EDB Information Disclosure Requirements

Information Templates

for

Schedules 1–10

Company Name	Powerco Limited
Disclosure Date	31 October 2020
Disclosure Year (year ended)	31 March 2020

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 2020**

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	18,290	261	97,274	3,157	27,321
Network	8,550	122	45,473	1,476	12,772
Non-network	9,740	139	51,800	1,681	14,549
Expenditure on assets	39,799	568	211,663	6,869	59,449
Network	36,640	523	194,863	6,324	54,731
Non-network	3,159	45	16,799	545	4,718

1(ii): Revenue metrics

	Revenue per GWh energy delivered to ICPs ($/GWh)	Revenue per average no. of ICPs ($/ICP)
Total consumer line charge revenue	81,994	1,169
Standard consumer line charge revenue	104,810	1,014
Non-standard consumer line charge revenue	34,100	133,366

1(iii): Service intensity measures

Demand density	32	*Maximum coincident system demand per km of circuit length (for supply) (kW/km)*
Volume density	173	*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	14,262	*Total energy delivered to ICPs per average number of ICPs (kWh/ICP)*

1(iv): Composition of regulatory income

	($000)	% of revenue
Operational expenditure	89,784	22.61%
Pass-through and recoverable costs excluding financial incentives and wash-ups	117,516	29.59%
Total depreciation	69,808	17.58%
Total revaluations	44,763	11.27%
Regulatory tax allowance	31,586	7.95%
Regulatory profit/(loss) including financial incentives and wash-ups	131,325	33.06%
Total regulatory income	397,183	

1(v): Reliability

Interruption rate	19.72	*Interruptions per 100 circuit km*

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

2(i): Return on Investment

	CY-2	CY-1	Current Year CY
	31 Mar 18	31 Mar 19	31 Mar 20
ROI – comparable to a post tax WACC	%	%	%
Reflecting all revenue earned	6.21%	6.12%	6.97%
Excluding revenue earned from financial incentives	6.31%	6.02%	6.99%
Excluding revenue earned from financial incentives and wash-ups	6.28%	6.01%	7.00%
Mid-point estimate of post tax WACC	5.04%	4.75%	4.27%
25th percentile estimate	4.36%	4.07%	3.59%
75th percentile estimate	5.72%	5.43%	4.95%
ROI – comparable to a vanilla WACC			
Reflecting all revenue earned	6.80%	6.63%	7.40%
Excluding revenue earned from financial incentives	6.90%	6.53%	7.41%
Excluding revenue earned from financial incentives and wash-ups	6.87%	6.52%	7.43%
WACC rate used to set regulatory price path	7.19%	7.19%	7.19%
Mid-point estimate of vanilla WACC	5.60%	5.26%	4.69%
25th percentile estimate	4.92%	4.58%	4.01%
75th percentile estimate	6.29%	5.94%	5.37%

2(ii): Information Supporting the ROI

		($000)	
	Total opening RAB value	1,787,100	
plus	Opening deferred tax	(66,871)	
Opening RIV			1,720,229
Line charge revenue			402,493
	Expenses cash outflow	207,300	
add	Assets commissioned	208,182	
less	Asset disposals	7,414	
add	Tax payments	25,177	
less	Other regulated income	(5,311)	
Mid-year net cash outflows			438,556
Term credit spread differential allowance			1,927
	Total closing RAB value	1,962,910	
less	Adjustment resulting from asset allocation	86	
less	Lost and found assets adjustment	–	
plus	Closing deferred tax	(73,280)	
Closing RIV			1,889,544
ROI – comparable to a vanilla WACC			7.40%
	Leverage (%)		42%
	Cost of debt assumption (%)		3.61%
	Corporate tax rate (%)		28%
ROI – comparable to a post tax WACC			6.97%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 2: REPORT ON RETURN ON INVESTMENT

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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 — 7.24%

Year-end ROI – comparable to a post tax WACC — 6.81%

** 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	(347)	
Other financial incentives		
Financial incentives		(347)

Impact of financial incentives on ROI — –0.01%

Input methodology claw-back		
CPP application recoverable costs		
Catastrophic event allowance		
Capex wash-up adjustment	(342)	
Transmission asset wash-up adjustment		
2013–15 NPV wash-up allowance		
Reconsideration event allowance		
Other wash-ups		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 2: REPORT ON RETURN ON INVESTMENT

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

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

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sch ref		
119	**Wash-up costs**	(342)
120		
121	**Impact of wash-up costs on ROI**	–0.01%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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		402,493
10	*plus*	Gains / (losses) on asset disposals		(7,272)
11	*plus*	Other regulated income (other than gains / (losses) on asset disposals)		1,961
12				
13		**Total regulatory income**		397,183
14		**Expenses**		
15	*less*	Operational expenditure		89,784
16				
17	*less*	Pass-through and recoverable costs excluding financial incentives and wash-ups		117,516
18				
19		**Operating surplus / (deficit)**		189,883
20				
21	*less*	Total depreciation		69,808
22				
23	*plus*	Total revaluations		44,763
24				
25		**Regulatory profit / (loss) before tax**		164,838
26				
27	*less*	Term credit spread differential allowance		1,927
28				
29	*less*	Regulatory tax allowance		31,586
30				
31		**Regulatory profit/(loss) including financial incentives and wash-ups**		131,325
32				
33	**3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups**		**($000)**	
34		**Pass through costs**		
35		Rates	1,807	
36		Commerce Act levies	872	
37		Industry levies	1,086	
38		CPP specified pass through costs	–	
39		**Recoverable costs excluding financial incentives and wash-ups**		
40		Electricity lines service charge payable to Transpower	100,265	
41		Transpower new investment contract charges	7,739	
42		System operator services	–	
43		Distributed generation allowance	5,746	
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**		117,516
47				

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

3(iii): Incremental Rolling Incentive Scheme

($000)

		CY-1 31 Mar 19	CY 31 Mar 20
51	Allowed controllable opex	–	–
52	Actual controllable opex	–	–
53			
54	Incremental change in year		–
55			

			Previous years' incremental change	Previous years' incremental change adjusted for inflation
56				
57	CY-5	31 Mar 15	–	–
58	CY-4	31 Mar 16	–	–
59	CY-3	31 Mar 17	–	–
60	CY-2	31 Mar 18	–	–
61	CY-1	31 Mar 19	–	–
62	**Net incremental rolling incentive scheme**			–
63				
64	**Net recoverable costs allowed under incremental rolling incentive scheme**			–

3(iv): Merger and Acquisition Expenditure

		($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)*	

3(v): Other Disclosures

		($000)
71	Self-insurance allowance	–

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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)

		for year ended	RAB 31 Mar 16 ($000)	RAB 31 Mar 17 ($000)	RAB 31 Mar 18 ($000)	RAB 31 Mar 19 ($000)	RAB 31 Mar 20 ($000)
10		**Total opening RAB value**	1,476,717	1,528,013	1,592,546	1,657,737	1,787,100
12	*less*	**Total depreciation**	59,697	62,497	66,765	67,008	69,808
14	*plus*	**Total revaluations**	8,575	32,664	17,321	24,327	44,763
16	*plus*	**Assets commissioned**	113,407	108,878	123,688	185,313	208,182
18	*less*	**Asset disposals**	11,131	14,730	9,200	12,096	7,414
20	*plus*	**Lost and found assets adjustment**	–	–	–	–	–
22	*plus*	**Adjustment resulting from asset allocation**	141	218	146	(1,173)	86
24		**Total closing RAB value**	1,528,013	1,592,546	1,657,737	1,787,100	1,962,910

4(ii): Unallocated Regulatory Asset Base

			Unallocated RAB * ($000)	Unallocated RAB * ($000)	RAB ($000)	RAB ($000)
29		**Total opening RAB value**		1,795,855		1,787,100
30	*less*					
31		**Total depreciation**		71,005		69,808
32	*plus*					
33		**Total revaluations**		44,927		44,763
34	*plus*					
35		Assets commissioned (other than below)	214,460		207,780	
36		Assets acquired from a regulated supplier	–		–	
37		Assets acquired from a related party	403		403	
38		**Assets commissioned**		214,863		208,182
39	*less*					
40		Asset disposals (other than below)	7,414		7,414	
41		Asset disposals to a regulated supplier	–		–	
42		Asset disposals to a related party	–		–	
43		**Asset disposals**		7,414		7,414
45	*plus*	**Lost and found assets adjustment**		–		–
47	*plus*	**Adjustment resulting from asset allocation**				86
49		**Total closing RAB value**		1,977,226		1,962,910

** 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 2020**

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(iii): Calculation of Revaluation Rate and Revaluation of Assets

	CPI_4	1,052
	$CPI_4{}^{-4}$	1,026
	Revaluation rate (%)	2.53%

		Unallocated RAB *		RAB	
		($000)	($000)	($000)	($000)
	Total opening RAB value	1,795,855		1,787,100	
less	Opening value of fully depreciated, disposed and lost assets	22,959		20,675	
	Total opening RAB value subject to revaluation	1,772,895		1,766,424	
	Total revaluations		44,927		44,763

4(iv): Roll Forward of Works Under Construction

		Unallocated works under construction		Allocated works under construction	
	Works under construction—preceding disclosure year		105,281		102,703
plus	Capital expenditure	171,710		166,420	
less	Assets commissioned	214,863		208,182	
plus	Adjustment resulting from asset allocation			71	
	Works under construction - current disclosure year		62,128		61,012
	Highest rate of capitalised finance applied				5.84%

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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	60,724		60,655	
Depreciation - no standard life assets	10,281		9,153	
Depreciation - modified life assets	–		–	
Depreciation - alternative depreciation in accordance with CPP	–		–	
Total depreciation		71,005		69,808

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	72,522	36,751	175,975	437,769	321,432	272,785	164,476	258,308	47,083	1,787,100
less	Total depreciation	2,276	1,017	8,107	15,406	15,554	9,239	6,558	4,868	6,783	69,808
plus	Total revaluations	1,829	926	4,458	11,031	8,138	6,888	4,118	6,701	673	44,763
plus	Assets commissioned	6,177	31,310	8,489	38,994	27,405	18,545	24,412	21,978	30,872	208,182
less	Asset disposals	288	–	99	3,473	179	1,061	1,939	341	35	7,414
plus	Lost and found assets adjustment	–	–	–	–	–	–	–	–	–	–
plus	Adjustment resulting from asset allocation	–	–	–	(30)	–	–	–	–	117	86
plus	Asset category transfers	(3,020)	(15,299)	(4,157)	(19,189)	(15,210)	(9,690)	(12,383)	74,471	4,476	0
	Total closing RAB value	74,945	52,671	176,560	449,695	326,032	278,228	172,126	356,250	76,403	1,962,910
	Asset Life										
	Weighted average remaining asset life	41.6	42.6	31.9	38.5	32.4	35.3	30.1	43.1	18.9	(years)
	Weighted average expected total asset life	59.7	52.3	47.4	59.0	49.0	50.8	38.6	46.2	26.4	(years)

