COMMERCE COMMISSION NEW ZEALAND

EDB Information Disclosure Requirements
Information Templates
for
Schedules 1–10

Company Name	Powerco Limited
Disclosure Date	31 August 2021
Disclosure Year (year ended)	31 March 2021

Templates for Schedules 1–10 excluding 5f–5g

Template Version 4.1. Prepared 21 December 2017

Table of Contents

Disclosure Template Instructions

These templates have been prepared for use by EDBs when making disclosures under clauses 2.3.1, 2.4.21, 2.4.22, 2.5.1, and 2.5.2 of the Electricity Distribution Information Disclosure Determination 2012.

Company Name and Dates

To prepare the templates for disclosure, the supplier's company name should be entered in cell C8, the date of the last day of the current (disclosure) year should be entered in cell C12, and the date on which the information is disclosed should be entered in cell C10 of the CoverSheet worksheet.
The cell C12 entry (current year) is used to calculate disclosure years in the column headings that show above some of the tables and in labels adjacent to some entry cells. It is also used to calculate the 'For year ended' date in the template title blocks (the title blocks are the light green shaded areas at the top of each template).
The cell C8 entry (company name) is used in the template title blocks.
Dates should be entered in day/month/year order (Example -"1 April 2013").

Data Entry Cells and Calculated Cells

Data entered into this workbook may be entered only into the data entry cells. Data entry cells are the bordered, unshaded areas (white cells) in each template. Under no circumstances should data be entered into the workbook outside a data entry cell.
In some cases, where the information for disclosure is able to be ascertained from disclosures elsewhere in the workbook, such information is disclosed in a calculated cell.

Validation Settings on Data Entry Cells

To maintain a consistency of format and to help guard against errors in data entry, some data entry cells test keyboard entries for validity and accept only a limited range of values. For example, entries may be limited to a list of category names, to values between 0% and 100%, or either a numeric entry or the text entry "N/A". Where this occurs, a validation message will appear when data is being entered. These checks are applied to keyboard entries only and not, for example, to entries made using Excel's copy and paste facility.

Conditional Formatting Settings on Data Entry Cells

Schedule 2 cells G79 and I79:L79 will change colour if the total cashflows do not equal the corresponding values in table 2(ii).
Schedule 4 cells P99:P105 and P107 will change colour if the RAB values do not equal the corresponding values in table 4(ii).
Schedule 9b columns AA to AE (2013 to 2017) contain conditional formatting. The data entry cells for future years are hidden (are changed from white to yellow).
Schedule 9b cells AG10 to AG60 will change colour if the total assets at year end for each asset class does not equal the corresponding values in column I in Schedule 9a.
Schedule 9c cell G30 will change colour if G30 (overhead circuit length by terrain) does not equal G18 (overhead circuit length by operating voltage).

Inserting Additional Rows and Columns

The templates for schedules 4, 5b, 5c, 5d, 5e, 6a, 8, 9d, and 9e may require additional rows to be inserted in tables marked 'include additional rows if needed' or similar. Column A schedule references should not be entered in additional rows, and should be deleted from additional rows that are created by copying and pasting rows that have schedule references.
Additional rows in schedules 5c, 6a, and 9e must not be inserted directly above the first row or below the last row of a table. This is to ensure that entries made in the new row are included in the totals.
Schedules 5d and 5e may require new cost or asset category rows to be inserted in allocation change tables 5d(iii) and 5e(ii). Accordingly, cell protection has been removed from rows 77 and 78 of the respective templates to allow blocks of rows to be copied. The four steps to add new cost category rows to table 5d(iii) are: Select Excel rows 69:77, copy, select Excel row 78, insert copied cells. Similarly, for table 5e(ii): Select Excel rows 70:78, copy, select Excel row 79, then insert copied cells.
The template for schedule 8 may require additional columns to be inserted between column P and U. To avoid interfering with the title block entries, these should be inserted to the left of column S. If inserting additional columns, the formulas for standard consumers total, non-standard consumers totals and total for all consumers will need to be copied into the cells of the added columns. The formulas can be found in the equivalent cells of the existing columns.

Disclosures by Sub-Network
If the supplier has sub-networks, schedules 8, 9a, 9b, 9c, 9e, and 10 must be completed for the network and for each sub-network. A copy of the schedule worksheet(s) must be made for each sub-network and named accordingly.

Schedule References
The references labelled 'sch ref' in the leftmost column of each template are consistent with the row references in the Electricity Distribution ID Determination 2012 (as issued on 21 December 2017). They provide a common reference between the rows in the determination and the template.

Description of Calculation References
Calculation cell formulas contain links to other cells within the same template or elsewhere in the workbook. Key cell references are described in a column to the right of each template. These descriptions are provided to assist data entry. Cell references refer to the row of the template and not the schedule reference.

Worksheet Completion Sequence
Calculation cells may show an incorrect value until precedent cell entries have been completed. Data entry may be assisted by completing the schedules in the following order:

1. Coversheet
2. Schedules 5a–5e
3. Schedules 6a–6b
4. Schedule 8
5. Schedule 3
6. Schedule 4
7. Schedule 2
8. Schedule 7
9. Schedules 9a–9e
10. Schedule 10

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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	18,637	261	96,341	3,190	27,376
Network	8,392	118	43,380	1,436	12,327
Non-network	10,245	144	52,961	1,753	15,050
Expenditure on assets	49,528	694	256,027	8,476	72,753
Network	46,442	651	240,075	7,948	68,220
Non-network	3,086	43	15,952	528	4,533

1(ii): Revenue metrics

	Revenue per GWh energy delivered to ICPs ($/GWh)	Revenue per average no. of ICPs ($/ICP)
Total consumer line charge revenue	72,402	1,015
Standard consumer line charge revenue	92,353	882
Non-standard consumer line charge revenue	29,899	115,083

1(iii): Service intensity measures

Demand density	33	*Maximum coincident system demand per km of circuit length (for supply) (kW/km)*
Volume density	171	*Total energy delivered to ICPs per km of circuit length (for supply) (MWh/km)*
Connection point density	12	*Average number of ICPs per km of circuit length (for supply) (ICPs/km)*
Energy intensity	14,015	*Total energy delivered to ICPs per average number of ICPs (kWh/ICP)*

1(iv): Composition of regulatory income

	($000)	% of revenue
Operational expenditure	90,946	28.99%
Pass-through and recoverable costs excluding financial incentives and wash-ups	103,659	33.04%
Total depreciation	80,369	25.61%
Total revaluations	29,063	9.26%
Regulatory tax allowance	9,885	3.15%
Regulatory profit/(loss) including financial incentives and wash-ups	55,872	17.81%
Total regulatory income	313,765	

1(v): Reliability

Interruption rate	20.24	*Interruptions per 100 circuit km*

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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).

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

sch ref		CY-2	CY-1	Current Year CY
7	**2(i): Return on Investment**			
8		**31 Mar 19**	**31 Mar 20**	**31 Mar 21**
9	**ROI – comparable to a post tax WACC**	**%**	**%**	**%**
10	Reflecting all revenue earned	6.12%	6.97%	2.55%
11	Excluding revenue earned from financial incentives	6.02%	6.99%	2.52%
12	Excluding revenue earned from financial incentives and wash-ups	6.01%	7.00%	2.54%
14	**Mid-point estimate of post tax WACC**	4.75%	4.27%	3.72%
15	25th percentile estimate	4.07%	3.59%	3.04%
16	75th percentile estimate	5.43%	4.95%	4.40%
19	**ROI – comparable to a vanilla WACC**			
20	Reflecting all revenue earned	6.63%	7.40%	2.88%
21	Excluding revenue earned from financial incentives	6.53%	7.41%	2.85%
22	Excluding revenue earned from financial incentives and wash-ups	6.52%	7.43%	2.88%
24	**WACC rate used to set regulatory price path**	7.19%	7.19%	4.57%
26	**Mid-point estimate of vanilla WACC**	5.26%	4.69%	4.05%
27	25th percentile estimate	4.58%	4.01%	3.37%
28	75th percentile estimate	5.94%	5.37%	4.73%

sch ref				($000)	
30	**2(ii): Information Supporting the ROI**				
32		Total opening RAB value	1,962,910		
33	*plus*	Opening deferred tax	(73,280)		
34	**Opening RIV**			1,889,630	
36	**Line charge revenue**			353,313	
38		Expenses cash outflow	194,605		
39	*add*	Assets commissioned	184,197		
40	*less*	Asset disposals	42,007		
41	*add*	Tax payments	8,349		
42	*less*	Other regulated income	(39,548)		
43	**Mid-year net cash outflows**			384,692	
45	**Term credit spread differential allowance**			2,098	
47		Total closing RAB value	2,053,806		
48	*less*	Adjustment resulting from asset allocation	11		
49	*less*	Lost and found assets adjustment	–		
50	*plus*	Closing deferred tax	(74,816)		
51	**Closing RIV**			1,978,979	
53	**ROI – comparable to a vanilla WACC**				2.88%
55		Leverage (%)			42%
56		Cost of debt assumption (%)			2.82%
57		Corporate tax rate (%)			28%
59	**ROI – comparable to a post tax WACC**				2.55%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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

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sch ref

2(iii): Information Supporting the Monthly ROI

Opening RIV	N/A

	Line charge revenue	Expenses cash outflow	Assets commissioned	Asset disposals	Other regulated income	Monthly net cash outflows
April						–
May						–
June						–
July						–
August						–
September						–
October						–
November						–
December						–
January						–
February						–
March						–
Total	–	–	–	–	–	–

Tax payments	N/A
Term credit spread differential allowance	N/A
Closing RIV	N/A
Monthly ROI – comparable to a vanilla WACC	N/A
Monthly ROI – comparable to a post tax WACC	N/A

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

Year-end ROI – comparable to a vanilla WACC	2.81%
Year-end ROI – comparable to a post tax WACC	2.48%

** 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.*

2(v): Financial Incentives and Wash-Ups

Net recoverable costs allowed under incremental rolling incentive scheme	–	
Purchased assets – avoided transmission charge	–	
Energy efficiency and demand incentive allowance		
Quality incentive adjustment	786	
Other financial incentives	–	
Financial incentives		786
Impact of financial incentives on ROI		0.03%
Input methodology claw-back	–	
CPP application recoverable costs	–	
Catastrophic event allowance	–	
Capex wash-up adjustment	(578)	
Transmission asset wash-up adjustment	–	
2013–15 NPV wash-up allowance	–	
Reconsideration event allowance	–	
Other wash-ups	–	

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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		
119	**Wash-up costs**	(578)
120		
121	**Impact of wash-up costs on ROI**	–0.02%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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				
7		**3(i): Regulatory Profit**		**($000)**
8		**Income**		
9		Line charge revenue		353,313
10	*plus*	Gains / (losses) on asset disposals		(41,904)
11	*plus*	Other regulated income (other than gains / (losses) on asset disposals)		2,355
12				
13		**Total regulatory income**		313,765
14		**Expenses**		
15	*less*	Operational expenditure		90,946
16				
17	*less*	Pass-through and recoverable costs excluding financial incentives and wash-ups		103,659
18				
19		**Operating surplus / (deficit)**		119,160
20				
21	*less*	Total depreciation		80,369
22				
23	*plus*	Total revaluations		29,063
24				
25		**Regulatory profit / (loss) before tax**		67,855
26				
27	*less*	Term credit spread differential allowance		2,098
28				
29	*less*	Regulatory tax allowance		9,885
30				
31		**Regulatory profit/(loss) including financial incentives and wash-ups**		55,872
32				
33		**3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups**	**($000)**	
34		**Pass through costs**		
35		Rates	1,929	
36		Commerce Act levies	632	
37		Industry levies	1,234	
38		CPP specified pass through costs	–	
39		**Recoverable costs excluding financial incentives and wash-ups**		
40		Electricity lines service charge payable to Transpower	88,075	
41		Transpower new investment contract charges	7,355	
42		System operator services	–	
43		Distributed generation allowance	4,435	
44		Extended reserves allowance	–	
45		Other recoverable costs excluding financial incentives and wash-ups	–	
46		**Pass-through and recoverable costs excluding financial incentives and wash-ups**		103,659
47				

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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).

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sch ref

48	**3(iii): Incremental Rolling Incentive Scheme**		**($000)**	
49			**CY-1**	**CY**
50			**31 Mar 20**	**31 Mar 21**
51	Allowed controllable opex			
52	Actual controllable opex			
53				
54	Incremental change in year			
55				
56			**Previous years' incremental change**	**Previous years' incremental change adjusted for inflation**
57	CY-5	31 Mar 16		
58	CY-4	31 Mar 17		
59	CY-3	31 Mar 18		
60	CY-2	31 Mar 19		
61	CY-1	31 Mar 20		
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	**Powerco Limited**
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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 17**	**31 Mar 18**	**31 Mar 19**	**31 Mar 20**	**31 Mar 21**
	($000)	**($000)**	**($000)**	**($000)**	**($000)**
Total opening RAB value	1,528,013	1,592,546	1,657,737	1,787,100	1,962,910
less **Total depreciation**	62,497	66,765	67,008	69,808	80,369
plus **Total revaluations**	32,664	17,321	24,327	44,763	29,063
plus **Assets commissioned**	108,878	123,688	185,313	208,182	184,197
less **Asset disposals**	14,730	9,200	12,096	7,414	42,007
plus **Lost and found assets adjustment**	–	–	–	–	–
plus **Adjustment resulting from asset allocation**	218	146	(1,173)	86	11
Total closing RAB value	1,592,546	1,657,737	1,787,100	1,962,910	2,053,806

4(ii): Unallocated Regulatory Asset Base

	Unallocated RAB *		RAB	
	($000)	($000)	($000)	($000)
Total opening RAB value		1,977,226		1,962,910
less				
Total depreciation		81,728		80,369
plus				
Total revaluations		29,248		29,063
plus				
Assets commissioned (other than below)	186,350		183,865	
Assets acquired from a regulated supplier	–		–	
Assets acquired from a related party	332		332	
Assets commissioned		186,682		184,197
less				
Asset disposals (other than below)	41,998		42,007	
Asset disposals to a regulated supplier	–		–	
Asset disposals to a related party	–		–	
Asset disposals		41,998		42,007
plus **Lost and found assets adjustment**		–		–
plus **Adjustment resulting from asset allocation**				11
Total closing RAB value		2,069,431		2,053,806

** 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	**Powerco Limited**
For Year Ended	**31 March 2021**

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				1,068
55		CPI_4^{-4}				1,052
56		Revaluation rate (%)				1.52%
57						
58			**Unallocated RAB ***		**RAB**	
59			**($000)**	**($000)**	**($000)**	**($000)**
60		Total opening RAB value	1,977,226		1,962,910	
61	*less*	Opening value of fully depreciated, disposed and lost assets	54,148		51,994	
62						
63		Total opening RAB value subject to revaluation	1,923,078		1,910,916	
64		**Total revaluations**		29,248		29,063
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**		62,128		61,012
69	*plus*	Capital expenditure	218,336		215,972	
70	*less*	Assets commissioned	186,682		184,197	
71	*plus*	Adjustment resulting from asset allocation			45	
72		**Works under construction - current disclosure year**		93,781		92,831
73						
74		Highest rate of capitalised finance applied				3.59%
75						

Company Name	**Powerco Limited**
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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(v): Regulatory Depreciation

	Unallocated RAB *		RAB	
	($000)	($000)	($000)	($000)
Depreciation - standard	69,823		69,753	
Depreciation - no standard life assets	11,904		10,616	
Depreciation - modified life assets	–		–	
Depreciation - alternative depreciation in accordance with CPP	–		–	
Total depreciation		81,728		80,369

