EDB Information Disclosure Requirements

Information Templates

for

Schedules 1–10

Company Name	Vector
Disclosure Date	31 August 2017
Disclosure Year (year ended)	31 March 2017

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

Template Version 4.1. Prepared 24 March 2015

Table of Contents

Disclosure Template Instructions

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

Company Name and Dates

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

Data Entry Cells and Calculated Cells

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

Validation Settings on Data Entry Cells

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

Conditional Formatting Settings on Data Entry Cells

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

Inserting Additional Rows and Columns

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

Disclosures by Sub-Network

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

Schedule References

The references labelled 'sch ref' in the leftmost column of each template are consistent with the row references in the Electricity Distribution ID Determination 2012 (as issued on 24 March 2015). 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 2017**

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	12,992	196	63,539	5,845	25,084
Network	4,446	67	21,745	2,000	8,584
Non-network	8,546	129	41,794	3,844	16,499
Expenditure on assets	24,323	366	118,955	10,942	46,960
Network	22,819	343	111,602	10,265	44,057
Non-network	1,503	23	7,353	676	2,903

1(ii): Revenue metrics

	Revenue per GWh energy delivered to ICPs ($/GWh)	Revenue per average no. of ICPs ($/ICP)
Total consumer line charge revenue	74,190	1,116
Standard consumer line charge revenue	77,532	1,079
Non-standard consumer line charge revenue	33,160	691,300

1(iii): Service intensity measures

Demand density	92	*Maximum coincident system demand per km of circuit length (for supply) (kW/km)*
Volume density	450	*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	15,048	*Total energy delivered to ICPs per average number of ICPs (kWh/ICP)*

1(iv): Composition of regulatory income

	($000)	% of revenue
Operational expenditure	107,863	17.69%
Pass-through and recoverable costs excluding financial incentives and wash-ups	225,550	37.00%
Total depreciation	96,289	15.79%
Total revaluations	57,761	9.47%
Regulatory tax allowance	49,843	8.18%
Regulatory profit/(loss) including financial incentives and wash-ups	187,261	30.71%
Total regulatory income	609,675	

1(v): Reliability

Interruption rate	16.48	*Interruptions per 100 circuit km*

Company Name	**Vector**
For Year Ended	**31 March 2017**

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		CY-2	CY-1	Current Year CY
	2(i): Return on Investment	**31 Mar 15**	**31 Mar 16**	**31 Mar 17**
	ROI – comparable to a post tax WACC	**%**	**%**	**%**
	Reflecting all revenue earned	4.81%	5.00%	6.47%
	Excluding revenue earned from financial incentives	4.81%	5.00%	6.47%
	Excluding revenue earned from financial incentives and wash-ups	5.26%	5.00%	6.54%
	Mid-point estimate of post tax WACC	6.10%	5.37%	4.77%
	25th percentile estimate	5.39%	4.66%	4.05%
	75th percentile estimate	6.82%	6.09%	5.48%
	ROI – comparable to a vanilla WACC			
	Reflecting all revenue earned	5.59%	5.64%	7.01%
	Excluding revenue earned from financial incentives	5.59%	5.64%	7.01%
	Excluding revenue earned from financial incentives and wash-ups	6.04%	5.64%	7.08%
	WACC rate used to set regulatory price path	8.77%	7.19%	7.19%
	Mid-point estimate of vanilla WACC	6.89%	6.02%	5.31%
	25th percentile estimate	6.17%	5.30%	4.59%
	75th percentile estimate	7.60%	6.74%	6.03%

	2(ii): Information Supporting the ROI		**($000)**	
	Total opening RAB value	2,682,398		
plus	Opening deferred tax	(72,086)		
Opening RIV			2,610,312	
Line charge revenue			615,950	
	Expenses cash outflow	333,413		
add	Assets commissioned	249,121		
less	Asset disposals	15,950		
add	Tax payments	47,590		
less	Other regulated income	(6,275)		
Mid-year net cash outflows			620,450	
Term credit spread differential allowance			629	
	Total closing RAB value	2,879,136		
less	Adjustment resulting from asset allocation	2,095		
less	Lost and found assets adjustment	–		
plus	Closing deferred tax	(74,339)		
Closing RIV			2,802,702	
	ROI – comparable to a vanilla WACC			7.01%
	Leverage (%)			44%
	Cost of debt assumption (%)			4.41%
	Corporate tax rate (%)			28%
	ROI – comparable to a post tax WACC			6.47%

