken by our emergency works contractor.

Orion pays the CCC's share of its dividend to CCHL, but otherwise has no transactions with CCHL.

Business relationships with other CCC and SDC-controlled entities:

Orion negotiates with all the CCC and SDC controlled entities on an arm's length basis, ie, as though they were unrelated.

Orion provides delivery services through electricity retailers using standard terms and conditions. Orion invoices Lyttelton Port Company directly for delivery services on the same terms and conditions as for other major customers.

City Care provides tree cutting services to Orion following a successful tender awarded on a lowest-price conforming tender basis. Such tenders are sourced from multiple parties. In addition, City Care provides some other services to Orion but generally these are provided as a subcontractor to another contractor. During FY19 Orion paid City Care $1.0m for opex and capex - refer to schedule 5b (iii) of our FY19 Information Disclosures for additional information.

Orion invoices City Care and Enable and their contractors for repair costs when the activities of these companies lead to damage to Orion's network. These repairs are invoiced on an identical basis to other damage caused by third parties.

As noted above, Orion has limited interaction with the other CCC and SDC-controlled or associated entities.

4. Summary of procurement policy and practices

We seek to:

- procure goods and services which are fit for purpose
- achieve best value for money over whole-of-life
- encourage open, effective and sustainable competition between eligible suppliers
- ensure any purchases from related parties are genuinely arms-length transactions
- behave ethically and have fair and transparent procurement processes that are free from fraud and impropriety
- comply with all applicable legal and contractual obligations
- effectively mitigate and/or manage any potential conflicts of interest in an open and acceptable manner
- treat related and unrelated parties consistently.

Our purchasing occurs in a framework supported by a number of policies and procedures, including our:

- procurement policy, which articulates how we seek to maximise the overall benefits that can be delivered through its procurement activity, enabling us to deliver value for money and ensure lawfulness, fairness and integrity at all times
- delegations of authority policy, through which we establish clear responsibility, authority, scope and involvement in all operational decision making, and maintain adequate control of the business while at the same time empowering employees with adequate responsibility to make decisions
- reporting serious wrongdoing (whistleblower) policy, which aims to facilitate the prompt reporting and investigation of suspected or actual serious wrongdoing, protect those who report serious wrongdoing, and set out our procedure to receive and deal with reported serious wrongdoing
- conflict of interest policy, which aims to ensure that all Orion directors and employees understand and effectively identify, disclose and manage actual or potential conflicts of interest
- fraud and theft policy, which states our commitment to the prevention, deterrence, detection and investigation of fraud and theft, as these will undermine our activities and damage our reputation and the reputation of all of our stakeholders, including our employees and our shareholders
- Matatika – code of ethics, which states the ethical standards required of all Orion directors and employees
- contract delivery guide, a procedural document which details the processes that we use in seeking and managing competitive tenders for contracted works
- processes published within our asset management plan.

We utilise Orion-authorised service providers for our network works. These contractors must show competence in the specialised areas of work and comply with relevant legislation – eg, Health, safety and environmental responsibilities.

It is in Orion's best interest to encourage open, effective and sustainable competition between eligible suppliers. This approach ensures a competitive market, ongoing skill development and a resilient contractor pool available to support our business.

Orion established Connetics as a standalone company in 1996 in order to introduce competition to maintenance and construction works. Connetics is treated at arms-length – that is, no differently from any other contractor in our tendering processes.

All large Orion projects are tendered to multiple approved contractors, and are awarded on a lowest-price conforming tender basis. Orion has no in-house construction or maintenance team.

We have a number of contractors in each of our network construction and maintenance activities, as follows:

Category of Work	Authorised Service Providers			
	Related Party			Total Number of Authorised Service Providers
	Connetics	City Care	Non-related Parties	
Underground works	1	-	4	5
Overhead works	1	-	3	4
Substation works	1	-	5	6
Property works	-	-	8	8
Vegetation management	-	1	2	3
Livening agent	-	-	4	4
Design	1	-	4	5

We seek tenders from multiple approved contractors for virtually all works above $20,000. In FY19 we called for tenders for 268 projects totalling $35m. Of these, 80 were awarded to Connetics, six were sole tendered to Connetics and four were awarded to City Care. The projects sole tendered to Connetics reflected a requirement for specialist skills and were evaluated based on either schedule of rates or previous jobs to ensure pricing was at arms length. We also sole tender to other service providers.