4(vi): Disclosure of Changes to Depreciation Profiles

($000 unless otherwise specified)

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

** include additional rows if needed*

4(vii): Disclosure by Asset Category

($000 unless otherwise specified)

		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
	Total opening RAB value	74,945	52,671	176,560	449,695	326,032	278,228	172,126	356,250	76,403	1,962,910
less	Total depreciation	2,349	1,351	8,309	15,885	15,931	9,665	6,857	12,141	7,881	80,369
plus	Total revaluations	1,139	777	2,685	6,845	4,956	4,222	2,613	4,897	929	29,063
plus	Assets commissioned	27,122	9,143	24,301	66,934	13,673	8,178	2,651	16,276	15,918	184,197
less	Asset disposals	57	–	0	652	153	665	278	40,133	69	42,007
plus	Lost and found assets adjustment	–	–	–	–	–	–	–	–	–	–
plus	Adjustment resulting from asset allocation	(81)	–	–	(1,062)	–	–	–	–	1,155	11
plus	Asset category transfers	(23,430)	(7,899)	(20,992)	(57,831)	(11,822)	(7,066)	(2,291)	131,331	–	–
	Total closing RAB value	77,288	53,342	174,244	448,045	316,756	273,232	167,965	456,480	86,454	2,053,806
	Asset Life										
	Weighted average remaining asset life	42	44	31	40	32	34	30	45	17	(years)
	Weighted average expected total asset life	60	53	47	59	49	50	39	47	21	(years)

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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**		67,855	
9					
10	*plus*	Income not included in regulatory profit / (loss) before tax but taxable	1,725		*
11		Expenditure or loss in regulatory profit / (loss) before tax but not deductible	444		*
12		Amortisation of initial differences in asset values	10,038		
13		Amortisation of revaluations	8,655		
14				20,862	
15					
16	*less*	Total revaluations	29,063		
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	210		*
20		Notional deductible interest	24,141		
21				53,414	
22					
23		**Regulatory taxable income**		35,302	
24					
25	*less*	Utilised tax losses	–		
26		Regulatory net taxable income		35,302	
27					
28		Corporate tax rate (%)	28%		
29		**Regulatory tax allowance**		9,885	
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	220,835		
37	*less*	Amortisation of initial differences in asset values	10,038		
38	*plus*	Adjustment for unamortised initial differences in assets acquired	–		
39	*less*	Adjustment for unamortised initial differences in assets disposed	11,223		
40		Closing unamortised initial differences in asset values		199,575	
41					
42		Opening weighted average remaining useful life of relevant assets (years)		22	
43					

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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

sch ref				($000)
44		**5a(iv): Amortisation of Revaluations**		($000)
45				
46		Opening sum of RAB values without revaluations	1,769,251	
47				
48		Adjusted depreciation	71,714	
49		Total depreciation	80,369	
50		Amortisation of revaluations		8,655
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**	(73,280)	
61				
62	*plus*	Tax effect of adjusted depreciation	20,080	
63				
64	*less*	Tax effect of tax depreciation	31,116	
65				
66	*plus*	Tax effect of other temporary differences*	(416)	
67				
68	*less*	Tax effect of amortisation of initial differences in asset values	2,811	
69				
70	*plus*	Deferred tax balance relating to assets acquired in the disclosure year	1,496	
71				
72	*less*	Deferred tax balance relating to assets disposed in the disclosure year	(11,407)	
73				
74	*plus*	Deferred tax cost allocation adjustment	(176)	
75				
76		**Closing deferred tax**		(74,816)
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**	1,232,214	
84	*less*	Tax depreciation	111,128	
85	*plus*	Regulatory tax asset value of assets commissioned	180,495	
86	*less*	Regulatory tax asset value of asset disposals	1,269	
87	*plus*	Lost and found assets adjustment	–	
88	*plus*	Adjustment resulting from asset allocation	(616)	
89	*plus*	Other adjustments to the RAB tax value	5,341	
90		**Closing sum of regulatory tax asset values**		1,305,038

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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			
7	**5b(i): Summary—Related Party Transactions**	**($000)**	**($000)**
8	**Total regulatory income**		40
9			
10	**Market value of asset disposals**		–
11			
12	Service interruptions and emergencies	–	
13	Vegetation management	–	
14	Routine and corrective maintenance and inspection	–	
15	Asset replacement and renewal (opex)	–	
16	**Network opex**		–
17	Business support	–	
18	System operations and network support	–	
19	**Operational expenditure**		–
20	Consumer connection	–	
21	System growth	–	
22	Asset replacement and renewal (capex)	332	
23	Asset relocations	–	
24	Quality of supply	–	
25	Legislative and regulatory	–	
26	Other reliability, safety and environment	–	
27	**Expenditure on non-network assets**		–
28	**Expenditure on assets**		332
29	Cost of financing		–
30	Value of capital contributions		–
31	Value of vested assets		–
32	**Capital Expenditure**		332
33	**Total expenditure**		332
34			
35	**Other related party transactions**		–

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

	Name of related party	Nature of opex or capex service provided	Total value of transactions ($000)
37			
38	Base Power Limited	Asset replacement and renewal (capex)	332
39		[Select one]	
40		[Select one]	
41		[Select one]	
42		[Select one]	
43		[Select one]	
44		[Select one]	
45		[Select one]	
46		[Select one]	
47		[Select one]	
48		[Select one]	
49		[Select one]	
50		[Select one]	
51		[Select one]	
52		[Select one]	
53	**Total value of related party transactions**		332
54	** include additional rows if needed*		
55			

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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	USPP (2011) US$90m/NZ$114.2m	7/06/2011	7/06/2011	12	BKBM+1.835%	114,213	131,829	600	-133
12	USPP (2011) US$83m/NZ$105.3m	7/06/2011	7/06/2011	15	BKBM+1.980%	105,330	124,189	790	-140
13	USPP(2013) US$25m/NZ$30.4m	23/01/2013	1/11/2012	12	BKBM + 2.20%	30,440	35,609	160	-36
14	USPP(2013) US$80m/NZ$97.4m	23/01/2013	1/11/2012	15	BKBM + 2.21%	97,407	112,457	731	-130
15	NZD USPP(2014) NZ$135m	15/10/2014	3/07/2014	12.5	0.0662	135,000	135,420	759	-162
16	NZD USPP(2017) NZ$125m	16/11/2017	9/08/2017	12	BKBM + 1.84%	125,000	125,057	656	-146
17	NZD USPP (2018) NZ$100m	13/12/2018	16/08/2018	7	BKBM + 1.58%	100,000	99,775	150	-57
18	NZD USPP (2018) NZ$150m	13/12/2018	16/08/2018	12	BKBM + 1.81%	150,000	149,545	788	-175
19	SFA (2020) NZ$130m	25/02/2020	18/02/2020	7	BKBM +1.65%	130,000	129,574	195	-74
20	SFA (2020) AU$15m/NZ$15.6m	25/02/2020	18/02/2020	7	BKBM + 1.543%	15,645	16,259	23	-9
21	2015 Wholesale Bond - Fixed rate	28/09/2015	16/09/2015	7	0.0476	150,000	149,914	225	-86
22	2016 Wholesale Bond - Fixed rate	15/11/2016	4/11/2016	8	0.0467	100,000	100,401	225	-75
23	2020 Wholesale Bond - Fixed rate	6/08/2020	6/08/2030	10	0.0236	125,000	125,049	469	-125
24	2019 RCAF NZ$50m	10/12/2019	10/12/2025	6	BKBM + 0.95%	25,000	24,865	19	-8
25	** include additional rows if needed*						1,459,943	5,789	(1,356)

26

27 **5c(ii): Attribution of Term Credit Spread Differential**

28

sch ref			
29	**Gross term credit spread differential**		4,433
30			
31	Total book value of interest bearing debt	1,781,859	
32	Leverage	42%	
33	Average opening and closing RAB values	2,008,358	
34	**Attribution Rate (%)**		47%
35			
36	**Term credit spread differential allowance**		2,098
37			

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For Year Ended	**31 March 2021**

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

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		6,303			
12	Not directly attributable	–	–	–	–	–
13	**Total attributable to regulated service**		6,303			
14	**Vegetation management**					
15	Directly attributable		10,752			
16	Not directly attributable	–	–	–	–	–
17	**Total attributable to regulated service**		10,752			
18	**Routine and corrective maintenance and inspection**					
19	Directly attributable		13,365			
20	Not directly attributable	–	–	–	–	–
21	**Total attributable to regulated service**		13,365			
22	**Asset replacement and renewal**					
23	Directly attributable		10,531			
24	Not directly attributable	–	–	–	–	–
25	**Total attributable to regulated service**		10,531			
26	**System operations and network support**					
27	Directly attributable		16,408			
28	Not directly attributable	–	455	82	537	–
29	**Total attributable to regulated service**		16,863			
30	**Business support**					
31	Directly attributable		1,876			
32	Not directly attributable	–	31,257	6,166	37,423	–
33	**Total attributable to regulated service**		33,133			
34						
35	**Operating costs directly attributable**		59,234			
36	**Operating costs not directly attributable**	–	31,712	6,248	37,960	–
37	**Operational expenditure**		90,946			
38						

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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

39 5d(ii): Other Cost Allocations

sch ref		($000)
40	**Pass through and recoverable costs**	
41	**Pass through costs**	
42	Directly attributable	3,594
43	Not directly attributable	200
44	**Total attributable to regulated service**	3,794
45	**Recoverable costs**	
46	Directly attributable	99,865
47	Not directly attributable	–
48	**Total attributable to regulated service**	99,865
49		

50 5d(iii): Changes in Cost Allocations* †

sch ref				($000) CY-1	Current Year (CY)
51					
52	**Change in cost allocation 1**			**CY-1**	**Current Year (CY)**
53	Cost category		Original allocation		
54	Original allocator or line items		New allocation		
55	New allocator or line items		Difference	–	–
56					
57	Rationale for change				
58					
59					
60				($000)	
61	**Change in cost allocation 2**			**CY-1**	**Current Year (CY)**
62	Cost category		Original allocation		
63	Original allocator or line items		New allocation		
64	New allocator or line items		Difference	–	–
65					
66	Rationale for change				
67					
68					
69				($000)	
70	**Change in cost allocation 3**			**CY-1**	**Current Year (CY)**
71	Cost category		Original allocation		
72	Original allocator or line items		New allocation		
73	New allocator or line items		Difference	–	–
74					
75	Rationale for change				
76					
77					

78 ** 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.*
79 *† include additional rows if needed*

Company Name	**Powerco Limited**
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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

7 ### 5e(i): Regulated Service Asset Values

sch ref		Value allocated ($000s) Electricity distribution services
10	**Subtransmission lines**	
11	Directly attributable	77,288
12	Not directly attributable	–
13	**Total attributable to regulated service**	77,288
14	**Subtransmission cables**	
15	Directly attributable	53,342
16	Not directly attributable	–
17	**Total attributable to regulated service**	53,342
18	**Zone substations**	
19	Directly attributable	174,244
20	Not directly attributable	–
21	**Total attributable to regulated service**	174,244
22	**Distribution and LV lines**	
23	Directly attributable	448,045
24	Not directly attributable	–
25	**Total attributable to regulated service**	448,045
26	**Distribution and LV cables**	
27	Directly attributable	316,756
28	Not directly attributable	–
29	**Total attributable to regulated service**	316,756
30	**Distribution substations and transformers**	
31	Directly attributable	273,232
32	Not directly attributable	–
33	**Total attributable to regulated service**	273,232
34	**Distribution switchgear**	
35	Directly attributable	167,965
36	Not directly attributable	–
37	**Total attributable to regulated service**	167,965
38	**Other network assets**	
39	Directly attributable	456,480
40	Not directly attributable	–
41	**Total attributable to regulated service**	456,480
42	**Non-network assets**	
43	Directly attributable	16,028
44	Not directly attributable	70,426
45	**Total attributable to regulated service**	86,454
47	**Regulated service asset value directly attributable**	1,983,381
48	**Regulated service asset value not directly attributable**	70,426
49	**Total closing RAB value**	2,053,806

51 ### 5e(ii): Changes in Asset Allocations* †

sch ref				($000) CY-1	($000) Current Year (CY)
53	**Change in asset value allocation 1**				
54	Asset category		Original allocation		
55	Original allocator or line items		New allocation		
56	New allocator or line items		Difference	–	–
58	Rationale for change				
62	**Change in asset value allocation 2**				
63	Asset category		Original allocation		
64	Original allocator or line items		New allocation		
65	New allocator or line items		Difference	–	–
67	Rationale for change				
71	**Change in asset value allocation 3**				
72	Asset category		Original allocation		
73	Original allocator or line items		New allocation		
74	New allocator or line items		Difference	–	–
76	Rationale for change				

79 ** 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 component*
80 *† include additional rows if needed*

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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)
7		**6a(i): Expenditure on Assets**		
8		Consumer connection		40,770
9		System growth		50,261
10		Asset replacement and renewal		116,468
11		Asset relocations		1,009
12		Reliability, safety and environment:		
13		Quality of supply	10,936	
14		Legislative and regulatory	–	
15		Other reliability, safety and environment	7,187	
16		**Total reliability, safety and environment**		18,123
17		**Expenditure on network assets**		226,631
18		Expenditure on non-network assets		15,058
19				
20		**Expenditure on assets**		241,689
21	*plus*	Cost of financing		1,647
22	*less*	Value of capital contributions		27,364
23	*plus*	Value of vested assets		–
24				
25		**Capital expenditure**		215,972

		($000)
26	**6a(ii): Subcomponents of Expenditure on Assets (where known)**	
27	Energy efficiency and demand side management, reduction of energy losses	2,631
28	Overhead to underground conversion	1,363
29	Research and development	305

			($000)	($000)
30		**6a(iii): Consumer Connection**		
31		*Consumer types defined by EDB**		
32		Small	29,684	
33		Commercial	6,437	
34		Industrial	4,649	
35				
36				
37		** include additional rows if needed*		
38		**Consumer connection expenditure**		40,770
39				
40	*less*	Capital contributions funding consumer connection expenditure	26,982	
41		**Consumer connection less capital contributions**		13,788

			System Growth ($000)	Asset Replacement and Renewal ($000)
42		**6a(iv): System Growth and Asset Replacement and Renewal**		
43				
44				
45		Subtransmission	9,394	8,844
46		Zone substations	15,091	12,692
47		Distribution and LV lines	6,115	65,368
48		Distribution and LV cables	10,073	7,400
49		Distribution substations and transformers	3,781	8,752
50		Distribution switchgear	184	8,013
51		Other network assets	5,622	5,398
52		**System growth and asset replacement and renewal expenditure**	50,261	116,468
53	*less*	Capital contributions funding system growth and asset replacement and renewal	–	–
54		**System growth and asset replacement and renewal less capital contributions**	50,261	116,468
55				

			($000)	($000)
56		**6a(v): Asset Relocations**		
57		*Project or programme**		
58		Domain Rd, Papamoa, OHUG	319	
59		PNCC Intersection redevelopment	272	
60		Waikino and Waihou GXP Cable Relocation	182	
61				
62				
63		** include additional rows if needed*		
64		All other projects or programmes - asset relocations	236	
65		**Asset relocations expenditure**		1,009
66	*less*	Capital contributions funding asset relocations	382	
67		**Asset relocations less capital contributions**		627