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 2: REPORT ON RETURN ON INVESTMENT

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

2(iii): Information Supporting the Monthly ROI

Opening RIV — N/A

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

Tax payments — N/A

Term credit spread differential allowance — N/A

Closing RIV — N/A

Monthly ROI – comparable to a vanilla WACC — N/A

Monthly ROI – comparable to a post tax WACC — N/A

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

Year-end ROI – comparable to a vanilla WACC — 6.93%

Year-end ROI – comparable to a post tax WACC — 6.39%

** 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	–	
Other financial incentives	–	
Financial incentives		–

Impact of financial incentives on ROI — –

Input methodology claw-back	–	
Recoverable customised price-quality path costs	–	
Catastrophic event allowance	–	
Capex wash-up adjustment	(2,324)	
Transmission asset wash-up adjustment	–	
2013–2015 NPV wash-up allowance	–	
Reconsideration event allowance	–	
Other wash-ups	–	
Wash-up costs		(2,324)

Impact of wash-up costs on ROI — –0.06%

Company Name	**Vector**
For Year Ended	**31 March 2017**

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		615,950
10	*plus*	Gains / (losses) on asset disposals		(6,275)
11	*plus*	Other regulated income (other than gains / (losses) on asset disposals)		–
12				
13		**Total regulatory income**		609,675
14		**Expenses**		
15	*less*	Operational expenditure		107,863
16				
17	*less*	Pass-through and recoverable costs excluding financial incentives and wash-ups		225,550
18				
19		**Operating surplus / (deficit)**		276,262
20				
21	*less*	Total depreciation		96,289
22				
23	*plus*	Total revaluations		57,761
24				
25		**Regulatory profit / (loss) before tax**		237,734
26				
27	*less*	Term credit spread differential allowance		629
28				
29	*less*	Regulatory tax allowance		49,843
30				
31		**Regulatory profit/(loss) including financial incentives and wash-ups**		187,261
32				
33	**3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups**		**($000)**	
34		**Pass through costs**		
35		Rates	8,806	
36		Commerce Act levies	1,095	
37		Industry levies	1,934	
38		CPP specified pass through costs	–	
39		**Recoverable costs excluding financial incentives and wash-ups**		
40		Electricity lines service charge payable to Transpower	189,648	
41		Transpower new investment contract charges	11,950	
42		System operator services	–	
43		Distributed generation allowance	12,117	
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**		225,550
47				

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 3: REPORT ON REGULATORY PROFIT

This schedule requires information on the calculation of regulatory profit for the EDB for the disclosure year. All EDBs must complete all sections and provide explanatory comment on their regulatory profit in Schedule 14 (Mandatory Explanatory Notes).
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sch ref

3(iii): Incremental Rolling Incentive Scheme

($000)

		CY-1 31 Mar 16	CY 31 Mar 17
51	Allowed controllable opex	–	–
52	Actual controllable opex	–	–
53			
54	Incremental change in year		–

			Previous years' incremental change	Previous years' incremental change adjusted for inflation
57	CY-5	31 Mar 12	–	–
58	CY-4	31 Mar 13	–	–
59	CY-3	31 Mar 14	–	–
60	CY-2	31 Mar 15	–	–
61	CY-1	31 Mar 16	–	–
62	**Net incremental rolling incentive scheme**			–
63				
64	**Net recoverable costs allowed under incremental rolling incentive scheme**			–

3(iv): Merger and Acquisition Expenditure

($000)

66	Merger and acquisition expenditure	–
67		
68	*Provide commentary on the benefits of merger and acquisition expenditure to the electricity distribution business, including required disclosures in accordance with section 2.7, in Schedule 14 (Mandatory Explanatory Notes)*	

3(v): Other Disclosures

($000)

71	Self-insurance allowance	–

Company Name	**Vector**
For Year Ended	**31 March 2017**

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 13 ($000)	RAB 31 Mar 14 ($000)	RAB 31 Mar 15 ($000)	RAB 31 Mar 16 ($000)	RAB 31 Mar 17 ($000)
10		**Total opening RAB value**	2,489,280	2,536,404	2,618,855	2,660,795	2,682,398
12	*less*	**Total depreciation**	84,718	90,831	92,306	94,495	96,289
14	*plus*	**Total revaluations**	21,339	38,684	6,565	11,077	57,761
16	*plus*	**Assets commissioned**	113,902	143,062	137,234	116,194	249,121
18	*less*	**Asset disposals**	3,348	8,447	9,358	11,139	15,950
20	*plus*	**Lost and found assets adjustment**	–	–	–	–	–
22	*plus*	**Adjustment resulting from asset allocation**	(51)	(17)	(195)	(34)	2,095
24		**Total closing RAB value**	2,536,404	2,618,855	2,660,795	2,682,398	2,879,136