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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					($000)
7	**5a(i): Regulatory Tax Allowance**				
8		**Regulatory profit / (loss) before tax**			164,838
9					
10	*plus*	Income not included in regulatory profit / (loss) before tax but taxable	2,477	*	
11		Expenditure or loss in regulatory profit / (loss) before tax but not deductible	819	*	
12		Amortisation of initial differences in asset values	10,098		
13		Amortisation of revaluations	7,097		
14					20,491
15					
16	*less*	Total revaluations	44,763		
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	240	*	
20		Notional deductible interest	27,517		
21					72,521
22					
23		**Regulatory taxable income**			112,809
24					
25	*less*	Utilised tax losses	–		
26		Regulatory net taxable income			112,809
27					
28		Corporate tax rate (%)	28%		
29		**Regulatory tax allowance**			31,586
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	232,246		
37	*less*	Amortisation of initial differences in asset values	10,098		
38	*plus*	Adjustment for unamortised initial differences in assets acquired	–		
39	*less*	Adjustment for unamortised initial differences in assets disposed	1,313		
40		Closing unamortised initial differences in asset values			220,835
41					
42		Opening weighted average remaining useful life of relevant assets (years)			23
43					

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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				
44	**5a(iv): Amortisation of Revaluations**			**($000)**
45				
46		Opening sum of RAB values without revaluations	1,630,211	
47				
48		Adjusted depreciation	62,711	
49		Total depreciation	69,808	
50		Amortisation of revaluations		7,097
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**	(66,871)	
61				
62	*plus*	Tax effect of adjusted depreciation	17,559	
63				
64	*less*	Tax effect of tax depreciation	25,079	
65				
66	*plus*	Tax effect of other temporary differences*	1,282	
67				
68	*less*	Tax effect of amortisation of initial differences in asset values	2,827	
69				
70	*plus*	Deferred tax balance relating to assets acquired in the disclosure year	2,036	
71				
72	*less*	Deferred tax balance relating to assets disposed in the disclosure year	(627)	
73				
74	*plus*	Deferred tax cost allocation adjustment	(7)	
75				
76		**Closing deferred tax**		(73,280)
77				
78	**5a(vii): Disclosure of Temporary Differences**			
		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		
79		*differences).*		
80				
81	**5a(viii): Regulatory Tax Asset Base Roll-Forward**			
82				**($000)**
83		**Opening sum of regulatory tax asset values**	1,115,800	
84	*less*	Tax depreciation	89,567	
85	*plus*	Regulatory tax asset value of assets commissioned	203,822	
86	*less*	Regulatory tax asset value of asset disposals	5,173	
87	*plus*	Lost and found assets adjustment	–	
88	*plus*	Adjustment resulting from asset allocation	63	
89	*plus*	Other adjustments to the RAB tax value	7,271	
90		**Closing sum of regulatory tax asset values**		1,232,214

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 5b: REPORT ON RELATED PARTY TRANSACTIONS

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

sch ref

5b(i): Summary—Related Party Transactions

	($000)	($000)
Total regulatory income		654
Market value of asset disposals		
Service interruptions and emergencies	–	
Vegetation management	–	
Routine and corrective maintenance and inspection	–	
Asset replacement and renewal (opex)	–	
Network opex		–
Business support	–	
System operations and network support	–	
Operational expenditure		–
Consumer connection	–	
System growth	–	
Asset replacement and renewal (capex)	403	
Asset relocations	–	
Quality of supply	–	
Legislative and regulatory	–	
Other reliability, safety and environment	–	
Expenditure on non-network assets		–
Expenditure on assets		403
Cost of financing		
Value of capital contributions		
Value of vested assets		
Capital Expenditure		403
Total expenditure		403
Other related party transactions		

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)
Base Power Ltd	Asset replacement and renewal (capex)	403
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
	[Select one]	
Total value of related party transactions		403

** include additional rows if needed*

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

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

Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD $000)	Book value at date of financial statements (NZD $000)	Term Credit Spread Difference	Debt issue cost readjustment
USPP (2011) US$72m/NZ$91.4m	7/6/2011	7/6/2011	9.0	BKBM+1.945%	91,371	121,274	274	(81)
USPP (2011) US$90m/NZ$114.2m	7/6/2011	7/6/2011	12.0	BKBM+1.835%	114,213	155,304	600	(133)
USPP (2011) US$83m/NZ$105.3m	7/6/2011	7/6/2011	15.0	BKBM+1.980%	105,330	145,667	790	(140)
USPP(2013) US$25m/NZ$30.4m	23/1/2013	1/11/2012	12.0	BKBM + 2.20%	30,440	41,710	160	(36)
USPP(2013) US$80m/NZ$97.4m	23/1/2013	1/11/2012	15.0	BKBM + 2.21%	97,407	131,892	731	(130)
NZD USPP(2014) NZ$135m	15/10/2014	3/7/2014	12.5	6.62%	135,000	135,362	759	(162)
NZD USPP(2017) NZ$125m	16/11/2017	9/8/2017	12.0	BKBM + 1.84%	125,000	124,963	656	(146)
NZD USPP (2018) NZ$100m	13/12/2018	16/8/2018	7.0	BKBM + 1.58%	100,000	99,712	150	(57)
NZD USPP (2018) NZ$150m	13/12/2018	16/8/2018	12.0	BKBM + 1.81%	150,000	149,501	788	(175)
SFA (2020) NZ$130m	25/2/2020	18/2/2020	7.0	BKBM +1.65%	40,000	39,218	60	(23)
SFA (2020) AU$15m/NZ$15.6m	25/2/2020	18/2/2020	7.0	BKBM + 1.543%	15,645	15,381	23	(9)
2015 Wholesale Bond - Fixed rate	28/9/2015	16/9/2015	7.0	4.76%	150,000	149,864	225	(86)
2016 Wholesale Bond - Fixed rate	15/11/2016	4/11/2016	8.0	4.67%	100,000	100,377	225	(75)
2019 RCAF NZ$50m	10/12/2019	10/12/2025	6.0	BKBM + 0.95%	50,000	49,938	38	(17)
** include additional rows if needed*						1,460,163	5,478	(1,269)

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

Gross term credit spread differential		4,209
Total book value of interest bearing debt	1,719,521	
Leverage	42%	
Average opening and closing RAB values	1,875,005	
Attribution Rate (%)		46%
Term credit spread differential allowance		1,927

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 5d: REPORT ON COST ALLOCATIONS

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

sch ref

5d(i): Operating Cost Allocations

	Value allocated ($000s)				
	Arm's length deduction	Electricity distribution services	Non-electricity distribution services	Total	OVABAA allocation increase ($000s)
Service interruptions and emergencies					
Directly attributable		7,459			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		7,459			
Vegetation management					
Directly attributable		10,184			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		10,184			
Routine and corrective maintenance and inspection					
Directly attributable		13,619			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		13,619			
Asset replacement and renewal					
Directly attributable		10,710			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		10,710			
System operations and network support					
Directly attributable		15,649			
Not directly attributable	–	794	151	944	–
Total attributable to regulated service		16,443			
Business support					
Directly attributable		1,155			
Not directly attributable	–	30,214	5,781	35,995	–
Total attributable to regulated service		31,369			
Operating costs directly attributable		58,776			
Operating costs not directly attributable	–	31,008	5,932	36,940	–
Operational expenditure		89,784			

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 5d: REPORT ON COST ALLOCATIONS

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

sch ref

5d(ii): Other Cost Allocations

		($000)
	Pass through and recoverable costs	
	Pass through costs	
	Directly attributable	3,571
	Not directly attributable	195
	Total attributable to regulated service	3,766
	Recoverable costs	
	Directly attributable	113,750
	Not directly attributable	–
	Total attributable to regulated service	113,750

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

Change in cost allocation 1

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

Change in cost allocation 2

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

Change in cost allocation 3

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

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

† include additional rows if needed

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

SCHEDULE 5e: REPORT ON ASSET ALLOCATIONS

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

sch ref

5e(i): Regulated Service Asset Values

	Value allocated ($000s) Electricity distribution services
Subtransmission lines	
Directly attributable	74,945
Not directly attributable	–
Total attributable to regulated service	74,945
Subtransmission cables	
Directly attributable	52,671
Not directly attributable	–
Total attributable to regulated service	52,671
Zone substations	
Directly attributable	176,560
Not directly attributable	–
Total attributable to regulated service	176,560
Distribution and LV lines	
Directly attributable	449,695
Not directly attributable	–
Total attributable to regulated service	449,695
Distribution and LV cables	
Directly attributable	326,032
Not directly attributable	–
Total attributable to regulated service	326,032
Distribution substations and transformers	
Directly attributable	278,228
Not directly attributable	–
Total attributable to regulated service	278,228
Distribution switchgear	
Directly attributable	172,126
Not directly attributable	–
Total attributable to regulated service	172,126
Other network assets	
Directly attributable	356,250
Not directly attributable	–
Total attributable to regulated service	356,250
Non-network assets	
Directly attributable	10,923
Not directly attributable	65,480
Total attributable to regulated service	76,403
Regulated service asset value directly attributable	1,897,430
Regulated service asset value not directly attributable	65,480
Total closing RAB value	1,962,910

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

Change in asset value allocation 1

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

Change in asset value allocation 2

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

Change in asset value allocation 3

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

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

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

6a(i): Expenditure on Assets

			($000)	($000)
8		Consumer connection		42,737
9		System growth		44,984
10		Asset replacement and renewal		82,670
11		Asset relocations		660
12		Reliability, safety and environment:		
13		Quality of supply	5,075	
14		Legislative and regulatory	–	
15		Other reliability, safety and environment	3,732	
16		**Total reliability, safety and environment**		8,807
17		**Expenditure on network assets**		179,859
18		Expenditure on non-network assets		15,506
19				
20		**Expenditure on assets**		195,365
21	*plus*	Cost of financing		2,078
22	*less*	Value of capital contributions		31,023
23	*plus*	Value of vested assets		–
24				
25		**Capital expenditure**		166,420

6a(ii): Subcomponents of Expenditure on Assets (where known)

		($000)
27	Energy efficiency and demand side management, reduction of energy losses	422
28	Overhead to underground conversion	1,049
29	Research and development	671

6a(iii): Consumer Connection

	*Consumer types defined by EDB**	($000)	($000)
32	Small	33,283	
33	Commercial	5,538	
34	Industrial	3,917	
35	[EDB consumer type]		
36	[EDB consumer type]		
37	** include additional rows if needed*		
38	**Consumer connection expenditure**		42,737
39			
40	*less* Capital contributions funding consumer connection expenditure	30,145	
41	**Consumer connection less capital contributions**		12,593

6a(iv): System Growth and Asset Replacement and Renewal

		System Growth ($000)	Asset Replacement and Renewal ($000)
45	Subtransmission	7,601	8,695
46	Zone substations	14,196	6,841
47	Distribution and LV lines	7,941	42,647
48	Distribution and LV cables	6,242	6,114
49	Distribution substations and transformers	4,427	8,679
50	Distribution switchgear	26	7,715
51	Other network assets	4,550	1,979
52	**System growth and asset replacement and renewal expenditure**	44,984	82,670
53	*less* Capital contributions funding system growth and asset replacement and renewal	4	22
54	**System growth and asset replacement and renewal less capital contributions**	44,981	82,648
55			