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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				
68				
69		**6a(vi): Quality of Supply**		
70		*Project or programme**	**($000)**	**($000)**
71		Mobile Substation Site Preparation	328	
72		COVID Generation Projects	1,352	
73		Accellerated LFI Rollout	1,524	
74		Automation Projects	578	
75		Backfeed support	859	
76		** include additional rows if needed*		
77		All other projects programmes - quality of supply	6,296	
78		**Quality of supply expenditure**		10,936
79	*less*	Capital contributions funding quality of supply	–	
80		**Quality of supply less capital contributions**		10,936
81		**6a(vii): Legislative and Regulatory**		
82		*Project or programme**	**($000)**	**($000)**
83		Nil projects or programmes		
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		LIDAR and Poletop Photography	4,383	
96		Locks and Keys project	758	
97		Safety Reconductoring	380	
98				
99				
100		** include additional rows if needed*		
101		All other projects or programmes - other reliability, safety and environment	1,666	
102		**Other reliability, safety and environment expenditure**		7,187
103	*less*	Capital contributions funding other reliability, safety and environment	–	
104		**Other reliability, safety and environment less capital contributions**		7,187
105				
106		**6a(ix): Non-Network Assets**		
107		**Routine expenditure**		
108		*Project or programme**	**($000)**	**($000)**
109		IT Renewal	1,900	
110		Improve network Operations (OMS/DMS)	1,646	
111		Cloud Transition	1,409	
112		IT Leases	1,304	
113		Data & Analytics	850	
114		Land and Building leases	688	
115		IT Transformation	339	
116		** include additional rows if needed*		
117		All other projects or programmes - routine expenditure	1,172	
118		**Routine expenditure**		9,308
119		**Atypical expenditure**		
120		*Project or programme**	**($000)**	**($000)**
121		Enterprise Asset Management System	3,209	
122		Kaimai Redevelopment	918	
123		Cybersecurity	691	
124		End User Experience	684	
125				
126		** include additional rows if needed*		
127		All other projects or programmes - atypical expenditure	248	
128		**Atypical expenditure**		5,750
129				
130		**Expenditure on non-network assets**		15,058

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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		($000)	($000)
7	**6b(i): Operational Expenditure**		
8	Service interruptions and emergencies	6,303	
9	Vegetation management	10,752	
10	Routine and corrective maintenance and inspection	13,365	
11	Asset replacement and renewal	10,531	
12	**Network opex**		40,950
13	System operations and network support	16,863	
14	Business support	33,133	
15	**Non-network opex**		49,996
16			
17	**Operational expenditure**		90,946
18	**6b(ii): Subcomponents of Operational Expenditure (where known)**		
19	Energy efficiency and demand side management, reduction of energy losses		178
20	Direct billing*		–
21	Research and development		57
22	Insurance		1,314
23	** Direct billing expenditure by suppliers that directly bill the majority of their consumers*		

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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	351,589	353,313	0%
9	**7(ii): Expenditure on Assets**	**Forecast ($000) [2]**	**Actual ($000)**	**% variance**
10	Consumer connection	47,661	40,770	(14%)
11	System growth	65,393	50,261	(23%)
12	Asset replacement and renewal	93,202	116,468	25%
13	Asset relocations	3,166	1,009	(68%)
14	Reliability, safety and environment:			
15	Quality of supply	3,859	10,936	183%
16	Legislative and regulatory	–	–	–
17	Other reliability, safety and environment	3,353	7,187	114%
18	**Total reliability, safety and environment**	7,212	18,123	151%
19	**Expenditure on network assets**	216,634	226,631	5%
20	Expenditure on non-network assets	16,736	15,058	(10%)
21	Expenditure on assets	233,370	241,689	4%
22	**7(iii): Operational Expenditure**			
23	Service interruptions and emergencies	7,742	6,303	(19%)
24	Vegetation management	9,726	10,752	11%
25	Routine and corrective maintenance and inspection	16,788	13,365	(20%)
26	Asset replacement and renewal	12,115	10,531	(13%)
27	**Network opex**	46,371	40,950	(12%)
28	System operations and network support	18,633	16,863	(9%)
29	Business support	34,656	33,133	(4%)
30	**Non-network opex**	53,289	49,996	(6%)
31	**Operational expenditure**	99,660	90,946	(9%)
32	**7(iv): Subcomponents of Expenditure on Assets (where known)**			
33	Energy efficiency and demand side management, reduction of energy losses	–	2,631	–
34	Overhead to underground conversion	–	1,363	–
35	Research and development	–	305	–
36				
37	**7(v): Subcomponents of Operational Expenditure (where known)**			
38	Energy efficiency and demand side management, reduction of energy losses	–	178	–
39	Direct billing	–	–	–
40	Research and development	–	57	–
41	Insurance	–	1,314	–
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)*

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Powerco Limited**

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)
Unmetered	Streetlights	Standard	538	7,014
Small	Residential/Small Commercial	Standard	345,406	2,713,158
Medium	Commercial	Standard	1,601	249,906
Large	Large Commercial/Industrial	Standard	241	350,942
Large	XLarge Commercial/Industrial	Non-standard	405	1,558,840
Add extra rows for additional consumer groups or price category codes as necessary				
		Standard consumer totals	347,786	3,321,020
		Non-standard consumer totals	405	1,558,840
		Total for all consumers	348,191	4,879,859

Billed quantities by price component

Consumer group name or price category code										
Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand	Demand	Power Factor	Fixed	*Add extra columns for additional billed quantities by price component as necessary*
Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW of AMD	kW of OPD	kVArh	Fixture Count Days	
Unmetered	–	–	7,014,186	–	–	–	–	–	9,437,896	
Small	121,919,143	–	616,240,183	671,799,449	1,562,370,364	3,867,363	–	–	–	
Medium	567,164	–	249,982,826	–	–	30,363	13,241	41,049	–	
Large	–	2,381,292	350,941,602	–	–	108,847	47,993	65,156	–	
Large	143,840	–	1,314,455,225	–	–	–	–	148,789	–	
Standard consumer totals	122,486,307	2,381,292	1,224,178,797	671,799,449	1,562,370,364	4,006,572	61,234	106,205	9,437,896	
Non-standard consumer totals	143,840	–	1,314,455,225	–	–	–	–	148,789	–	
Total for all consumers	122,630,147	2,381,292	2,538,634,022	671,799,449	1,562,370,364	4,006,572	61,234	254,994	9,437,896	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Powerco Limited**

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.

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)
Unmetered	Streetlights	Standard	$1,682	–	$1,076	$607
Small	Residential/Small Commercial	Standard	$264,602	–	$198,926	$65,676
Medium	Commercial	Standard	$21,890	–	$16,814	$5,075
Large	Large Commercial/Industrial	Standard	$18,530	–	$12,163	$6,367
Large	XLarge Commercial/Industrial	Non-standard	$46,608	–	$28,142	$18,466
			–			
		[Select one]	–			
		[Select one]	–			
		[Select one]	–			
		[Select one]	–			
		Standard consumer totals	$306,705	–	$228,980	$77,725
		Non-standard consumer totals	$46,608	–	$28,142	$18,466
		Total for all consumers	$353,313	–	$257,122	$96,191

Add extra rows for additional consumer groups or price category codes as necessary

Line charge revenues ($000) by price component

Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand	Demand	Power Factor	Fixed
Rate (eg, $ per day, $ per kWh, etc.)	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW of AMD	kW of OPD	kVArh	Fixture Count Days
Unmetered	–	–	$238	–	–	–	–	–	$1,444
Small	$37,390	–	$39,923	$90,118	$97,171	–	–	–	–
Medium	$6,641	–	$9,296	–	–	$3,894	$1,772	$287	–
Large	–	$4,535	–	–	–	$7,172	$6,367	$456	–
Large	$45,567	–	–	–	–	–	–	$1,042	–
Standard consumer totals	$44,031	$4,535	$49,457	$90,118	$97,171	$11,066			
Non-standard consumer totals	$45,567	–	–	–	–	–			
Total for all consumers	$89,598	$4,535	$49,457	$90,118	$97,171	$11,066			

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

Check OK

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end 13

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Western Region**

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 **8(i): Billed Quantities by Price Component**

9

10

11 **Billed quantities by price component**

sch ref	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)										
12						**Price component**	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand	Demand	Power Factor	Fixed
13						**Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)**	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW of AMD	kW of OPD	kVArh	Fixture Count Days
14															
15	E1	Residential/Small Commercial	Standard	182,285	1,475,615		63,885,483	–	–	480,733,620	1,126,260,107	3,867,363	–	–	–
16	E100	Commercial	Standard	233	87,242		83,203	–	87,241,611	–	–	30,363	13,241	30,047	–
17	E300/R	Large Commercial/Industrial	Standard	241	350,942		–	2,381,292	350,941,602	–	–	108,847	47,993	65,156	–
18	SPECIAL	XLarge Commercial/Industrial	Non-standard	45	302,235		12,440	–	302,234,712	–	–	–	–	25,094	–
19															
20															
21															
22															
23															
24															
25	*Add extra rows for additional consumer groups or price category codes as necessary*														
26			**Standard consumer totals**	182,759	1,913,798		63,968,686	2,381,292	438,183,213	480,733,620	1,126,260,107	4,006,572	61,234	95,203	–
27			**Non-standard consumer totals**	45	302,235		12,440	–	302,234,712	–	–	–	–	25,094	–
28			**Total for all consumers**	182,804	2,216,033		63,981,126	2,381,292	740,417,925	480,733,620	1,126,260,107	4,006,572	61,234	120,297	–

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

29

30

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Western Region**

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.

31 ### 8(ii): Line Charge Revenues ($000) by Price Component

32

33 **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)									
34							Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand	Demand	Power Factor	Fixed
35							Rate (eg, $ per day, $ per kWh, etc.)	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW of AMD	kW of OPD	kVArh	Fixture Count Days
36																
37	E1	Residential/Small Commercial	Standard	$143,598		$111,635	$31,963	$5,459	–	–	$62,182	$75,957	–	–	–	–
38	E100	Commercial	Standard	$6,678		$4,906	$1,772	$802	–	–	–	–	$3,894	$1,772	$210	–
39	E300/R	Large Commercial/Industrial	Standard	$18,530		$12,163	$6,367	–	$4,535	–	–	–	$7,172	$6,367	$456	–
40	SPECIAL	XLarge Commercial/Industrial	Non-standard	$9,990		$4,906	$5,084	$9,815	–	–	–	–	–	–	$176	–
41				–												
42				–												
43				–												
44				–												
45				–												
46				–												
47	*Add extra rows for additional consumer groups or price category codes as necessary*															
48			**Standard consumer totals**	$168,807	–	$128,705	$40,102	$6,261	$4,535	–	$62,182	$75,957	$11,066			
49			**Non-standard consumer totals**	$9,990	–	$4,906	$5,084	$9,815	–	–	–	–	–			
50			**Total for all consumers**	$178,797	–	$133,611	$45,186	$16,076	$4,535	–	$62,182	$75,957	$11,066			

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

51

52 ### 8(iii): Number of ICPs directly billed

Check OK

53 **Number of directly billed ICPs at year end** 5

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Eastern Region**

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 **8(i): Billed Quantities by Price Component**

sch ref	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)	Billed quantities by price component — Price component: Fixed; Unit charging basis: ICP Days	Fixed; kVA of Capacity	Variable (Anytime); kWh	Variable (Peak); kWh	Variable (Off-Peak); kWh	Demand; kW of AMD	Demand; kW of OPD	Power Factor; kVArh	Fixed; Fixture Count Days
15	T01, T02, V01, V02	Streetlights/Unmetered	Standard	538	7,014	–	–	7,014,186	–	–	–	–	–	9,437,896
16	T05, T06, V05, V06	Residential/Small Commercial	Standard	163,121	1,237,543	58,033,660	–	616,240,183	191,065,829	436,110,257	–	–	–	–
17	T22, T24, V24, V28, T41	Commercial	Standard	1,368	162,664	483,961	–	162,741,215	–	–	–	–	11,002	–
18	T43	Large Commercial	Standard	0	0	–	–	–	–	–	–	–	–	–
19	V40, T50, T60, V60	XLarge Commercial/Industrial	Non-standard	360	1,256,605	131,400	–	1,012,220,513	–	–	–	–	123,695	–
20														
21														
22														
23														
24														
25	*Add extra rows for additional consumer groups or price category codes as necessary*													
26			**Standard consumer totals**	165,027	1,407,222	58,517,621	–	785,995,584	191,065,829	436,110,257	–	–	11,002	9,437,896
27			**Non-standard consumer totals**	360	1,256,605	131,400	–	1,012,220,513	–	–	–	–	123,695	–
28			**Total for all consumers**	165,387	2,663,827	58,649,021	–	1,798,216,097	191,065,829	436,110,257	–	–	134,697	9,437,896

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

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-Network Name	**Eastern Region**

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.

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

							Line charge revenues ($000) by price component								
						Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand	Demand	Power Factor	Fixed
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)** / **Rate (eg, $ per day, $ per kWh, etc.)**	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW of AMD	kW of OPD	kVArh	Fixture Count Days
T01, T02, V01, V02	Streetlights/Unmetered	Standard	$1,682		$1,076	$607	–	–	$238	–	–	–	–	–	$1,444
T05, T06, V05, V06	Residential/Small Commercial	Standard	$121,004		$87,291	$33,713	$31,931	–	$39,923	$27,936	$21,214	–	–	–	–
T22, T24, V24, V28, T41	Commercial	Standard	$15,212		$11,908	$3,304	$5,839	–	$9,296	–	–	–	–	$77	–
T43	Large Commercial	Standard	–		–	–	–	–	–	–	–	–	–	–	–
V40, T50, T60, V60	XLarge Commercial/Industrial	Non-standard	$36,618		$23,236	$13,382	$35,752	–	–	–	–	–	–	$866	–
			–												
			–												
			–												
			–												
			–												
		Standard consumer totals	$137,898	–	$100,275	$37,623	$37,769	–	$49,457	$27,936	$21,214	–			
		Non-standard consumer totals	$36,618	–	$23,236	$13,382	$35,752	–	–	–	–	–			
		Total for all consumers	$174,516	–	$123,511	$51,006	$73,522	–	$49,457	$27,936	$21,214	–			

Add extra rows for additional consumer groups or price category codes as necessary

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

Check **OK**

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	8

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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

	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
8								
9	All	Overhead Line	Concrete poles / steel structure	No.	228,709	230,010	1,301	4
10	All	Overhead Line	Wood poles	No.	32,014	30,998	(1,016)	3
11	All	Overhead Line	Other pole types	No.	3,594	3,703	109	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	1,496	1,494	(2)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	229	240	11	3
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	13	13	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	3	1	(2)	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	154	156	2	2
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	19	19	–	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	29	30	1	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	823	822	(1)	4
29	HV	Zone substation switchgear	33kV RMU	No.	1	1	–	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	142	141	(1)	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	184	183	(1)	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	841	850	9	3
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	50	41	(9)	3
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	216	216	–	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	14,701	14,697	(4)	4
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	4
37	HV	Distribution Line	SWER conductor	km	79	79	0	4
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,936	1,981	45	3
39	HV	Distribution Cable	Distribution UG PILC	km	195	193	(2)	3
40	HV	Distribution Cable	Distribution Submarine Cable	km	11	11	–	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	759	789	30	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	421	421	–	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	39,280	39,910	630	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	1,590	1,736	146	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	2,811	2,770	(41)	2
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	27,278	27,787	509	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	8,931	9,095	164	3
48	HV	Distribution Transformer	Voltage regulators	No.	149	133	(16)	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	4,050	4,039	(11)	2
50	LV	LV Line	LV OH Conductor	km	5,360	5,353	(6)	3
51	LV	LV Cable	LV UG Cable	km	4,420	4,452	32	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3,043	3,043	0	2
53	LV	Connections	OH/UG consumer service connections	No.	290,633	292,472	1,839	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,401	2,457	56	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	1	1	–	4
56	All	Capacitor Banks	Capacitors including controls	No	52	51	(1)	4
57	All	Load Control	Centralised plant	Lot	36	36	–	4
58	All	Load Control	Relays	No	3,294	3,440	146	2
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Western Region**