4(ii): Unallocated Regulatory Asset Base

			Unallocated RAB * ($000)	Unallocated RAB * ($000)	RAB ($000)	RAB ($000)
29		**Total opening RAB value**		2,693,138		2,682,398
30	*less*					
31		**Total depreciation**		99,878		96,289
32	*plus*					
33		**Total revaluations**		57,993		57,761
34	*plus*					
35		Assets commissioned (other than below)	158,260		156,237	
36		Assets acquired from a regulated supplier	–		–	
37		Assets acquired from a related party	92,884		92,884	
38		**Assets commissioned**		251,144		249,121
39	*less*					
40		Asset disposals (other than below)	6,516		6,486	
41		Asset disposals to a regulated supplier	–		–	
42		Asset disposals to a related party	9,464		9,464	
43		**Asset disposals**		15,980		15,950
45	*plus*	**Lost and found assets adjustment**		–		–
47	*plus*	**Adjustment resulting from asset allocation**				2,095
49		**Total closing RAB value**		2,886,417		2,879,136

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

Company Name	**Vector**
For Year Ended	**31 March 2017**

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

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

sch ref

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

	CPI_4	1,226
	CPI_4^{-4}	1,200
	Revaluation rate (%)	2.17%

		Unallocated RAB *		RAB	
		($000)	($000)	($000)	($000)
	Total opening RAB value	2,693,138		2,682,398	
less	Opening value of fully depreciated, disposed and lost assets	16,541		16,506	
	Total opening RAB value subject to revaluation	2,676,597		2,665,892	
	Total revaluations		57,993		57,761

4(iv): Roll Forward of Works Under Construction

		Unallocated works under construction		Allocated works under construction	
	Works under construction—preceding disclosure year		56,479		56,137
plus	Capital expenditure	149,800		146,193	
plus	Assets aquired from a related party	92,884		92,884	
less	Assets commissioned	251,144		249,121	
plus	Adjustment resulting from asset allocation			184	
	Works under construction - current disclosure year		48,018		46,277

	Highest rate of capitalised finance applied	5.23%

Company Name	**Vector**
For Year Ended	**31 March 2017**

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

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

sch ref

4(v): Regulatory Depreciation

		Unallocated RAB *		RAB	
		($000)	($000)	($000)	($000)
	Depreciation - standard	78,345		78,345	
	Depreciation - no standard life assets	21,533		17,944	
	Depreciation - modified life assets				
	Depreciation - alternative depreciation in accordance with CPP				
	Total depreciation		99,878		96,289

4(vi): Disclosure of Changes to Depreciation Profiles

($000 unless otherwise specified)

Asset or assets with changes to depreciation*	Reason for non-standard depreciation (text entry)	Depreciation charge for the period (RAB)	Closing RAB value under 'non-standard' depreciation	Closing RAB value under 'standard' depreciation

** include additional rows if needed*

4(vii): Disclosure by Asset Category

($000 unless otherwise specified)

		Subtransmission lines	Subtransmission cables	Zone substations	Distribution and LV lines	Distribution and LV cables	Distribution substations and transformers	Distribution switchgear	Other network assets	Non-network assets	Total
	Total opening RAB value	78,166	384,396	240,853	294,367	735,901	256,184	151,794	506,371	34,366	2,682,398
less	Total depreciation	2,082	10,120	8,968	8,942	24,528	8,476	6,728	17,489	8,956	96,289
plus	Total revaluations	1,687	7,764	5,012	6,354	15,935	5,510	3,241	11,552	706	57,761
plus	Assets commissioned	–	(142)	29,179	17,458	30,606	11,784	24,965	125,567	9,704	249,121
less	Asset disposals	291	59	173	1,104	285	1,843	2,135	10,051	9	15,950
plus	Lost and found assets adjustment	–	–	–	–	–	–	–	–	–	–
plus	Adjustment resulting from asset allocation	–	–	–	–	–	–	–	–	2,095	2,095
plus	Asset category transfers	–	–	–	–	–	–	–	–	–	–
	Total closing RAB value	77,480	381,839	265,903	308,133	757,629	263,159	171,137	615,950	37,906	2,879,136
	Asset Life										
	Weighted average remaining asset life	46	48	32	40	36	35	26	33	12	(years)
	Weighted average expected total asset life	59	70	43	58	61	45	38	44	18	(years)

