EDB Information Disclosure Requirements

Information Templates

for

Schedules 1–10

(Reissued[1])

Company Name	Vector
Disclosure Date	3 October 2022
Disclosure Year (year ended)	31 March 2020

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

Template Version 4.1. Prepared 21 December 2017

[1] In March 2020 Vector's electricity business undertook certain sale and lease back related party transactions (the Transactions) relating to substation land, substation buildings and the Penrose to CBD tunnel. The Transactions were undertaken to separate Vector's land and buildings into separate subsidiaries, accountabilities and reporting lines, to commercialise, develop and realise additional revenue from these assets outside the regulated business, and to create opportunities for future capital raising to support our ongoing investment in Auckland growth and electrification to enable net zero 2050. Other infrastructure owners have recently undertaken similar transactions; for example, Telstra, Vodafone and Spark have all separated out the ownership of their passive infrastructure.

The Transactions were disclosed in the 2020 Information Disclosure published on 29 October 2020. Given the size and the complexity of the Transactions, extensive external legal and accounting advice was sought to ensure the Transactions were correctly treated in the Information Disclosures. Vector also brought the Transactions to the Commission's attention ahead of filing the 2020 Information Disclosures, and those original disclosures as filed clearly set out the impact of the Transactions. After the 2020 Information Disclosures were published, the Commerce Commission notified Vector that it considered its treatment of the Transactions to be inconsistent with the applicable input methodologies. Following extensive engagement by Vector with the Commission, Vector has agreed to amend the regulatory effects of the Transactions.

These restated and reissued Information Disclosures effectively reverses the regulatory effects of the Transactions. Neither the original treatment of the Transactions or the amended effects of the Transactions now reflected in these disclosures have had any impact on prices. As these transactions were undertaken between wholly owned Vector companies, they had no impact on our Group financial statements.

Vector initiated extensive engagement with the Commission on this matter, including proactively sharing expert legal and accounting advice supporting Vector's regulatory treatment of the Transactions, in an attempt to reconcile the difference in interpretation. Such expert advice was in addition to audited regulatory disclosures incorporating the Transactions having been filed with the Commission.

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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	**Vector**
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	15,335	225	74,060	6,820	28,131
Network	6,270	92	30,280	2,788	11,502
Non-network	9,065	133	43,780	4,032	16,630
Expenditure on assets	68,928	1,012	332,883	30,654	126,443
Network	66,760	980	322,411	29,690	122,466
Non-network	2,168	32	10,472	964	3,978

1(ii): Revenue metrics

	Revenue per GWh energy delivered to ICPs ($/GWh)	Revenue per average no. of ICPs ($/ICP)
Total consumer line charge revenue	73,870	1,085
Standard consumer line charge revenue	77,142	1,051
Non-standard consumer line charge revenue	32,018	631,194

1(iii): Service intensity measures

Demand density	92	*Maximum coincident system demand per km of circuit length (for supply) (kW/km)*
Volume density	445	*Total energy delivered to ICPs per km of circuit length (for supply) (MWh/km)*
Connection point density	30	*Average number of ICPs per km of circuit length (for supply) (ICPs/km)*
Energy intensity	14,685	*Total energy delivered to ICPs per average number of ICPs (kWh/ICP)*

1(iv): Composition of regulatory income

	($000)	% of revenue
Operational expenditure	129,235	21.15%
Pass-through and recoverable costs excluding financial incentives and wash-ups	219,236	35.87%
Total depreciation	116,767	19.11%
Total revaluations	77,539	12.69%
Regulatory tax allowance	42,724	6.99%
Regulatory profit/(loss) including financial incentives and wash-ups	177,510	29.04%
Total regulatory income	611,169	

1(v): Reliability

Interruption rate	19.67	*Interruptions per 100 circuit km*

Company Name	**Vector**
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	4.90%	5.23%	5.42%
	Excluding revenue earned from financial incentives	4.90%	5.34%	5.53%
	Excluding revenue earned from financial incentives and wash-ups	4.97%	5.41%	5.60%
	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	5.49%	5.74%	5.85%
	Excluding revenue earned from financial incentives	5.49%	5.85%	5.95%
	Excluding revenue earned from financial incentives and wash-ups	5.56%	5.92%	6.02%
	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	3,075,471	
plus	Opening deferred tax	(96,357)	
Opening RIV			2,979,114
Line charge revenue			622,531
	Expenses cash outflow	348,471	
add	Assets commissioned	512,505	
less	Asset disposals	289,233	
add	Tax payments	38,726	
less	Other regulated income	(11,362)	
Mid-year net cash outflows			621,831
Term credit spread differential allowance			3,235
	Total closing RAB value	3,258,721	
less	Adjustment resulting from asset allocation	(794)	
less	Lost and found assets adjustment	–	
plus	Closing deferred tax	(100,355)	
Closing RIV			3,159,159
	ROI – comparable to a vanilla WACC		5.85%
	Leverage (%)		42%
	Cost of debt assumption (%)		3.61%
	Corporate tax rate (%)		28%
	ROI – comparable to a post tax WACC		5.42%

Company Name	**Vector**
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(iii): Information Supporting the Monthly ROI

Opening RIV 2,979,114

	Line charge revenue	Expenses cash outflow	Assets commissioned	Asset disposals	Other regulated income	Monthly net cash outflows
April	47,839	28,889	9,589	1,815	(1,769)	38,432
May	52,062	28,577	15,647	676	(628)	44,176
June	56,205	27,771	17,510	993	(942)	45,230
July	60,224	29,611	7,815	608	(583)	37,401
August	61,018	30,039	12,390	622	(608)	42,415
September	54,655	29,657	9,819	638	(530)	39,368
October	52,304	29,700	15,476	896	(871)	45,151
November	48,660	29,346	20,203	1,504	(1,481)	49,526
December	48,194	27,567	21,502	789	(745)	49,025
January	47,842	27,573	14,508	1,393	(1,393)	42,081
February	45,663	27,964	26,008	876	(866)	53,962
March	47,865	31,777	342,038	278,423	(946)	96,338
Total	622,531	348,471	512,505	289,233	(11,362)	583,105

Tax payments 38,726

Term credit spread differential allowance 3,235

Closing RIV 3,159,159

Monthly ROI – comparable to a vanilla WACC 6.14%

Monthly ROI – comparable to a post tax WACC 5.71%

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

Year-end ROI – comparable to a vanilla WACC 5.71%

Year-end ROI – comparable to a post tax WACC 5.29%

** 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	(4,449)	
Other financial incentives	–	
Financial incentives		(4,449)

Impact of financial incentives on ROI –0.11%

Input methodology claw-back	–	
CPP application recoverable costs	–	
Catastrophic event allowance	–	
Capex wash-up adjustment	(2,775)	
Transmission asset wash-up adjustment	–	
2013–15 NPV wash-up allowance	–	
Reconsideration event allowance	–	
Other wash-ups	–	
Wash-up costs		(2,775)

Impact of wash-up costs on ROI –0.07%

Company Name	**Vector**
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		622,531
10	*plus*	Gains / (losses) on asset disposals		(11,362)
11	*plus*	Other regulated income (other than gains / (losses) on asset disposals)		–
12				
13		**Total regulatory income**		611,169
14		**Expenses**		
15	*less*	Operational expenditure		129,235
16				
17	*less*	Pass-through and recoverable costs excluding financial incentives and wash-ups		219,236
18				
19		**Operating surplus / (deficit)**		262,698
20				
21	*less*	Total depreciation		116,767
22				
23	*plus*	Total revaluations		77,539
24				
25		**Regulatory profit / (loss) before tax**		223,469
26				
27	*less*	Term credit spread differential allowance		3,235
28				
29	*less*	Regulatory tax allowance		42,724
30				
31		**Regulatory profit/(loss) including financial incentives and wash-ups**		177,510
32				
33	**3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups**			**($000)**
34		**Pass through costs**		
35		Rates	7,885	
36		Commerce Act levies	1,464	
37		Industry levies	1,841	
38		CPP specified pass through costs	–	
39		**Recoverable costs excluding financial incentives and wash-ups**		
40		Electricity lines service charge payable to Transpower	195,877	
41		Transpower new investment contract charges	11,203	
42		System operator services	–	
43		Distributed generation allowance	966	
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**		219,236
47				
48	**3(iii): Incremental Rolling Incentive Scheme**			**($000)**
49			**CY-1**	**CY**
50			**31 Mar 19**	**31 Mar 20**
51		Allowed controllable opex	–	–
52		Actual controllable opex	–	–
53				
54		Incremental change in year		–
55				
56			**Previous years' incremental change**	**Previous years' incremental change adjusted for inflation**
57		CY-5 31 Mar 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**		–
65	**3(iv): Merger and Acquisition Expenditure**			
70				**($000)**
66		Merger and acquisition expenditure		–
67				
68		*Provide commentary on the benefits of merger and acquisition expenditure to the electricity distribution business, including required disclosures in accordance with section 2.7, in Schedule 14 (Mandatory Explanatory Notes)*		
69	**3(v): Other Disclosures**			
70				**($000)**
71		Self-insurance allowance		–

Company Name	**Vector**
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)	
	Total opening RAB value		2,660,795	2,682,398	2,879,136	2,951,716	3,075,471	-
less	**Total depreciation**		94,495	96,289	108,316	108,729	116,767	-
plus	**Total revaluations**		11,077	57,761	31,561	44,091	77,539	-
plus	**Assets commissioned**		116,194	249,121	156,888	203,460	512,505	-
less	**Asset disposals**		11,139	15,951	7,540	7,412	289,233	-
plus	**Lost and found assets adjustment**		–	–	–	–	–	
plus	**Adjustment resulting from asset allocation**		(34)	2,095	(13)	(7,655)	(794)	
	Total closing RAB value		2,682,398	2,879,136	2,951,716	3,075,471	3,258,721	

4(ii): Unallocated Regulatory Asset Base

		Unallocated RAB * ($000)	Unallocated RAB * ($000)	RAB ($000)	RAB ($000)	
	Total opening RAB value		3,100,307		3,075,471	
less	**Adjustment to opening RAB value**		(982)			
less	**Total depreciation**		121,680		116,767	
plus	**Total revaluations**		78,063		77,539	
plus	Assets commissioned (other than below)	237,048		234,471		
	Assets acquired from a regulated supplier	-		-		
	Assets acquired from a related party	278,034		278,034		
	Assets commissioned		515,082		512,505	
less	Asset disposals (other than below)	13,145		11,951		
	Asset disposals to a regulated supplier	-		-		
	Asset disposals to a related party	277,282		277,282		
	Asset disposals		290,427		289,233	
plus	**Lost and found assets adjustment**		–		–	
plus	**Adjustment resulting from asset allocation**				(794)	
	Total closing RAB value		3,280,363		3,258,721	s5e

** 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.*

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

	CPI_4	1,052
	CPI_4^{-4}	1,026
	Revaluation rate (%)	2.54%

		Unallocated RAB * ($000)	Unallocated RAB * ($000)	RAB ($000)	RAB ($000)
	Total opening RAB value	3,100,307		3,075,471	
less	Adjustment to opening RAB value	(982)			
less	Opening value of fully depreciated, disposed and lost assets	26,857		23,652	
	Total opening RAB value subject to revaluation	3,072,468		3,051,819	
	Total revaluations		78,063		77,539

4(iv): Roll Forward of Works Under Construction

		Unallocated works under construction		Allocated works under construction	
	Works under construction—preceding disclosure year		38,570		45,274
plus	Adjustment to Works under construction—preceding disclosure year	8,954		2,312	
plus	Capital expenditure	505,396		503,120	
less	Assets commissioned	515,082		512,505	
less	Adjustment resulting from asset allocation			820	
	Works under construction - current disclosure year		37,838		37,381
	Highest rate of capitalised finance applied				5.09%