6a(v): Asset Relocations

	*Project or programme**	($000)	($000)
58	E182856 - Kopu Pole Replacement	126	
59	[Description of material project or programme]		
60	[Description of material project or programme]		
61	[Description of material project or programme]		
62	[Description of material project or programme]		
63	** include additional rows if needed*		
64	All other projects or programmes - asset relocations	534	
65	**Asset relocations expenditure**		660
66	*less* Capital contributions funding asset relocations	424	
67	**Asset relocations less capital contributions**		236

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

6a(vi): Quality of Supply

			($000)	($000)
		*Project or programme**		
		Mobile Zone Substation	1,100	
		Katikati 2nd 33kV Circuit	592	
		Papamoa Beach Road OHUG	213	
		Automation Projects	1,257	
		[Description of material project or programme]		
		** include additional rows if needed*		
		All other projects programmes - quality of supply	1,912	
		Quality of supply expenditure		5,075
	less	Capital contributions funding quality of supply		
		Quality of supply less capital contributions		5,075

6a(vii): Legislative and Regulatory

			($000)	($000)
		*Project or programme**		
		Nil projects or programmes		
		[Description of material project or programme]		
		[Description of material project or programme]		
		[Description of material project or programme]		
		[Description of material project or programme]		
		** include additional rows if needed*		
		All other projects or programmes - legislative and regulatory		
		Legislative and regulatory expenditure		–
	less	Capital contributions funding legislative and regulatory		
		Legislative and regulatory less capital contributions		–

6a(viii): Other Reliability, Safety and Environment

			($000)	($000)
		*Project or programme**		
		Whanganui Poletop Photography	878	
		Whanganui LIDAR Survey	718	
		Locks and Keys Project	754	
		Palmerston North Distribution Upgrade	222	
		Hatricks Wharf 33kV Upgrade	142	
		** include additional rows if needed*		
		All other projects or programmes - other reliability, safety and environment	1,019	
		Other reliability, safety and environment expenditure		3,732
	less	Capital contributions funding other reliability, safety and environment	429	
		Other reliability, safety and environment less capital contributions		3,304

6a(ix): Non-Network Assets

Routine expenditure

			($000)	($000)
		*Project or programme**		
		IT Renewal	563	
		Land and Building leases	810	
		Vehicle leases	589	
		IT Leases	489	
		[Description of material project or programme]		
		** include additional rows if needed*		
		All other projects or programmes - routine expenditure	967	
		Routine expenditure		3,417

Atypical expenditure

			($000)	($000)
		*Project or programme**		
		Cybersecurity	564	
		Enterprise Asset Management System	9,651	
		End User Experience	723	
		Data & Analytics	277	
		Whanganui Fitout	299	
		J Street New Reception	274	
		** include additional rows if needed*		
		All other projects or programmes - atypical expenditure	299	
		Atypical expenditure		12,089
		Expenditure on non-network assets		15,506

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

This schedule requires a breakdown of operational expenditure incurred in the disclosure year.
EDBs must provide explanatory comment on their operational expenditure in Schedule 14 (Explanatory notes to templates). This includes explanatory comment on any atypical operational expenditure and assets replaced or renewed as part of asset replacement and renewal operational expenditure, and additional information on insurance.
This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref			
7	**6b(i): Operational Expenditure**	**($000)**	**($000)**
8	Service interruptions and emergencies	7,459	
9	Vegetation management	10,184	
10	Routine and corrective maintenance and inspection	13,619	
11	Asset replacement and renewal	10,710	
12	**Network opex**		41,972
13	System operations and network support	16,443	
14	Business support	31,369	
15	**Non-network opex**		47,812
16			
17	**Operational expenditure**		89,784
18	**6b(ii): Subcomponents of Operational Expenditure (where known)**		
19	Energy efficiency and demand side management, reduction of energy losses		79
20	Direct billing*		–
21	Research and development		242
22	Insurance		1,266
23	** Direct billing expenditure by suppliers that directly bill the majority of their consumers*		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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

		Target ($000) [1]	Actual ($000)	% variance
7	**7(i): Revenue**			
8	Line charge revenue	402,290	402,493	0%
9	**7(ii): Expenditure on Assets**	**Forecast ($000) [2]**	**Actual ($000)**	**% variance**
10	Consumer connection	44,334	42,737	(4%)
11	System growth	56,387	44,984	(20%)
12	Asset replacement and renewal	86,865	82,670	(5%)
13	Asset relocations	2,779	660	(76%)
14	Reliability, safety and environment:			
15	Quality of supply	3,967	5,075	28%
16	Legislative and regulatory	789	–	(100%)
17	Other reliability, safety and environment	2,367	3,732	58%
18	**Total reliability, safety and environment**	7,123	8,807	24%
19	**Expenditure on network assets**	197,488	179,859	(9%)
20	Expenditure on non-network assets	13,001	15,506	19%
21	Expenditure on assets	210,489	195,365	(7%)
22	**7(iii): Operational Expenditure**			
23	Service interruptions and emergencies	7,690	7,459	(3%)
24	Vegetation management	9,923	10,184	3%
25	Routine and corrective maintenance and inspection	16,940	13,619	(20%)
26	Asset replacement and renewal	10,742	10,710	(0%)
27	**Network opex**	45,295	41,972	(7%)
28	System operations and network support	18,858	16,443	(13%)
29	Business support	33,478	31,369	(6%)
30	**Non-network opex**	52,336	47,812	(9%)
31	**Operational expenditure**	97,631	89,784	(8%)
32	**7(iv): Subcomponents of Expenditure on Assets (where known)**			
33	Energy efficiency and demand side management, reduction of energy losses	–	422	–
34	Overhead to underground conversion	–	1,049	–
35	Research and development	–	671	–
36				
37	**7(v): Subcomponents of Operational Expenditure (where known)**			
38	Energy efficiency and demand side management, reduction of energy losses	–	79	–
39	Direct billing	–	–	–
40	Research and development	–	242	–
41	Insurance	–	1,266	–
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 2020**
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

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)	Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed	
					Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW	kW	kVArh	Fixture Count Days	*Add extra columns for additional billed quantities by price component as necessary*
Unmetered	Streetlights	Standard	518	9,388		–	–	9,387,614	–	–	–	–	–	9,455,854	
Small	Residential/Small Commercial	Standard	341,487	2,681,906		120,898,844	–	850,507,493	583,744,962	1,372,426,137	3,810,265	–	–	–	
Medium	Commercial	Standard	1,535	258,458		547,899	–	258,458,291	–	–	30,105	13,608	41,259	–	
Large	Large Commercial/Industrial	Standard	239	375,124		–	2,416,890	375,124,046	–	–	113,696	53,282	71,883	–	
Large	XLarge Commercial/Industrial	Non-standard	405	1,583,953		142,557	–	1,337,225,310	–	–	–	–	155,239	–	
		[Select one]													
		[Select one]													
		[Select one]													
		[Select one]													
		[Select one]													
Add extra rows for additional consumer groups or price category codes as necessary															
		Standard consumer totals	343,779	3,324,875		121,446,743	2,416,890	1,493,477,444	583,744,962	1,372,426,137	3,954,066	66,889	113,142	9,455,854	
		Non-standard consumer totals	405	1,583,953		142,557	–	1,337,225,310	–	–	–	–	155,239	–	
		Total for all consumers	344,184	4,908,828		121,589,300	2,416,890	2,830,702,755	583,744,962	1,372,426,137	3,954,066	66,889	268,382	9,455,854	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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)	Line charge revenues ($000) by price component								
							Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed
							Rate (eg, $ per day, $ per kWh, etc.)	$/ICP/Day	$/kVA of capacity	$/kWh	$/kWh	$/kWh	$/kW	$/kVA	$/kVArh	$/streetlight/day
Unmetered	Streetlights	Standard	$1,893	–	$1,214	$679		–	–	$280	–	–	–	–	–	$1,614
Small	Residential/Small Commercial	Standard	$301,449	–	$225,206	$76,243		$37,627	–	$68,675	$92,086	$103,061	–	–	–	–
Medium	Commercial	Standard	$23,958	–	$18,233	$5,725		$6,579	–	$10,818	–	–	$4,398	$1,875	$289	–
Large	Large Commercial/Industrial	Standard	$21,180	–	$13,871	$7,309		–	$4,604	–	–	–	$8,763	$7,309	$503	–
Large	XLarge Commercial/Industrial	Non-standard	$54,013	–	$26,372	$27,641		$52,927	–	–	–	–	–	–	$1,087	–
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													

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

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

Standard consumer totals	$348,480	–	$258,523	$89,957	$44,206 $4,604 $79,773 $92,086 $103,061 $13,161 $9,184 $792 $1,614
Non-standard consumer totals	$54,013	–	$26,372	$27,641	$52,927 – – – – – – $1,087 –
Total for all consumers	$402,493	–	$284,896	$117,597	$97,133 $4,604 $79,773 $92,086 $103,061 $13,161 $9,184 $1,879 $1,614

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	13	**Check**	**OK**

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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(i): Billed Quantities by Price Component

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)	Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed	
					Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	ICP Days	kVA of Capacity	kWh	kWh	kWh	kW	kW	kVArh	Fixture Count Days	*Add extra columns for additional billed quantities by price component as necessary*
E1	Residential/Small Commercial	Standard	180,631	1,465,016		63,474,251			473,808,615	1,115,980,716	3,810,265				
E100	Commercial	Standard	221	91,408		79,842		91,408,118			30,105	13,608	29,568		
E300/R	Large Commercial/Industrial	Standard	239	375,124			2,416,890	375,124,046			113,696	53,282	71,883		
SPECIAL	XLarge Commercial/Industrial	Non-standard	48	315,465		12,780		315,465,001					24,286		
		[Select one]													
		[Select one]													
		[Select one]													
		[Select one]													
		[Select one]													
Add extra rows for additional consumer groups or price category codes as necessary															
		Standard consumer totals	181,091	1,931,548		63,554,093	2,416,890	466,532,164	473,808,615	1,115,980,716	3,954,066	66,889	101,451	–	
		Non-standard consumer totals	48	315,465		12,780	–	315,465,001	–	–	–	–	24,286	–	
		Total for all consumers	181,139	2,247,013		63,566,872	2,416,890	781,997,165	473,808,615	1,115,980,716	3,954,066	66,889	125,738	–	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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.