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

	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
8								
9	All	Overhead Line	Concrete poles / steel structure	No.	147,321	148,142	821	4
10	All	Overhead Line	Wood poles	No.	27,886	27,055	(831)	3
11	All	Overhead Line	Other pole types	No.	1,187	1,277	90	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	952	952	(0)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	80	86	6	3
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	13	13	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	3	1	(2)	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	85	85	–	2
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	18	19	1	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	528	531	3	4
29	HV	Zone substation switchgear	33kV RMU	No.	1	1	–	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	69	68	(1)	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	107	106	(1)	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	467	471	4	3
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	46	41	(5)	3
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	127	129	2	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	10,072	10,068	(4)	4
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	4
37	HV	Distribution Line	SWER conductor	km	17	17	–	4
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	670	685	15	3
39	HV	Distribution Cable	Distribution UG PILC	km	95	95	(0)	3
40	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	444	453	9	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	279	279	–	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	24,233	24,514	281	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	766	829	63	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,233	1,222	(11)	2
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	18,442	18,912	470	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	3,725	3,870	145	3
48	HV	Distribution Transformer	Voltage regulators	No.	101	76	(25)	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	1,612	1,604	(8)	2
50	LV	LV Line	LV OH Conductor	km	3,451	3,448	(3)	3
51	LV	LV Cable	LV UG Cable	km	2,315	2,334	19	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	1,371	1,370	(1)	2
53	LV	Connections	OH/UG consumer service connections	No.	155,797	156,326	529	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,250	1,264	14	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	1	1	–	4
56	All	Capacitor Banks	Capacitors including controls	No	5	5	–	4
57	All	Load Control	Centralised plant	Lot	27	26	(1)	4
58	All	Load Control	Relays	No	1,591	1,619	28	2
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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

	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
8								
9	All	Overhead Line	Concrete poles / steel structure	No.	81,388	81,868	480	4
10	All	Overhead Line	Wood poles	No.	4,128	3,943	(185)	3
11	All	Overhead Line	Other pole types	No.	2,407	2,426	19	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	544	542	(2)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	149	154	5	3
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	–	–	–	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	69	71	2	2
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	19	19	–	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	11	11	–	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	295	291	(4)	4
29	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	73	73	–	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	77	77	–	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	374	379	5	3
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	4	–	(4)	3
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	89	87	(2)	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	4,629	4,629	(0)	4
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	4
37	HV	Distribution Line	SWER conductor	km	61	61	0	4
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,266	1,296	29	3
39	HV	Distribution Cable	Distribution UG PILC	km	100	98	(2)	3
40	HV	Distribution Cable	Distribution Submarine Cable	km	11	11	–	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	315	336	21	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	142	142	–	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	15,047	15,396	349	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	824	907	83	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,578	1,548	(30)	2
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	8,836	8,875	39	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	5,206	5,225	19	3
48	HV	Distribution Transformer	Voltage regulators	No.	48	57	9	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2,438	2,435	(3)	2
50	LV	LV Line	LV OH Conductor	km	1,909	1,905	(3)	3
51	LV	LV Cable	LV UG Cable	km	2,105	2,118	13	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	1,672	1,673	1	2
53	LV	Connections	OH/UG consumer service connections	No.	134,836	136,146	1,310	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,151	1,193	42	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	1	1	–	4
56	All	Capacitor Banks	Capacitors including controls	No	47	46	(1)	4
57	All	Load Control	Centralised plant	Lot	9	10	1	4
58	All	Load Control	Relays	No	1,703	1,821	118	2
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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 2021

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)
10	All	Overhead Line	Concrete poles / steel structure	No.	22	754	4,637	30,489	54,530	49,060	26,669	3,354	3,144	2,092	2,337	1,902	1,809	1,853	2,161	2,415	2,831	2,558	2,240	2,425	3,307	3,421	3,409	4,267	3,951	3,558	4,319	3,484	2,954	–	–	–	–	58	230,010	–	3
11	All	Overhead Line	Wood poles	No.	27	36	725	5,214	7,625	7,055	7,610	412	259	380	421	303	239	141	190	95	71	90	34	3	3	2	4	–	1	11	1	13	26	–	–	–	–	7	30,998	–	3
12	All	Overhead Line	Other pole types	No.	–	–	4	37	2,730	59	94	21	75	37	41	47	92	70	34	31	23	7	10	2	8	3	2	1	–	4	13	23	121	–	–	–	–	114	3,703	–	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	2	80	322	344	301	226	9	1	3	5	1	15	2	10	4	12	3	34	19	1	16	0	11	28	16	15	7	5	–	–	–	–	–	1,494	0	3
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	24	6	21	7	1	6	1	1	1	2	9	2	7	7	19	7	5	1	12	3	25	29	19	26	0	–	–	–	–	–	240	8	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	13	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	13	–	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	–	–	–	1	–	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	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.	–	–	2	5	62	13	13	–	–	–	–	2	29	2	6	1	1	1	3	2	3	3	1	3	–	–	–	3	1	–	–	–	–	–	156	53	2
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.	–	–	–	–	2	4	1	–	–	–	–	–	–	1	7	–	–	–	–	–	–	–	3	–	–	–	–	–	1	–	–	–	–	–	19	–	2
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	2	–	–	–	–	–	–	1	–	1	2	1	–	4	3	5	2	3	6	–	–	–	–	–	–	–	–	–	–	30	–	2
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	120	152	165	117	9	6	1	3	6	10	3	11	11	13	14	13	25	16	6	22	39	13	9	18	11	6	–	–	–	–	3	822	–	2
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	–	–	23	–	–	–	–	–	–	5	6	6	–	14	21	6	9	8	–	23	9	1	–	–	–	–	–	–	–	10	141	–	2
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	15	20	35	22	7	1	–	1	1	5	–	4	4	8	1	2	3	4	6	8	10	9	6	7	1	–	–	–	–	–	3	183	–	2
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	85	131	108	117	4	20	1	3	19	12	18	37	18	20	9	33	16	32	22	41	46	36	8	13	1	–	–	–	–	–	–	850	–	2
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	1	6	–	–	–	–	1	1	–	1	–	3	3	–	2	–	4	7	–	9	–	1	–	2	–	–	–	–	–	41	–	3
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	1	24	30	21	22	2	5	3	4	2	2	5	9	6	2	5	5	6	11	12	13	11	1	3	4	–	5	–	–	–	–	2	216	–	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	80	104	1,285	2,860	3,446	3,480	1,426	48	72	102	79	78	68	81	82	66	84	83	67	97	131	119	115	117	126	110	122	107	64	–	–	–	–	–	14,697	29	3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
38	HV	Distribution Line	SWER conductor	km	–	–	0	14	30	11	7	–	–	–	5	–	–	–	0	1	0	0	–	–	–	10	–	0	0	–	0	–	–	–	–	–	–	–	79	–	3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	0	5	32	229	395	290	48	41	28	29	41	49	57	56	60	54	48	41	38	41	41	45	49	50	45	84	63	24	–	–	–	–	–	1,981	74	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	1	24	67	70	19	2	2	2	3	0	0	1	1	0	0	0	0	0	0	0	0	–	0	0	0	–	–	–	–	–	–	–	193	5	3
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	–	–	2	7	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	0	0	–	–	–	–	–	–	–	–	–	11	–	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	1	1	15	32	29	5	6	11	7	18	13	17	11	12	26	23	22	28	33	36	53	95	76	78	54	29	26	–	–	–	–	32	789	–	2
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	6	59	147	63	64	4	1	1	2	4	7	3	–	7	7	8	9	5	4	5	4	4	7	–	–	–	–	–	–	–	–	–	421	–	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	12	16	589	2,134	6,122	5,411	4,743	395	879	870	699	737	820	806	813	768	773	762	681	779	838	1,130	1,272	1,382	1,561	1,466	1,551	1,030	800	–	–	–	–	71	39,910	–	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	4	76	268	228	262	20	30	23	38	53	42	74	72	57	57	37	44	38	33	15	13	21	22	18	19	59	84	–	–	–	–	29	1,736	–	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	1	5	54	244	239	226	37	68	40	40	73	78	102	123	94	108	79	71	85	87	99	131	148	167	171	156	27	–	–	–	–	–	17	2,770	–	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	69	739	2,356	4,065	5,384	509	545	533	621	698	646	612	669	690	661	609	540	557	639	692	697	696	758	739	932	577	623	–	–	–	–	931	27,787	–	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	9	174	675	1,269	1,536	203	216	168	195	252	251	298	322	295	260	207	202	224	188	248	283	278	310	296	304	153	136	–	–	–	–	143	9,095	–	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	2	2	4	1	1	1	2	3	3	5	3	9	4	3	4	6	4	8	9	10	5	4	25	5	3	–	–	–	–	7	133	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2	–	3	134	963	1,298	811	91	78	60	110	110	41	30	32	43	26	24	11	14	13	21	18	16	12	22	19	37	–	–	–	–	–	–	4,039	2	3
51	LV	LV Line	LV OH Conductor	km	1	48	295	1,349	1,638	1,054	458	44	35	28	30	26	22	23	24	25	22	17	17	14	22	23	17	23	24	27	26	17	4	–	–	–	–	–	5,353	44	2
52	LV	LV Cable	LV UG Cable	km	0	0	8	146	1,076	898	712	60	60	49	57	97	110	114	132	128	113	59	44	40	38	47	49	68	91	91	102	50	12	–	–	–	–	–	4,452	320	2
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	12	87	348	863	554	426	44	41	26	27	68	70	63	58	52	55	30	23	18	14	14	18	28	32	32	32	10	0	–	–	–	–	–	3,043	207	2
54	LV	Connections	OH/UG consumer service connections	No.	21	167	2,044	14,677	116,665	46,212	32,265	3,165	2,962	2,457	3,029	3,707	4,008	3,753	4,409	4,202	3,678	4,327	3,907	2,986	3,616	3,603	3,959	4,182	4,879	5,186	5,346	2,685	375	–	–	–	–	–	292,472	76,759	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	106	332	218	141	66	6	9	6	19	38	50	25	55	65	15	52	43	61	144	236	222	178	129	65	17	25	–	–	–	–	134	2,457	–	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single syst	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	1	27	2	–	–	–	–	–	–	1	–	1	1	–	6	1	1	3	–	1	3	2	1	–	–	–	–	–	–	51	–	4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	4	5	8	–	1	–	–	–	–	–	–	–	3	2	1	6	1	2	–	2	–	–	1	–	–	–	–	–	–	–	36	3	3
59	All	Load Control	Relays	No	2	–	9	20	613	227	229	63	34	30	28	73	38	74	86	44	69	85	72	31	199	79	72	68	78	116	145	57	9	–	–	–	–	790	3,440	–	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A

Company Name	Powerco Limited
For Year Ended	31 March 2021
Network / Sub-network Name	Western Region

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 2021

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)
10	All	Overhead Line	Concrete poles / steel structure	No.	21	750	3,528	16,584	27,748	33,347	21,187	3,289	2,981	1,638	1,834	1,375	1,328	1,183	1,325	1,374	1,708	1,439	1,430	1,575	2,234	2,503	2,408	3,040	2,659	2,540	3,067	2,131	1,877	–	–	–	–	39	148,142	–	3
11	All	Overhead Line	Wood poles	No.	27	35	519	4,927	6,835	6,253	5,951	397	234	377	420	301	230	141	185	61	61	20	26	3	3	1	4	–	–	8	1	8	26	–	–	–	–	1	27,055	–	3
12	All	Overhead Line	Other pole types	No.	–	–	3	22	760	47	64	11	18	7	16	39	30	10	3	5	3	2	10	1	1	1	2	1	–	4	11	19	93	–	–	–	–	94	1,277	–	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	2	43	230	219	191	144	2	1	2	5	1	12	–	4	–	12	2	0	4	0	6	0	11	23	15	12	7	4	–	–	–	–	–	952	0	3
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	6	5	3	3	0	6	0	1	0	–	4	0	5	0	4	0	1	0	1	1	4	5	13	22	0	–	–	–	–	–	86	5	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	13	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	13	–	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	–	–	–	1	–	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	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	3	46	9	10	–	–	–	–	2	1	–	5	–	–	1	2	–	1	1	1	1	–	–	–	1	–	–	–	–	–	–	85	42	2
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.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	4	3	–	2	3	6	–	–	–	–	–	–	–	–	–	–	19	–	2
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	76	94	122	93	9	6	1	3	6	6	1	2	–	2	2	8	17	8	3	12	20	3	4	16	10	5	–	–	–	–	2	531	–	2
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	–	–	23	–	–	–	–	–	–	5	6	–	–	14	11	–	4	1	–	3	1	–	–	–	–	–	–	–	–	–	68	–	2
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	12	15	28	9	2	–	–	1	1	2	–	2	2	3	–	2	–	2	1	5	3	3	3	7	–	–	–	–	–	–	3	106	–	2
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	44	80	58	83	–	20	1	1	17	5	1	30	1	1	–	19	–	21	10	11	22	36	8	1	1	–	–	–	–	–	–	471	–	2
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	1	6	–	–	–	–	1	1	–	1	–	3	3	–	2	–	4	7	–	9	–	1	–	2	–	–	–	–	–	41	–	3
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	1	21	25	11	15	1	4	2	4	2	2	–	5	2	–	–	3	2	3	4	4	9	1	3	2	–	1	–	–	–	–	2	129	–	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	80	104	1,201	2,088	2,054	2,490	1,004	43	52	87	63	49	42	38	39	26	36	18	30	43	57	64	62	52	57	52	67	46	25	–	–	–	–	–	10,068	22	3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
38	HV	Distribution Line	SWER conductor	km	–	–	–	–	5	9	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	17	–	3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	0	4	28	122	124	80	12	9	11	6	8	10	15	16	22	18	19	12	12	15	19	17	20	15	10	31	24	6	–	–	–	–	–	685	45	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	0	21	41	18	6	0	0	2	3	0	0	1	1	0	0	0	0	0	0	0	0	–	0	0	0	–	–	–	–	–	–	–	95	5	3
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 sectionalisers	No.	–	–	–	1	8	32	24	4	4	9	7	8	12	12	6	11	17	13	7	17	14	16	20	40	35	47	37	12	12	–	–	–	–	28	453	–	2
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	5	42	94	39	32	4	–	1	2	4	7	2	–	7	6	8	7	5	1	5	–	1	7	–	–	–	–	–	–	–	–	–	279	–	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	12	16	558	1,439	4,618	3,168	2,446	263	690	673	513	475	470	482	456	439	418	380	370	445	443	646	773	732	776	780	904	613	467	–	–	–	–	49	24,514	–	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	–	61	128	89	101	12	18	12	27	22	21	16	37	22	30	20	18	21	16	14	7	18	16	7	7	17	46	–	–	–	–	26	829	–	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	1	5	45	134	160	91	16	52	28	22	30	20	33	45	30	32	38	22	31	37	52	55	55	62	55	42	12	–	–	–	–	–	17	1,222	–	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	68	516	1,723	2,963	3,324	355	368	379	443	471	418	377	423	409	413	317	345	395	405	456	463	423	551	469	643	451	434	–	–	–	–	910	18,912	–	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	2	66	309	501	572	85	87	99	97	92	92	104	102	123	108	76	81	101	98	142	139	119	123	108	126	93	85	–	–	–	–	140	3,870	–	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	2	1	4	–	1	1	2	3	2	5	1	4	4	1	2	5	1	5	8	4	1	2	9	1	–	–	–	–	–	7	76	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2	–	1	52	373	415	314	52	37	44	73	54	22	14	17	18	6	11	4	7	7	12	14	6	8	9	11	21	–	–	–	–	–	–	1,604	2	3
51	LV	LV Line	LV OH Conductor	km	1	48	240	899	898	648	290	42	31	24	25	21	19	18	19	18	17	12	14	11	19	19	15	22	19	23	22	11	3	–	–	–	–	–	3,448	40	2
52	LV	LV Cable	LV UG Cable	km	0	0	8	86	635	496	333	31	27	31	31	37	49	50	63	66	64	33	27	18	20	25	25	31	34	38	42	27	7	–	–	–	–	–	2,334	238	2
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	12	74	233	418	249	140	17	14	12	12	15	24	17	20	19	23	8	8	4	6	5	7	7	6	7	9	2	–	–	–	–	–	–	1,370	68	2
54	LV	Connections	OH/UG consumer service connections	No.	21	167	1,466	7,889	54,782	26,025	17,189	2,170	1,959	1,963	2,167	2,344	2,802	2,640	2,760	2,730	2,398	2,200	2,442	1,714	2,259	2,326	2,294	2,417	2,576	2,559	2,795	1,198	74	–	–	–	–	–	156,326	35,601	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	58	148	85	81	58	6	6	2	19	19	27	2	20	28	12	30	16	24	81	144	87	110	88	44	6	6	–	–	–	–	57	1,264	–	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single syst	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	1	–	–	–	–	–	–	–	–	5	–	4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	4	5	8	–	1	–	–	–	–	–	–	–	–	–	–	5	–	1	–	1	–	–	1	–	–	–	–	–	–	–	26	3	3
59	All	Load Control	Relays	No	1	–	–	9	286	131	88	14	15	22	17	36	5	17	26	14	7	10	16	2	9	19	32	22	20	33	49	19	4	–	–	–	–	696	1,619	–	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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 2021