4(v): Regulatory Depreciation

		Unallocated RAB * ($000)	Unallocated RAB * ($000)	RAB ($000)	RAB ($000)
	Depreciation - standard	80,568		80,568	
	Depreciation - no standard life assets	41,112		36,199	
	Depreciation - modified life assets				
	Depreciation - alternative depreciation in accordance with CPP				
	Total depreciation		121,680		116,767

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

Company Name	**Vector**
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											
97											
98											
99		** include additional rows if needed*									
100	**4(vii): Disclosure by Asset Category**										
101										($000 unless otherwise specified)	
102		**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**
103	**Total opening RAB value**	74,690	361,251	278,120	331,855	802,376	280,143	209,450	679,239	58,347	3,075,471
104	*less* Total depreciation	2,162	11,029	10,685	10,035	26,788	9,520	8,765	23,234	14,548	116,767
105	*plus* Total revaluations	1,893	9,174	6,960	8,487	20,243	7,061	5,204	17,191	1,325	77,539
106	*plus* Assets commissioned	–	114,769	24,718	48,943	15,489	17,377	42,454	221,408	27,347	512,505
107	*less* Asset disposals	46	113,112	3,347	2,094	1,412	1,410	4,097	151,897	11,818	289,233
108	*plus* Lost and found assets adjustment	–	–	–	–	–	–	–	–	–	–
109	*plus* Adjustment resulting from asset allocation	–	–	–	–	–	–	–	–	(794)	(794)
110	*plus* Asset category transfers	101	(334)	(62)	2,211	(1,970)	(5)	31	28	–	(0)
111	**Total closing RAB value**	74,476	360,720	295,703	379,366	807,938	293,647	244,277	742,735	59,859	3,258,721
112											
113	**Asset Life**										
114	Weighted average remaining asset life	43	46	33	43	38	34	29	31	12	(years)
115	Weighted average expected total asset life	59	72	42	58	60	45	36	41	16	(years)

Company Name	**Vector**
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

5a(i): Regulatory Tax Allowance

				($000)
8		**Regulatory profit / (loss) before tax**		223,469
9				
10	*plus*	Income not included in regulatory profit / (loss) before tax but taxable	– *	
11		Expenditure or loss in regulatory profit / (loss) before tax but not deductible	8,907 *	
12		Amortisation of initial differences in asset values	34,251	
13		Amortisation of revaluations	13,043	
14				56,201
15				
16	*less*	Total revaluations	77,539	
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	1,992 *	
20		Notional deductible interest	47,554	
21				127,084
22				
23		**Regulatory taxable income**		152,586
24				
25	*less*	Utilised tax losses	–	
26		Regulatory net taxable income		152,586
27				
28		Corporate tax rate (%)	28%	
29		**Regulatory tax allowance**		42,724
30				

31 * Workings to be provided in Schedule 14

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).

5a(iii): Amortisation of Initial Difference in Asset Values

				($000)
35				
36		Opening unamortised initial differences in asset values	1,027,534	
37	*less*	Amortisation of initial differences in asset values	34,251	
38	*plus*	Adjustment for unamortised initial differences in assets acquired	–	
39	*less*	Adjustment for unamortised initial differences in assets disposed	64,714	
40		Closing unamortised initial differences in asset values		928,569
41				
42		Opening weighted average remaining useful life of relevant assets (years)		30
43				

Company Name	**Vector**
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	2,792,726	
47				
48		Adjusted depreciation	103,724	
49		Total depreciation	116,767	
50		Amortisation of revaluations		13,043
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**	(96,357)	
61				
62	*plus*	Tax effect of adjusted depreciation	29,043	
63				
64	*less*	Tax effect of tax depreciation	32,736	
65				
66	*plus*	Tax effect of other temporary differences*	750	
67				
68	*less*	Tax effect of amortisation of initial differences in asset values	9,590	
69				
70	*plus*	Deferred tax balance relating to assets acquired in the disclosure year	–	
71				
72	*less*	Deferred tax balance relating to assets disposed in the disclosure year	(9,281)	
73				
74	*plus*	Deferred tax cost allocation adjustment	(745)	
75				
76		**Closing deferred tax**		(100,355)
77				
78	**5a(vii): Disclosure of Temporary Differences**			
79		*In Schedule 14, Box 6, provide descriptions and workings of items recorded in the asterisked category in Schedule 5a(vi) (Tax effect of other temporary differences).*		
80				
81	**5a(viii): Regulatory Tax Asset Base Roll-Forward**			
82				**($000)**
83		**Opening sum of regulatory tax asset values**	1,304,575	
84	*less*	Tax depreciation	116,915	
85	*plus*	Regulatory tax asset value of assets commissioned	248,839	
86	*less*	Regulatory tax asset value of asset disposals	173,733	
87	*plus*	Lost and found assets adjustment	–	
88	*plus*	Adjustment resulting from asset allocation	(3,456)	
89	*plus*	Other adjustments to the RAB tax value	–	
90		**Closing sum of regulatory tax asset values**		1,259,310

Company Name	**Vector**
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)
8	**Total regulatory income**		–
10	**Market value of asset disposals**		636,077
12	Service interruptions and emergencies	–	
13	Vegetation management	9,750	
14	Routine and corrective maintenance and inspection	–	
15	Asset replacement and renewal (opex)	–	
16	**Network opex**		9,750
17	Business support	–	
18	System operations and network support	5,452	
19	**Operational expenditure**		15,202
20	Consumer connection	–	
21	System growth	276,339	
22	Asset replacement and renewal (capex)	1,493	
23	Asset relocations	–	
24	Quality of supply	–	
25	Legislative and regulatory	–	
26	Other reliability, safety and environment	366	
27	**Expenditure on non-network assets**		–
28	**Expenditure on assets**		278,198
29	Cost of financing		85
30	Value of capital contributions		–
31	Value of vested assets		–
32	**Capital Expenditure**		278,283
33	**Total expenditure**		293,485
35	**Other related party transactions**		–

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

37	Name of related party	Nature of opex or capex service provided	Total value of transactions ($000)
40	PowerSmart NZ Limited	Other reliability, safety and environment	27
41	PowerSmart NZ Limited	System growth	1,334
42	Vector Communications Limited	Asset replacement and renewal (capex)	649
43	Vector Communications Limited	System growth	8,881
44	Vector Communications Limited	Other reliability, safety and environment	149
45	Vector Communications Limited	System operations and network support	3,741
46	Tree Scape Limited	Vegetation management	9,750
47	Tree Scape Limited	Asset replacement and renewal (capex)	844
48	Tree Scape Limited	Other reliability, safety and environment	190
49	Vector Auckland Property Limited	System growth	213,636
	Vector Northern Property Limited	System growth	52,488
50	Digital division	System operations and network support	1,711
51			
52	**Total value of related party transactions**		293,400
53			

Company Name	**Vector**
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 (for public)

Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	Book value at date of financial statements (NZD)	Term Credit Spread Difference	Debt issue cost readjustment
[]VCI	15-Mar-17	23-Dec-16	3	BKBM + []VCI				
[]VCI	2-Feb-18	19-Dec-17	3	BKBM + []VCI				
[]VCI	2-Feb-18	19-Dec-17	3	BKBM + []VCI				
[]VCI	2-Feb-18	19-Dec-17	3	BKBM + []VCI				
[]VCI	31-Jul-18	17-Jul-18	3	BKBM + []VCI				
[]VCI	31-Jul-18	17-Jul-18	3	BKBM + []VCI				
Subtotal of bank facilities- variable rate						**393,819**		
Capital bonds – fixed rate	**15-Jun-17**	**14-Jun-17**	**5**	**5.7**	**307,205**	**306,192**	**[]VCI**	**[]VCI**
Wholesale Bonds- fixed rate Mar17	14-Mar-17	3-Mar-17	7	4.996	100,000		[]VCI	[]VCI
Wholesale Bonds- fixed rate Jun18	25-Jun-18	21-Jun-18	5.7	4.996	140,000		[]VCI	[]VCI
Subtotal of wholesale bonds- variable rate					**240,000**	**243,859**	**[]VCI**	**[]VCI**
Senior notes - 2004 USPP 15yr	16-Sep-04	19-Jul-04	15	5.75	296,623		[]VCI	[]VCI
Senior notes - 2010 USPP 12yr	22-Dec-10	22-Sep-10	12	[]VCI	250,516		[]VCI	[]VCI
Senior notes - 2014 USPP 7yr	14-Oct-14	19-Jun-14	7	[]VCI	150,000		[]VCI	[]VCI
Senior notes - 2017 USPP 10yr	25-Oct-17	28-Sep-17	10	[]VCI	277,200		[]VCI	[]VCI
Senior notes - 2017 USPP 12yr	25-Oct-17	28-Sep-17	12	[]VCI	138,600		[]VCI	[]VCI
Subtotal of senior notes - USD fixed rate					**1,112,939**	**1,220,546**	**[]VCI**	**[]VCI**
Floating rate notes- variable rate	**26-Oct-05**	**26-Oct-05**	**15**	**BKBM + []VCI**	**350,000**	**349,477**	**[]VCI**	**[]VCI**
Unsubordinated fixed rate bonds	**27-May-19**	**16-May-19**	**6.0**	**3.45**	**250,000**	**247,086**	**[]VCI**	**[]VCI**
** include additional rows if needed*						2,760,979	8,570	(1,855)

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

Gross term credit spread differential		6,715
Total book value of interest bearing debt	2,760,979	
Leverage	42%	
Average opening and closing RAB values	3,167,096	
Attribution Rate (%)		48%
Term credit spread differential allowance		3,235

Company Name	**Vector**
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		11,253			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		11,253			
Vegetation management					
Directly attributable		11,164			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		11,164			
Routine and corrective maintenance and inspection					
Directly attributable		16,593			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		16,593			
Asset replacement and renewal					
Directly attributable		13,829			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		13,829			
System operations and network support					
Directly attributable		29,809			
Not directly attributable	–	8,328	1,167	9,495	–
Total attributable to regulated service		38,137			
Business support					
Directly attributable		2,089			
Not directly attributable	–	36,170	16,703	52,873	–
Total attributable to regulated service		38,259			
Operating costs directly attributable		84,737			
Operating costs not directly attributable	–	44,498	17,870	62,368	–
Operational expenditure		129,235			
		–			

5d(ii): Other Cost Allocations

	($000)
Pass through and recoverable costs	
Pass through costs	
Directly attributable	11,190
Not directly attributable	–
Total attributable to regulated service	11,190
Recoverable costs	
Directly attributable	208,046
Not directly attributable	–
Total attributable to regulated service	208,046

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	**Vector**
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	73,144
Not directly attributable	1,332
Total attributable to regulated service	74,476
Subtransmission cables	
Directly attributable	360,720
Not directly attributable	–
Total attributable to regulated service	360,720
Zone substations	
Directly attributable	295,703
Not directly attributable	–
Total attributable to regulated service	295,703
Distribution and LV lines	
Directly attributable	339,334
Not directly attributable	40,032
Total attributable to regulated service	379,366
Distribution and LV cables	
Directly attributable	790,077
Not directly attributable	17,861
Total attributable to regulated service	807,938
Distribution substations and transformers	
Directly attributable	293,647
Not directly attributable	–
Total attributable to regulated service	293,647
Distribution switchgear	
Directly attributable	244,277
Not directly attributable	–
Total attributable to regulated service	244,277
Other network assets	
Directly attributable	737,241
Not directly attributable	5,494
Total attributable to regulated service	742,735
Non-network assets	
Directly attributable	24,439
Not directly attributable	35,420
Total attributable to regulated service	59,859
Regulated service asset value directly attributable	3,158,582
Regulated service asset value not directly attributable	100,139
Total closing RAB value	3,258,721 –

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

Change in asset value allocation 1 ($000)

			CY-1	Current Year (CY)
Asset category	Non Network Assets	Original allocation	129	80
Original allocator or line items	Directly attributable	New allocation	113	70
New allocator or line items	Property, plant and equipment ratio for regulated businesses	Difference	16	10
Rationale for change	Assets have been repurposed.			