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)	Line charge revenues ($000) by price component									*Add extra columns for additional line charge revenues by price component as necessary*
							Price component	Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed	
							Rate (eg, $ per day, $ per kWh, etc.)	$/ICP/Day	$/kVA of capacity	$/kWh	$/kWh	$/kWh	$/kW	$/kVA	$/kVArh	$/streetlight/day	
			–														
E1	Residential/Small Commercial	Standard	$164,719		$125,419	$39,300		$5,427			$72,695	$86,598					
E100	Commercial	Standard	$7,247		$5,372	$1,875		$768					$4,398	$1,875	$207		
E300/R	Large Commercial/Industrial	Standard	$21,180		$13,871	$7,309			$4,604				$8,763	$7,309	$503		
SPECIAL	XLarge Commercial/Industrial	Non-standard	$11,511		$5,567	$5,943		$11,341							$170		
		[Select one]	–														
		[Select one]	–														
		[Select one]	–														
		[Select one]	–														
		[Select one]	–														
Add extra rows for additional consumer groups or price category codes as necessary																	
		Standard consumer totals	$193,146	–	$144,662	$48,484		$6,195	$4,604	–	$72,695	$86,598	$13,161	$9,184	$710	–	
		Non-standard consumer totals	$11,511	–	$5,567	$5,943		$11,341	–	–	–	–	–	–	$170	–	
		Total for all consumers	$204,657	–	$150,230	$54,427		$17,535	$4,604	–	$72,695	$86,598	$13,161	$9,184	$880	–	

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	5	**Check**	**OK**

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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(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)	Billed quantities by price component									
Price component					Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed	
Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)					ICP Days	kVA of Capacity	kWh	kWh	kWh	kW	kW	kVArh	Fixture Count Days	*Add extra columns for additional billed quantities by price component as necessary*
T01, T02, V01, V02	Streetlights	Standard	518	9,388			9,387,614						9,455,854	
T05, T06, V05, V06	Residential/Small Commercial	Standard	160,856	1,216,889	57,424,593		850,507,493	109,936,347	256,445,421					
T22, T24, V24, V28, T41	Commercial	Standard	1,314	167,050	468,057		167,050,173					11,691		
T43	Large Commercial	Standard	–	–										
V40, T50, T60, V60	Large Commercial/Industrial	Non-standard	357	1,268,488	129,778		1,021,760,309					130,953		
		[Select one]												
		[Select one]												
		[Select one]												
		[Select one]												
		[Select one]												
Add extra rows for additional consumer groups or price category codes as necessary														
		Standard consumer totals	162,688	1,393,327	57,892,650	–	1,026,945,281	109,936,347	256,445,421	–	–	11,691	9,455,854	
		Non-standard consumer totals	357	1,268,488	129,778	–	1,021,760,309	–	–	–	–	130,953	–	
		Total for all consumers	163,045	2,661,815	58,022,428	–	2,048,705,590	109,936,347	256,445,421	–	–	142,644	9,455,854	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

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)	Line charge revenues ($000) by price component									*Add extra columns for additional line charge revenues by price component as necessary*
Price component							Fixed	Fixed	Variable (Anytime)	Variable (Peak)	Variable (Off-Peak)	Demand (AMD)	Demand (OPD)	Power Factor	Fixed	
Rate (eg, $ per day, $ per kWh, etc.)							$/ICP/Day	$/kVA of capacity	$/kWh	$/kWh	$/kWh	$/kW	$/kVA	$/kVArh	$/streetlight/day	
T01, T02, V01, V02	Streetlights	Standard	$1,893		$1,214	$679			$280						$1,614	
T05, T06, V05, V06	Residential/Small Commercial	Standard	$136,729		$99,787	$36,943	$32,200		$68,675	$19,390	$16,463					
T22, T24, V24, V28, T41	Commercial	Standard	$16,711		$12,860	$3,851	$5,811		$10,818					$82		
T43	Large Commercial	Standard	–		–	–										
V40, T50, T60, V60	Large Commercial/Industrial	Non-standard	$42,503		$20,805	$21,698	$41,586							$917		
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													
		[Select one]	–													
Add extra rows for additional consumer groups or price category codes as necessary																
		Standard consumer totals	$155,334	–	$113,861	$41,473	$38,012	–	$79,773	$19,390	$16,463	–	–	$82	$1,614	
		Non-standard consumer totals	$42,503	–	$20,805	$21,698	$41,586	–	–	–	–	–	–	$917	–	
		Total for all consumers	$197,836	–	$134,666	$63,170	$79,598	–	$79,773	$19,390	$16,463	–	–	$999	$1,614	

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	8	**Check**	**OK**

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

8	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
9	All	Overhead Line	Concrete poles / steel structure	No.	227,018	228,709	1,691	4
10	All	Overhead Line	Wood poles	No.	33,406	32,014	(1,392)	3
11	All	Overhead Line	Other pole types	No.	4,741	3,594	(1,147)	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	1,498	1,496	(2)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	210	229	19	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	4	3	(1)	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.	142	154	12	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.	52	29	(23)	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	841	823	(18)	3
29	HV	Zone substation switchgear	33kV RMU	No.	6	1	(5)	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	124	142	18	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	191	184	(7)	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	843	841	(2)	3
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	49	50	1	3
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	212	216	4	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	14,713	14,701	(11)	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	1,883	1,936	53	3
39	HV	Distribution Cable	Distribution UG PILC	km	174	195	22	3
40	HV	Distribution Cable	Distribution Submarine Cable	km	11	11	0	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	706	759	53	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	409	421	12	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	39,123	39,280	157	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	1,556	1,590	34	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	2,877	2,811	(66)	3
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	27,193	27,278	85	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	8,459	8,931	472	3
48	HV	Distribution Transformer	Voltage regulators	No.	135	149	14	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	4,038	4,050	12	2
50	LV	LV Line	LV OH Conductor	km	5,367	5,360	(7)	3
51	LV	LV Cable	LV UG Cable	km	4,347	4,420	73	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3,019	3,043	24	2
53	LV	Connections	OH/UG consumer service connections	No.	285,080	290,633	5,553	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,393	2,401	8	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	46	52	6	4
57	All	Load Control	Centralised plant	Lot	36	36	–	3
58	All	Load Control	Relays	No	2,902	3,294	392	3
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

8	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
9	All	Overhead Line	Concrete poles / steel structure	No.	146,008	147,321	1,313	4
10	All	Overhead Line	Wood poles	No.	29,096	27,886	(1,210)	3
11	All	Overhead Line	Other pole types	No.	1,943	1,187	(756)	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	954	952	(2)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	63	80	17	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	4	3	(1)	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.	81	85	4	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.	9	18	9	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	521	528	7	3
29	HV	Zone substation switchgear	33kV RMU	No.	5	1	(4)	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	70	69	(1)	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	107	107	–	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	479	467	(12)	3
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	49	46	(3)	3
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	116	127	11	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	10,088	10,072	(16)	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	650	670	20	3
39	HV	Distribution Cable	Distribution UG PILC	km	73	95	22	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.	375	444	69	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	206	279	73	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	24,111	24,233	122	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	610	766	156	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,149	1,233	84	3
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	17,548	18,442	894	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	3,299	3,725	426	3
48	HV	Distribution Transformer	Voltage regulators	No.	74	101	27	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	1,607	1,612	5	2
50	LV	LV Line	LV OH Conductor	km	3,452	3,451	(1)	3
51	LV	LV Cable	LV UG Cable	km	2,286	2,315	29	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	1,368	1,371	3	2
53	LV	Connections	OH/UG consumer service connections	No.	154,034	155,797	1,763	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,281	1,250	(31)	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	26	27	1	3
58	All	Load Control	Relays	No	1,377	1,591	214	3
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

8	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
9	All	Overhead Line	Concrete poles / steel structure	No.	81,010	81,388	378	4
10	All	Overhead Line	Wood poles	No.	4,310	4,128	(182)	3
11	All	Overhead Line	Other pole types	No.	2,798	2,407	(391)	2
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	544	544	(0)	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	147	149	2	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.	61	69	8	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.	43	11	(32)	2
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	320	295	(25)	3
29	HV	Zone substation switchgear	33kV RMU	No.	1	–	(1)	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	54	73	19	3
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	84	77	(7)	3
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	364	374	10	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.	96	89	(7)	3
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	4,625	4,629	4	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	1,234	1,266	33	3
39	HV	Distribution Cable	Distribution UG PILC	km	100	100	0	3
40	HV	Distribution Cable	Distribution Submarine Cable	km	11	11	0	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	331	315	(16)	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	203	142	(61)	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	15,012	15,047	35	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	946	824	(122)	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,728	1,578	(150)	3
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	9,645	8,836	(809)	3
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	5,160	5,206	46	3
48	HV	Distribution Transformer	Voltage regulators	No.	61	48	(13)	3
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2,431	2,438	7	2
50	LV	LV Line	LV OH Conductor	km	1,915	1,909	(6)	3
51	LV	LV Cable	LV UG Cable	km	2,061	2,105	43	3
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	1,652	1,672	20	2
53	LV	Connections	OH/UG consumer service connections	No.	131,046	134,836	3,790	2
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,112	1,151	39	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	41	47	6	4
57	All	Load Control	Centralised plant	Lot	10	9	(1)	3
58	All	Load Control	Relays	No	1,525	1,703	178	3
59	All	Civils	Cable Tunnels	km	–	–	–	4

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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 2020 **Number of assets at disclosure year end by installation date**