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.	1	4	1,109	13,905	26,782	15,713	5,482	65	163	454	503	527	481	670	836	1,041	1,123	1,119	810	850	1,073	918	1,001	1,227	1,292	1,018	1,252	1,353	1,077	–	–	–	–	19	81,868	–	3
11	All	Overhead Line	Wood poles	No.	–	1	206	287	790	802	1,659	15	25	3	1	2	9	–	5	34	10	70	8	–	–	1	–	–	1	3	–	5	–	–	–	–	–	6	3,943	–	3
12	All	Overhead Line	Other pole types	No.	–	–	1	15	1,970	12	30	10	57	30	25	8	62	60	31	26	20	5	–	1	7	2	–	–	–	–	2	4	28	–	–	–	–	20	2,426	–	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	–	37	92	126	110	82	7	–	1	1	1	3	2	6	4	0	0	34	15	1	10	0	0	6	1	3	0	1	–	–	–	–	–	542	0	3
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	18	1	18	5	1	–	0	0	1	2	5	2	2	6	15	6	4	0	12	1	21	24	6	4	–	–	–	–	–	–	154	3	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
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	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
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	2	16	4	3	–	–	–	–	–	28	2	1	1	1	–	1	2	2	2	–	2	–	–	–	2	1	–	–	–	–	–	71	11	2
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.	–	–	–	–	2	4	1	–	–	–	–	–	–	1	7	–	–	–	–	–	–	–	3	–	–	–	–	–	1	–	–	–	–	–	19	–	2
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	2	1	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	2
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	44	58	43	24	–	–	–	–	–	4	2	9	11	11	12	5	8	8	3	10	19	10	5	2	1	1	–	–	–	–	1	291	–	2
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	–	–	10	6	5	7	–	20	8	1	–	–	–	–	–	–	–	10	73	–	2
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	3	5	7	13	5	1	–	–	–	3	–	2	2	5	1	–	3	2	5	3	7	6	3	–	1	–	–	–	–	–	–	77	–	2
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	41	51	50	34	4	–	–	2	2	7	17	7	17	19	9	14	16	11	12	30	24	–	–	12	–	–	–	–	–	–	–	379	–	2
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.	–	–	–	3	5	10	7	1	1	1	–	–	–	5	4	4	2	5	2	4	8	8	9	2	–	–	2	–	4	–	–	–	–	–	87	–	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	–	–	84	772	1,392	990	422	5	19	16	17	29	26	43	43	39	48	64	37	54	74	54	53	65	69	58	55	62	39	–	–	–	–	–	4,629	7	3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A
38	HV	Distribution Line	SWER conductor	km	–	–	0	14	25	2	7	–	–	–	5	–	–	–	0	1	0	0	–	–	–	7	–	0	0	–	0	–	–	–	–	–	–	–	61	–	3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	–	1	4	107	272	210	36	33	17	23	33	38	42	40	38	36	29	29	26	25	22	28	29	35	34	53	39	18	–	–	–	–	–	1,296	29	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	0	3	26	51	13	2	2	0	–	0	–	–	0	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	98	–	3
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	–	–	2	7	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	0	0	–	–	–	–	–	–	–	–	–	11	–	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	1	–	7	–	5	1	2	2	–	10	1	5	5	1	9	10	15	11	19	20	33	55	41	31	17	17	14	–	–	–	–	4	336	–	2
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	1	17	53	24	32	–	1	–	–	–	–	1	–	–	1	–	2	–	3	–	4	3	–	–	–	–	–	–	–	–	–	–	142	–	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	31	695	1,504	2,243	2,297	132	189	197	186	262	350	324	357	329	355	382	311	334	395	484	499	650	785	686	647	417	333	–	–	–	–	22	15,396	–	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	4	15	140	139	161	8	12	11	11	31	21	58	35	35	27	17	26	17	17	1	6	3	6	11	12	42	38	–	–	–	–	3	907	–	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	–	–	9	110	79	135	21	16	12	18	43	58	69	78	64	76	41	49	54	50	47	76	93	105	116	114	15	–	–	–	–	–	–	1,548	–	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	1	223	633	1,102	2,060	154	177	154	178	227	228	235	246	281	248	292	195	162	234	236	234	273	207	270	289	126	189	–	–	–	–	21	8,875	–	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	7	108	366	768	964	118	129	69	98	160	159	194	220	172	152	131	121	123	90	106	144	159	187	188	178	60	51	–	–	–	–	3	5,225	–	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	–	1	–	1	–	–	–	–	1	–	2	5	–	2	2	1	3	3	1	6	4	2	16	4	3	–	–	–	–	–	57	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	–	–	2	82	590	883	497	39	41	16	37	56	19	16	15	25	20	13	7	7	6	9	4	10	4	13	8	16	–	–	–	–	–	–	2,435	–	3
51	LV	LV Line	LV OH Conductor	km	–	–	55	450	741	406	169	2	4	4	5	4	3	4	6	8	5	4	3	2	3	3	3	1	5	3	4	6	2	–	–	–	–	–	1,905	5	2
52	LV	LV Cable	LV UG Cable	km	–	–	0	59	442	402	379	30	33	18	25	61	61	64	69	61	49	26	17	23	17	22	24	38	57	52	60	23	5	–	–	–	–	–	2,118	82	2
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	–	13	116	445	305	286	27	27	14	14	53	46	46	39	32	32	21	15	14	8	8	11	21	25	25	23	7	0	–	–	–	–	–	1,673	139	2
54	LV	Connections	OH/UG consumer service connections	No.	–	–	578	6,788	61,883	20,187	15,076	995	1,003	494	862	1,363	1,206	1,113	1,649	1,472	1,280	2,127	1,465	1,272	1,357	1,277	1,665	1,765	2,303	2,627	2,551	1,487	301	–	–	–	–	–	136,146	41,158	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	48	184	133	60	8	–	3	4	–	19	23	23	35	37	3	22	27	37	63	92	135	68	41	21	11	19	–	–	–	–	77	1,193	–	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single syst	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	1	27	1	–	–	–	–	–	–	1	–	1	1	–	3	1	1	3	–	1	2	2	1	–	–	–	–	–	–	46	–	4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	2	1	1	1	1	–	1	–	–	–	–	–	–	–	–	–	–	10	–	3
59	All	Load Control	Relays	No	1	–	9	11	327	96	141	49	19	8	11	37	33	57	60	30	62	75	56	29	190	60	40	46	58	83	96	38	5	–	–	–	–	94	1,821	–	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	N/A

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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	163	6	169
13	33kV	1,331	248	1,579
14	SWER (all SWER voltages)	79	–	79
15	22kV (other than SWER)	121	1	122
16	6.6kV to 11kV (inclusive—other than SWER)	14,576	2,184	16,760
17	Low voltage (< 1kV)	5,353	4,452	9,805
18	**Total circuit length (for supply)**	21,623	6,891	28,514
19				
20	Dedicated street lighting circuit length (km)	1,070	1,973	3,043
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			–
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	2,454	11%	
25	Rural	7,749	36%	
26	Remote only	–	–	
27	Rugged only	11,104	51%	
28	Remote and rugged	315	1%	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	21,623	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	11,505	40%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	21,623	100%	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Western Region**

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	–	–	–
13	33kV	952	100	1,052
14	SWER (all SWER voltages)	17	–	17
15	22kV (other than SWER)	121	1	122
16	6.6kV to 11kV (inclusive—other than SWER)	9,947	779	10,726
17	Low voltage (< 1kV)	3,448	2,334	5,782
18	**Total circuit length (for supply)**	14,485	3,213	17,699
19				
20	Dedicated street lighting circuit length (km)	748	622	1,370
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			–
22				

23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**
24	Urban	1,584	11%
25	Rural	4,369	30%
26	Remote only	–	–
27	Rugged only	8,217	57%
28	Remote and rugged	315	2%
29	Unallocated overhead lines	–	–
30	**Total overhead length**	14,485	100%
31			
32		**Circuit length (km)**	**(% of total circuit length)**
33	Length of circuit within 10km of coastline or geothermal areas (where known)	5,425	31%
34		**Circuit length (km)**	**(% of total overhead length)**
35	Overhead circuit requiring vegetation management	14,485	100%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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	163	6	169
13	33kV	379	149	527
14	SWER (all SWER voltages)	61	–	61
15	22kV (other than SWER)	–	–	–
16	6.6kV to 11kV (inclusive—other than SWER)	4,629	1,405	6,034
17	Low voltage (< 1kV)	1,905	2,118	4,023
18	**Total circuit length (for supply)**	7,138	3,678	10,815
19				
20	Dedicated street lighting circuit length (km)	323	1,351	1,673
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			–
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	870	12%	
25	Rural	3,380	47%	
26	Remote only	–	–	
27	Rugged only	2,887	40%	
28	Remote and rugged	–	–	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	7,138	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	6,081	56%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	7,138	100%	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**

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)
8			
9			
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	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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		Residential/Small Commercial	4,893	
12		Commercial	51	
13		Large Commercial/Industrial	14	
14				
15				
16		** include additional rows if needed*		
17		**Connections total**	4,958	
18				
19		**Distributed generation**		
20		Number of connections made in year	820	**connections**
21		Capacity of distributed generation installed in year	6,720.57	**MVA**
22		**9e(ii): System Demand**		
23				
24				
25		**Maximum coincident system demand**	**Demand at time of maximum coincident demand (MW)**	
26		GXP demand	800	
27	*plus*	Distributed generation output at HV and above	144	
28		**Maximum coincident system demand**	944	
29	*less*	Net transfers to (from) other EDBs at HV and above	–	
30		**Demand on system for supply to consumers' connection points**	944	
31		**Electricity volumes carried**	**Energy (GWh)**	
32		Electricity supplied from GXPs	4,557	
33	*less*	Electricity exports to GXPs	145	
34	*plus*	Electricity supplied from distributed generation	742	
35	*less*	Net electricity supplied to (from) other EDBs	–	
36		**Electricity entering system for supply to consumers' connection points**	5,154	
37	*less*	Total energy delivered to ICPs	4,880	
38		**Electricity losses (loss ratio)**	274	5.3%
39				
40		**Load factor**	0.62	
41		**9e(iii): Transformer Capacity**		
42			**(MVA)**	
43		Distribution transformer capacity (EDB owned)	3,322	
44		Distribution transformer capacity (Non-EDB owned, estimated)	143	
45		**Total distribution transformer capacity**	3,465	
46				
47		**Zone substation transformer capacity**	2,240	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Western Region**

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	Residential/Small Commercial	2,177		
12	Commercial	10		
13	Large Commercial/Industrial	2		
14				
15				
16	** include additional rows if needed*			
17	**Connections total**	2,189		
18				
19	**Distributed generation**			
20	Number of connections made in year	387	**connections**	
21	Capacity of distributed generation installed in year	4,042.50	**MVA**	
22	**9e(ii): System Demand**			
23				
24				
25	**Maximum coincident system demand**	**Demand at time of maximum coincident demand (MW)**		
26	GXP demand	365		
27	*plus* Distributed generation output at HV and above	71		
28	**Maximum coincident system demand**	436		
29	*less* Net transfers to (from) other EDBs at HV and above	–		
30	**Demand on system for supply to consumers' connection points**	436		
31	**Electricity volumes carried**	**Energy (GWh)**		
32	Electricity supplied from GXPs	2,039		
33	*less* Electricity exports to GXPs	3		
34	*plus* Electricity supplied from distributed generation	346		
35	*less* Net electricity supplied to (from) other EDBs	–		
36	**Electricity entering system for supply to consumers' connection points**	2,382		
37	*less* Total energy delivered to ICPs	2,216		
38	**Electricity losses (loss ratio)**	166	7.0%	
39				
40	**Load factor**	0.62		
41	**9e(iii): Transformer Capacity**			
42		**(MVA)**		
43	Distribution transformer capacity (EDB owned)	1,668		
44	Distribution transformer capacity (Non-EDB owned, estimated)	99		
45	**Total distribution transformer capacity**	1,767		
46				
47	**Zone substation transformer capacity**	1,090		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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		Residential/Small Commercial	2,716	
12		Commercial	41	
13		Large Commercial/Industrial	12	
14				
15				
16		** include additional rows if needed*		
17		**Connections total**	2,769	
18				
19		**Distributed generation**		
20		Number of connections made in year	433	**connections**
21		Capacity of distributed generation installed in year	2,678.07	**MVA**
22		**9e(ii): System Demand**		
23				
24				
25		**Maximum coincident system demand**	**Demand at time of maximum coincident demand (MW)**	
26		GXP demand	411	
27	*plus*	Distributed generation output at HV and above	78	
28		**Maximum coincident system demand**	489	
29	*less*	Net transfers to (from) other EDBs at HV and above	–	
30		**Demand on system for supply to consumers' connection points**	489	
31		**Electricity volumes carried**	**Energy (GWh)**	
32		Electricity supplied from GXPs	2,518	
33	*less*	Electricity exports to GXPs	142	
34	*plus*	Electricity supplied from distributed generation	396	
35	*less*	Net electricity supplied to (from) other EDBs	–	
36		**Electricity entering system for supply to consumers' connection points**	2,772	
37	*less*	Total energy delivered to ICPs	4,880	
38		**Electricity losses (loss ratio)**	(2,108)	(76.0%)
39				
40		**Load factor**	0.65	
41		**9e(iii): Transformer Capacity**		
42			**(MVA)**	
43		Distribution transformer capacity (EDB owned)	1,654	
44		Distribution transformer capacity (Non-EDB owned, estimated)	44	
45		**Total distribution transformer capacity**	1,699	
46				
47		**Zone substation transformer capacity**	1,150	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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)	16	
11	Class B (planned interruptions on the network)	2,149	
12	Class C (unplanned interruptions on the network)	3,051	
13	Class D (unplanned interruptions by Transpower)	8	
14	Class E (unplanned interruptions of EDB owned generation)		
15	Class F (unplanned interruptions of generation owned by others)	1	
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)	545	
19	**Total**	5,770	
20			
21	**Interruption restoration**	**≤3Hrs**	**>3hrs**
22	Class C interruptions restored within	1,751	1,300
23			
24	**SAIFI and SAIDI by class**	**SAIFI**	**SAIDI**
25	Class A (planned interruptions by Transpower)	0.16	23.7
26	Class B (planned interruptions on the network)	0.37	88.6
27	Class C (unplanned interruptions on the network)	1.84	169.0
28	Class D (unplanned interruptions by Transpower)	0.10	7.4
29	Class E (unplanned interruptions of EDB owned generation)		
30	Class F (unplanned interruptions of generation owned by others)	0.00	0.0
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)	0.10	21.4
34	**Total**	2.57	310.2
35			
36	**Normalised SAIFI and SAIDI**	**Normalised SAIFI**	**Normalised SAIDI**
37	Classes B & C (interruptions on the network)	2.21	257.6
38			