Change in asset value allocation 2 ($000)

			CY-1	Current Year (CY)
Asset category	Non Network Assets	Original allocation	65	45
Original allocator or line items	Directly attributable	New allocation	47	32
New allocator or line items	Property, plant and equipment ratio	Difference	18	13
Rationale for change	Assets have been repurposed.			

Change in asset value allocation 3 ($000)

			CY-1	Current Year (CY)
Asset category	Non Network Assets	Original allocation	6	5
Original allocator or line items	Directly attributable	New allocation	-	–
New allocator or line items	Not attributable	Difference	6	5
Rationale for change	These assets are now solely used by unregulated business.			

Change in asset value allocation 4

			CY-1	Current Year (CY)
Asset category	Non Network Assets	Original allocation	639	377
Original allocator or line items	Property, plant and equipment ratio	New allocation	-	–
New allocator or line items	Not attributable	Difference	639	377
Rationale for change	These assets are now solely used by unregulated business.			

Change in asset value allocation 5

			CY-1	Current Year (CY)
Asset category	Non Network Assets	Original allocation	110	115
Original allocator or line items	Relevant employee ratio	New allocation	-	–
New allocator or line items	Not attributable	Difference	110	115
Rationale for change	These assets are now solely used by unregulated business.			

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

Company Name	**Vector**
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		70,441
9	System growth		312,356
10	Asset replacement and renewal		118,534
11	Asset relocations		28,279
12	Reliability, safety and environment:		
13	Quality of supply	1,991	
14	Legislative and regulatory	334	
15	Other reliability, safety and environment	30,673	
16	**Total reliability, safety and environment**		32,998
17	**Expenditure on network assets**		562,608
18	Expenditure on non-network assets		18,273
19			
20	**Expenditure on assets**		580,881
21	*plus* Cost of financing		1,648
22	*less* Value of capital contributions		79,409
23	*plus* Value of vested assets		–
24			
25	**Capital expenditure**		503,120

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

		($000)
27	Energy efficiency and demand side management, reduction of energy losses	–
28	Overhead to underground conversion	9,270
29	Research and development	4,900

6a(iii): Consumer Connection

	*Consumer types defined by EDB**	($000)	($000)
32	Service connection	15,468	
33	Customer substations	17,582	
34	Business subdivisions	2,130	
35	Residential subdivisions	28,578	
36	Capacity change	5,354	
	Street lighting	1,329	
	Easement costs	–	
37	** include additional rows if needed*		
38	**Consumer connection expenditure**		70,441
39			
40	*less* Capital contributions funding consumer connection expenditure	61,551	
41	**Consumer connection less capital contributions**		8,890

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

		System Growth ($000)	Asset Replacement and Renewal ($000)
45	Subtransmission	141,156	5,417
46	Zone substations	12,987	24,465
47	Distribution and LV lines	1,493	49,042
48	Distribution and LV cables	4,052	7,986
49	Distribution substations and transformers	2,685	5,870
50	Distribution switchgear	1,990	17,892
51	Other network assets	147,993	7,862
52	**System growth and asset replacement and renewal expenditure**	312,356	118,534
53	*less* Capital contributions funding system growth and asset replacement and renewal	102	67
54	**System growth and asset replacement and renewal less capital contributions**	312,254	118,467

6a(v): Asset Relocations

	*Project or programme**	($000)	($000)
58		–	
59		–	
60		–	
61		–	
62		–	
63	** include additional rows if needed*		
64	All other projects or programmes - asset relocations	28,279	
65	**Asset relocations expenditure**		28,279
66	*less* Capital contributions funding asset relocations	17,680	
67	**Asset relocations less capital contributions**		10,599

Company Name	**Vector**
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

		*Project or programme**	($000)	($000)
			–	
			–	
			–	
			–	
			–	
		** include additional rows if needed*		
		All other projects programmes - quality of supply	1,991	
		Quality of supply expenditure		1,991
	less	Capital contributions funding quality of supply	–	
		Quality of supply less capital contributions		1,991

6a(vii): Legislative and Regulatory

		*Project or programme**	($000)	($000)
			–	
			–	
			–	
			–	
			–	
		** include additional rows if needed*		
		All other projects or programmes - legislative and regulatory	334	
		Legislative and regulatory expenditure		334
	less	Capital contributions funding legislative and regulatory	9	
		Legislative and regulatory less capital contributions		325

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

		*Project or programme**	($000)	($000)
			–	
			–	
			–	
			–	
			–	
		** include additional rows if needed*		
		All other projects or programmes - other reliability, safety and environment	30,673	
		Other reliability, safety and environment expenditure		30,673
	less	Capital contributions funding other reliability, safety and environment	–	
		Other reliability, safety and environment less capital contributions		30,673

6a(ix): Non-Network Assets

Routine expenditure

		*Project or programme**	($000)	($000)
			–	
			–	
			–	
			–	
			–	
		** include additional rows if needed*		
		All other projects or programmes - routine expenditure	4,701	
		Routine expenditure		4,701

Atypical expenditure

		*Project or programme**	($000)	($000)
			–	
			–	
			–	
			–	
			–	
		** include additional rows if needed*		
		All other projects or programmes - atypical expenditure	13,572	
		Atypical expenditure		13,572
		Expenditure on non-network assets		18,273

Company Name	**Vector**
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	11,253	
9	Vegetation management	11,164	
10	Routine and corrective maintenance and inspection	16,593	
11	Asset replacement and renewal	13,829	
12	**Network opex**		52,839
13	System operations and network support	38,137	
14	Business support	38,259	
15	**Non-network opex**		76,396
16			
17	**Operational expenditure**		129,235
18	**6b(ii): Subcomponents of Operational Expenditure (where known)**		
19	Energy efficiency and demand side management, reduction of energy losses		–
20	Direct billing*		–
21	Research and development		–
22	Insurance		3,056
23	** Direct billing expenditure by suppliers that directly bill the majority of their consumers*		

Company Name	**Vector**
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

7(i): Revenue

	Target ($000) [1]	Actual ($000)	% variance
Line charge revenue	623,553	622,531	(0%)

7(ii): Expenditure on Assets

	Forecast ($000) [2]	Actual ($000)	% variance
Consumer connection	72,214	70,441	(2%)
System growth	50,140	312,356	523%
Asset replacement and renewal	109,368	118,534	8%
Asset relocations	30,140	28,279	(6%)
Reliability, safety and environment:			
Quality of supply	924	1,991	115%
Legislative and regulatory	398	334	(16%)
Other reliability, safety and environment	18,684	30,673	64%
Total reliability, safety and environment	20,006	32,998	65%
Expenditure on network assets	281,868	562,608	100%
Expenditure on non-network assets	28,003	18,273	(35%)
Expenditure on assets	309,871	580,881	87%

7(iii): Operational Expenditure

Service interruptions and emergencies	12,607	11,253	(11%)
Vegetation management	7,837	11,164	42%
Routine and corrective maintenance and inspection	17,772	16,593	(7%)
Asset replacement and renewal	13,227	13,829	5%
Network opex	51,443	52,839	3%
System operations and network support	42,198	38,137	(10%)
Business support	37,232	38,259	3%
Non-network opex	79,430	76,396	(4%)
Operational expenditure	130,873	129,235	(1%)

7(iv): Subcomponents of Expenditure on Assets (where known)

Energy efficiency and demand side management, reduction of energy losses	–	–	–
Overhead to underground conversion	9,808	9,270	(5%)
Research and development	–	4,900	–

7(v): Subcomponents of Operational Expenditure (where known)

Energy efficiency and demand side management, reduction of energy losses	–	–	–
Direct billing	–	–	–
Research and development	–	–	–
Insurance	2,864	3,056	7%

1 From the nominal dollar target revenue for the disclosure year disclosed under clause 2.4.3(3) of this determination

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	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Combined**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
						Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
15	ARCL	residential	Standard	128,945	687,176		47,221,911	687,175,675	–	–	–	–	–	–	–
16	ARCS	residential	Standard	75,004	742,998		27,473,957	742,997,873	–	–	–	–	–	–	–
17	ARUL	residential	Standard	29,793	116,115		10,905,140	–	116,114,704	–	–	–	–	–	–
18	ARUS	residential	Standard	18,103	127,940		6,622,112	–	127,939,506	–	–	–	–	–	–
19	ARHL	residential	Standard	2,570	12,902		936,123	–	–	9,027,738	3,873,838	–	–	–	–
20	ARHS	residential	Standard	1,232	12,380		448,995	–	–	8,715,756	3,664,452	–	–	–	–
21	ARGL	residential	Standard	28,047	136,099		10,268,737	–	136,099,449	–	–	–	–	–	–
22	ARGS	residential	Standard	14,432	150,865		5,284,705	–	150,864,827	–	–	–	–	–	–
23	ABSN	general	Standard	36,072	711,357		13,179,981	–	711,356,935	–	–	–	–	–	–
24	ABSU	general	Standard	1,706	29,324		25,790,084	–	29,323,906	–	–	–	–	–	–
25	ABSH	general	Standard	465	26,961		170,743	–	–	18,086,910	8,874,184	–	–	–	–
26	ALVN	low voltage	Standard	2,253	240,654		825,094	–	240,654,239	–	–	122,818,665	–	–	367,349
27	ALVT	low voltage	Standard	1,446	554,082		–	–	554,081,638	–	–	137,950,271	46,891,384	–	4,048,147
28	ATXN	transformer	Standard	158	22,275		57,688	–	22,274,731	–	–	13,005,038	–	–	30,391
29	ATXT	transformer	Standard	926	1,144,642		–	–	1,144,642,133	–	–	243,151,474	91,276,944	–	4,054,413
30	AHVN	high voltage	Standard	7	654		2,768	–	654,351	–	–	550,254	–	–	8,759
31	AHVT	high voltage	Standard	138	432,604		–	–	432,603,681	–	–	58,292,666	32,482,990	130,041	1,342,080
32	WRCL	residential	Standard	87,902	479,538		32,188,380	479,538,407	–	–	–	–	–	–	–
33	WRCS	residential	Standard	62,429	631,846		22,865,308	631,846,285	–	–	–	–	–	–	–
34	WRUL	residential	Standard	16,189	80,645		5,921,483	–	80,644,668	–	–	–	–	–	–
35	WRUS	residential	Standard	16,679	131,510		6,116,044	–	131,510,396	–	–	–	–	–	–
36	WRHL	residential	Standard	2,188	12,282		796,838	–	–	8,676,041	3,605,634	–	–	–	–
37	WRHS	residential	Standard	1,592	16,824		580,168	–	–	11,810,946	5,013,265	–	–	–	–
38	WRGL	residential	Standard	13,950	68,123		5,107,256	–	68,123,135	–	–	–	–	–	–
39	WRGS	residential	Standard	6,950	68,126		2,544,829	–	68,126,278	–	–	–	–	–	–
40	WBSN	general	Standard	22,190	375,657		8,090,408	–	375,656,552	–	–	–	–	–	–
41	WBSU	general	Standard	636	17,481		16,004,177	–	17,481,178	–	–	–	–	–	–
42	WBSH	general	Standard	257	15,968		94,196	–	–	10,802,484	5,165,751	–	–	–	–
43	WLVN	low voltage	Standard	881	120,721		322,564	–	120,720,687	–	–	47,336,885	–	–	311,954
44	WLVH	low voltage	Standard	258	129,459		94,548	–	129,458,613	–	–	24,330,497	9,943,698	–	671,772
45	WTXN	transformer	Standard	128	35,672		46,669	–	35,672,069	–	–	11,265,342	–	–	164,971
46	WTXH	transformer	Standard	278	361,833		101,768	–	361,832,981	–	–	76,456,940	28,816,387	–	1,404,237
47	WHVN	high voltage	Standard	1	–		–	–	–	–	–	–	–	–	–
48	WHVH	high voltage	Standard	24	121,525		8,768	–	121,524,537	–	–	14,501,498	8,726,198	113,288	426,829
49	NS	non-standard	Non-standard	31	611,124		1,464	–	–	–	–	–	–	–	11,172
50	*Add extra rows for additional consumer groups or price category codes as necessary*														
51			**Standard consumer totals**	573,829	7,816,238		250,071,442	2,541,558,240	5,177,361,194	67,119,875	30,197,124	749,659,530	218,137,601	243,329	12,830,902
52			**Non-standard consumer totals**	31	611,124		1,464	–	–	–	–	–	–	–	11,172
53			**Total for all consumers**	573,860	8,427,362		250,072,906	2,541,558,240	5,177,361,194	67,119,875	30,197,124	749,659,530	218,137,601	243,329	12,842,074