9	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 (quantity)	No. with default dates	Data accuracy (1–4)
10	All	Overhead Line	Concrete poles / steel structure	No.	21	787	4,828	31,226	55,430	49,701	26,897	3,368	3,161	2,096	2,353	1,924	1,822	1,879	2,169	2,424	2,840	2,566	2,246	2,431	3,320	3,427	3,438	4,272	3,956	3,565	4,248	2,257	–	–	–	–	–	57	228,709	7,445	3
11	All	Overhead Line	Wood poles	No.	28	37	745	5,511	7,998	7,225	7,761	422	260	381	430	314	241	141	191	95	71	90	34	3	3	2	4	–	1	11	1	11	–	–	–	–	–	1	32,014	1,739	3
12	All	Overhead Line	Other pole types	No.	–	–	5	35	2,765	59	92	21	75	37	42	47	92	70	34	31	23	7	10	2	8	3	2	1	–	4	13	22	–	–	–	–	–	94	3,594	2,702	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	2	86	323	349	301	226	9	1	3	5	1	15	2	10	4	12	3	34	19	1	16	0	11	28	10	15	7						–	1,496	0	3
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	–	–	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	20	6	20	7	1	6	1	1	1	2	9	2	7	7	19	7	5	1	12	3	25	30	19	19						–	229	4	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	–	2	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	3	–	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	59	13	13	–	–	–	–	2	29	2	6	1	1	1	3	2	3	3	1	3	–	–	–	5						–	154	50	2
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–						–	–	–	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	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	19	–	2
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	2	–	–	–	–	–	–	1	–	–	2	1	–	4	3	5	2	3	6	–	–	–	–	–	–	–	–	–	–	29	–	2
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	124	152	170	119	9	8	1	4	6	10	3	11	11	13	14	13	27	16	6	22	39	13	9	18	6	–	–	–	–	–	1	823	19	2
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	–	–	23	–	–	–	–	–	5	8	6	–	14	22	6	9	8	–	23	9	1	–	–	–	–	–	–	–	–	10	142	–	2
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	15	20	36	22	7	1	–	1	1	5	–	4	4	8	1	2	3	4	6	8	10	9	7	7	1	–	–	–	–	–	2	184	8	2
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	83	131	106	135	4	20	1	3	19	12	18	37	18	19	7	33	16	32	22	41	46	36	8	13	1	–	–	–	–	–	–	841	48	2
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	2	–	3	8	–	–	–	–	1	1	–	1	–	4	5	–	2	–	4	7	–	9	–	2	–	–	–	–	–	–	1	50	–	3
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	1	25	31	23	22	2	5	3	4	2	2	5	9	6	2	5	5	6	11	12	14	11	1	3	4	–	–	–	–	–	–	2	216	3	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	80	105	1,299	2,901	3,463	3,492	1,434	48	70	104	80	78	68	83	82	65	84	83	67	96	131	119	116	119	126	111	121	76						–	14,701	30	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	–						–	79	–	3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	0	5	32	205	399	295	49	41	28	29	41	49	58	56	60	53	48	41	38	41	41	45	49	50	45	82	58						–	1,936	49	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	1	24	67	71	20	2	2	2	3	0	0	1	1	0	0	0	0	0	0	0	0	–	0	0	0	–						–	195	5	3
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	–	–	2	9	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	0	0	–	–	–	–						–	11	–	3
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	1	1	16	33	31	5	6	13	7	18	13	17	11	12	27	23	22	28	33	38	53	96	76	79	54	16	–	–	–	–	–	30	759	3	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	55	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	15	17	605	2,189	6,330	5,552	4,855	403	899	884	703	746	825	818	832	774	788	775	686	780	841	1,135	1,281	1,389	1,561	1,474	1,519	574	–	–	–	–	–	30	39,280	449	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	4	80	271	244	261	20	30	22	37	57	41	70	70	53	57	36	41	36	32	14	10	16	18	13	11	23	–	–	–	–	–	23	1,590	14	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	1	5	60	260	248	239	39	68	40	46	74	79	103	124	99	104	81	69	84	86	98	126	151	163	171	157	26	–	–	–	–	–	10	2,811	10	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	68	749	2,391	4,100	5,400	508	552	533	621	663	685	629	679	692	660	613	542	561	635	691	699	699	757	742	952	528	–	–	–	–	–	929	27,278	96	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	10	172	670	1,274	1,536	203	217	166	190	237	268	294	324	298	262	202	215	224	189	247	283	277	309	297	309	135	–	–	–	–	–	123	8,931	10	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	2	2	5	1	2	2	7	6	4	8	3	12	5	4	5	6	4	12	9	10	5	3	23	1	–	–	–	–	–	8	149	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2	–	3	135	964	1,301	814	91	79	62	110	111	42	30	32	43	26	24	11	14	13	21	18	16	12	22	19	35						–	4,050	1	3
51	LV	LV Line	LV OH Conductor	km	1	48	298	1,357	1,645	1,056	461	44	35	28	30	26	22	23	24	25	22	16	17	14	22	22	18	23	24	27	28	7						–	5,360	43	2
52	LV	LV Cable	LV UG Cable	km	0	0	8	146	1,066	898	712	59	60	49	57	97	110	114	131	128	113	59	44	41	37	47	49	68	91	91	101	41						–	4,420	309	2
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	12	86	350	883	556	426	44	41	26	27	68	70	63	58	52	55	30	23	18	14	14	18	28	32	32	32	8						–	3,043	207	2
54	LV	Connections	OH/UG consumer service connections	No.	21	166	2,076	14,717	116,069	46,269	32,274	3,114	2,958	2,456	3,016	3,683	3,989	3,738	4,397	4,177	3,663	4,312	3,894	2,990	3,613	3,594	3,924	4,130	4,836	5,163	5,301	2,096						–	290,633	76,129	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	106	306	218	141	66	6	9	6	19	38	50	25	55	65	15	52	41	61	147	238	222	179	129	65	6	–	–	–	–	–	136	2,401	60	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–						–	1	1	2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	1	27	2	–	–	–	–	–	–	1	–	1	1	–	7	1	1	1	–	1	3	2	1	–	–	–	–	–	–	52	–	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	–	–	9	20	541	221	220	58	30	28	27	66	34	71	86	43	67	84	71	31	199	75	72	67	77	114	142	45	–	–	–	–	–	796	3,294	341	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	–	–	N/A

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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 2020

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 (quantity)	No. with default dates	Data accuracy (1–4)
9																																									
10	All	Overhead Line	Concrete poles / steel structure	No.	20	783	3,688	16,847	28,198	33,721	21,377	3,303	2,998	1,639	1,846	1,391	1,340	1,187	1,330	1,382	1,713	1,442	1,435	1,578	2,246	2,506	2,436	3,041	2,661	2,542	3,029	1,604	–	–	–	–	–	38	147,321	4,691	3
11	All	Overhead Line	Wood poles	No.	28	36	534	5,214	7,178	6,367	6,012	407	235	378	429	312	232	141	186	61	61	20	26	3	3	1	4	–	–	8	1	8	–	–	–	–	–	1	27,886	1,487	3
12	All	Overhead Line	Other pole types	No.	–	–	4	22	785	47	62	11	18	7	16	39	30	10	3	5	3	2	10	1	1	1	2	1	–	4	11	18	–	–	–	–	–	74	1,187	743	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	2	49	230	223	191	144	2	1	2	5	1	12	–	4	–	12	2	0	4	0	6	0	11	22	10	12	7						–	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	–	–	–	–	4	5	3	3	0	6	0	1	0	–	4	0	5	0	4	0	1	0	1	1	4	6	13	17						–	80	3	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	–	2	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	3	–	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	44	9	10	–	–	–	–	2	1	–	5	–	–	1	2	–	1	1	1	1	–	–	–	3						–	85	40	2
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–						–	–	–	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.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	3	–	2	3	6	–	–	–	–	–	–	–	–	–	–	18	–	2
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	77	94	126	95	9	6	1	4	6	6	1	2	–	2	2	8	17	8	3	12	20	3	4	16	5	–	–	–	–	–	1	528	17	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	12	–	4	1	–	3	1	–	–	–	–	–	–	–	–	–	69	–	2
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	12	15	29	9	2	–	–	1	1	2	–	2	2	3	–	2	–	2	1	5	3	3	4	7	–	–	–	–	–	–	2	107	8	2
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	–	42	80	57	83	–	20	1	1	17	5	1	30	1	–	–	19	–	21	10	11	22	36	8	1	1	–	–	–	–	–	–	467	38	2
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	2	–	2	7	–	–	–	–	1	1	–	1	–	4	3	–	2	–	4	7	–	9	–	2	–	–	–	–	–	–	1	46	–	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	8	1	3	2	–	–	–	–	–	–	2	127	3	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	80	105	1,213	2,116	2,050	2,494	1,008	43	51	87	63	50	42	38	39	26	36	18	30	42	57	64	63	54	57	52	67	26						–	10,072	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	115	124	80	12	9	11	6	9	10	15	16	22	17	19	12	12	15	19	17	20	15	11	30	21						–	670	39	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	0	21	41	19	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	33	26	4	4	11	7	8	12	12	6	11	17	13	7	17	14	18	20	40	35	48	37	9	–	–	–	–	–	26	444	3	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	54	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	15	17	571	1,461	4,788	3,254	2,536	266	709	681	512	480	471	488	464	442	429	385	376	446	445	654	777	736	776	782	876	375	–	–	–	–	–	21	24,233	424	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	–	64	134	99	95	12	18	12	26	23	20	13	36	20	30	20	17	20	15	13	7	14	15	5	7	10	–	–	–	–	–	21	766	12	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	1	5	48	139	164	93	16	53	28	28	28	20	35	43	31	33	37	21	32	36	52	52	57	61	55	43	12	–	–	–	–	–	10	1,233	7	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	67	518	1,734	2,973	3,293	350	375	376	440	450	436	384	432	401	409	322	347	394	402	454	464	421	545	472	652	418	–	–	–	–	–	913	18,442	94	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	3	67	305	501	566	83	88	95	92	82	100	104	101	122	106	76	81	101	100	141	137	117	124	107	123	85	–	–	–	–	–	118	3,725	5	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	2	1	5	–	2	2	7	6	3	8	1	7	5	2	3	5	1	9	8	4	1	2	8	1	–	–	–	–	–	8	101	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	2	–	1	53	372	418	315	52	37	46	73	55	23	14	17	18	6	11	4	7	7	12	14	6	8	9	11	21						–	1,612	1	3
51	LV	LV Line	LV OH Conductor	km	1	48	241	904	900	649	292	42	31	24	25	21	19	18	19	18	17	12	14	11	19	19	15	22	19	23	22	4						–	3,451	39	2
52	LV	LV Cable	LV UG Cable	km	0	0	8	86	628	496	333	30	27	31	31	37	49	50	63	66	64	33	27	18	20	25	25	31	34	38	41	22						–	2,315	232	2
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	12	73	234	418	251	140	17	14	12	12	15	24	17	20	19	23	8	8	4	6	5	7	7	6	7	8	1						–	1,371	68	2
54	LV	Connections	OH/UG consumer service connections	No.	21	166	1,473	7,880	54,692	26,048	17,189	2,167	1,959	1,962	2,163	2,343	2,797	2,637	2,765	2,732	2,399	2,196	2,442	1,719	2,259	2,328	2,290	2,409	2,576	2,560	2,786	839						–	155,797	35,534	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	58	138	85	81	58	6	6	2	19	19	27	2	20	28	12	30	13	24	84	144	87	111	88	44	5	–	–	–	–	–	59	1,250	57	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–						–	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	–	–	–	–	–	–	–	1	–	–	5	–	1	–	1	–	–	1	–						–	27	3	3
59	All	Load Control	Relays	No	–	–	–	9	272	128	87	14	15	21	17	36	5	16	26	14	7	10	16	2	9	15	32	22	19	31	49	17	–	–	–	–	–	702	1,591	197	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	–	–	N/A

Company Name **Powerco Limited**
For Year Ended **31 March 2020**
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 2020