For works with an estimated cost of between $5,000 and $20,000, a job manager will seek a minimum of two quoted prices from approved contractors. In FY19 we had around 900 projects in this category. Of these, 132 were awarded to Connetics and six were awarded to City Care.

For minor works with an estimated cost of below $5,000, a job manager can sole-source from a contractor, either on a quoted or time and materials basis. In FY19 we had around 8,000 projects in this category. Of these, around a quarter were awarded to Connetics and 14 were awarded to City Care.

For low value works (below the $5,000 threshold) the manager makes an assessment of the reasonableness of the price given their knowledge of the requirements and similar and recent works undertaken.

5. Example of procurement policy in practice

Some examples of our procurement policy in practice follow.

a) Tender 2019/250E - supply fuse relocation project ($0.3m). We sought tenders from Connetics and two other unrelated parties. All contractors provided conforming tenders. Connetics was awarded the contract as it provided the lowest tender price

b) Tender 2019/237E - Montreal St North switchgear replacement project ($0.3m). We sought tenders from Connetics and one other unrelated party. All contractors provided conforming tenders. The other contractor was awarded the contract as it provided the lowest tender price

c) Tender 2019/032E - low voltage vegetation clearance project ($0.1m). We sought tenders from City Care and two other unrelated parties. All contractors provided conforming tenders. City Care was awarded the contract as it provided the lowest tender price

d) Tender 2019/029E - low voltage vegetation clearance project ($0.1m). We sought tenders from City Care and two other unrelated parties. Two contractors declined to tender. An unrelated party awarded the contract as it provided the lowest conforming tender price

e) Quote to upgrade five boundary boxes, estimated cost above $5,000 and below $20,000. Quotes sought from Connetics and one other contractor. The job was awarded to Connetics due to the lower quoted price provided

f) Quote to upgrade three boundary boxes, estimated cost above $5,000 and below $20,000. Quotes sought from Connetics and one other contractor. The job was awarded to the other contractor due to the lower quoted price provided

g) Quote to clear vegetation from lines, estimated cost above $5,000 and below $20,000. Quotes sought from City Care and one other contractor. The job was awarded to City Care due to the lower quoted price provided

h) Following an emergency repair, Connetics was instructed to perform a more permanent repair. Orion's job manager chose Connetics from amongst our contractor pool. The job was undertake on a time and materials basis using a negotiated schedule of rates, and cost $2351.20. Our job manager considered that the hours and materials used were reasonable given his extensive experience

i) Following an emergency repair, an unrelated party was instructed to replace a pole. The same Orion job manager as in example (h) chose the contractor from amongst our contractor pool. The job was undertaken on a time and materials basis using a negotiated schedule of rates, and cost $4959.06. Our job manager considered that the hours and materials used were reasonable given his extensive experience

j) In some cases it is not practical to establish multiple competing tenders given the size of our market and the limited range of participants. For example, we have negotiated emergency works contracts with a number of providers, including Connetics, and we have had these independently assessed. Such contracts rely on a schedule of rates and our job managers assess the reasonableness of the time and materials used in completing tasks undertaken by our contractors. We have also had independent reviews completed to ensure that other contracts – such as the cable management agreement we have with Connetics – are consistent with an arms-length approach.

6. Representative transactions and testing of those transactions

As noted above, we test all of our transactions regularly and do not differentiate between our related and unrelated parties. In particular, we:

- continually test our significant transactions through our tendering system or by comparing two or more quotes
- make assessments of untendered minor works by assessing the reasonableness of the quoted price or estimate
- have engaged PwC to assess the reasonableness of the schedules of rates negotiated with Connetics and with other unrelated contractors.

7. Policies or procedures that require or have the effect of requiring purchase

As discussed in section 3 above, Orion requires that all cable to be installed on our network is sourced from Connetics. This requirement ensures that cable installed meets certain technical specifications and quality standards, so that the cable lasts for the design life of the asset. Orion engineers form part of the selection panel when choosing suppliers to provide cable. Connetics' supply group sells cable to Connetics' contracting group on an identical basis to all other contractors. Orion also works with Connetics to ensure cable stocks on hand are sufficient for Orion projects given often substantial lead times. This contract applies until 30 June 2019 but will likely be renegotiated with Connetics.