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

Company Name	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Combined**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
ARCL	residential	Standard	$70,723		$51,466	$19,257		$7,070	$63,653	–	–	–	–	–	–	–
ARCS	residential	Standard	$67,449		$46,628	$20,821		$27,698	$39,751	–	–	–	–	–	–	–
ARUL	residential	Standard	$13,223		$9,144	$4,079		$1,633	–	$11,590	–	–	–	–	–	–
ARUS	residential	Standard	$14,440		$9,946	$4,494		$6,676	–	$7,764	–	–	–	–	–	–
ARHL	residential	Standard	$1,320		$973	$347		$140	–	–	$580	$600	–	–	–	–
ARHS	residential	Standard	$1,096		$768	$328		$453	–	–	$219	$424	–	–	–	–
ARGL	residential	Standard	$14,144		$10,330	$3,814		$1,537	–	$12,607	–	–	–	–	–	–
ARGS	residential	Standard	$13,399		$9,171	$4,228		$5,328	–	$8,071	–	–	–	–	–	–
ABSN	general	Standard	$56,458		$31,469	$24,989		$13,287	–	$43,171	–	–	–	–	–	–
ABSU	general	Standard	$5,851		$4,821	$1,030		$3,861	–	$1,990	–	–	–	–	–	–
ABSH	general	Standard	$1,654		$860	$794		$172	–	–	$455	$1,027	–	–	–	–
ALVN	low voltage	Standard	$21,923		$16,723	$5,200		$1,474	–	$15,181	–	–	$5,161	–	–	$107
ALVT	low voltage	Standard	$29,665		$19,092	$10,573		–	–	$7,688	–	–	$5,797	$15,001	–	$1,179
ATXN	transformer	Standard	$2,020		$1,539	$481		$100	–	$1,376	–	–	$535	–	–	$9
ATXT	transformer	Standard	$55,367		$34,787	$20,580		–	–	$15,653	–	–	$9,999	$28,535	–	$1,180
AHVN	high voltage	Standard	$69		$55	$14		$5	–	$39	–	–	$22	–	–	$3
AHVT	high voltage	Standard	$18,332		$11,008	$7,324		–	–	$5,700	–	–	$2,322	$9,805	$114	$391
WRCL	residential	Standard	$49,315		$35,877	$13,438		$4,827	$44,488	–	–	–	–	–	–	–
WRCS	residential	Standard	$56,944		$39,237	$17,707		$23,087	$33,857	–	–	–	–	–	–	–
WRUL	residential	Standard	$8,950		$6,117	$2,833		$888	–	$8,062	–	–	–	–	–	–
WRUS	residential	Standard	$14,168		$9,548	$4,620		$6,175	–	$7,993	–	–	–	–	–	–
WRHL	residential	Standard	$1,237		$914	$323		$119	–	–	$559	$559	–	–	–	–
WRHS	residential	Standard	$1,465		$1,016	$449		$586	–	–	$298	$581	–	–	–	–
WRGL	residential	Standard	$7,086		$5,177	$1,909		$766	–	$6,320	–	–	–	–	–	–
WRGS	residential	Standard	$6,219		$4,310	$1,909		$2,569	–	$3,650	–	–	–	–	–	–
WBSN	general	Standard	$31,002		$17,806	$13,196		$8,169	–	$22,833	–	–	–	–	–	–
WBSU	general	Standard	$3,588		$2,974	$614		$2,400	–	$1,188	–	–	–	–	–	–
WBSH	general	Standard	$966		$504	$462		$95	–	–	$272	$599	–	–	–	–
WLVN	low voltage	Standard	$8,903		$6,294	$2,609		$2,019	–	$5,189	–	–	$1,604	–	–	$91
WLVH	low voltage	Standard	$5,790		$3,548	$2,242		$1,114	–	$764	–	–	$825	$2,891	–	$196
WTXN	transformer	Standard	$2,051		$1,280	$771		$263	–	$1,366	–	–	$374	–	–	$48
WTXH	transformer	Standard	$14,311		$7,814	$6,497		$1,079	–	$2,098	–	–	$2,538	$8,187	–	$409
WHVN	high voltage	Standard	–		–	–		–	–	–	–	–	–	–	–	–
WHVH	high voltage	Standard	$3,836		$1,868	$1,968		$90	–	$680	–	–	$467	$2,395	$80	$124
NS	non-standard	Non-standard	$19,567		$11,421	$8,146		$19,350	–	–	–	–	–	–	–	$217
Add extra rows for additional consumer groups or price category codes as necessary																
		Standard consumer totals	$602,964	–	$403,064	$199,900		$123,680	$181,749	$190,973	$2,383	$3,790	$29,644	$66,814	$194	$3,737
		Non-standard consumer totals	$19,567	–	$11,421	$8,146		$19,350	–	–	–	–	–	–	–	$217
		Total for all consumers	$622,531	–	$414,485	$208,046		$143,030	$181,749	$190,973	$2,383	$3,790	$29,644	$66,814	$194	$3,954

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

8(iii): Number of ICPs directly billed

Check OK

Number of directly billed ICPs at year end	40

Company Name	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Southern**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
					Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
ARCL	residential	Standard	128,945	687,176		47,221,911	687,175,675	–	–	–	–	–	–	–
ARCS	residential	Standard	75,004	742,998		27,473,957	742,997,873	–	–	–	–	–	–	–
ARUL	residential	Standard	29,793	116,115		10,905,140	–	116,114,704	–	–	–	–	–	–
ARUS	residential	Standard	18,103	127,940		6,622,112	–	127,939,506	–	–	–	–	–	–
ARHL	residential	Standard	2,570	12,902		936,123	–	–	9,027,738	3,873,838	–	–	–	–
ARHS	residential	Standard	1,232	12,380		448,995	–	–	8,715,756	3,664,452	–	–	–	–
ARGL	residential	Standard	28,047	136,099		10,268,737	–	136,099,449	–	–	–	–	–	–
ARGS	residential	Standard	14,432	150,865		5,284,705	–	150,864,827	–	–	–	–	–	–
ABSN	general	Standard	36,072	711,357		13,179,981	–	711,356,935	–	–	–	–	–	–
ABSU	general	Standard	1,706	29,324		25,790,084	–	29,323,906	–	–	–	–	–	–
ABSH	general	Standard	465	26,961		170,743	–	–	18,086,910	8,874,184	–	–	–	–
ALVN	low voltage	Standard	2,253	240,654		825,094	–	240,654,239	–	–	122,818,665	–	–	367,349
ALVT	low voltage	Standard	1,446	554,082		–	–	554,081,638	–	–	137,950,271	46,891,384	–	4,048,147
ATXN	transformer	Standard	158	22,275		57,688	–	22,274,731	–	–	13,005,038	–	–	30,391
ATXT	transformer	Standard	926	1,144,642		–	–	1,144,642,133	–	–	243,151,474	91,276,944	–	4,054,413
AHVN	high voltage	Standard	7	654		2,768	–	654,351	–	–	550,254	–	–	8,759
AHVT	high voltage	Standard	138	432,604		–	–	432,603,681	–	–	58,292,666	32,482,990	130,041	1,342,080
NS	non-standard	Non-standard	27	516,094		9,882	–	–	–	–	–	–	–	17,221
Add extra rows for additional consumer groups or price category codes as necessary														
		Standard consumer totals	341,297	5,149,028		149,188,038	1,430,173,548	3,666,610,100	35,830,404	16,412,474	575,768,368	170,651,318	130,041	9,851,139
		Non-standard consumer totals	27	516,094		9,882	–	–	–	–	–	–	–	17,221
		Total for all consumers	341,324	5,665,122		149,197,920	1,430,173,548	3,666,610,100	35,830,404	16,412,474	575,768,368	170,651,318	130,041	9,868,360

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

Company Name	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Southern**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
ARCL	residential	Standard	$70,723		$51,466	$19,257		$7,070	$63,653	–	–	–	–	–	–	–
ARCS	residential	Standard	$67,449		$46,628	$20,821		$27,698	$39,751	–	–	–	–	–	–	–
ARUL	residential	Standard	$13,223		$9,144	$4,079		$1,633	–	$11,590	–	–	–	–	–	–
ARUS	residential	Standard	$14,440		$9,946	$4,494		$6,676	–	$7,764	–	–	–	–	–	–
ARHL	residential	Standard	$1,320		$973	$347		$140	–	–	$580	$600	–	–	–	–
ARHS	residential	Standard	$1,096		$768	$328		$453	–	–	$219	$424	–	–	–	–
ARGL	residential	Standard	$14,144		$10,330	$3,814		$1,537	–	$12,607	–	–	–	–	–	–
ARGS	residential	Standard	$13,399		$9,171	$4,228		$5,328	–	$8,071	–	–	–	–	–	–
ABSN	general	Standard	$56,458		$31,469	$24,989		$13,287	–	$43,171	–	–	–	–	–	–
ABSU	general	Standard	$5,851		$4,821	$1,030		$3,861	–	$1,990	–	–	–	–	–	–
ABSH	general	Standard	$1,654		$860	$794		$172	–	–	$455	$1,027	–	–	–	–
ALVN	low voltage	Standard	$21,923		$16,723	$5,200		$1,474	–	$15,181	–	–	$5,161	–	–	$107
ALVT	low voltage	Standard	$29,665		$19,092	$10,573		–	–	$7,688	–	–	$5,797	$15,001	–	$1,179
ATXN	transformer	Standard	$2,020		$1,539	$481		$100	–	$1,376	–	–	$535	–	–	$9
ATXT	transformer	Standard	$55,367		$34,787	$20,580		–	–	$15,653	–	–	$9,999	$28,535	–	$1,180
AHVN	high voltage	Standard	$69		$55	$14		$5	–	$39	–	–	$22	–	–	$3
AHVT	high voltage	Standard	$18,332		$11,008	$7,324		–	–	$5,700	–	–	$2,322	$9,805	$114	$391
NS	non-standard	Non-standard	$16,747		$9,344	$7,403		$16,619	–	–	–	–	–	–	–	$128
Add extra rows for additional consumer groups or price category codes as necessary																
		Standard consumer totals	$387,133	–	$258,780	$128,353		$69,434	$103,404	$130,830	$1,254	$2,051	$23,836	$53,341	$114	$2,869
		Non-standard consumer totals	$16,747	–	$9,344	$7,403		$16,619	–	–	–	–	–	–	–	$128
		Total for all consumers	$403,880	–	$268,124	$135,756		$86,053	$103,404	$130,830	$1,254	$2,051	$23,836	$53,341	$114	$2,997