Number of assets at disclosure year end by installation date

9	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 (quantity)	No. with default dates	Data accuracy (1–4)
10	All	Overhead Line	Concrete poles / steel structure	No.	1	4	1,140	14,379	27,232	15,980	5,520	65	163	457	507	533	482	692	839	1,042	1,127	1,124	811	853	1,074	921	1,002	1,231	1,295	1,023	1,219	653	–	–	–	–	–	19	81,388	2,754	3
11	All	Overhead Line	Wood poles	No.	–	1	211	297	820	858	1,749	15	25	3	1	2	9	–	5	34	10	70	8	–	–	1	–	–	1	3	–	3	–	–	–	–	–	2	4,128	252	3
12	All	Overhead Line	Other pole types	No.	–	–	1	13	1,980	12	30	10	57	30	26	8	62	60	31	26	20	5	–	1	7	2	–	–	–	–	2	4	–	–	–	–	–	20	2,407	1,959	2
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	–	37	94	126	111	82	7	–	1	1	1	3	2	6	4	0	0	34	15	1	10	0	0	6	1	3	0						–	544	0	3
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	–	–	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	16	1	17	5	1	–	0	0	1	2	5	2	1	6	15	6	4	0	12	1	21	24	6	2						–	149	1	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	15	4	3	–	–	–	–	–	28	2	1	1	1	–	1	2	2	2	–	2	–	–	–	2						–	69	10	2
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–						–	–	–	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	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	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.	–	–	–	47	58	44	24	–	–	–	–	–	4	2	9	11	11	12	5	10	8	3	10	19	10	5	2	1	–	–	–	–	–	–	295	2	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	49	32	4	–	–	2	2	7	17	7	17	19	7	14	16	11	12	30	24	–	–	12	–	–	–	–	–	–	–	374	10	2
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	3
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	–	4	6	12	7	1	1	1	–	–	–	5	4	4	2	5	2	4	8	8	10	3	–	–	2	–	–	–	–	–	–	–	89	–	2
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	–	–	86	785	1,413	998	427	5	19	17	17	29	26	45	43	39	48	65	37	54	73	54	53	65	69	59	54	49						–	4,629	8	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	–						–	61	–	3
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	–	1	4	90	275	214	36	32	17	23	33	38	43	40	38	37	29	29	26	25	22	28	28	35	34	53	36						–	1,266	10	3
40	HV	Distribution Cable	Distribution UG PILC	km	–	–	0	3	26	52	14	2	2	0	–	0	–	–	0	–	0	–	–	–	–	–	–	–	–	–	–	–						–	100	0	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	–	8	–	5	1	2	2	–	10	1	5	5	1	10	10	15	11	19	20	33	56	41	31	17	7	–	–	–	–	–	4	315	–	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	1	2
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	34	728	1,542	2,298	2,319	137	190	203	191	266	354	330	368	332	359	390	310	334	396	481	504	653	785	692	643	199	–	–	–	–	–	9	15,047	25	2
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	4	16	137	145	166	8	12	10	11	34	21	57	34	33	27	16	24	16	17	1	3	2	3	8	4	13	–	–	–	–	–	2	824	2	2
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	–	–	12	121	84	146	23	15	12	18	46	59	68	81	68	71	44	48	52	50	46	74	94	102	116	114	14	–	–	–	–	–	–	1,578	3	3
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	1	231	657	1,127	2,107	158	177	157	181	213	249	245	247	291	251	291	195	167	233	237	235	278	212	270	300	110	–	–	–	–	–	16	8,836	2	4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	7	105	365	773	970	120	129	71	98	155	168	190	223	176	156	126	134	123	89	106	146	160	185	190	186	50	–	–	–	–	–	5	5,206	5	4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	–	1	–	1	–	–	–	–	1	–	2	5	–	2	2	1	3	3	1	6	4	1	15	–	–	–	–	–	–	–	48	–	4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	–	–	2	82	592	883	499	39	42	16	37	56	19	16	15	25	20	13	7	7	6	9	4	10	4	13	8	14						–	2,438	–	3
51	LV	LV Line	LV OH Conductor	km	–	–	55	453	745	407	169	2	4	4	5	5	3	4	6	8	5	4	3	2	3	3	3	1	5	3	4	3						–	1,909	4	2
52	LV	LV Cable	LV UG Cable	km	–	–	0	60	438	402	379	29	33	18	25	60	61	64	69	61	49	26	17	23	17	22	24	38	57	53	60	19						–	2,105	77	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	6						–	1,672	139	2
54	LV	Connections	OH/UG consumer service connections	No.	–	–	603	6,837	61,374	20,221	15,085	947	999	494	853	1,340	1,192	1,101	1,632	1,445	1,264	2,116	1,452	1,271	1,354	1,266	1,634	1,721	2,260	2,603	2,515	1,257						–	134,836	40,595	2
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	48	168	133	60	8	–	3	4	–	19	23	23	35	37	3	22	28	37	63	94	135	68	41	21	1	–	–	–	–	–	77	1,151	3	3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–						–	1	1	2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	1	27	1	–	–	–	–	–	–	1	–	1	1	–	4	1	1	3	–	1	2	2	1	–	–	–	–	–	–	47	–	4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	1	1	1	1	–	1	–	–	–	–						–	9	–	3
59	All	Load Control	Relays	No	–	–	9	11	269	93	133	44	15	7	10	30	29	55	60	29	60	74	55	29	190	60	40	45	58	83	93	28	–	–	–	–	–	94	1,703	144	2
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–						–	–	–	N/A

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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	1,333	239	1,571
14	SWER (all SWER voltages)	79	–	79
15	22kV (other than SWER)	121	1	122
16	6.6kV to 11kV (inclusive—other than SWER)	14,580	2,141	16,721
17	Low voltage (< 1kV)	5,360	4,420	9,779
18	**Total circuit length (for supply)**	21,635	6,806	28,441
19				
20	Dedicated street lighting circuit length (km)	1,072	1,971	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	2,455	11%	
25	Rural	7,758	36%	
26	Remote only	–	–	
27	Rugged only	11,108	51%	
28	Remote and rugged	314	1%	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	21,635	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	11,474	40%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	21,635	100%	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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	95	1,047
14	SWER (all SWER voltages)	17	–	17
15	22kV (other than SWER)	121	1	122
16	6.6kV to 11kV (inclusive—other than SWER)	9,951	764	10,715
17	Low voltage (< 1kV)	3,451	2,315	5,766
18	**Total circuit length (for supply)**	14,492	3,175	17,667
19				
20	Dedicated street lighting circuit length (km)	750	621	1,371
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	1,583	11%	
25	Rural	4,375	30%	
26	Remote only	–	–	
27	Rugged only	8,221	57%	
28	Remote and rugged	314	2%	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	14,492	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	5,416	31%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	14,492	100%	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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	380	144	524
14	SWER (all SWER voltages)	61	–	61
15	22kV (other than SWER)	–	–	–
16	6.6kV to 11kV (inclusive—other than SWER)	4,629	1,378	6,007
17	Low voltage (< 1kV)	1,909	2,105	4,013
18	**Total circuit length (for supply)**	7,143	3,631	10,774
19				
20	Dedicated street lighting circuit length (km)	323	1,349	1,672
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	872	12%	
25	Rural	3,383	47%	
26	Remote only	–	–	
27	Rugged only	2,888	40%	
28	Remote and rugged	–	–	
29	Unallocated overhead lines	–	–	
30	**Total overhead length**	7,143	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	6,058	56%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	7,143	100%	

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**

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	Powerco has no networks embedded in another network		
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 2020**
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

9e(i): Consumer Connections

Number of ICPs connected in year by consumer type

*Consumer types defined by EDB**	Number of connections (ICPs)
Residential/Small Commercial	4,789
Commercial	61
Large Commercial/Industrial	20
[EDB consumer type]	
[EDB consumer type]	
** include additional rows if needed*	
Connections total	4,870

Distributed generation

Number of connections made in year	733	**connections**
Capacity of distributed generation installed in year	8.55	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
Maximum coincident system demand			
	GXP demand	768	
plus	Distributed generation output at HV and above	155	
	Maximum coincident system demand	923	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	923	

		Energy (GWh)	
Electricity volumes carried			
	Electricity supplied from GXPs	4,470	
less	Electricity exports to GXPs	172	
plus	Electricity supplied from distributed generation	883	
less	Net electricity supplied to (from) other EDBs		
	Electricity entering system for supply to consumers' connection points	5,181	
less	Total energy delivered to ICPs	4,909	
	Electricity losses (loss ratio)	272	5.3%
	Load factor	0.64	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	3,286
Distribution transformer capacity (Non-EDB owned, estimated)	125
Total distribution transformer capacity	3,411
Zone substation transformer capacity	2,240

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

9e(i): Consumer Connections

Number of ICPs connected in year by consumer type

*Consumer types defined by EDB**	Number of connections (ICPs)
Residential/Small Commercial	1,936
Commercial	7
Large Commercial/Industrial	9
[EDB consumer type]	
[EDB consumer type]	
** include additional rows if needed*	
Connections total	1,952

Distributed generation

Number of connections made in year	337	**connections**
Capacity of distributed generation installed in year	1.90	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
	Maximum coincident system demand		
	GXP demand	371	
plus	Distributed generation output at HV and above	79	
	Maximum coincident system demand	450	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	450	

		Energy (GWh)	
	Electricity volumes carried		
	Electricity supplied from GXPs	1,977	
less	Electricity exports to GXPs	28	
plus	Electricity supplied from distributed generation	463	
less	Net electricity supplied to (from) other EDBs		
	Electricity entering system for supply to consumers' connection points	2,412	
less	Total energy delivered to ICPs	2,247	
	Electricity losses (loss ratio)	165	6.8%
	Load factor	0.61	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	1,654
Distribution transformer capacity (Non-EDB owned, estimated)	81
Total distribution transformer capacity	1,735
Zone substation transformer capacity	1,095

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

9e(i): Consumer Connections

Number of ICPs connected in year by consumer type

*Consumer types defined by EDB**	Number of connections (ICPs)
Residential/Small Commercial	2,853
Commercial	54
Large Commercial/Industrial	11
[EDB consumer type]	
[EDB consumer type]	
** include additional rows if needed*	
Connections total	2,918

Distributed generation

Number of connections made in year	396	**connections**
Capacity of distributed generation installed in year	6.65	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
Maximum coincident system demand			
	GXP demand	414	
plus	Distributed generation output at HV and above	74	
	Maximum coincident system demand	488	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	488	

		Energy (GWh)	
Electricity volumes carried			
	Electricity supplied from GXPs	2,493	
less	Electricity exports to GXPs	144	
plus	Electricity supplied from distributed generation	420	
less	Net electricity supplied to (from) other EDBs		
	Electricity entering system for supply to consumers' connection points	2,769	
less	Total energy delivered to ICPs	2,662	
	Electricity losses (loss ratio)	107	3.9%
	Load factor	0.65	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	1,632
Distribution transformer capacity (Non-EDB owned, estimated)	44
Total distribution transformer capacity	1,676
Zone substation transformer capacity	1,145

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

10(i): Interruptions

Interruptions by class

		Number of interruptions
10	Class A (planned interruptions by Transpower)	13
11	Class B (planned interruptions on the network)	1,708
12	Class C (unplanned interruptions on the network)	3,263
13	Class D (unplanned interruptions by Transpower)	9
14	Class E (unplanned interruptions of EDB owned generation)	
15	Class F (unplanned interruptions of generation owned by others)	4
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)	613
19	**Total**	5,610

Interruption restoration

		≤3Hrs	>3hrs
22	Class C interruptions restored within	1,826	1,437

SAIFI and SAIDI by class

		SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.13	24.2
26	Class B (planned interruptions on the network)	0.35	69.9
27	Class C (unplanned interruptions on the network)	1.92	182.4
28	Class D (unplanned interruptions by Transpower)	0.33	24.4
29	Class E (unplanned interruptions of EDB owned generation)		
30	Class F (unplanned interruptions of generation owned by others)	0.05	0.3
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)	0.14	26.1
34	**Total**	2.91	327.4

Normalised SAIFI and SAIDI

		Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network)	2.27	247.9

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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.