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 5a: REPORT ON REGULATORY TAX ALLOWANCE

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

sch ref					
7	**5a(i): Regulatory Tax Allowance**				**($000)**
8		**Regulatory profit / (loss) before tax**			237,734
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	6,534	*	
12		Amortisation of initial differences in asset values	34,773		
13		Amortisation of revaluations	6,939		
14					48,246
15					
16	*less*	Total revaluations	57,761		
17		Income included in regulatory profit / (loss) before tax but not taxable	22	*	
18		Discretionary discounts and customer rebates			
19		Expenditure or loss deductible but not in regulatory profit / (loss) before tax		*	
20		Notional deductible interest	50,185		
21					107,968
22					
23		**Regulatory taxable income**			178,011
24					
25	*less*	Utilised tax losses	–		
26		Regulatory net taxable income			178,011
27					
28		Corporate tax rate (%)	28%		
29		**Regulatory tax allowance**			49,843
30					
31	* Workings to be provided in Schedule 14				
32	**5a(ii): Disclosure of Permanent Differences**				
33		In Schedule 14, Box 5, provide descriptions and workings of items recorded in the asterisked categories in Schedule 5a(i).			
34	**5a(iii): Amortisation of Initial Difference in Asset Values**				**($000)**
35					
36		Opening unamortised initial differences in asset values	1,147,493		
37	*less*	Amortisation of initial differences in asset values	34,773		
38	*plus*	Adjustment for unamortised initial differences in assets acquired	–		
39	*less*	Adjustment for unamortised initial differences in assets disposed	12,220		
40		Closing unamortised initial differences in asset values			1,100,500
41					
42		Opening weighted average remaining useful life of relevant assets (years)			33
43					

Company Name	**Vector**
For Year Ended	**31 March 2017**

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	2,498,973	
47				
48		Adjusted depreciation	89,350	
49		Total depreciation	96,289	
50		Amortisation of revaluations		6,939
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**	(72,086)	
61				
62	*plus*	Tax effect of adjusted depreciation	25,018	
63				
64	*less*	Tax effect of tax depreciation	16,758	
65				
66	*plus*	Tax effect of other temporary differences*	(842)	
67				
68	*less*	Tax effect of amortisation of initial differences in asset values	9,736	
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	73	
73				
74	*plus*	Deferred tax cost allocation adjustment	139	
75				
76		**Closing deferred tax**		(74,339)
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**	1,066,093	
84	*less*	Tax depreciation	59,851	
85	*plus*	Regulatory tax asset value of assets commissioned	163,727	
86	*less*	Regulatory tax asset value of asset disposals	2,752	
87	*plus*	Lost and found assets adjustment		
88	*plus*	Adjustment resulting from asset allocation	2,591	
89	*plus*	Other adjustments to the RAB tax value		
90		**Closing sum of regulatory tax asset values**		1,169,808

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 5b: REPORT ON RELATED PARTY TRANSACTIONS

This schedule provides information on the valuation of related party transactions, in accordance with section 2.3.6 and 2.3.7 of the ID 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

5b(i): Summary—Related Party Transactions

	($000)
Total regulatory income	–
Operational expenditure	15,578
Capital expenditure	92,884
Market value of asset disposals	9,464
Other related party transactions	–

5b(ii): Entities Involved in Related Party Transactions

Name of related party	Related party relationship
Vector Communications Limited	A wholly owned subsidiary of Vector Limited.
Tree Scape Limited	An associate in which Vector Limited holds a 50% interest.
Vector Energy Solutions Limited	A wholly owned subsidiary of Vector Limited.