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

Check **OK**

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	30

Company Name	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Northern**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
					Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
WRCL	residential	Standard	87,902	479,538		32,188,380	479,538,407	–	–	–	–	–	–	–
WRCS	residential	Standard	62,429	631,846		22,865,308	631,846,285	–	–	–	–	–	–	–
WRUL	residential	Standard	16,189	80,645		5,921,483	–	80,644,668	–	–	–	–	–	–
WRUS	residential	Standard	16,679	131,510		6,116,044	–	131,510,396	–	–	–	–	–	–
WRHL	residential	Standard	2,188	12,282		796,838	–	–	8,676,041	3,605,634	–	–	–	–
WRHS	residential	Standard	1,592	16,824		580,168	–	–	11,810,946	5,013,265	–	–	–	–
WRGL	residential	Standard	13,950	68,123		5,107,256	–	68,123,135	–	–	–	–	–	–
WRGS	residential	Standard	6,950	68,126		2,544,829	–	68,126,278	–	–	–	–	–	–
WBSN	general	Standard	22,190	375,657		8,090,408	–	375,656,552	–	–	–	–	–	–
WBSU	general	Standard	636	17,481		16,004,177	–	17,481,178	–	–	–	–	–	–
WBSH	general	Standard	257	15,968		94,196	–	–	10,802,484	5,165,751	–	–	–	–
WLVN	low voltage	Standard	881	120,721		322,564	–	120,720,687	–	–	47,336,885	–	–	311,954
WLVH	low voltage	Standard	258	129,459		94,548	–	129,458,613	–	–	24,330,497	9,943,698	–	671,772
WTXN	transformer	Standard	128	35,672		46,669	–	35,672,069	–	–	11,265,342	–	–	164,971
WTXH	transformer	Standard	278	361,833		101,768	–	361,832,981	–	–	76,456,940	28,816,387	–	1,404,237
WHVN	high voltage	Standard	1	–		–	–	–	–	–	–	–	–	–
WHVH	high voltage	Standard	24	121,525		8,768	–	121,524,537	–	–	14,501,498	8,726,198	113,288	426,829
NS	non-standard	Non-standard	4	95,030		1,464	–	–	–	–	–	–	–	11,172
Add extra rows for additional consumer groups or price category codes as necessary														
		Standard consumer totals	232,532	2,667,210		100,883,404	1,111,384,692	1,510,751,094	31,289,471	13,784,650	173,891,162	47,486,283	113,288	2,979,763
		Non-standard consumer totals	4	95,030		1,464	–	–	–	–	–	–	–	11,172
		Total for all consumers	232,536	2,762,240		100,884,868	1,111,384,692	1,510,751,094	31,289,471	13,784,650	173,891,162	47,486,283	113,288	2,990,935

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

Company Name	**Vector Ltd**
For Year Ended	**31 March 2020**
Network / Sub-Network Name	**Northern**

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	FIXD	AICO	24UC	OFPK	PEAK	CAPY	DAMD	DEXA	PWRF
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
WRCL	residential	Standard	$49,315		$35,877	$13,438		$4,827	$44,488	–	–	–	–	–	–	–
WRCS	residential	Standard	$56,944		$39,237	$17,707		$23,087	$33,857	–	–	–	–	–	–	–
WRUL	residential	Standard	$8,950		$6,117	$2,833		$888	–	$8,062	–	–	–	–	–	–
WRUS	residential	Standard	$14,168		$9,548	$4,620		$6,175	–	$7,993	–	–	–	–	–	–
WRHL	residential	Standard	$1,237		$914	$323		$119	–	–	$559	$559	–	–	–	–
WRHS	residential	Standard	$1,465		$1,016	$449		$586	–	–	$298	$581	–	–	–	–
WRGL	residential	Standard	$7,086		$5,177	$1,909		$766	–	$6,320	–	–	–	–	–	–
WRGS	residential	Standard	$6,219		$4,310	$1,909		$2,569	–	$3,650	–	–	–	–	–	–
WBSN	general	Standard	$31,002		$17,806	$13,196		$8,169	–	$22,833	–	–	–	–	–	–
WBSU	general	Standard	$3,588		$2,974	$614		$2,400	–	$1,188	–	–	–	–	–	–
WBSH	general	Standard	$966		$504	$462		$95	–	–	$272	$599	–	–	–	–
WLVN	low voltage	Standard	$8,903		$6,294	$2,609		$2,019	–	$5,189	–	–	$1,604	–	–	$91
WLVH	low voltage	Standard	$5,790		$3,548	$2,242		$1,114	–	$764	–	–	$825	$2,891	–	$196
WTXN	transformer	Standard	$2,051		$1,280	$771		$263	–	$1,366	–	–	$374	–	–	$48
WTXH	transformer	Standard	$14,311		$7,814	$6,497		$1,079	–	$2,098	–	–	$2,538	$8,187	–	$409
WHVN	high voltage	Standard	–		–	–		–	–	–	–	–	–	–	–	–
WHVH	high voltage	Standard	$3,836		$1,868	$1,968		$90	–	$680	–	–	$467	$2,395	$80	$124
NS	non-standard	Non-standard	$2,820		$2,077	$743		$2,731	–	–	–	–	–	–	–	$89
Add extra rows for additional consumer groups or price category codes as necessary																
		Standard consumer totals	$215,831	–	$144,284	$71,547		$54,246	$78,345	$60,143	$1,129	$1,739	$5,808	$13,473	$80	$868
		Non-standard consumer totals	$2,820	–	$2,077	$743		$2,731	–	–	–	–	–	–	–	$89
		Total for all consumers	$218,651	–	$146,361	$72,290		$56,977	$78,345	$60,143	$1,129	$1,739	$5,808	$13,473	$80	$957

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

Check OK

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	10

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Combined**

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.	115,938	117,263	1,325	3
10	All	Overhead Line	Wood poles	No.	6,171	5,826	-345	2
11	All	Overhead Line	Other pole types	No.	831	935	104	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	369	368	-1	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	27	27	0	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	348	354	5	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	145	145	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	2	2	0	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	50	50	0	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	30	30	0	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	17	17	0	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	12	12	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	101	102	1	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	6	7	1	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	0	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	0	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	245	183	-62	4
29	HV	Zone substation switchgear	33kV RMU	No.	9	13	4	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	245	260	15	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	130	105	-25	4
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	1,330	1,369	39	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	216	219	3	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	3,758	3,746	-12	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,510	1,561	51	4
39	HV	Distribution Cable	Distribution UG PILC	km	2,201	2,184	-17	4
40	HV	Distribution Cable	Distribution Submarine Cable	km	8	8	0	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	261	274	13	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	272	293	21	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	10,343	10,536	193	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	3,204	3,246	42	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	6,160	6,216	56	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	7,577	7,600	23	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	14,317	14,559	242	4
48	HV	Distribution Transformer	Voltage regulators	No.	11	12	1	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	12,847	13,075	228	3
50	LV	LV Line	LV OH Conductor	km	4,028	4,154	127	3
51	LV	LV Cable	LV UG Cable	km	6,202	6,290	88	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	463	479	15	3
53	LV	Connections	OH/UG consumer service connections	No.	568,897	578,106	9,209	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	3,748	3,934	186	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	332	356	24	2
56	All	Capacitor Banks	Capacitors including controls	No	77	76	-1	4
57	All	Load Control	Centralised plant	Lot	33	33	0	3
58	All	Load Control	Relays	No	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	10	10	0	3

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Southern**

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.	49,982	50,392	410	3
10	All	Overhead Line	Wood poles	No.	3,868	3,706	-162	2
11	All	Overhead Line	Other pole types	No.	407	437	30	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	51	51	0	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	0	0	0	N/A
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	205	209	4	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	143	142	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	2	2	0	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	49	49	0	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	30	30	0	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	17	17	0	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	11	11	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	50	50	0	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	5	5	0	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	0	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	0	0	0	N/A
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	0	0	0	N/A
29	HV	Zone substation switchgear	33kV RMU	No.	0	0	0	N/A
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	132	124	-8	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	0	0	0	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	833	859	26	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	129	129	0	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	885	883	-2	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	674	697	22	4
39	HV	Distribution Cable	Distribution UG PILC	km	1,576	1,564	-12	4
40	HV	Distribution Cable	Distribution Submarine Cable	km	2	2	0	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	58	60	2	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	216	235	19	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	2,428	2,438	10	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	2,503	2,463	-40	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4,535	4,535	0	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	1,975	1,977	2	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	6,893	7,027	134	4
48	HV	Distribution Transformer	Voltage regulators	No.	4	5	1	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,103	6,187	84	3
50	LV	LV Line	LV OH Conductor	km	1,900	1,934	34	3
51	LV	LV Cable	LV UG Cable	km	3,757	3,799	42	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	260	264	4	3
53	LV	Connections	OH/UG consumer service connections	No.	338,487	343,703	5,216	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,080	2,161	81	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	180	197	17	2
56	All	Capacitor Banks	Capacitors including controls	No	13	13	0	4
57	All	Load Control	Centralised plant	Lot	22	22	0	3
58	All	Load Control	Relays	No	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	10	10	0	3

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Northern**

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.	65,956	66,871	915	3
10	All	Overhead Line	Wood poles	No.	2,303	2,120	-183	2
11	All	Overhead Line	Other pole types	No.	424	498	74	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	318	317	-1	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	27	27	0	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	144	145	1	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	2	2	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	0	0	0	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	1	1	0	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	0	0	0	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	0	0	0	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	1	1	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	51	52	1	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	1	2	1	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	0	0	0	N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	0	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	245	183	-62	4
29	HV	Zone substation switchgear	33kV RMU	No.	9	13	4	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	113	136	23	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	130	105	-25	4
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	497	510	13	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	87	90	3	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	2,873	2,863	-11	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	835	864	29	4
39	HV	Distribution Cable	Distribution UG PILC	km	625	620	-5	4
40	HV	Distribution Cable	Distribution Submarine Cable	km	7	7	0	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	203	214	11	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	56	58	2	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	7,915	8,098	183	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	701	783	82	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,625	1,681	56	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	5,602	5,623	21	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	7,424	7,532	108	4
48	HV	Distribution Transformer	Voltage regulators	No.	7	7	0	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,744	6,888	144	3
50	LV	LV Line	LV OH Conductor	km	2,128	2,221	93	3
51	LV	LV Cable	LV UG Cable	km	2,445	2,491	46	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	203	215	12	3
53	LV	Connections	OH/UG consumer service connections	No.	230,410	234,403	3,993	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,668	1,773	105	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	152	159	7	2
56	All	Capacitor Banks	Capacitors including controls	No	64	63	-1	4
57	All	Load Control	Centralised plant	Lot	11	11	0	3
58	All	Load Control	Relays	No	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	0	0	0	N/A