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

Cause	SAIFI	SAIDI
Lightning	0.08	8.6
Vegetation	0.28	36.5
Adverse weather	0.03	2.5
Adverse environment	0.00	0.2
Third party interference	0.19	19.6
Wildlife	0.15	10.2
Human error	0.05	0.3
Defective equipment	0.86	83.2
Cause unknown	0.29	21.2

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.00	0.2
Subtransmission cables		
Subtransmission other	0.01	0.7
Distribution lines (excluding LV)	0.27	58.9
Distribution cables (excluding LV)	0.01	1.1
Distribution other (excluding LV)	0.06	9.1

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.45	31.3
Subtransmission cables	0.02	0.7
Subtransmission other	0.04	3.6
Distribution lines (excluding LV)	1.19	131.4
Distribution cables (excluding LV)	0.13	9.1
Distribution other (excluding LV)	0.08	6.3

10(v): Fault Rate

Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
Subtransmission lines	161	1,491	10.80
Subtransmission cables	2	244	0.82
Subtransmission other	7		
Distribution lines (excluding LV)	4,158	14,763	28.17
Distribution cables (excluding LV)	120	2,135	5.62
Distribution other (excluding LV)	254		
Total	4,702		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

10(i): Interruptions

	Interruptions by class	Number of interruptions
10	Class A (planned interruptions by Transpower)	4
11	Class B (planned interruptions on the network)	1,047
12	Class C (unplanned interruptions on the network)	2,209
13	Class D (unplanned interruptions by Transpower)	5
14	Class E (unplanned interruptions of EDB owned generation)	
15	Class F (unplanned interruptions of generation owned by others)	2
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)	386
19	**Total**	3,653

	Interruption restoration	≤3Hrs	>3hrs
22	Class C interruptions restored within	1,239	970

	SAIFI and SAIDI by class	SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.08	10.5
26	Class B (planned interruptions on the network)	0.42	86.4
27	Class C (unplanned interruptions on the network)	2.12	212.7
28	Class D (unplanned interruptions by Transpower)	0.28	33.7
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)	0.19	36.5
34	**Total**	3.09	379.8

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network)	2.54	284.5

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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.

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

Cause	SAIFI	SAIDI
Lightning	0.12	11.7
Vegetation	0.25	39.1
Adverse weather	0.04	4.1
Adverse environment	0.00	0.3
Third party interference	0.19	17.6
Wildlife	0.21	14.8
Human error	0.05	0.5
Defective equipment	1.01	102.2
Cause unknown	0.25	22.4

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.00	0.4
Subtransmission cables		
Subtransmission other	0.01	1.3
Distribution lines (excluding LV)	0.34	74.2
Distribution cables (excluding LV)	0.00	1.1
Distribution other (excluding LV)	0.06	9.4

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.41	27.2
Subtransmission cables		
Subtransmission other	0.04	5.3
Distribution lines (excluding LV)	1.49	166.5
Distribution cables (excluding LV)	0.08	5.5
Distribution other (excluding LV)	0.09	8.4

10(v): Fault Rate

Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
Subtransmission lines	128	947	13.52
Subtransmission cables		95	–
Subtransmission other	5		
Distribution lines (excluding LV)	2,834	10,082	28.11
Distribution cables (excluding LV)	49	761	6.44
Distribution other (excluding LV)	168		
Total	3,184		

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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

10(i): Interruptions

Interruptions by class

	Number of interruptions
Class A (planned interruptions by Transpower)	9
Class B (planned interruptions on the network)	661
Class C (unplanned interruptions on the network)	1,054
Class D (unplanned interruptions by Transpower)	4
Class E (unplanned interruptions of EDB owned generation)	
Class F (unplanned interruptions of generation owned by others)	2
Class G (unplanned interruptions caused by another disclosing entity)	
Class H (planned interruptions caused by another disclosing entity)	
Class I (interruptions caused by parties not included above)	227
Total	1,957

Interruption restoration

	≤3Hrs	>3hrs
Class C interruptions restored within	587	467

SAIFI and SAIDI by class

	SAIFI	SAIDI
Class A (planned interruptions by Transpower)	0.19	39.5
Class B (planned interruptions on the network)	0.26	51.7
Class C (unplanned interruptions on the network)	1.70	148.8
Class D (unplanned interruptions by Transpower)	0.38	14.2
Class E (unplanned interruptions of EDB owned generation)		
Class F (unplanned interruptions of generation owned by others)	0.11	0.6
Class G (unplanned interruptions caused by another disclosing entity)		
Class H (planned interruptions caused by another disclosing entity)		
Class I (interruptions caused by parties not included above)	0.08	14.6
Total	2.72	269.4

Normalised SAIFI and SAIDI

	Normalised SAIFI	Normalised SAIDI
Classes B & C (interruptions on the network)	1.97	200.6

Company Name	**Powerco Limited**
For Year Ended	**31 March 2020**
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	0.04	5.1
Vegetation	0.32	33.6
Adverse weather	0.01	0.7
Adverse environment		
Third party interference	0.19	21.8
Wildlife	0.07	5.1
Human error	0.05	0.2
Defective equipment	0.70	62.3
Cause unknown	0.33	20.0

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines		
Subtransmission cables		
Subtransmission other		
Distribution lines (excluding LV)	0.19	42.0
Distribution cables (excluding LV)	0.01	1.0
Distribution other (excluding LV)	0.06	8.7

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

Main equipment involved	SAIFI	SAIDI
Subtransmission lines	0.49	35.9
Subtransmission cables	0.05	1.5
Subtransmission other	0.04	1.7
Distribution lines (excluding LV)	0.87	92.5
Distribution cables (excluding LV)	0.19	13.2
Distribution other (excluding LV)	0.07	3.9

10(v): Fault Rate

Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
Subtransmission lines	33	544	6.07
Subtransmission cables	2	149	1.34
Subtransmission other	2		
Distribution lines (excluding LV)	1,324	4,680	28.29
Distribution cables (excluding LV)	71	1,374	5.17
Distribution other (excluding LV)	86		
Total	1,518		

Company Name	Powerco Limited
For Year Ended	31 March 2020

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 2020 is higher than 2019 (increased 0.77% to 7.40% and 0.85% to 6.97% respectively). This is primarily driven by a $20.4m (84.0%) increase in revaluations to $44.8m.

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 2020 is $131.3m reflecting an increase of $22.6m (20.8%) compared to the previous year. This was primarily due to increases in revaluations (↑$20.4m, 84.0%) and total regulatory income (↑$7.8m, 2.0%) offset by higher operating expenditure (↑$1.9m, 2.1%) and depreciation (↑$2.8m, 4.2%).

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 $175.8m (9.8%) during the year to $1,963m. Increased work programs under the second year of Powerco's Customised Price-Quality Path drove higher commissioned assets (↑$22.9m, 12.3%), plus increased revaluations (↑$20.4m, 84.0%) and higher opening RAB value (↑$129.4m, 7.8%) explain 98.2% of the total increase.

Following ongoing data quality checks and updates to asset category mapping certain assets have been reclassified as non-network. And during 2020, a separate asset class for easements was created which is now treated as non-network assets. The reclassifications shown below are a subset of all transfers disclosed as Asset category transfers in Schedule 4(vii). The balance of Asset category transfers relates to WIP adjustments.

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)
$3	$-	$2	($9)	$7	$7	($3)	($4,482)	$4,475

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 $2.5m 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 $0.8m 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 $4.6m. The total tax effect of $1.3m relates to:

- $0.5m CIW income that will be recognised as taxable income over a period of 10 years
- $0.3m 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

$58.8m operating costs (65.5% of total operating costs) are directly attributable to the electricity distribution business (EDB) compared to $58.9m 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 because some costs do not have just one driver. The use of one cost allocator would unfairly effect the allocation of costs between regulated businesses.

Costs not directly attributable

$31.0m operating costs (34.5% of total) that are not directly attributable to the EDB have been allocated to the EDB, compared to $29.0m 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

$1,897m (96.7%) of the total RAB value is directly attributable to the electricity distribution business (EDB). $65.48m (3.3%) 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 97.9% and 2.1% 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 2020 totalled $195.4m which is $25.1m (11.4%) less than the prior year ($220.5m). This reflects decreased expenditure across all asset expenditure categories except reliability, safety and environment. A $10.7m decrease in system growth and a $7.6m decrease in expenditure on non-network assets accounts for 72.9% of the total $25.1m decrease.

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 2020 totalled $89.8m which is $1.9m (2.2%) more than the prior year ($87.9m). Asset replacement and renewal expenditure increased $1.1m while business support expenditure increased $0.6m. 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 2020 totalled $195.4m which is $15.1m (7.2%) below the 2019 Asset Management Plan (AMP) forecast ($210.5m). This net underspend is the result of a $17.6m (8.9%) underspend on expenditure on network assets and a $2.5m (19.3%) overspend on expenditure on non-network assets.

- Consumer connection

Customer development remained strong across much of the Powerco footprint and was only $1.6m (3.6%) lower than forecast. The number of works completed was lower than in the previous year, but the average cost of that work continues to increase. Equipment has become more expensive and compliance costs (such as for traffic management) are significantly increasing the cost of work, particularly for smaller projects. Activity on the Powerco network centred around industrial and commercial developments primarily in Tauranga, South Waikato and the Manawatu. subdivisions and new residential connection work also remain strong, with an increasing number of retirement home developments.

- System growth

Actual expenditure on system growth is less than forecast by $11.4m (20.2%). The challenges involved with the delivery of several large-scale projects account for most of this forecast variance.

- Kopu -Tairua. Engineering estimates have been prepared based on site specific designs. The estimates indicate a substantial escalation from the original budget. A reassessment of alternative options (including non-network options) is currently under way. The project timeline has been deferred to enable these alternatives to be thoroughly evaluated.
- Putaruru-Tirau. Project delayed allowing additional design detail to be considered, in order to improve the quality of the project estimates ahead of Board approval.
- Putaruru. Project delays due to difficulties in obtaining landowner approvals for a portion of the route.

Another area of underspend was our Network Evolution portfolio which came in $1.7m below forecast. When considering network evolution projects, we balance the needs for new capability or functionality, technology outlook, costs, and implementation risks. As a result, the accuracy of the expenditure forecast is inherently low. For example, in FY2020, we have deferred the install of monitoring technology to FY2021 to allow the manufacturers to develop functionality that will allow seamless integration with our backend systems instead of commissioning additional systems.

- Asset replacement and renewal

Asset replacement and renewal expenditure was lower than forecast by $4.2m (4.8%). FY2020 saw less frequent and lower severity storm events compared to historic averages. This translated to a lesser requirement for reactive asset replacement and renewal work on Powerco's network.

- Asset relocations

Asset relocations were primarily due to roading projects. Cancellation or delays to several State Highway projects, particularly around Tauranga, meant that less work was carried out than had been forecast.

- Reliability, safety and environment
  - Quality of supply
    Expenditure on quality of supply exceeded forecast for the period by $1.1m (27.9%). This was due to the completion of more routine network reliability projects where the underlying need was not demand growth driven.
  - Legislative and regulatory
    The AMP 2019 forecast of $0.8m of legislative and regulatory expenditure related to the possibility of needing to commence investment in relay replacements to support the reserves mechanism in the electricity market. This expenditure did not eventuate as at present the Electricity Authority's proposed extended reserve scheme remains in the development phase.
  - Other reliability, safety and environment
    Expenditure on other reliability, safety and environment was $1.4m (57.7%) higher than forecast. Powerco's investment in LiDaR and poletop photography in the Whanganui region is a main contributor to this increase against forecast.