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Powerco Limited**

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	0.12	12.48
43	Vegetation	0.22	30.93
44	Adverse weather	0.01	0.48
45	Adverse environment	0.01	2.73
46	Third party interference	0.25	29.39
47	Wildlife	0.12	11.06
48	Human error	0.09	2.38
49	Defective equipment	0.77	62.32
50	Cause unknown	0.26	17.19

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	0.61
56	Subtransmission cables		
57	Subtransmission other		
58	Distribution lines (excluding LV)	0.32	77.85
69	Distribution cables (excluding LV)	0.01	1.76
60	Distribution other (excluding LV)	0.04	8.42

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

62

		SAIFI	SAIDI
63	**Main equipment involved**		
64	Subtransmission lines	0.33	23.0
65	Subtransmission cables		
66	Subtransmission other	0.04	2.01
67	Distribution lines (excluding LV)	1.26	129.37
68	Distribution cables (excluding LV)	0.11	9.66
69	Distribution other (excluding LV)	0.10	4.94

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

		Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
71	**Main equipment involved**			
72	Subtransmission lines	160	1,494	10.71
73	Subtransmission cables		254	–
74	Subtransmission other	9		
75	Distribution lines (excluding LV)	3,836	14,776	25.96
76	Distribution cables (excluding LV)	131	2,185	6.00
77	Distribution other (excluding LV)	220		
78	**Total**	4,356		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Western Region**

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)	9	
11	Class B (planned interruptions on the network)	1,266	
12	Class C (unplanned interruptions on the network)	2,085	
13	Class D (unplanned interruptions by Transpower)	7	
14	Class E (unplanned interruptions of EDB owned generation)		
15	Class F (unplanned interruptions of generation owned by others)	1	
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)	299	
19	**Total**	3,667	
20			
21	**Interruption restoration**	**≤3Hrs**	**>3hrs**
22	Class C interruptions restored within	1,243	842
23			
24	**SAIFI and SAIDI by class**	**SAIFI**	**SAIDI**
25	Class A (planned interruptions by Transpower)	0.07	9.56
26	Class B (planned interruptions on the network)	0.43	99.68
27	Class C (unplanned interruptions on the network)	1.96	170.37
28	Class D (unplanned interruptions by Transpower)	0.17	13.92
29	Class E (unplanned interruptions of EDB owned generation)		
30	Class F (unplanned interruptions of generation owned by others)	0.00	0.0
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)	0.13	22.9
34	**Total**	2.76	316.5
35			
36	**Normalised SAIFI and SAIDI**	**Normalised SAIFI**	**Normalised SAIDI**
37	Classes B & C (interruptions on the network)	2.39	270.0
38			

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Western Region**

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

Row	Cause	SAIFI	SAIDI
42	Lightning	0.06	5.55
43	Vegetation	0.24	34.52
44	Adverse weather	0.01	0.70
45	Adverse environment	0.00	4.13
46	Third party interference	0.27	25.99
47	Wildlife	0.13	10.74
48	Human error	0.07	1.85
49	Defective equipment	0.94	70.58
50	Cause unknown	0.24	16.30

51

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

53

Row	Main equipment involved	SAIFI	SAIDI
55	Subtransmission lines	0.00	1.1
56	Subtransmission cables		
57	Subtransmission other		
58	Distribution lines (excluding LV)	0.36	86.45
69	Distribution cables (excluding LV)	0.01	1.46
60	Distribution other (excluding LV)	0.05	10.65

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

62

Row	Main equipment involved	SAIFI	SAIDI
64	Subtransmission lines	0.25	11.9
65	Subtransmission cables		
66	Subtransmission other	0.04	2.1
67	Distribution lines (excluding LV)	1.48	147.12
68	Distribution cables (excluding LV)	0.07	4.20
69	Distribution other (excluding LV)	0.13	5.06

70 ### 10(v): Fault Rate

Row	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
72	Subtransmission lines	127	952	13.34
73	Subtransmission cables		100	–
74	Subtransmission other	6		
75	Distribution lines (excluding LV)	2,682	10,085	26.59
76	Distribution cables (excluding LV)	46	780	5.90
77	Distribution other (excluding LV)	141		
78	**Total**	3,002		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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)	7	
11	Class B (planned interruptions on the network)	883	
12	Class C (unplanned interruptions on the network)	966	
13	Class D (unplanned interruptions by Transpower)	1	
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)	246	
19	**Total**	2,103	
20			
21	**Interruption restoration**	**≤3Hrs**	**>3hrs**
22	Class C interruptions restored within	508	458
23			
24	**SAIFI and SAIDI by class**	**SAIFI**	**SAIDI**
25	Class A (planned interruptions by Transpower)	0.26	39.43
26	Class B (planned interruptions on the network)	0.31	76.46
27	Class C (unplanned interruptions on the network)	1.70	167.41
28	Class D (unplanned interruptions by Transpower)	0.02	0.15
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)	0.08	19.7
34	**Total**	2.37	303.2
35			
36	**Normalised SAIFI and SAIDI**	**Normalised SAIFI**	**Normalised SAIDI**
37	Classes B & C (interruptions on the network)	2.01	243.9
38			

Company Name	**Powerco Limited**
For Year Ended	**31 March 2021**
Network / Sub-network Name	**Eastern Region**

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.

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

Cause	SAIFI	SAIDI
Lightning	0.18	20.14
Vegetation	0.19	26.96
Adverse weather	0.01	0.25
Adverse environment	0.01	1.19
Third party interference	0.22	33.14
Wildlife	0.10	11.40
Human error	0.12	2.97
Defective equipment	0.58	53.20
Cause unknown	0.29	18.17

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.00	0.1
Subtransmission cables		
Subtransmission other		
Distribution lines (excluding LV)	0.28	68.34
Distribution cables (excluding LV)	0.01	2.10
Distribution other (excluding LV)	0.03	5.97

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.41	35.3
Subtransmission cables		
Subtransmission other	0.05	1.90
Distribution lines (excluding LV)	1.01	109.75
Distribution cables (excluding LV)	0.16	15.69
Distribution other (excluding LV)	0.08	4.81

10(v): Fault Rate

Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
Subtransmission lines	33	542	6.09
Subtransmission cables		154	–
Subtransmission other	3		
Distribution lines (excluding LV)	1,154	4,690	24.60
Distribution cables (excluding LV)	85	1,405	6.05
Distribution other (excluding LV)	79		
Total	1,354		

Company Name	Powerco Limited
For Year Ended	31 March 2021

Schedule 14 Mandatory Explanatory Notes

(Guidance Note: This Microsoft Word version of Schedules 14, 14a and 15 is from the Electricity Distribution Information Disclosure Determination 2012 – as amended and consolidated 3 April 2018. Clause references in this template are to that determination)

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 (Schedule 2)

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: Explanatory comment on return on investment
The disclosed ROI under both a Vanilla and Post tax approach for 2021 is lower than 2020 (decreased 4.51% to 2.88% and 4.42% to 2.55% respectively). This is primarily driven by a $49.2m (12.2%) decrease in line charge revenue to $353.3m and the inclusion of a disposals provision on Commissioned Work in Progress (WIP).

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: Explanatory comment on regulatory profit
Regulatory profit for the year ended 31 March 2021 is $55.87m reflecting an decrease of $75.5m (57.5%) compared to the previous year. This was primarily due to decreases in total regulatory income (↓$83.4m, 21.0%), lower revaluations (↓$15.7m, 35.1%), higher depreciation (↑$10.6m, 15.1%), higher operating expenditure (↑$1.2m, 1.3%) offset by lower pass-through and recoverable costs (↓$13.9m, 11.8%), and regulatory tax (↓$21.7m, 68.7%).

Other regulated income includes:

- reimbursement of costs arising from network damage caused by a third party (e.g. income received from insurers or directly from the third parties), and
- revenue for shared corporate services provided by the regulated business to related parties.

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: Explanatory comment on merger and acquisition expenditure
No merger and acquisition expenditure was incurred during the disclosure year.

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: Explanatory comment on the value of the regulatory asset based (rolled forward)
The closing Regulatory Asset Base (RAB) value has increased by $90.9m (4.6%) during the year to $2,054m. Commissioned assets (↓$24.0m, 11.5%) and Revaluations (↓$15.7m, 35.1%) were lower than 2020. Depreciation (↑$10.6m, 15.1%) and Disposals (↑$34.6m) were higher than 2020.

The Disposals number is significantly higher than 2020 because of a change in the underlying methodology to calculate the Disposals. The change is that Disposals now include a provision amount which aligns with the accounting treatment. This provision is for disposals related to Commissioned Work in Progress (WIP).

One of the drivers of the increased depreciation is that a Depreciation provision on WIP has been recognised in 2021 for the first time. This now aligns with the accounting treatment.

The inclusion of provisions for Depreciation and Disposals related to WIP was driven by the increasing WIP balance over the last two years, resulting from our transition to a new ERP system.

The adjustment resulting from asset allocations consists of two main items.

1) A change in treatment of some non-network easements assets. They were previously classified as a shared asset, subject to asset allocation. They are now classified as an electricity non-network asset.

2) The removal of the 2021 movement in fibre related pole assets from the RAB. This is due to the removal of Avoidable Cost Allocation Methodology (ACAM) as a stand-alone cost allocation methodology from 01 April 2018.

The asset category transfer line in Schedule 4 (vii) represents the movement in WIP. The movements are detailed below.

Subtransmission lines ($000)	Subtransmission cables ($000)	Zone substations ($000)	Distribution and LV Lines ($000)	Distribution & LV cables ($000)	Distribution substations & transformers ($000)	Distribution Switchgear ($000)	Other network assets ($000)	Non-network assets ($000)
($23)	($8)	($21)	($58)	($12)	($7)	($2)	$131	$0

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 allowance: permanent differences

There is $1.7m of income that is not included in regulatory profit / (loss) before tax but is taxable. This relates predominantly to customer contribution revenue that is recognised over 10 years for tax purposes.

There is $0.4m of expenditure in regulatory profit that is not deductible for tax relating to legal and entertainment expenditure.

There is no income included in regulatory profit / (loss) before tax but not taxable.

There is $0.2m deductible for tax but not in regulatory profit / (loss) relating to interest on leases under NZ IFRS-16.

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: Tax effect of other temporary differences (current disclosure year)

Temporary differences amount to -$1.5m. The total tax effect of -$0.4m relates to:

- $0.3m CIW income that will be recognised as taxable income over a period of 10 years
- -$0.2m movement in employee related provisions
- -$0.5m other provisions associated with year-end

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: Cost allocation

Powerco has adopted a fully distributed cost approach to allocate shared costs between Powerco's electricity distribution, gas distribution and unregulated businesses.

Directly attributable costs

$59.2m operating costs (65.1% of total operating costs) are directly attributable to the electricity distribution business (EDB) compared to $58.8m in the previous disclosure year.

All operating costs except specified systems operations and network support (SONS) costs and specified business support costs are directly attributable to the specific regulated businesses. Costs that are directly attributable to the electricity distribution business primarily relate to:

- SONS (except network information services management costs)
- Customised Price-Quality Path related costs
- Network management and administration
- Customer related costs

Proxy allocators

Powerco adopts ABBA (accounting-based allocation approach) to determine the cost allocators that are used to allocate operating costs not directly attributable (less any arm's length deduction) to the electricity distribution business or any other regulated service. If a causal relationship cannot be established between the cost incurred and the cost driver a proxy relationship may be used to determine the cost allocator.

Following analysis of each financial statement item by Powerco's management team and based on a combination of experience, knowledge and the comparative sizes of Powerco's regulated businesses proxy relationships have been used to allocate operating costs for which a causal relationship cannot be established. The main reason a causal relationship cannot be established is that some costs do not have just one driver. The use of one cost allocator would unfairly affect the allocation of costs between regulated businesses.

Costs not directly attributable

$31.7m operating costs (34.9% of total) that are not directly attributable to the EDB have been allocated to the EDB, compared to $31.0m in the prior disclosure year.

Costs that are not directly attributable to the electricity distribution business primarily relate to SONS network information services management and business support costs.

SONS network information services management costs include personnel costs and professional service fees. A proxy fixed asset allocator based on the carrying value of network fixed assets is used.

Business support costs include personnel, professional services, information technology, building & insurance, administration and communication & marketing. The allocators vary as follows:

- Corporate services apply a proxy allocator of distribution line charge revenue
- Human resources apply a proxy allocator of employee numbers
- Regulatory management apply a causal allocation of managements estimate of staff time working on electricity regulated, other regulated and unregulated services and legal apply a proxy fixed asset allocator
- Insurance apply causal allocators of indemnity values, vehicle allocations and employee numbers
- Facility costs apply a causal allocator of employee numbers and a proxy fixed assets allocator
- Information systems and projects apply a proxy fixed asset allocator

Only one allocation methodology has been applied to each functional area and there have been no changes to any cost allocator used in the current disclosure year.

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: Commentary on asset allocation

$1,983m (96.6%) of the total RAB value is directly attributable to the electricity distribution business (EDB). $70.4m (3.4%) of the total RAB value is not directly attributable but has been allocated to the EDB. In the previous disclosure year, the proportionate split was 96.7% and 3.3% respectively.

The principles supporting Powerco's asset allocation are consistent with the principles supporting cost allocation described in Box 7.

Shared non-network assets have been allocated to the regulatory asset base based on the proxy allocator of fixed asset net book value.

There have been no reclassifications in the period reported.

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: Explanation of capital expenditure for the disclosure year

Expenditure on assets for the year ended March 2021 totalled $241.7m which is $46.3m (23.7%) more than the prior year ($195.4m). This reflects increased expenditure across all asset expenditure categories except consumer connection and non-network. A $33.8m increase in asset replacement and renewal, a $5.9m increase in quality of supply and a $5.3m increase in system growth accounts for 97% of the total $46.3m increase.

Materiality threshold

A number of capex project and programme classifications exist. Whether they are material is defined as follows:

- quality of supply project - the project value exceeds 5% of the category's total value
- asset relocation project - the project value exceeds $100k
- other reliability, safety and environment project or programme - expenditure exceeds $150k
- non-network programme - expenditure exceeds $300k

Reclassified items

No capital expenditure has been reclassified during the current disclosure year.

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: Explanation of operational expenditure for the disclosure year

Operating expenditure (opex) for the year ended March 2021 totalled $90.9m which is $1.2m (1.3%) more than the prior year ($89.8m). Service interruptions and emergency expenditure decreased $1.2m, vegetation management increased $0.6m, while business support expenditure increased $1.8m. Variances noted across the remaining opex categories are small and account for the balance of the total opex increase.