Other than this arrangement, we have no policies or procedures that have the effect of requiring purchase from our related parties. Customers who require a new connection can choose a contractor from a schedule of contractors who are approved to operate on Orion's network. Developers, including subdividers, can also choose from a range of contractors, and Orion will connect the assets provided that the assets meet Orion's technical specifications.

8. Map of anticipated expenditure and network constraints

These are attached as an appendix to this document. Region A is primarily Orion's urban network and region B the rural network. Orion will generally tender this work with approved contractors, and award the contract to the lowest price conforming tenderer.

Connetics will generally be an approved tenderer for many of these projects, but the tender process will determine the successful contractor. In some projects and programmes – for example, vegetation and property management – Connetics does not take part in the tender rounds. As noted in section 7, it is likely that for some years Orion will require that cable to be used in the projects is sourced from Connetics.

IDD clauses 2.3.13 (3) and (4) require Orion to disclose where projects address possible future network equipment constraints and their location, where the response to the constraints would involve one of the ten largest opex or capex projects in the planning period. Notation on the map identifies the major reason for the each of our identified projects. In summary:

- in Region A, our projects will:
    - add capacity in northern Christchurch to address constraints
    - improve security of supply in northern and eastern Christchurch
    - improve resilience as we replace older 66kV oil-filled cables
- in Region B, our projects will address the ongoing load growth in the Rolleston and Dunsandel areas through the establishment of a new point of supply at Norwood and extensive associated works.

Refer to section 6 of our Asset Management Plan 2019 for further information.

Orion New Zealand Limited

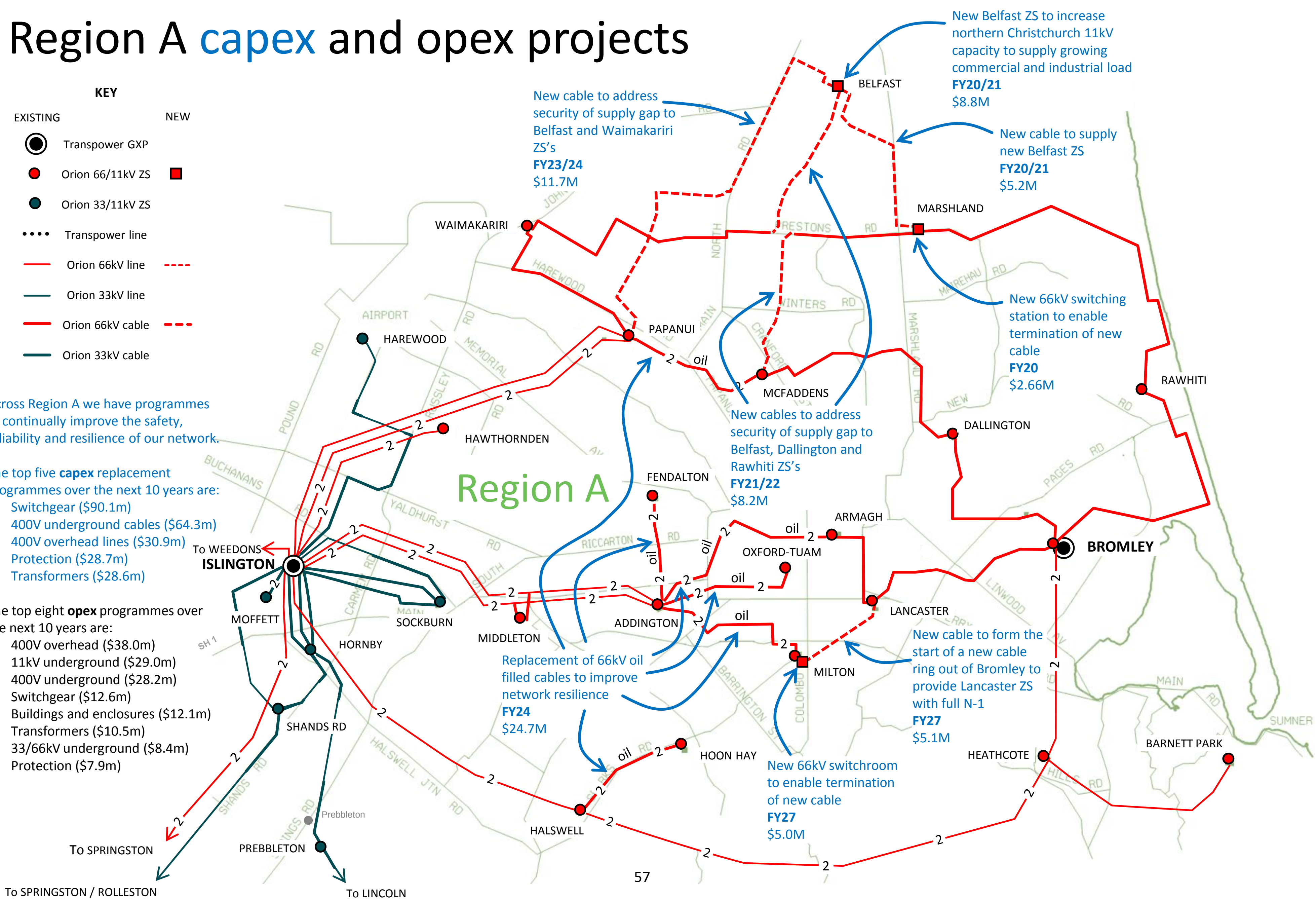
Maps of anticipated expenditure and network constraints