** include additional rows if needed*

5b(iii): Related Party Transactions

Name of related party	Related party transaction type	Description of transaction	Value of transaction ($000)	Basis for determining value
Vector Communications Limited	Opex	Purchase of telecommunications services	10,169	ID clause 2.3.6(1)(c)(i)
Tree Scape Limited	Opex	Purchase of vegetation management services	5,409	ID clause 2.3.6(1)(d)
Vector Communications Limited	Sales	Sale of assets	9,464	ID clause 2.3.7(2)(c)
Vector Communications Limited	Capex	Purchase of assets	88,711	IM clause 2.2.11(5)(h)
Vector Communications Limited	Capex	Purchase of assets	2,212	IM clause 2.2.11(5)(d)
Vector Energy Solutions Limited	Capex	Purchase of assets	1,961	IM clause 2.2.11(5)(e)

** include additional rows if needed*

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 5c: REPORT ON TERM CREDIT SPREAD DIFFERENTIAL ALLOWANCE

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

sch ref

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

Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	Book value at date of financial statements (NZD)	Term Credit Spread Difference	Cost of executing an interest rate swap	Debt issue cost readjustment
Capital bonds – fixed coupon									
	15-Jun-12	14-Jun-12	5	7	**262,651**	**262,535**	**[]VCI**	**[]VCI**	**[]VCI**
Floating rate notes									
FRN - series 2	26-Oct-05	26-Oct-05	12	BKBM + []VCI	400,000		[]VCI	[]VCI	[]VCI
FRN - series 3	26-Oct-05	26-Oct-05	15	BKBM + []VCI	350,000		[]VCI	[]VCI	[]VCI
FRN - series 4	4-Apr-07	4-Apr-07	10	BKBM+ []VCI	200,000		[]VCI	[]VCI	[]VCI
Floating rate notes subtotal					**950,000**	**907,353**	**[]VCI**	**[]VCI**	**[]VCI**
Medium term notes – GBP fixed rate									
	11-Apr-08	8-Apr-08	10.8	7.625	**285,614**	**213,108**	**[]VCI**	**[]VCI**	**[]VCI**
Senior notes - USD fixed rate									
2004 series- 12 years	16-Sep-04	19-Jul-04	12	5.51	98,875		[]VCI	[]VCI	[]VCI
2004 series- 15 years	16-Sep-04	19-Jul-04	15	5.75	296,623		[]VCI	[]VCI	[]VCI
2010 series- 12 years	20-Dec-10	22-Sep-10	12	[]VCI	250,516		[]VCI	[]VCI	[]VCI
2014 series- 7 years	14-Oct-14	19-Jun-14	7	[]VCI	150,000		[]VCI	[]VCI	[]VCI
Senior notes - USD fixed rate subtotal					**796,014**	**874,114**	**[]VCI**	**[]VCI**	**[]VCI**
Senior credit facilities									
[]VCI	3-Feb-15	16-Dec-14	3	BKBM + []VCI					
[]VCI	3-Feb-15	16-Dec-14	3	BKBM + []VCI					
[]VCI	3-Feb-15	16-Dec-14	3	BKBM + []VCI					
Bank loans subtotal						**(229)**			
** include additional rows if needed*						2,256,881	[]VCI	[]VCI	[] VCI

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

Gross term credit spread differential		1,161
Total book value of interest bearing debt	2,256,881	
Leverage	44%	
Average opening and closing RAB values	2,780,767	
Attribution Rate (%)		54%
Term credit spread differential allowance		629

Company Name	**Vector**
For Year Ended	**31 March 2017**

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		9,386			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		9,386			
Vegetation management					
Directly attributable		5,210			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		5,210			
Routine and corrective maintenance and inspection					
Directly attributable		11,505			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		11,505			
Asset replacement and renewal					
Directly attributable		10,813			
Not directly attributable	–	–	–	–	–
Total attributable to regulated service		10,813			
System operations and network support					
Directly attributable		23,839			
Not directly attributable	–	12,788	1,782	14,570	–
Total attributable to regulated service		36,627			
Business support					
Directly attributable		1,790			
Not directly attributable	–	32,532	14,891	47,423	–
Total attributable to regulated service		34,322			
Operating costs directly attributable		62,543			
Operating costs not directly attributable	–	45,320	16,673	61,993	–
Operational expenditure		107,863			

5d(ii): Other Cost Allocations

Pass through and recoverable costs	($000)
Pass through costs	
Directly attributable	11,835
Not directly attributable	–
Total attributable to regulated service	11,835
Recoverable costs	
Directly attributable	213,715
Not directly attributable	–
Total attributable to regulated service	213,715

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

			($000)	
Change in cost allocation 1			**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				

			($000)	
Change in cost allocation 2			**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				

			($000)	
Change in cost allocation 3			**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 2017**