Reclassified items

No items have been reclassified during this disclosure year.

Atypical expenditure

There have been no material items of atypical expenditure.

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: Explanatory comment on variance in actual to forecast expenditure
Expenditure on assets

Expenditure on assets (network and non-network) for the year ended March 2021 totalled $241.7m which is $8.3m (3.6%) above the 2020 Asset Management Plan (AMP) forecast ($233.4m). This net overspend is the result of a $10m (4.6%) overspend on expenditure on network assets and a $1.7m (10%) underspend on expenditure on non-network assets.

- Consumer connection

Customer development remained relatively strong across much of the Powerco footprint and was only $6.9m (14.5%) lower than forecast. The six-week lockdown in April and early May had a significant impact on Customer activity, with contractors unable to carry out work during that period. However, there were several records broken for volume and value of customer projects in subsequent months. A small decline in activity in the Powerco Eastern Network was offset by record growth across the Western Network. Subdivisions and associated residential connections were exceptionally strong, along with numerous Retirement Home developments. There was also a significant amount of Commercial and Industrial activity, with Coolstore upgrades across the Tauranga Network, new Distribution Centres in Palmerston North and multiple light industrial subdivisions across the entire Powerco footprint.

- System growth

Actual expenditure on system growth is less than forecast by $15.1m (23%). Much of this variance is due to the challenges encountered with the design and landowner agreements on several large projects that has seen the construction expenditure deferred to FY2022 and FY2023.

- Omokoroa – Detailed design and the finalisation of landowner agreements occurred in FY2021 with the commencement of construction deferred to FY2022.
- Putaruru-Tirau – Detailed design and procurement activities are now complete, with construction now scheduled for FY2022.
- Kaimarama-Whitianga – Landowner agreement has been reached in principal for the switching station site. It is now planned to complete detailed design and procurement in FY2022 and begin substation civil works.
- Taupo Quay Second Circuit – this project was halted due to escalating cost forecasts and has been substituted with an alternative project with FY22/23 construction.
- Roberts Ave to Peat Street Circuit - delayed due to consenting and cable route discussions with Nga Tangata Tiaki.
- Feilding Transformer Upgrade - deferred to allow further options analysis to be undertaken.

- Asset replacement and renewal

Asset replacement and renewal expenditure was higher than forecast by $23.7m (25%). A significant amount of overhead renewals work was brought forward into FY2021 in response to the anticipated underspend in system growth projects. Overhead renewal projects provided this opportunity given a large pool of construction-ready projects with resources available to deliver.

During FY2021, we carried out a review of the different types of equipment on our electricity network, including the required repair times and the risk to supply for specific equipment failures. Following this network criticality review, we decided to strengthen our holdings of critical spares by $3m. This additional asset replacement and renewal expenditure was not included in our AMP20 forecasts.

- Asset relocations.

Asset Relocations were mostly related to Council roading projects throughout the Powerco Network area. The upgrade of a Transpower substation at Waikino created the underground conversion of Powerco 33kV lines on adjacent properties. There were a number of smaller projects related to relocating Powerco assets for safety, such as LV fuse pillars near driveways that were vulnerable to vehicle damage.

- Reliability, safety and environment
  - Quality of supply

    Expenditure on quality of supply exceeded forecast for the period by $7.1m (183%). This increase in expenditure was primarily due to a focus on accelerating reliability initiatives. This was to help maintain expenditures levels in anticipation of reduced spend in consumer connections due to the impacts of Covid 19 on the demand for new connections. These initiatives included the rollout of line fault indicators (LFI), low voltage monitoring equipment and generation projects.

- Other reliability, safety and environment

  Expenditure on other reliability, safety and environment was $3.8m (114%) higher than forecast. This variance is largely due to expenditure on LiDAR data capture. In FY2021, we undertook a full LiDAR survey ($3.4m) following a successful trial in FY2020. This full survey wasn't originally included in the AMP20 forecasts.

- Expenditure on non-network assets

Expenditure on non-network assets was $1.7m (10.0%) under forecast. The variance resulted from the timing of a planned upgrade of the Enterprise Asset Management System.

Operational expenditure

Operational expenditure (opex) totalled $90.9m during the period which is $8.7m (8.7%) below the 2020 Asset Management Plan (AMP) forecast ($99.6m). Network opex was $5.4m (11.7%) lower than forecast, primarily driven by underspend on routine corrective maintenance and inspections while non-network opex was $3.3m (4.4%) below the forecast.

Commentary is provided for each category where the variance against target exceeds 5.0% (subject to the difference being material in dollar terms).

- Service interruptions and emergencies

Expenditure on service interruptions and emergencies was $1.4m (18.6%) lower than forecast. The underspend relates primarily to the actual rate of unplanned faults on the network during FY2021 being lower than forecast, particularly regarding distribution line faults.

- Vegetation management

Expenditure on vegetation management was $1.0m (10.5%) higher than forecast. Management approved an in-year increase in spend to enable the removal of a greater number of risk trees from the network, and additional expenditure was allocated to achieving wider corridors from selected sub transmission feeders using mechanical and aerial methodology.

- Routine corrective maintenance and inspections

Expenditure on routine corrective maintenance and inspections was $3.4m (20.4%) lower than forecast. The primary reasons for this underspend are:

- The impact of Covid lockdown restrictions on the completion of non-urgent maintenance activities;
- Poletop photography ($1.2m) was originally forecast under Opex, but delivered as a Capex project; and
- Some high value maintenance activities deferred to FY22 due to planned SAIDI/SAIFI constraints.

- Asset replacement and renewal

Expenditure on asset replacement and renewal was $1.6m (13.1%) lower than forecast. As for the underspend in Service interruptions and emergencies Opex, a lower than forecast unplanned fault rate has resulted in a lesser requirement for remedial work following faults.

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: Explanatory comment relating to revenue for the disclosure year
Powerco's actual revenue for the year ended 31 March 2021 was $353.3m compared to target revenue of $351.6m. There is no material difference between target revenue and total billed line charge revenue.

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: Commentary on network reliability for the disclosure year

For the year ended March 2021, Powerco's normalised SAIDI (Class B and Class C) was 258 minutes, slightly extending the worsening trend in unplanned fault restoration durations. SAIFI (Class B and Class C) dropped slightly to 2.21 reflecting the impact of fewer major storms.

The increasing SAIDI supports Powerco's analysis in its customised price path (CPP) application of underlying deterioration in the network performance, reflecting declining asset condition. This is one of the drivers for increasing our investment in asset renewal. Despite increasing expenditure across a number of areas, we expect at best, only marginal improvement in network performance (measured by the average level of unplanned interruptions) during the CPP period; but with increasing improvements over the longer term.

Calculating reliability results

Powerco has well developed processes to capture outage/interruption information and ensure the accuracy of these records. In utilising this data to complete schedule 10 the following key calculation steps are applied:

- To calculate SAIDI and SAIFI customer connection numbers ("ICPs") are calculated from the Geographic Information System ("GIS") for the transformers affected. ICPs are updated to the GIS daily from the Electricity Registry;
- The customer connection number used in the annual calculation of SAIDI and SAIFI is the average of the daily customer numbers over the Assessment year. The sum of all customer minutes interrupted is divided by the average customer connection numbers to derive the annual SAIDI minutes and SAIFI value; and
- Calculation of the final year result is completed using the outage/interruption records in the Outage Management Database noting refinements to the data to correct for a number of practical delays affecting the recorded restoration time for many faults; these include SCADA polling delays, voice communication constraints and clock time coding discrepancies. Consistent with previous reporting periods, an adjustment of three minutes per interruption is made across all fault records to correct for these discrepancies. Powerco's CPP proposal includes investment planned to improve communication systems over the five-year CPP period ending March 2023. It is expected the improved communications systems will see the communications adjustment phased out by the end of the CPP period.

The normalised results for Powerco

The normalised result (line 37 of Schedule 10) reports SAIDI and SAIFI by applying the methodology contained in the Information Disclosure Determination (IDD).

This methodology is different to the methodology used for calculating SAIDI and SAIFI for the Customised Price-Quality Path (CPP) compliance statement therefore the actual normalised result reported in this information disclosure should not be compared with the CPP quality path normalised reliability limits.

The Commerce Commission is aware of this inherent inconsistency and will consider this issue in future amendments to the Information Disclosure Determination[1]. From 2019 the quality path normalised reliability limits are not required to be disclosed in this Schedule 10.

The normalised results for Powerco's sub-networks

When calculating the normalised SAIDI and SAIFI for the sub-networks for the purposes of Information Disclosure, Powerco has derived normalised datasets for each sub-network using boundary values calculated using the reference dataset (2005-2009 disclosure years) for each sub-network. This approach follows one of the two options provided by the Commerce Commission in its Issues Register for Electricity and Gas Information Disclosure[2]. Powerco has chosen this option as we consider it provides a more meaningful analysis of the actual performance of each sub-network than the alternative option of applying a Powerco

[1] Commerce Commission's issues register for gas and electricity information disclosure, item number 447.

[2] Commerce Commission's issues register for gas and electricity information disclosure, item number 231.

wide network boundary value to the sub-networks.

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: Explanation of insurance cover

Powerco holds significant insurance cover relating to material damage and business interruption, targeted at key assets. This includes full cover for buildings and contents, substations and IS server equipment, and natural disaster cover for distribution transformers and SCADA equipment.

Powerco continues to prudently insure our network and other assets where it is economically feasible to do so, in line with good industry practice. Cover for poles, wires and pipes (commonly referred to as transmission and distribution cover) are, for all practical purposes, unavailable in NZ. Where it may be available in small amounts across our geographic region, the cost is considered to be uneconomic versus the risk, as there is a restricted retained limit and a premium cost of 10-15% of the sum insured.

To manage the immediate financial exposure to a catastrophic event affecting uninsured assets, the company maintains headroom in its debt facilities as explained below. The geographically diverse nature of Powerco's assets, and the resilience of those assets, also provides some practical mitigation of seismic risks.

Powerco maintains debt facilities, in excess of net (drawn) debt, that would be available for use should events occur which require extra funds to be made available quickly. This headroom amount is in excess of our day-to-day working capital requirements.

The value of this facility headroom, currently $70 million, is based primarily on an assessment of the uninsured damage to Powerco's network assets undertaken by Marsh Risk Consulting. This analysis reviewed the catastrophic risk and expected loss from a catastrophic event, and was last assessed at $50-70 million.

Insurance costs are allocated to Powerco's separate businesses following Powerco's allocation policies discussed earlier in this document.

Amendments to previously disclosed information

18. In the box below, provide information about amendments to previously disclosed information disclosed 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
There have been no amendments to previously disclosed information.

Company Name ______________________________

For Year Ended ______________________________

Schedule 15 Voluntary Explanatory Notes

(In this Schedule, clause references are to the Electricity Distribution Information Disclosure Determination 2012 – as amended and consolidated 3 April 2018.)

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.

Box 1: Voluntary explanatory comment on disclosed information
Finance (schedules 2-7)

Weighted average remaining useful life of assets (schedule 4)
The weighted average remaining useful life of assets has been calculated in accordance with Schedule 16 of the Information Disclosure Determination which specifies the weighting is based on opening RAB values. Opening RAB is a depreciated value that skews the weighted average remaining useful life value towards the newer, and consequently, higher value longer remaining life assets. This measure is therefore not a true reflection of the age of Powerco's assets.

It is also important to note that asset age, particularly total average remaining asset life, is not a key driver of the need to replace network assets. Good asset management practice would suggest this is primarily driven by overall asset health – i.e. condition/performance/criticality. For this reason, Powerco's forecast investment profiles set out in the company's current Asset Management Plan are not directly linked to addressing specific movements in average asset age although this is one of a number of key considerations.

Disposals and Depreciation provisions
As noted in Box 4 the disposals and depreciation result for the current year include provisions related to Commissioned WIP that is included in RAB.

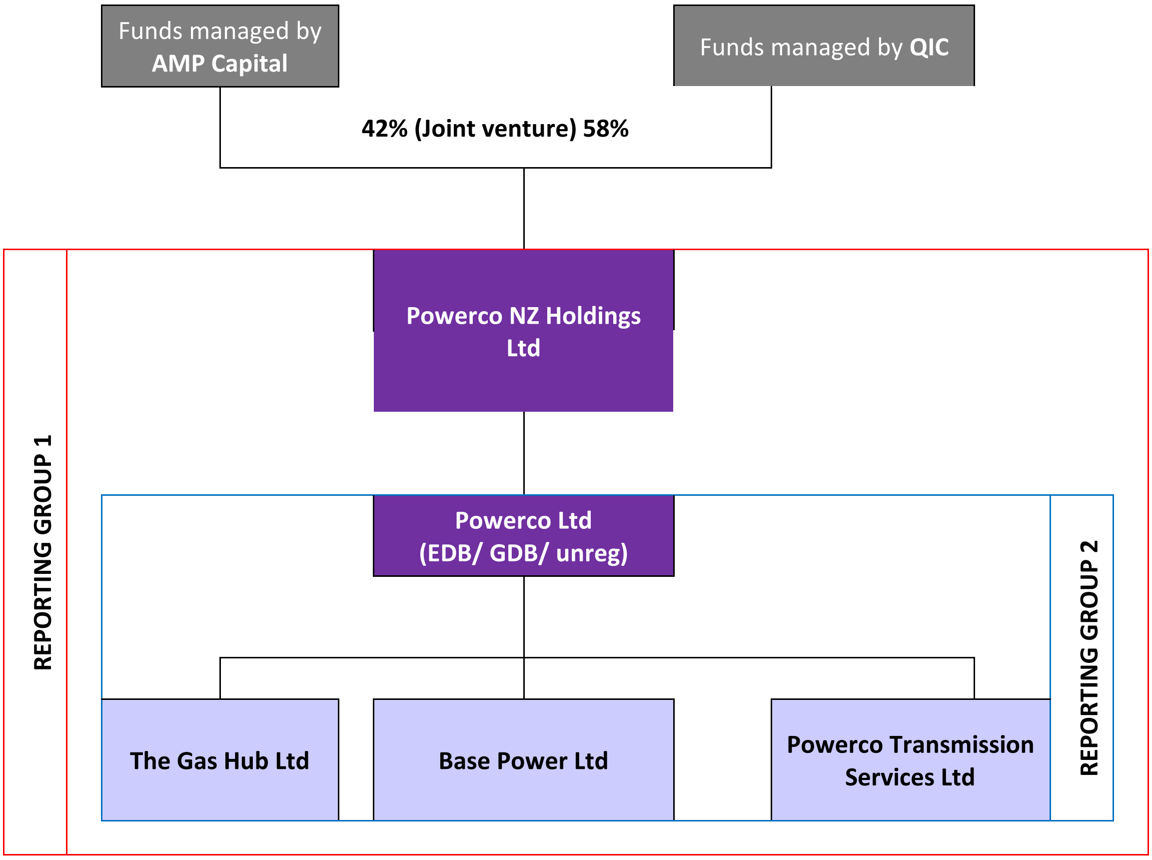
Powerco implemented a new ERP system in the 2020 Disclosure year, and since this implementation, the balance of assets that are commissioned but remain in WIP has increased significantly. Any disposal or depreciation related to these new assets is not captured in the ERP system. This has highlighted the need to include provisions in 2021, to reflect that the growth in value of Commissioned WIP should also result in disposals related to the commissioned WIP, and depreciation where the assets have been included in commissioned WIP for more than one year.

The disposal and depreciation provisions apply the same methodology as is used for accounting, while also ensuring that these provisions are calculated in line with the relevant Input Methodology.

The high level of disposals included in 2021 reflects this change in methodology. The provision included in 2021 captures new assets included in commissioned WIP this year, and assets that remain in commissioned WIP from previous years.