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Combined**

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)
10	All	Overhead Line	Concrete poles / steel structure	No.	12	296	5,051	15,612	16,222	15,611	9,925	583	760	939	800	390	1,305	2,042	2,105	1,791	1,942	1,668	1,183	1,411	1,953	1,788	1,886	2,612	3,486	4,840	4,714	2,796						13,540	117,263		3
11	All	Overhead Line	Wood poles	No.	4	8	127	429	492	585	831	190	48	70	82	36	95	137	105	64	53	114	14	26	32	26	16	10	5	21	31	23						2,152	5,826		2
12	All	Overhead Line	Other pole types	No.	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	5	12	28	66	186	279	175	179						2	935		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	2	2	24	73	159	72	2	0	0	3	1	0	1	4	1	0	13	1	7	0	0	0	2	1	0	0	0	0						0	368		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	0	0	0	7	12	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	27		4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	0	0	0	0	19	11	55	56	1	22	6	2	4	8	32	8	25	21	4	10	7	3	16	16	13	6	3	5						0	354		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	0	0	0	40	74	24	4	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0						0	145		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	7	3	17	15	3	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0						0	50		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	0	0	0	0	0	0	8	0	0	18	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0						0	30		4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	0	0	0	11	0	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	17		4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0		4
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	12		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	0	1	4	23	26	18	10	3	1	0	2	0	0	1	1	3	1	2	2	0	0	1	0	1	1	0	1	0						0	102		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	7		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0						0	20		4
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	0	0	31	74	50	8	0	0	0	0	0	0	1	0	5	5	0	2	0	1	0	1	0	4	0	1	0	0						0	183		4
30	HV	Zone substation switchgear	33kV RMU	No.	0	0	0	0	0	0	0	0	0	0	5	1	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0						0	13		4
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	0	0	0	0	11	19	8	4	10	4	0	0	10	6	3	46	1	0	6	0	6	51	10	51	0	9	5	0						0	260		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	0	0	5	20	19	27	4	0	1	0	1	0	3	1	1	9	5	1	3	1	0	0	2	0	2	0	0	0						0	105		4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	0	0	9	144	151	243	107	11	6	2	7	0	18	15	44	85	44	39	34	25	49	29	17	55	111	37	52	35						0	1,369		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	0	0	3	41	49	35	28	4	1	2	1	1	0	1	2	3	6	5	8	5	1	2	7	4	4	0	2	4						0	219		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	1	4	143	539	994	1,369	292	95	11	5	11	6	22	36	62	21	22	11	8	6	5	7	8	4	7	5	8	16						30	3,746		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
38	HV	Distribution Line	SWER conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	0	0	0	0	17	32	175	37	40	30	22	18	97	136	102	60	107	54	72	40	49	70	63	67	65	79	63	58						6	1,561		4
40	HV	Distribution Cable	Distribution UG PILC	km	13	3	25	196	625	699	511	34	13	4	1	2	12	7	19	5	6	2	1	0	0	1	0	0	0	0	0	0						6	2,184		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	0	0	6	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	8		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionaliser	No.	0	0	0	0	0	0	17	4	5	1	2	0	3	9	34	68	39	5	0	8	12	1	2	3	3	0	22	36						0	274		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	0	0	2	0	4	5	4	0	11	0	4	2	4	2	13	1	10	8	10	3	26	8	9	18	29	13	41	34						32	293		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	0	0	8	215	966	1,688	1,372	239	160	135	147	62	218	293	248	241	257	156	108	162	259	319	405	490	574	457	524	642						191	10,536		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	7	0	1	327	853	653	447	80	74	65	53	69	81	69	51	23	42	38	42	53	34	41	21	25	22	16	33	19						7	3,246		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4	0	2	235	860	1,204	678	101	77	95	155	147	159	119	98	66	55	95	117	127	178	163	184	220	266	260	334	210						7	6,216		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	12	27	121	235	592	1,228	1,223	255	108	168	138	38	221	258	304	194	250	211	121	206	165	195	198	172	205	250	260	241						4	7,600		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	6	35	136	742	1,907	2,273	2,258	277	272	253	224	83	585	420	486	296	304	283	318	258	326	388	349	298	363	477	468	473						1	14,559		4
49	HV	Distribution Transformer	Voltage regulators	No.	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	0	0	0	1	4	2	1	0	0	0	0	0	0						0	12		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	11	62	177	1,285	3,011	3,393	2,059	185	235	124	141	200	125	120	86	70	60	48	52	54	102	154	203	147	168	192	237	261						113	13,075		3
51	LV	LV Line	LV OH Conductor	km	0	4	114	537	1,043	1,776	155	114	6	6	11	4	17	27	47	12	13	9	12	10	10	9	10	9	16	28	29	48						77	4,154		3
52	LV	LV Cable	LV UG Cable	km	5	20	45	430	1,065	1,055	1,260	118	97	55	49	47	211	260	160	80	114	72	73	45	69	99	124	130	134	160	153	138						22	6,290		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3	1	9	24	45	52	86	9	7	4	3	3	15	15	15	11	16	9	17	8	8	17	12	21	17	14	14	16						7	479		3
54	LV	Connections	OH/UG consumer service connections	No.	0	0	0	162	33,865	171,292	125,698	23,223	8,820	7,701	11,644	14,849	18,102	18,865	13,717	10,057	6,905	6,726	6,573	6,041	6,661	7,607	8,237	9,131	12,027	14,991	15,975	19,237						0	578,106		4
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	0	0	5	149	445	343	232	34	32	14	15	33	46	79	38	143	309	215	166	103	231	116	95	144	200	147	189	166						245	3,934		3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	0	0	0	0	0	0	3	0	0	0	0	5	3	5	24	12	10	14	7	17	25	4	14	55	21	30	17	18						72	356		2
57	All	Capacitor Banks	Capacitors including controls	No	0	0	0	0	0	0	10	45	0	0	1	0	0	2	0	0	0	1	0	1	11	0	0	5	0	0	0	0						0	76		4
58	All	Load Control	Centralised plant	Lot	0	0	0	8	1	7	11	0	0	0	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0						1	33		3
59	All	Load Control	Relays	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
60	All	Civils	Cable Tunnels	km	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						1	10		3

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Southern**

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	No. with default dates	Data accuracy (1–4)
10	All	Overhead Line	Concrete poles / steel structure	No.	4	0	163	4,753	850	2,720	3,968	241	486	684	545	194	923	1,531	1,717	1,409	1,242	1,188	875	1,011	1,215	1,033	910	1,424	1,802	2,414	2,478	1,198						13,414	50,392		3
11	All	Overhead Line	Wood poles	No.	0	0	0	223	117	98	459	172	35	23	64	28	48	79	52	44	16	26	13	7	15	4	1	2	2	17	20	15						2,126	3,706		2
12	All	Overhead Line	Other pole types	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	29	146	174	47	29						2	437		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	0	0	0	0	34.358	0	0	0	0	2.906	0.825	0	0	0	0	0	5.071	0	5.743	0	0	0.087	1.873	0	0	0	0	0	0						0.017	51		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0.000	–		N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	0	0	0	0	0.103	1.685	31.964	48.159	1.094	21.136	5.454	0.011	1.248	1.371	14.658	0.840	2.875	18.709	0.419	9.002	4.566	2.332	14.465	12.538	9.126	1.682	1.102	4.008						0.203	209		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	0	0	0	38.709	72.383	24.301	4.016	0	0.010	0.007	0	0.010	1.293	0.780	0.646	0	0.033	0.006	0	0	0.034	0	0	0	0.004	0	0	0						0	142		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	0	0	0	2.266	0.149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	7.421	2.818	16.708	15.451	2.638	2.232	0.290	0.032	0	0	0	0	0.353	0.007	0	0.619	0	0	0	0	0	0.004	0	0	0	0	0	0	0						0.030	49		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	0	0	0	0	0	0	8.476	0	0	18.479	0	0	1.191	0	0	0.036	0	0	2.133	0	0.004	0	0	0	0	0	0	0	0						0	30		4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	0	0	0	11.302	0	4.790	0.009	0.020	0	0	0	0	1.022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	17		4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0.000	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	0	0.001	0.003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	0		4
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	0	0	0	0	0	10.743	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	11		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	0	1	2	11	15	7	5	3	0	0	1	0	0	1	1	0	0	1	3	0	0	0	0	1	0	0	0	0						0	50		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	5		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0						0	20		4
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
30	HV	Zone substation switchgear	33kV RMU	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	0	0	0	0	11	19	8	0	10	0	0	0	0	0	1	8	0	0	6	0	6	15	2	38	0	0	0	0						0	124		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	0	0	2	118	79	178	67	11	0	0	0	0	0	9	44	37	17	13	27	16	25	13	6	29	59	23	51	35						0	859		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	0	0	1	23	33	17	20	4	0	1	1	0	0	1	0	3	0	5	5	4	0	1	3	3	1	0	2	1						0	129		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	0.482	0	0	0.125	65.504	609.530	34.614	86.685	2.114	1.798	9.327	0.919	5.453	5.671	9.748	9.376	3.533	3.612	2.716	2.597	1.038	1.128	0.358	0.210	2.276	0.228	2.170	2.830						19.021	883		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0.000	–		N/A
38	HV	Distribution Line	SWER conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0.000	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	0.009	0	0	0.032	10.701	11.246	24.789	7.674	17.242	13.745	13.583	4.996	64.934	54.808	59.612	30.256	34.146	25.461	41.012	22.227	24.320	44.366	27.278	33.709	30.015	30.871	38.727	26.010						5.022	697		4
40	HV	Distribution Cable	Distribution UG PILC	km	13.385	2.760	24.501	179.191	507.197	433.740	316.288	26.090	11.027	2.540	0.798	0.001	10.893	5.092	16.496	3.939	3.615	1.842	0.948	0	0.014	0.007	0	0.133	0	0.038	0	0						3.607	1,564		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	0	0	0	0	0.870	0	0.693	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionaliser	No.	0	0	0	0	0	0	1	0	0	0	1	0	0	7	15	13	2	2	0	2	2	1	0	0	1	0	4	9						0	60		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	0	0	2	0	3	3	4	0	11	0	4	2	3	1	13	1	4	8	8	3	25	8	8	11	16	7	27	31						32	235		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	0	0	0	4	34	453	132	85	42	34	46	0	84	50	82	76	40	37	32	61	117	140	101	116	123	100	119	175						155	2,438		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	7	0	1	318	820	529	256	38	44	25	28	41	48	46	31	15	25	15	29	32	15	19	12	11	10	9	18	14						7	2,463		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4	0	2	225	823	1,046	470	54	51	59	101	92	115	85	64	42	39	43	81	73	133	105	105	123	135	115	197	147						6	4,535		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	0	0	1	34	137	227	258	107	28	77	59	1	52	45	87	82	92	72	38	69	59	75	70	39	62	69	71	64						2	1,977		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	0	0	2	79	1,028	1,451	1,338	126	150	115	108	15	162	170	272	137	120	90	113	123	179	190	158	122	146	162	209	261						1	7,027		4
49	HV	Distribution Transformer	Voltage regulators	No.	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0						0	5		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	0	1	2	165	1,419	2,113	1,110	81	102	55	66	71	60	53	58	39	41	15	28	30	55	71	72	51	32	67	107	117						112	6,187		3
51	LV	LV Line	LV OH Conductor	km	0.025	0	0	2.429	238.331	1,356.389	86.940	105.366	4.603	5.365	10.948	1.668	6.913	4.387	7.060	4.513	4.661	2.916	4.550	4.262	5.141	3.805	3.195	2.917	3.283	3.164	2.171	4.626						54.177	1,934		3
52	LV	LV Cable	LV UG Cable	km	4.343	16.471	35.797	231.133	665.783	779.603	770.002	55.073	66.939	33.885	34.742	17.209	150.238	118.195	105.601	49.167	62.047	45.090	45.279	25.729	38.032	52.673	55.362	64.674	51.952	68.806	72.394	69.226						13.669	3,799		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	2.593	0.115	8.460	14.729	27.089	33.055	50.367	3.137	4.830	3.111	1.680	1.443	12.386	11.265	11.203	8.955	8.351	4.040	5.697	4.006	4.363	4.522	4.525	8.578	7.242	6.030	5.772	3.332						3.071	264		3
54	LV	Connections	OH/UG consumer service connections	No.	0	0	0	96	6,496	126,993	38,391	17,758	4,803	4,150	7,356	10,242	13,903	15,499	10,591	6,887	4,708	4,300	4,392	3,988	4,349	4,814	4,983	5,285	7,704	10,162	11,487	14,366						0	343,703		4
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	0	0	0	108	243	180	129	34	24	10	7	4	1	67	17	81	190	118	85	65	69	66	42	116	112	64	137	87						105	2,161		3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	0	0	0	0	0	0	1	0	0	0	0	0	5	0	5	9	6	9	7	4	8	14	4	9	35	11	17	12	11						30	197		2
57	All	Capacitor Banks	Capacitors including controls	No	0	0	0	0	0	0	10	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0						0	13		4
58	All	Load Control	Centralised plant	Lot	0	0	0	0	0	5	11	0	0	0	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0						1	22		3
59	All	Load Control	Relays	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
60	All	Civils	Cable Tunnels	km	0	0	0	0	0	0	0	9.289	0	0	0	0	0.109	0	0	0	0	0	0	0.095	0	0	0	0	0	0	0	0						0.896	10		3