- Expenditure on non-network assets

Expenditure on non-network assets was $2.5m (19.3%) over forecast. The variance resulted from the timing of a planned upgrade of the Enterprise Asset Management System.

Operational expenditure

Operational expenditure (opex) totalled $89.8m during the period which is $7.8m (8.0%) below the 2019 Asset Management Plan (AMP) forecast ($97.6m). Network opex was $3.3m (7.3%) lower than forecast, primarily driven by underspend on routine corrective maintenance and inspections while non-network opex was $4.5m (8.6%) 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).

- Routine corrective maintenance and inspections

Expenditure on routine corrective maintenance and inspections was $3.3m (19.6%) lower than forecast ($16.9m). The underspend relates primarily to a slower than forecast rate of progress on our CPP opex step change initiatives. FY20 activities focused on ensuring our core maintenance activities were delivered during our transition to SAP.

- Non-network opex

Powerco's total non-network operational expenditure totalled $47.8m was 9.0% below forecast ($52.3m). The main driver of this was the timing of recruitment of planned new roles. Many of these were not filled for most of the year.

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 2020 was $402.5m compared to target revenue of $402.3m. The Western and Eastern regions experienced modest growth in connection numbers (0.8% and 1.5% respectively) while consumption decreased 0.05% in the Western and increased 0.06% in the Eastern region.

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 2020 Powerco's normalised SAIDI (Class B and Class C) was 248 minutes, extending the worsening trend in unplanned fault restoration durations although it was less than the FY19 figure. SAIFI (Class B and Class C) remained relatively unchanged at 2.27.

This, and the growing number of faults on the network, 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 our increasing investment in asset renewal. Despite increasing expenditure across several 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.

As required by the exemption granted 9 April 2020 Powerco confirms that successive interruptions have been treated in the same way for the 2020 disclosure as they were for the 2019 disclosure.

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 customer numbers at the end of each month of 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 wide network boundary value to the sub-networks.

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[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.

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 Powerco Limited

For Year Ended 31 March 2020

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.

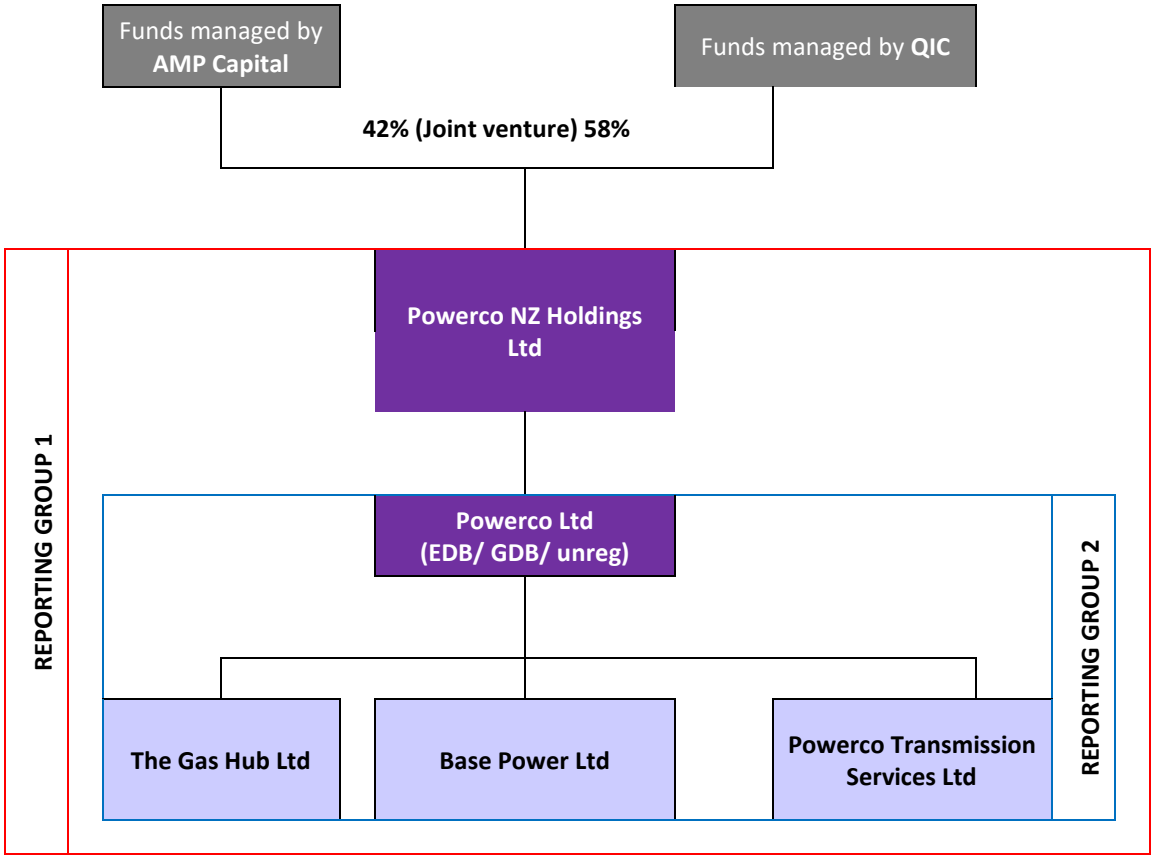
3. Provide additional explanatory comment in the box below.

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 which 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.

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



i) Powerco NZ Holdings Limited does not trade. Its purpose is to form a corporate group through share ownership.
ii) 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.
iii) The Gas Hub Limited and Powerco Transmission Limited are not active.
iv) 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 Ltd's internal related parties include:

v) Gas metering
vi) Business development

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

Powerco applied 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 $12k, of which $11k is allocated to Powerco's Electricity Distribution business.
- The equivalent arm's length value of services provided to Gas metering is $441k, of which $25k is allocated to Powerco's Electricity Distribution business.
- The equivalent arm's length value of services provided to Business development is $720k, of which $618k 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 a $7.3m adjustment to the Regulatory Tax Asset Base Roll-Forward Schedule 5a(viii). This is included in the Other adjustments to the RAB tax value line.

Billed Quantities and Revenues (schedule 8)

Billed quantities

Powerco operates an ICP (individual connection point) pricing methodology for the Eastern region and a GXP (grid exit point) pricing methodology for the Western region. Schedule 8 requires the reporting of energy delivered to ICPs and also the billed quantities by price component.

Under the GXP pricing methodology, the actual energy delivered to ICPs differs from the chargeable kWh quantities detailed in the billed quantities section of Schedule 8, which is based on GXP quantities delivered. Powerco's Western Region uses volumes reconciled at each GXP to determine billable charges. Consequently, Powerco does not hold information on the energy delivered to ICPs for the Western Region. Powerco has obtained retailer submission data from the Reconciliation Manager to complete this metric.

Consumer types

- The IDD permits Powerco to define the appropriate consumer types that are typical of the consumers connected to our network. Powerco has three major types of consumer groups being residential/ small commercial, commercial and industrial.

The industrial consumer group is further separated into those on standard and non-standard contracts, and the streetlight/unmetered ICPs are noted separately. Table one illustrates the application of these consumer groups to our pricing groups for the 2020 assessment period.

Table 1: Price categories assigned to consumer groups

Consumer group	Eastern Region Price Categories	Western Region Price Categories
Streetlights / unmetered	T01, T02, V01, V02	n/a
Residential/Small Commercial	T05, T06, V05, V06 (0-41 kVA)	E1 (<101 kVA)
Commercial	T22, T24, T41, V24, V28 (42-299 kVA)	E100 (101-300 kVA)
Large Commercial/Industrial (standard)	T43 (≥300kVA)	E300 (>300 kVA)
Large Commercial/Industrial (non-standard)	T50, T60, V40, V60 (≥300kVA)	SPECIAL (>300 kVA)

ICP numbers

When reporting Powerco's ICPs, Powerco has included ready, inactive and active ICPs in the disclosed number.

Transmission line charge revenue

Transmission line charge revenue reflects Powerco's recovery, via prices, of recoverable costs and pass-through costs in FY20. Recoverable costs are mostly transmission costs. Pass-through costs include rates and levies. Further information on Powerco's recoverable and pass-through costs included in prices is available in the annual Electricity Default Price-Quality compliance statement available on Powerco's website.

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.

Data quality

Powerco's network is made up of fifteen legacy lines networks that have been amalgamated over time. This diversity of networks has created on-going 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, most significantly for OH/UG consumer service connections.
- The asset age profile (schedule 9b) includes some default ages in each asset class. For some asset classes an installation date estimate has been made at some time after the initial data capture. While based on the best information available, these estimates are likely to contain some inaccuracies.

Asset age

- Reporting system changes during 2020 have impacted some of the modelling previously used to infer installation dates where that information was not directly recorded, resulting in some shifts within the age profile.
- Some date information is known to have been defaulted, and this is reported as such.

Network asset classification

The programmes we have put in place to ensure on-going 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 in to 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 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.

Directors' Certificate

POWERCO

ELECTRICITY DISTRIBUTION SERVICES INFORMATION DISCLOSURE

FOR THE YEAR ENDED 31 MARCH 2020

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

Director

1 October 2020

Date

1 October 2020

Date

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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 Distribution 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 9 April 2020 ('the Determination') for the disclosure year ended 31 March 2020, 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 schedules 1 to 4, 5a to 5g, 6a and 6b, 7, 10 and the explanatory notes in boxes 1 to 11 in 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 2020, 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 January 2019) ('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

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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 matters 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 $166 million and commissioned assets in to the RAB of $208 million, compared to network operating expenditure of $90 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* and NZ IAS 38 – *Intangible assets*; • Evaluating the design and implementation of controls over the classification of network expenditure; • On a sample basis, we assessed capital expenditure 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.

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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 as set out in Box 13 of Schedule 14 of the Disclosure Information.	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 in the database; • On a sample basis, tracing contractor invoices to the corresponding faults recorded in the database; • Selecting a sample of faults recorded on the outage listing and tracing the number of customers, number of minutes, the class type and fault cause to the information captured in the outage database; • Selecting a sample of faults recorded on the manual switching sheets and tracing the number of minutes, the class type and fault cause to the information recorded in the database and the information recorded on the outage listing; • Where a manual adjustment is processed, for planned or unplanned, on a sample basis, obtaining supporting information for the adjustment; • Recalculating the normalised SAIDI and SAIFI according to the methodology of the Determination; and • Reviewing the disclosures in Schedule 14 in respect of the treatment of successive interruptions.

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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 the Professional and Ethical Standard 1 (Revised): *Code of Ethics for Assurance Practitioners* 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 independent auditor and the provision of other assurance services including the audit of regulatory disclosure statements 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 Powerco Limited.

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) requires that we plan and perform our procedures to obtain reasonable assurance that the Company has complied, in all material aspects, 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.

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

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

Use of Report

This independent assurance report has been prepared solely for the directors of the Company and for the Commerce Commission for the purpose of providing those parties with reasonable assurance about whether the Disclosure Information has been prepared, in all material respects, in accordance with the 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
1 October 2020