for the ten year period beginning 1 April 2019

Region A – urban network

Region B – rural network

Region A capex and opex projects



Across Region A we have programmes to continually improve the safety, reliability and resilience of our network.

The top five **capex** replacement programmes over the next 10 years are:

- Switchgear ($90.1m)
- 400V underground cables ($64.3m)
- 400V overhead lines ($30.9m)
- Protection ($28.7m)
- Transformers ($28.6m)

The top eight **opex** programmes over the next 10 years are:

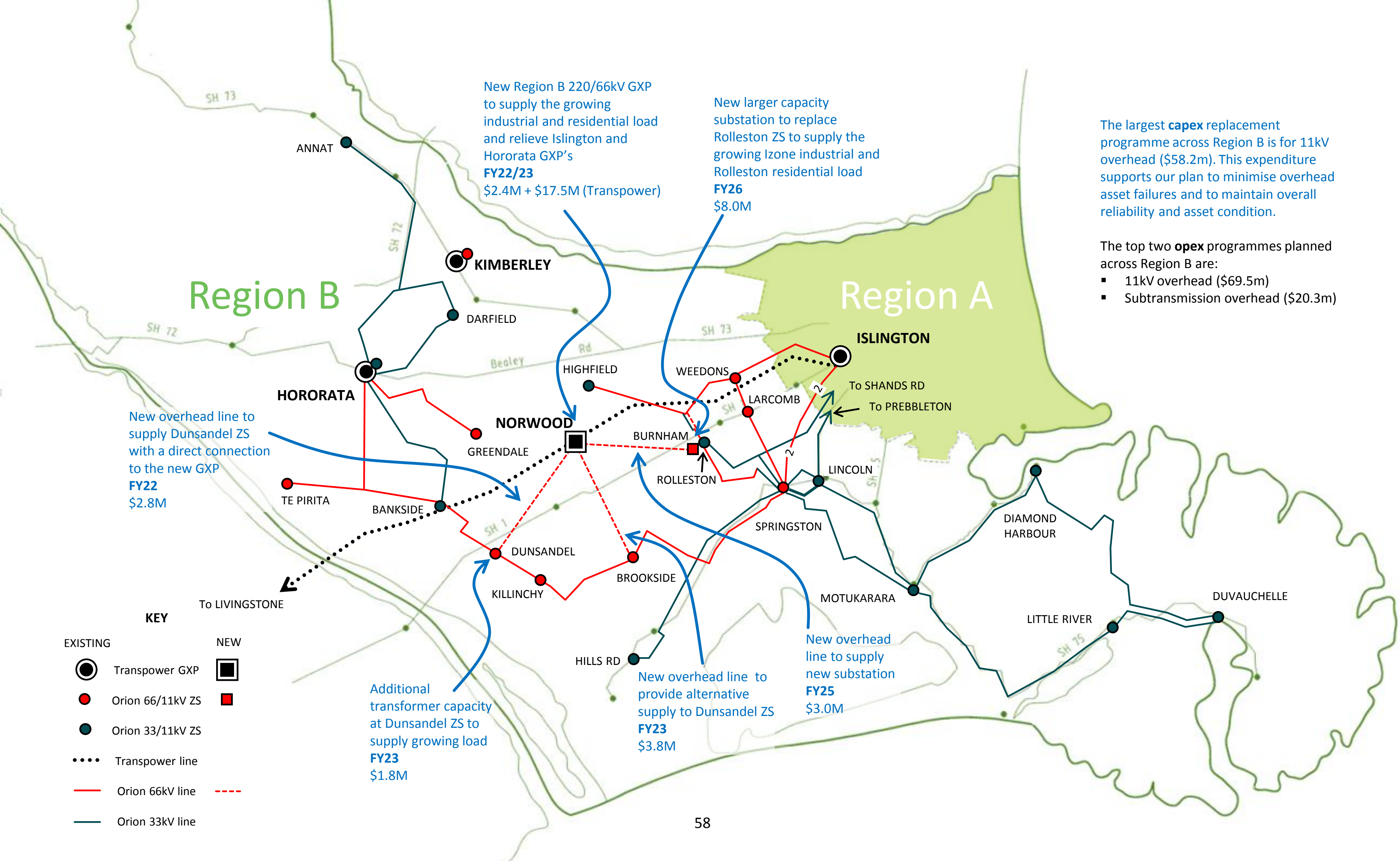
- 400V overhead ($38.0m)
- 11kV underground ($29.0m)
- 400V underground ($28.2m)
- Switchgear ($12.6m)
- Buildings and enclosures ($12.1m)
- Transformers ($10.5m)
- 33/66kV underground ($8.4m)
- Protection ($7.9m)