This provision-based approach will be used in future years.

Related parties (schedule 5b)
Referencing limb a) of the related party definition, Powerco Limited's external related parties include:



- Powerco NZ Holdings Limited does not trade. Its purpose is to form a corporate group through share ownership.
- Powerco Limited is primarily a regulated electricity and gas distribution business. It also conduct's unregulated activities such as gas metering and includes a business development team to identify and take advantage of both regulated and unregulated opportunities. Powerco Limited provides business support services to Base Power Ltd and the unregulated 'parts' of the regulated business.
- The Gas Hub Limited and Powerco Transmission Limited are not active.
- Base Power Limited provides remote area power supply units to the market and Powerco's Electricity Distribution business.

Referencing limb b) of the related party definition, Powerco Limited's internal related parties include:

- Gas metering

All related party transactions are valued on an equivalent arm's length basis. Powerco Limited has not adopted the consolidation approach. Depending on the type of transaction the valuation method may require the application of a:

a) market-tested value; or
b) market-tested margin.

Powerco applies a market-tested value to expenditure on assets purchased from Base Power Ltd.

Powerco applies a market-tested margin to regulatory income for business support services provided to related parties. To ensure Powerco's valuation of related party transactions is based on an objective and independent measure, PwC were engaged to report the margin benchmarks observed in the market for relevant corporate services.

- The equivalent arm's length value of services provided to Base Power Limited is \$34.1k, of which \$33.6k is allocated to Powerco's Electricity Distribution business.
- The equivalent arm's length value of services provided to Gas metering is \$507k, of which \$2.5k is allocated to Powerco's Electricity Distribution business.

Overhead to underground conversion (schedule 6a)
Powerco does not collect information separately where the conversion from overhead line to underground cable forms part of a larger project. The capital expenditure for this metric reported in schedule 6a is for those projects that are only converting overhead distribution to underground.

Reintroduction of building depreciation
Most buildings have not been eligible for tax depreciation since 2011; however, with effect from the 2020/21 income year, certain buildings will once again be eligible for depreciation using the diminishing value method at a rate of 2% per annum or the straight-line rate of 1.5% per annum.

As a result of this Powerco has included an additional \$5.3m adjustment to the Regulatory Tas Asset Base Roll-Forward Schedule 5a(viii). This is in addition to a \$7.3m adjustment that was included in 2020. This is included in the Other adjustments to the RAB tax value line. The further adjustments in the current disclosure year reflect additional buildings that need to be included in the Regulatory Tax Asset Base that were not identified in the 2020 Information Disclosure.

Asset Information (schedules 9a-9c)

Asset management system
The implementation of a new ERP system during the 2020 disclosure period brought transformational change to asset management processes, applications, and technology. In particular, the asset register migrated from GIS to SAP. While the migration approach generally avoided transformation of asset data structure and content, some change was inherent. Applications and process were significantly transformed with some impact to asset data outcomes. Some shifts within the age profile were caused by the way installation dates have been inferred where they are not directly recorded.

Data quality
Powerco's network is made up of fifteen legacy lines networks that have been amalgamated over time. This diversity has created ongoing data and systems integration and improvement challenges. We continue to invest in improving the quality and completeness of our asset-related data sets. Whilst we believe that the quality of our data is adequate for business purposes, and in line with the levels of quality available by other electricity distributors, there are some known limitations to our current data set as set out in schedules 9a and 9b; key points are noted as follows:

- Underlying asset data comprises a comprehensive set of network information that is generally complete and consistently applied. However, a small proportion of the asset data is either internally conflicting or not wholly reliable and, for a small number of asset categories, there are also gaps in the attribute information.
- Ongoing programmes of work are underway to improve the completeness and accuracy of our asset data. This work can impact asset quantities and age profile.
- Some asset ages have been estimated after initial data capture. While based on the best information available, these estimates are likely to contain some inaccuracies.
- Some date information is known to have been defaulted and is reported as such.

Network asset classification
The programmes we have put in place to ensure ongoing improvement of asset data over time, as well as the process of clarification used by the Commission to ensure data is calculated on a consistent basis between companies, means that from time to time we re-categorise small numbers of assets to reflect the latest

guidance and latest available data.

Asset categorisation

Powerco operates network assets, as set out in table 2, which do not clearly fit into a specified category. These assets have been included in the category that most closely relates to the asset type and function

Table 2: Asset categorisation

Type	Included in	
	Category	Class
Ground mounted 33/66kV fuses	Zone substation switchgear	33kV switch (ground mounted)
Pole mounted 33/66kV fuses	Zone substation switchgear	33kV switch (pole mounted)
33kV reclosers	Zone substation switchgear	22/33kV CB (outdoor)
Reclosers in zone substations	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)
Ground mounted 3.3/6.6/11/22kv fuses	Distribution switchgear	3.3/6.6/11/22kv switch (ground mounted) except RMU
Pole mounted distribution conversion and SWER isolation transformers	Distribution transformer	Pole mounted transformer
Ground mounted distribution conversion and SWER isolation transformers	Distribution transformer	Ground mounted transformer
Ground mounted subtransmission switchgear (not in zone substations)	Zone substation switchgear	33kV switch (ground mounted)
Pole mounted subtransmission switchgear (not in zone substations)	Zone substation switchgear	33kV switch (pole mounted)
Protection system pilot circuits	Not included[3]	Not included

Low voltage circuit length

Powerco notes that low voltage circuit length has been calculated in accordance with information provided by the Commission. This requires low voltage service lines in transport corridors (other than road crossings) to be excluded. For completeness, Powerco considers that this definition understates the practical circuit length under management by Powerco.

Circuits in sensitive areas

Powerco does not record sensitive area geography and therefore no circuit length is reported for this criterion.

[3] Refer to the information disclosure determination issues register published by the Commerce Commission

Circuit length under vegetation management
Powerco's vegetation management policy applies to the whole overhead electricity network. Subject to annual budget constraints, this strategy involves an intensive trimming period in high criticality areas until the areas are under control and then a reduction to a sustainable level of vegetation management to maintain clearance from the lines.

Transformer capacity (schedule 9e)

Distribution transformer capacity
The disclosed Powerco owned distribution transformer capacity includes transformers that are recorded as being network connected. In accordance with Powerco's operational approach to ownership, transformer assets with no clear owner are regarded as Powerco owned for disclosure purposes. Assumptions have been made for operational distribution substations where installed capacity is not known.
Zone substation transformer capacity
Powerco owns transformers provided by various suppliers with ratings calculated at varying temperatures. The capacity reported in the information disclosure uses a standardised rating for continuous operation at 20^{o}C.

Successive interruptions (Schedule 10)

As required by the exemption granted 17 May 2021 Powerco confirms that successive interruptions have been treated in the same way for the 2021 disclosure as they were for the 2020 disclosures.

Powerco's methodology for recognising successive interruptions is summarised below.

- If supply is cut for more than 1 minute - SAIDI and SAIFI will apply
- If supply is restored for less than 1 minute - it is a continuation of the initial interruption. SAIDI continues to apply and there isn't a new SAIFI
- If supply is restored for more than 1 minute but then fails again for greater than 1 minute – SAIDI applies, and this event incurs a new SAIFI. There is a no SAIDI component whilst the power is on

Directors' Certificate

POWERCO

ELECTRICITY DISTRIBUTION SERVICES INFORMATION DISCLOSURE

FOR THE YEAR ENDED 31 MARCH 2021

Certificate for year-end disclosures

Pursuant to clause 2.9.2 of section 2.9

We, __John Loughlin__________ and ___Paul Callow___________,

being directors of Powerco 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 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 the Powerco 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.

____

Director

______19 August 2021____________________

Date

____

Director

______19 August 2021____________________

Date

INDEPENDENT AUDITOR'S REPORT
TO THE DIRECTORS OF POWERCO LIMITED AND THE COMMERCE COMMISSION

Report on the Disclosure Information prepared in accordance with the Electricity Distribution Information Disclosure Determination 2012 (consolidated April 2018)

We have conducted a reasonable assurance engagement on whether the information disclosed by Powerco Limited (the 'Company') required to be disclosed in accordance with the Electricity Information Disclosure Determination 2012 (consolidated April 2018) as amended by the Information Disclosure exemption: Disclosure and auditing of reliability information within Schedule 10, issued by the Commerce Commission on 17 May 2021 ('the Determination') for the disclosure year ended 31 March 2021, has been prepared in all material respects, in accordance with the Determination.

The information required to be reported by the Company, under the Determination is in Schedule 1 to 4, 5a to 5g, 6a and 6b, 7, 10, and the explanatory notes in boxes 1 to 11 of Schedule 14 ('the Disclosure Information').

Further, we have conducted a reasonable assurance engagement on whether the Company's basis for valuation of related party transactions ('the Related Party Transaction Information') for the disclosure year ended 31 March 2021, has been prepared, in all material respects, in accordance with clauses 2.3.6 and 2.3.8 of the Determination, and clauses 2.2.11(1)(g) and 2.2.11(5) of the Electricity Distribution Services Input Methodologies Determination 2012 (consolidated May 2020) ('the Input Methodologies Determination').

Opinion

This opinion has been formed on the basis of, and is subject to, the inherent limitations outlined elsewhere in this independent assurance report.

In our opinion:

- The Company has complied, in all material respects, with the Determination in preparing the Disclosure Information;
- The Related Party Transaction Information complies, in all material respects, with the Determination and the Input Methodologies Determination;
- As far as appears from an examination of them, proper records to enable the complete and accurate compilation of the Disclosure Information and the Related Party Transaction information have been kept by the Company; and
- As far as appears from an examination of the records, the information used in the preparation of the Disclosure Information and the Related Party Transaction 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.

Basis of 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 Determination, and about whether the Related Party Transaction Information has been prepared, in all material respects, with the Determination and the Input Methodologies Determination. Reasonable assurance is a high level of assurance.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Key assurance matters

Key assurance matter are those matters that, in our professional judgement, were of most significance in our assurance procedures of the Disclosure Information. These matters were addressed in the context of our audit of the Disclosure Information, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key assurance matter	How our procedures addressed the key assurance matter
Capital expenditure and assets commissioned into the regulatory asset base ('RAB')	
The Company carries out a large number of individual network system projects that can be either operational (network maintenance) or capital (asset replacement or network growth) in nature. Capital expenditure in the current year was $216 million and commissioned assets in to the RAB of $184 million, compared to network operating expenditure of $91 million. Capital expenditure and assets commissioned into the RAB are a key assurance matter due to the significant judgment pertaining to the assessment of whether the capital expenditure and assets commissioned meet the definition under the Determination.	Our procedures on capital expenditure and commissioned assets into the RAB included the following: • Assessing the Company's capitalisation policy was in line with NZ IAS 16 – *Property, plant and equipment*, NZ IFRS 16 – Leases and NZ IAS 38 – *Intangible assets*; • Evaluating the design and implementation of controls over the classification of network expenditure; • Examining a sample of capital expenditure and assets included in the RAB to invoice(s) or other supporting information to determine whether the expenditure met the capitalisation criteria in the Determination; and • Comparing the assets commissioned into the RAB to those commissioned for financial statement purposes and investigating any significant variances.
Valuation of the provision for asset disposals	
As detailed in Schedule 14 and Schedule 15, the Company included a provision for assets disposals amounting to $40 million in the regulatory asset base disclosed in the information disclosure Schedule 4. The provision is calculated using an input assumption based on historical trends. The input factor is applied against the proportion of asset replacement and renewals in commissioned assets. This is a key assurance matter due to the quantum of the balance and the level of judgement required in determining the estimate.	Our procedures on management's estimation of the provision for asset disposals included the following: • Evaluating the design and implementation of key controls over the disposals provision; • Assessing key assumptions against internal information such as disposals and capitalisation history; • Assessing changes in assumptions and methodologies from prior periods; • Testing the arithmetical accuracy of the calculation; and • Evaluating the sensitivity of the calculation to changes in the key variables and assumptions.

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Key assurance matter	How our procedures addressed the key assurance matter
Completeness and accuracy of System Average Interruption Duration Index ('SAIDI') and System Average Interruption Frequency Index ('SAIFI')	
The Determination defines certain quality measures in relation to the number of interruptions, faults, cause of faults and the average SAIDI and SAIFI values. SAIFI and SAIDI is calculated using aggregate faults and interruptions information for the period through prescribed formulas and requirements per Attachment B of the Determination. The completeness and accuracy of SAIDI and SAIFI is a key assurance matter due to the reliance on manual switching sheets to inform the data entry of interruption information for a large volume of faults. Additionally, the SAIDI and SAIFI calculation is subject to manual adjustments processed to normalise the calculation.	Our procedures on the completeness and accuracy of SAIDI and SAIFI included the following: • Obtaining a robust understanding of the Company's methods for recording electricity outages and their duration; • Evaluating the design and implementation of key controls related to the recording and the reviewing of outage data; • Utilising media searches to assess whether there are major events omitted from the outages recorded; • On a sample basis, we selected faults recorded on the outage database and traced the number of customers, number of minutes, the class type and fault cause to the information recorded on the outage listing; • On a sample basis, we selected faults recorded on the switching sheets and traced the number of customers, number of minutes, the class type and fault cause to the information recorded in the system and the information recorded on the outage listing; • Where a manual adjustment is processed, for planned or unplanned, we have, on a sample basis, obtained supporting information for the adjustment; • Recalculating the normalised SAIDI and SAIFI according to the methodology of the Determination; and • Reviewing the disclosures in Schedule 15 in respect of the treatment of successive interruptions.

Responsibilities of the Board of Directors for the Disclosure Information and Related Party Transaction Information

The Board of Directors is responsible on behalf of the Company for the preparation of the Disclosure Information and Related Party Transaction Information in accordance with the Determination. The responsibility includes the design, implementation and maintenance of internal control relevant to the Company's preparation of the Disclosure Information and the Related Party Transaction Information with the Determination.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand)* ('PES-1') issued by the New Zealand Auditing and Assurance Standards Board, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Other than in our capacity as auditor and the provision of other assurance services including the audit of financial statements, the audit of regulatory disclosure statements, greenhouse gas assurance and project quality assurance, we have no relationship with or interests in the Company or any of its subsidiaries. These services have not impaired our independence as auditor of the Company as required by the Determination.

The firm applies Professional and Ethical Standard 3 (Amended): *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements* issued by the New Zealand Auditing and Assurance Standards Board, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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

Our responsibility is to express an opinion whether the Disclosure Information and the Related Party Transaction Information has been prepared, in all material respects, in accordance with the Determination and the Input Methodologies Determination. ISAE 3000 (Revised) and SAE 3100 (Revised) require that we plan and perform our procedures to obtain reasonable assurance that the Company has complied, in all material respects, with the Determination and the Input Methodologies Determination in relation to the preparation of the Disclosure Information and the Related Party Transaction Information.

An assurance engagement to report on the Company's preparation of the Disclosure Information and the Related Party Transaction Information in accordance with the Determination and the Input Methodologies Determination involves performing procedures to obtain evidence about the compliance activity and controls implemented to meet the requirements of the Determination and the Input Methodologies Determination. The procedures selected depend on our judgement, including the identification and assessment of risk of material non-compliance with the Determination and the Input Methodologies Determination.

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 Related Party Transaction Information, whether due to fraud or error or non-compliance with the 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 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.

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 report has been formed on the above basis.

Deloitte.

Use of Report

This independent assurance report has been prepared solely for the directors of the Company and 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 Determination, and about whether the Related Party Transaction Information has been prepared in all material respects with the 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.

Deloitte Limited

Auckland, New Zealand
19 August 2021