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Northern**

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	No. with default dates	Data accuracy (1–4)
10	All	Overhead Line	Concrete poles / steel structure	No.	8	296	4,888	10,859	15,372	12,891	5,957	342	274	255	255	196	382	511	388	382	700	480	308	400	738	755	976	1,188	1,684	2,426	2,236	1,598						126	66,871		3
11	All	Overhead Line	Wood poles	No.	4	8	127	206	375	487	372	18	13	47	18	8	47	58	53	20	37	88	1	19	17	22	15	8	3	4	11	8						26	2,120		2
12	All	Overhead Line	Other pole types	No.	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	5	10	20	37	40	105	128	150						0	498		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	1.607	1.615	24.109	73.043	124.877	71.936	1.763	0	0	0	0.001	0	0.793	4.176	1.359	0.003	8.076	0.802	1.618	0	0.015	0	0	0.623	0.107	0	0.477	0						0	317		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	0	0	0	7.067	12.181	0	0	0	0	0	0	0	0	0	6.839	0	0	0	0	0.432	0	0	0	0.086	0	0	0	0						0	27		4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	0	0	0.190	0	19.143	9.462	22.819	7.719	0.308	0.786	0.902	1.869	2.787	6.684	17.507	7.052	21.880	2.076	3.452	0.621	2.881	0.514	1.905	3.485	3.571	4.227	1.991	1						0	145		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	0	0	0	1.054	1.122	0	0	0	0	0	0	0	0	0	0.136	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	0	0	0	0	0.589	0.091	0.342	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	1		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	0	0	0	0.428	0	0.158	0.308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	1		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	0	0	2	12	11	11	5	0	1	0	1	0	0	0	0	3	1	1	1	0	0	1	0	0	1	0	1	0						0	52		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	2		4
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	0	0	31	74	50	8	0	0	0	0	0	1	0	5	5	0	2	0	1	0	1	0	1	0	4	0	1	0						0	183		4
30	HV	Zone substation switchgear	33kV RMU	No.	0	0	0	0	0	0	0	0	0	0	5	1	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0						0	13		4
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	0	0	0	0	0	0	0	0	4	0	0	10	6	2	38	1	0	0	0	0	0	36	8	13	0	9	5	0						0	136		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	0	0	5	20	19	27	4	0	1	0	1	0	3	1	1	9	5	1	3	1	0	0	2	0	2	0	0	0						0	105		4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	0	0	7	26	72	65	40	0	6	2	7	0	18	6	0	48	27	26	7	9	24	16	11	26	52	14	1	0						0	510		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	0	0	2	18	16	18	8	0	1	1	0	1	0	0	2	0	6	0	3	1	1	1	4	1	3	0	0	3						0	90		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	0.068	3.811	143.283	538.420	928.602	759.429	257.567	7.988	8.590	2.711	2.100	4.982	16.291	30.495	52.010	11.757	18.281	6.941	5.037	3.106	3.945	6.292	7.650	4.242	4.844	4.564	5.444	13						11	2,863		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
38	HV	Distribution Line	SWER conductor	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	0	0.005	0.021	0.298	5.880	21.199	150.105	29.013	23.195	16.662	8.410	13.124	32.469	81.463	42.537	30.190	72.779	28.079	31.304	17.761	24.670	25.678	36.010	33.600	35.161	47.678	24.054	32						1	864		4
40	HV	Distribution Cable	Distribution UG PILC	km	0	0	0.625	16.413	117.779	264.784	194.374	7.822	1.693	1.671	0.014	2.182	1.097	1.998	2.452	0.891	2.193	0.022	0.245	0.001	0.002	0.006	0.591	0.331	0	0.129	0.001	0						3	620		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	0	0	6.000	0.141	0	0	0.426	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	7		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionaliser	No.	0	0	0	0	0	0	18	4	5	1	1	0	3	2	19	55	37	3	0	6	10	0	2	3	2	0	18	27						0	214		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	0	0	0	0	1	2	0	0	0	0	0	0	1	1	0	0	6	0	2	0	1	0	1	7	13	6	14	3						0	58		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	0	0	8	211	932	1,235	1,240	154	118	101	101	62	134	243	166	165	217	119	76	101	142	179	304	374	451	357	405	467						36	8,098		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	0	0	0	9	33	124	191	42	30	40	25	28	33	23	20	8	17	23	13	21	19	22	9	14	12	7	15	5						0	783		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	0	0	0	10	37	158	208	47	26	36	54	55	44	34	34	24	16	52	36	54	45	58	79	97	131	145	137	63						1	1,681		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	12	27	120	201	455	1,001	965	148	80	91	79	37	169	213	217	112	158	139	83	137	106	120	128	133	143	181	189	177						2	5,623		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	6	35	134	663	879	822	920	151	122	138	116	68	423	250	214	159	184	193	205	135	147	198	191	176	217	315	259	212						0	7,532		4
49	HV	Distribution Transformer	Voltage regulators	No.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	2	1	0	0	0	0	0	0						0	7		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	11	61	175	1,120	1,592	1,280	949	104	133	69	81	129	65	67	28	31	19	33	24	24	47	83	131	96	136	125	130	144						1	6,888		3
51	LV	LV Line	LV OH Conductor	km	0	3.957	113.553	534.818	804.850	419.596	67.707	8.680	1.730	1.098	0.475	2.077	10.010	22.300	40.321	7.662	8.750	5.682	7.261	6.139	5.033	5.481	6.964	6.322	12.801	24.572	26.688	43						23	2,221		3
52	LV	LV Cable	LV UG Cable	km	0.490	3.341	9.269	198.403	399.318	274.971	489.947	63.191	30.273	20.905	14.429	29.668	61.055	141.471	54.860	31.156	51.814	26.730	28.055	19.595	30.623	46.687	68.389	65.620	82.293	91.646	80.285	69						8	2,491		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	0	0.520	1.017	9.291	18.033	19.299	35.366	5.657	2.255	1.089	0.945	1.779	2.504	4.101	4.255	1.801	8.044	4.890	11.590	4.391	3.698	12.374	7.383	12.676	9.572	7.490	8.039	13						4	215		3
54	LV	Connections	OH/UG consumer service connections	No.	0	0	0	66	27,369	44,299	87,307	5,465	4,017	3,551	4,288	4,607	4,199	3,366	3,126	3,170	2,197	2,426	2,181	2,053	2,312	2,793	3,254	3,846	4,323	4,829	4,488	4,871						0	234,403		4
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	0	0	5	41	202	163	103	0	8	4	8	29	45	12	21	62	119	97	81	38	162	50	53	28	88	83	52	79						140	1,773		3
56	All	SCADA and communications	SCADA and communications equipment operating as a single sys	Lot	0	0	0	0	0	0	2	0	0	0	0	0	3	0	15	6	1	7	3	9	11	0	5	20	10	13	5	7						42	159		2
57	All	Capacitor Banks	Capacitors including controls	No	0	0	0	0	0	0	0	44	0	0	1	0	0	2	0	0	0	1	0	0	11	0	0	4	0	0	0	0						0	63		4
58	All	Load Control	Centralised plant	Lot	0	0	0	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	11		3
59	All	Load Control	Relays	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A
60	All	Civils	Cable Tunnels	km	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						0	–		N/A

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Combined**

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	27	47	74
12	50kV & 66kV	-	-	-
13	33kV	365	422	787
14	SWER (all SWER voltages)	-	-	-
15	22kV (other than SWER)	3	187	190
16	6.6kV to 11kV (inclusive—other than SWER)	3,746	3,708	7,454
17	Low voltage (< 1kV)	4,154	6,290	10,445
18	**Total circuit length (for supply)**	8,295	10,655	18,950
19				
20	Dedicated street lighting circuit length (km)	17	461	479
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			4,481
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	4,762	57%	
25	Rural	3,533	43%	
26	Remote only	-	-	
27	Rugged only	-	-	
28	Remote and rugged	-	-	
29	Unallocated overhead lines	-	-	
30	**Total overhead length**	8,295	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	18,915	99.8%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	8,295	100%	

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Southern**

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	-	47	47
12	50kV & 66kV	-	-	-
13	33kV	48	273	321
14	SWER (all SWER voltages)	-	-	-
15	22kV (other than SWER)	3	187	190
16	6.6kV to 11kV (inclusive—other than SWER)	883	2,216	3,099
17	Low voltage (< 1kV)	1,934	3,799	5,733
18	**Total circuit length (for supply)**	2,868	6,522	9,390
19				
20	Dedicated street lighting circuit length (km)	5	259	264
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			2,370
22				

		Circuit length (km)	**(% of total overhead length)**
23	**Overhead circuit length by terrain (at year end)**		
24	Urban	2,395	84%
25	Rural	473	16%
26	Remote only	-	-
27	Rugged only	-	-
28	Remote and rugged	-	-
29	Unallocated overhead lines	-	-
30	**Total overhead length**	2,868	100%
31			

		Circuit length (km)	**(% of total circuit length)**
32			
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,382	99.9%

		Circuit length (km)	**(% of total overhead length)**
34			
35	Overhead circuit requiring vegetation management	2,868	100%

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Northern**

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	27	–	27
12	50kV & 66kV	–	–	–
13	33kV	317	149	466
14	SWER (all SWER voltages)	–	–	–
15	22kV (other than SWER)	–	–	–
16	6.6kV to 11kV (inclusive—other than SWER)	2,863	1,492	4,355
17	Low voltage (< 1kV)	2,221	2,491	4,712
18	**Total circuit length (for supply)**	5,427	4,132	9,559
19				
20	Dedicated street lighting circuit length (km)	12	202	215
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			2,111
22				

		Circuit length (km)	**(% of total overhead length)**
23	**Overhead circuit length by terrain (at year end)**		
24	Urban	2,367	44%
25	Rural	3,060	56%
26	Remote only	–	–
27	Rugged only	–	–
28	Remote and rugged	–	–
29	Unallocated overhead lines	–	–
30	**Total overhead length**	5,427	100%
31			

		Circuit length (km)	**(% of total circuit length)**
32			
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,533	99.72%

		Circuit length (km)	**(% of total overhead length)**
34			
35	Overhead circuit requiring vegetation management	5,427	100%

Company Name	**Vector**
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)**
9	None		
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	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Combined**

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	7,650
Commercial	4,828

** include additional rows if needed*

Connections total	12,478

Distributed generation

Number of connections made in year	519	**connections**
Capacity of distributed generation installed in year	3.37	**MVA**

9e(ii): System Demand

Maximum coincident system demand

		Demand at time of maximum coincident demand (MW)
	GXP demand	1,731
plus	Distributed generation output at HV and above	14
	Maximum coincident system demand	1,745
less	Net transfers to (from) other EDBs at HV and above	-
	Demand on system for supply to consumers' connection points	1,745