Region B capex and opex projects

The largest **capex** replacement programme across Region B is for 11kV overhead ($58.2m). This expenditure supports our plan to minimise overhead asset failures and to maintain overall reliability and asset condition.

The top two **opex** programmes planned across Region B are:

- 11kV overhead ($69.5m)
- Subtransmission overhead ($20.3m)



Certification for year-end disclosures

We, Deborah Jane Taylor and Bruce Donald Gemmell, being directors of Orion New Zealand Limited certify that, having made all reasonable enquiry, to the best of our knowledge-

a) the information prepared for the purposes of clauses 2.3.1, 2.3.2, 2.4.21, 2.4.22, 2.5.1, 2.5.2 and 2.7.1 of the Electricity Distribution Information Disclosure Determination 2012 in all material respects complies with that determination; and

b) the historical information used in the preparation of Schedules 8, 9a, 9b, 9c, 9d, 9e, 10 and 14 has been properly extracted from Orion New Zealand Limited's accounting and other records sourced from its financial and non-financial systems, and that sufficient appropriate records have been retained

c) in respect of information concerning assets, costs and revenues valued or disclosed in accordance with clause 2.3.6 of the Electricity Distribution Information Disclosure Determination 2012 and clauses 2.2.11(1)(g) and 2.2.11(5) of the Electricity Distribution Services Input Methodologies Determination 2012, we are satisfied that –

   i. the costs and values of assets or goods or services acquired from a related party comply, in all material respects, with clauses 2.3.6(1) and 2.3.6(3) of the Electricity Distribution Information Disclosure Determination 2012 and clauses 2.2.11(1)(g) and 2.2.11(5)(a)-2.2.11(5)(b) of the Electricity Distribution Services Input Methodologies Determination 2012; and

   ii. the value of assets or goods or services sold or supplied to a related party comply, in all material respects, with clause 2.3.6(2) of the Electricity Distribution Information Disclosure Determination 2012

d) the SAIDI and SAIFI information has been reported consistently with the Commerce Commission's Information Disclosure exemption: Disclosure of reliability information within Schedule 10, dated 22 August 2019.

Jane Taylor **Bruce Gemmell**

28 August 2019

Independent Assurance Report

To the directors of Orion New Zealand Limited and the Commerce Commission

The Auditor-General is the auditor of Orion New Zealand Limited (the Company). The Auditor-General has appointed me, John Mackey, using the staff and resources of Audit New Zealand, to provide an opinion, on his behalf, on:

- whether the information ('the Disclosure Information') required to be disclosed in accordance with the Electricity Distribution Information Disclosure Determination 2012 ('the Information Disclosure Determination') for the disclosure year ended 31 March 2019, has been prepared, in all material respects, in accordance with the Information Disclosure Determination.

  The Disclosure Information required to be reported by the Company, and audited by the Auditor-General, under the Information Disclosure Determination in schedules 1 to 4, 5a to 5g, 6a and 6b, 7, and the disclosure that shows the connection between the Electricity Distribution Business (EDB) and the related parties with which it has had related party transactions in the disclosure year, the disclosure of the EDB's related party procurement policy, the disclosures about related party transactions required under clause 2.3.12 of the Information Disclosure Determination, and the explanatory notes in boxes 1 to 11 in Schedule 14.

- whether the Company's basis for valuation of related party transactions ('the Related Party Transaction Information') for the disclosure year ended 31 March 2019, has been prepared, in all material respects, in accordance with clause 2.3.6 of the Information Disclosure Determination, and clauses 2.2.11(1)(g) and 2.2.11(5) of the Electricity Distribution Services Input Methodologies Determination 2012 ('the Input Methodologies Determination').

Opinion

In our opinion:

- as far as appears from an examination of them, proper records to enable the complete and accurate compilation of the Disclosure Information have been kept by the Company;

- as far as appears from an examination, the information used in the preparation of the Disclosure Information has been properly extracted from the Company's accounting and other records and has been sourced, where appropriate, from the Company's financial and non-financial systems;

- the Disclosure Information complies, in all material respects, with the Information Disclosure Determination; and

- the Related Party Transaction Information complies, in all material respects, with the Information Disclosure Determination and the Input Methodologies Determination.

In forming our opinion, we have obtained sufficient recorded evidence and all the information and explanations we have required.

Basis for opinion

We conducted our engagement in accordance with the International Standard on Assurance Engagements (New Zealand) 3000 (Revised): *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* and the Standard on Assurance Engagements 3100 (Revised): *Compliance Engagements* issued by the New Zealand Auditing and Assurance Standards Board. Copies of these standards are available on the External Reporting Board's website.

These standards require that we comply with ethical requirements and plan and perform our assurance engagement to provide reasonable assurance about whether the Disclosure Information has been prepared, in all material respects, with the Information Disclosure Determination, and about whether the Related Party Transaction Information has been prepared, in all material respects, with the Information Disclosure Determination and the Input Methodologies Determination. Reasonable assurance is a high level of assurance.

We have performed procedures to obtain evidence about the amounts and disclosures in the Disclosure Information, and the basis of valuation in the Related Party Transaction Information. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the Disclosure Information and the Related Party Transaction Information, whether due to fraud, error or non-compliance with the Information Disclosure Determination or the Input Methodologies Determination. In making those risk assessments, we considered internal control relevant to the Company's preparation of the Disclosure Information and the Related Party Transaction Information in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

Scope and inherent limitations

Because of the inherent limitations of a reasonable assurance engagement, and the test basis of the procedures performed, it is possible that fraud, error or non-compliance may occur and not be detected.

We did not examine every transaction, adjustment or event underlying the Disclosure Information or the Related Party Transaction Information, nor do we guarantee complete accuracy of the Disclosure Information or the Related Party Transaction Information. Also we did not evaluate the security and controls over the electronic publication of the Disclosure Information or the Related Party Transaction Information.

The opinion expressed in this independent assurance report has been formed on the above basis.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, required significant attention when carrying out the assurance engagement during the current disclosure year. These matters were addressed in the context of our audit, and in forming our opinion. We do not provide a separate opinion on these matters.