Electricity volumes carried

		Energy (GWh)	
	Electricity supplied from GXPs	8,612	
less	Electricity exports to GXPs	-	
plus	Electricity supplied from distributed generation	136	
less	Net electricity supplied to (from) other EDBs	-	
	Electricity entering system for supply to consumers' connection points	8,748	
less	Total energy delivered to ICPs	8,427	
	Electricity losses (loss ratio)	321	3.7%

Load factor	0.57

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	4,594
Distribution transformer capacity (Non-EDB owned, estimated)	531
Total distribution transformer capacity	5,125
Zone substation transformer capacity	4,566

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Southern**

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	5,207
Commercial	2,364

** include additional rows if needed*

Connections total	7,571

Distributed generation

Number of connections made in year	219	**connections**
Capacity of distributed generation installed in year	1.76	**MVA**

9e(ii): System Demand

Maximum coincident system demand

		Demand at time of maximum coincident demand (MW)
	GXP demand	1,076
plus	Distributed generation output at HV and above	4
	Maximum coincident system demand	1,080
less	Net transfers to (from) other EDBs at HV and above	-
	Demand on system for supply to consumers' connection points	1,080

Electricity volumes carried

		Energy (GWh)	
	Electricity supplied from GXPs	5,798	
less	Electricity exports to GXPs	-	
plus	Electricity supplied from distributed generation	50	
less	Net electricity supplied to (from) other EDBs	-	
	Electricity entering system for supply to consumers' connection points	5,848	
less	Total energy delivered to ICPs	5,665	
	Electricity losses (loss ratio)	183	3.1%

Load factor	0.62

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	2,900
Distribution transformer capacity (Non-EDB owned, estimated)	475
Total distribution transformer capacity	3,375
Zone substation transformer capacity	2,992

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Northern**

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	2,443
Commercial	2,464

** include additional rows if needed*

Connections total	4,907

Distributed generation

Number of connections made in year	300	**connections**
Capacity of distributed generation installed in year	1.61	**MVA**

9e(ii): System Demand

Maximum coincident system demand

		Demand at time of maximum coincident demand (MW)
	GXP demand	694
plus	Distributed generation output at HV and above	10
	Maximum coincident system demand	704
less	Net transfers to (from) other EDBs at HV and above	-
	Demand on system for supply to consumers' connection points	704

Electricity volumes carried

		Energy (GWh)	
	Electricity supplied from GXPs	2,814	
less	Electricity exports to GXPs	-	
plus	Electricity supplied from distributed generation	86	
less	Net electricity supplied to (from) other EDBs	-	
	Electricity entering system for supply to consumers' connection points	2,900	
less	Total energy delivered to ICPs	2,762	
	Electricity losses (loss ratio)	138	4.8%

Load factor	0.47

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	1,694
Distribution transformer capacity (Non-EDB owned, estimated)	394
Total distribution transformer capacity	2,088
Zone substation transformer capacity	1,574

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Combined**

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)	2
11	Class B (planned interruptions on the network)	1,949
12	Class C (unplanned interruptions on the network)	1,773
13	Class D (unplanned interruptions by Transpower)	3
14	Class E (unplanned interruptions of EDB owned generation)	0
15	Class F (unplanned interruptions of generation owned by others)	0
16	Class G (unplanned interruptions caused by another disclosing entity)	0
17	Class H (planned interruptions caused by another disclosing entity)	0
18	Class I (interruptions caused by parties not included above)	0
19	**Total**	3,727

	Interruption restoration	≤3Hrs	>3hrs
22	Class C interruptions restored within	1,033	740

	SAIFI and SAIDI by class	SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.00	0.2
26	Class B (planned interruptions on the network)	0.44	101.6
27	Class C (unplanned interruptions on the network)	1.36	119.7
28	Class D (unplanned interruptions by Transpower)	0.09	4.3
29	Class E (unplanned interruptions of EDB owned generation)	0.00	0.0
30	Class F (unplanned interruptions of generation owned by others)	0.00	0.0
31	Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.0
32	Class H (planned interruptions caused by another disclosing entity)	0.00	0.0
33	Class I (interruptions caused by parties not included above)	0.00	0.0
34	**Total**	1.89	225.8

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network) (under the 2015 DPP)	1.57	167.5
	Classes B & C (interruptions on the network) (under the ID Determination 2012)	1.78	219.8

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

	Cause	SAIFI	SAIDI
42	Lightning	0.01	1.2
43	Vegetation	0.20	21.8
44	Adverse weather	0.01	1.3
45	Adverse environment	0.00	0.1
46	Third party interference	0.25	24.8
47	Wildlife	0.12	8.4
48	Human error	0.04	1.3
49	Defective equipment	0.55	48.0
50	Cause unknown	0.17	12.7

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

	Main equipment involved	SAIFI	SAIDI
55	Subtransmission lines	0.00	0.0
56	Subtransmission cables	0.00	0.0
57	Subtransmission other	0.00	0.1
58	Distribution lines (excluding LV)	0.14	42.4
69	Distribution cables (excluding LV)	0.02	3.8
60	Distribution other (excluding LV)	0.27	55.3

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

	Main equipment involved	SAIFI	SAIDI
64	Subtransmission lines	0.16	6.3
65	Subtransmission cables	0.01	0.0
66	Subtransmission other	0.07	2.4
67	Distribution lines (excluding LV)	0.62	60.0
68	Distribution cables (excluding LV)	0.21	19.4
69	Distribution other (excluding LV)	0.29	31.6

10(v): Fault Rate

	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
72	Subtransmission lines	31	395	7.85
73	Subtransmission cables	1	609	0.16
74	Subtransmission other	8		
75	Distribution lines (excluding LV)	1,095	3746	29.23
76	Distribution cables (excluding LV)	248	3753	6.61
77	Distribution other (excluding LV)	390		
78	**Total**	1,773		

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Southern**

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)	0
11	Class B (planned interruptions on the network)	1175
12	Class C (unplanned interruptions on the network)	570
13	Class D (unplanned interruptions by Transpower)	1
14	Class E (unplanned interruptions of EDB owned generation)	0
15	Class F (unplanned interruptions of generation owned by others)	0
16	Class G (unplanned interruptions caused by another disclosing entity)	0
17	Class H (planned interruptions caused by another disclosing entity)	0
18	Class I (interruptions caused by parties not included above)	0
19	**Total**	1,746

	Interruption restoration	≤3Hrs	>3hrs
22	Class C interruptions restored within	314	256

	SAIFI and SAIDI by class	SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.00	0.0
26	Class B (planned interruptions on the network)	0.44	81.5
27	Class C (unplanned interruptions on the network)	1.03	83.7
28	Class D (unplanned interruptions by Transpower)	0.01	0.3
29	Class E (unplanned interruptions of EDB owned generation)	0.00	0.0
30	Class F (unplanned interruptions of generation owned by others)	0.00	0.0
31	Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.0
32	Class H (planned interruptions caused by another disclosing entity)	0.00	0.0
33	Class I (interruptions caused by parties not included above)	0.00	0.0
34	**Total**	1.48	165.5

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network) (under the 2015 DPP)	1.20	116.4
	Classes B & C (interruptions on the network) (under the ID Determination 2012)	1.45	163.8

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

	Cause	SAIFI	SAIDI
42	Lightning	0.00	0.6
43	Vegetation	0.09	8.8
44	Adverse weather	0.01	0.6
45	Adverse environment	0.00	0.0
46	Third party interference	0.29	27.3
47	Wildlife	0.07	5.6
48	Human error	0.05	0.8
49	Defective equipment	0.47	35.3
50	Cause unknown	0.06	4.6

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

	Main equipment involved	SAIFI	SAIDI
55	Subtransmission lines	0.00	0.0
56	Subtransmission cables	0.00	0.0
57	Subtransmission other	0.00	0.1
58	Distribution lines (excluding LV)	0.14	33.4
69	Distribution cables (excluding LV)	0.02	3.6
60	Distribution other (excluding LV)	0.27	44.4

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

	Main equipment involved	SAIFI	SAIDI
64	Subtransmission lines	0.02	0.7
65	Subtransmission cables	0.00	0.0
66	Subtransmission other	0.08	2.1
67	Distribution lines (excluding LV)	0.35	26.6
68	Distribution cables (excluding LV)	0.27	26.6
69	Distribution other (excluding LV)	0.31	27.7

10(v): Fault Rate

	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
72	Subtransmission lines	6	51	11.79
73	Subtransmission cables	0	460	–
74	Subtransmission other	3		
75	Distribution lines (excluding LV)	247	883	27.97
76	Distribution cables (excluding LV)	155	2262	6.85
77	Distribution other (excluding LV)	159		
78	**Total**	570		

Company Name	**Vector**
For Year Ended	**31 March 2020**
Network / Sub-network Name	**Northern**

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)	2
Class B (planned interruptions on the network)	774
Class C (unplanned interruptions on the network)	1,203
Class D (unplanned interruptions by Transpower)	2
Class E (unplanned interruptions of EDB owned generation)	0
Class F (unplanned interruptions of generation owned by others)	0
Class G (unplanned interruptions caused by another disclosing entity)	0
Class H (planned interruptions caused by another disclosing entity)	0
Class I (interruptions caused by parties not included above)	0
Total	1,981

Interruption restoration	**≤3Hrs**	**>3hrs**
Class C interruptions restored within	719	484

SAIFI and SAIDI by class	**SAIFI**	**SAIDI**
Class A (planned interruptions by Transpower)	0.00	0.60
Class B (planned interruptions on the network)	0.44	130.90
Class C (unplanned interruptions on the network)	1.84	172.30
Class D (unplanned interruptions by Transpower)	0.20	10.20
Class E (unplanned interruptions of EDB owned generation)	0.00	0.00
Class F (unplanned interruptions of generation owned by others)	0.00	0.00
Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.00
Class H (planned interruptions caused by another disclosing entity)	0.00	0.00
Class I (interruptions caused by parties not included above)	0.00	0.00
Total	2.48	314.0

Normalised SAIFI and SAIDI	**Normalised SAIFI**	**Normalised SAIDI**
Classes B & C (interruptions on the network) (under the 2015 DPP)	1.92	212.4
Classes B & C (interruptions on the network) (under the ID Determination 2012)	2.27	302.0

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

Cause	**SAIFI**	**SAIDI**
Lightning	0.02	2.1
Vegetation	0.37	40.9
Adverse weather	0.01	2.4
Adverse environment	0.00	0.2
Third party interference	0.21	21.2
Wildlife	0.20	12.4
Human error	0.04	2.1
Defective equipment	0.66	66.5
Cause unknown	0.33	24.5

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

Main equipment involved	**SAIFI**	**SAIDI**
Subtransmission lines	0.00	0.0
Subtransmission cables	0.00	0.0
Subtransmission other	0.00	0.0
Distribution lines (excluding LV)	0.14	55.5
Distribution cables (excluding LV)	0.02	4.1
Distribution other (excluding LV)	0.28	71.2

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

Main equipment involved	**SAIFI**	**SAIDI**
Subtransmission lines	0.36	14.6
Subtransmission cables	0.01	0.0
Subtransmission other	0.07	2.9
Distribution lines (excluding LV)	1.02	108.7
Distribution cables (excluding LV)	0.11	8.8
Distribution other (excluding LV)	0.27	37.2

10(v): Fault Rate

Main equipment involved	**Number of Faults**	**Circuit length (km)**	**Fault rate (faults per 100km)**
Subtransmission lines	25	344	7.27
Subtransmission cables	1	149	0.67
Subtransmission other	5		
Distribution lines (excluding LV)	848	2863	29.62
Distribution cables (excluding LV)	93	1490	6.24
Distribution other (excluding LV)	231		
Total	1,203		