Key audit matter	How our procedures addressed the key audit matter
Valuation of related-party transactions at arm's-length The Information Disclosure Determination and the Input Methodologies Determination place a requirement on the Company to value related-party procurement transactions at a value not greater than arm's-length. In other words, the value at which a transaction, with the same terms and conditions, would be entered into between a willing seller and a willing buyer who are unrelated and who are acting independently of each other and pursuing their own best interests. In the absence of an active market for related-party transactions, assignment of an objective arm's-length value to a related-party transaction is difficult. This is a key audit matter because it is a new requirement that involves considerable judgement by Company personnel. In turn, verification of the appropriate assignment of an objective arm's-length valuation to related-party transactions requires, the exercise of significant professional judgement by the auditor.	We have obtained an understanding of the Company's approach to identifying and valuing related-party transactions at arm's-length in accordance with the Information Disclosure Determination and the Input Methodologies Determination. We confirmed the approach used is in accordance with the Information Disclosure Determination and the Input Methodologies Determination. The procedures we have carried out to satisfy ourselves that related-party transactions are appropriately valued at arm's-length included: • Testing the completeness of the related-parties identified through review of Board minutes, review of Companies Office records, and related-parties identified through detailed testing of transactions and balances in the annual financial statements audit. • Reviewing the appropriateness of procurement policies, especially with related parties, for the different categories of procurement transactions. • Testing samples of transactions, with related parties for the different categories of procurement for compliance with policies. This included reviewing tender evaluations, and quotes obtained to ensure transactions are at arm's length. • Review of opinions obtained by the Company from external experts, with the appropriate knowledge and expertise, on the reasonableness of the approach adopted to determine arm's-length value for related-party transactions for: o a significant lease; o the major emergency works contract; o the cable management contract; o network storage and supply; and o design work.

Key audit matter	How our procedures addressed the key audit matter
	• Comparison of sales transactions for undergrounding of overhead lines against the depreciated fair value of the replaced assets. • Confirming the material accuracy of related party values disclosed, and compliance of their calculation with the Information Disclosure Determination and the Input Methodologies Determination. Our review of the external expert's work included assessment of the appropriateness of the expert's approach, the reasonableness of the assumptions applied, and the conclusion reached. We also assessed the expert's competence, and objectivity. The total variance between our estimates and the Company's estimates of its arm's length values assigned to related party transactions was not considered to be material. No matters arose from carrying out the above procedures.

Directors' responsibility for the preparation of the Disclosure Information and Related Party Transaction Information

The directors of the Company are responsible for the preparation of:

- the Disclosure Information in accordance with the Information Disclosure Determination; and
- the Related Party Transaction Information in accordance with the Information Disclosure Determination and the Input Methodologies Determination.

The directors are responsible for such internal control as the directors determine is necessary to enable the preparation of the Disclosure Information and the Related Party Transaction Information that are free from material misstatement.

Our responsibility for the audit of the Disclosure Information and the Related Party Transaction Information

Our responsibility is to express an opinion that provides reasonable assurance on whether:

- the Disclosure Information has been prepared, in all material respects, in accordance with the Information Disclosure Determination; and

- the Related Party Transaction Information has been prepared, in all material respects, in accordance with the Information Disclosure Determination and the Input Methodologies Determination.

Independence and quality control

When carrying out the engagement, we complied with:

- the Auditor-General's independence and other ethical requirements, which incorporate the independence and ethical requirements of Professional and Ethical Standard 1 (Revised) issued by the New Zealand Auditing and Assurance Standards Board;
- the independence requirements specified in the Information Disclosure Determination; and
- the Auditor-General's quality control requirements, which incorporate the quality control requirements of Professional and Ethical Standard 3 (Amended) issued by the New Zealand Auditing and Assurance Standards Board.

The Auditor-General, and his employees, and Audit New Zealand and its employees may deal with the Company and its subsidiaries on normal terms within the ordinary course of trading activities of the Company and its subsidiaries. Other than any dealings on normal terms within the ordinary course of business, this engagement, the customised price path assurance engagement, and the annual audit of the Company's and its subsidiaries' financial statements, we have no relationship with or interests in the Company and its subsidiaries.

Use of this report

This independent assurance report has been prepared solely for the directors of the Company and for the Commerce Commission for the purpose of providing those parties with reasonable assurance about whether the Disclosure Information has been prepared, in all material respects, in accordance with the Information Disclosure Determination and whether the Related Party Transaction Information has been prepared, in all material respects, in accordance with the Information Disclosure Determination and the Input Methodologies Determination. We disclaim any assumption of responsibility for any reliance on this report to any person other than the directors of the Company or the Commerce Commission, or for any other purpose than that for which it was prepared.

John Mackey
Audit New Zealand
On behalf of the Auditor-General
Christchurch, New Zealand
28 August 2019