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	77,480
Not directly attributable	–
Total attributable to regulated service	77,480
Subtransmission cables	
Directly attributable	381,839
Not directly attributable	–
Total attributable to regulated service	381,839
Zone substations	
Directly attributable	265,903
Not directly attributable	–
Total attributable to regulated service	265,903
Distribution and LV lines	
Directly attributable	308,133
Not directly attributable	–
Total attributable to regulated service	308,133
Distribution and LV cables	
Directly attributable	757,629
Not directly attributable	–
Total attributable to regulated service	757,629
Distribution substations and transformers	
Directly attributable	263,159
Not directly attributable	–
Total attributable to regulated service	263,159
Distribution switchgear	
Directly attributable	171,137
Not directly attributable	–
Total attributable to regulated service	171,137
Other network assets	
Directly attributable	615,950
Not directly attributable	–
Total attributable to regulated service	615,950
Non-network assets	
Directly attributable	17,804
Not directly attributable	20,102
Total attributable to regulated service	37,906
Regulated service asset value directly attributable	2,859,034
Regulated service asset value not directly attributable	20,102
Total closing RAB value	2,879,136

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

Change in asset value allocation 1

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

Rationale for change

Change in asset value allocation 2

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

Rationale for change

Change in asset value allocation 3

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

Rationale for change

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

Company Name	**Vector**
For Year Ended	**31 March 2017**

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)
	Consumer connection		55,863
	System growth		30,876
	Asset replacement and renewal		82,199
	Asset relocations		17,938
	Reliability, safety and environment:		
	Quality of supply	1,374	
	Legislative and regulatory	815	
	Other reliability, safety and environment	388	
	Total reliability, safety and environment		2,577
	Expenditure on network assets		189,453
	Expenditure on non-network assets		12,482
	Expenditure on assets		201,935
plus	Cost of financing		3,109
less	Value of capital contributions		58,851
plus	Value of vested assets		–
	Capital expenditure		146,193

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

	($000)
Energy efficiency and demand side management, reduction of energy losses	
Overhead to underground conversion	1,765
Research and development	373

6a(iii): Consumer Connection

*Consumer types defined by EDB**	($000)	($000)
Service connection	11,256	
Customer substations	10,473	
Business subdivisions	3,251	
Residential subdivisions	25,829	
Capacity change	4,062	
Street lighting	972	
Easement costs	20	
** include additional rows if needed*		
Consumer connection expenditure		55,863
less Capital contributions funding consumer connection expenditure	42,607	
Consumer connection less capital contributions		13,256

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

	System Growth ($000)	Asset Replacement and Renewal ($000)
Subtransmission	1,876	5,121
Zone substations	12,074	14,325
Distribution and LV lines	516	30,362
Distribution and LV cables	5,463	4,767
Distribution substations and transformers	2,501	12,821
Distribution switchgear	986	11,095
Other network assets	7,460	3,708
System growth and asset replacement and renewal expenditure	30,876	82,199
less Capital contributions funding system growth and asset replacement and renewal	1,282	6
System growth and asset replacement and renewal less capital contributions	29,594	82,193

6a(v): Asset Relocations

*Project or programme**	($000)	($000)
** include additional rows if needed*		
All other projects or programmes - asset relocations	17,938	
Asset relocations expenditure		17,938
less Capital contributions funding asset relocations	14,956	
Asset relocations less capital contributions		2,982

	Company Name	**Vector**
	For Year Ended	**31 March 2017**

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

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

sch ref				
68				
69	**6a(vi): Quality of Supply**			
70		*Project or programme**	**($000)**	**($000)**
71				
72				
73				
74				
75				
76		** include additional rows if needed*		
77		All other projects programmes - quality of supply	1,374	
78		**Quality of supply expenditure**		1,374
79	*less*	Capital contributions funding quality of supply		
80		**Quality of supply less capital contributions**		1,374
81	**6a(vii): Legislative and Regulatory**			
82		*Project or programme**	**($000)**	**($000)**
83				
84				
85				
86				
87				
88		** include additional rows if needed*		
89		All other projects or programmes - legislative and regulatory	815	
90		**Legislative and regulatory expenditure**		815
91	*less*	Capital contributions funding legislative and regulatory		
92		**Legislative and regulatory less capital contributions**		815
93	**6a(viii): Other Reliability, Safety and Environment**			
94		*Project or programme**	**($000)**	**($000)**
95				
96				
97				
98				
99				
100		** include additional rows if needed*		
101		All other projects or programmes - other reliability, safety and environment	388	
102		**Other reliability, safety and environment expenditure**		388
103	*less*	Capital contributions funding other reliability, safety and environment		
104		**Other reliability, safety and environment less capital contributions**		388
105				
106	**6a(ix): Non-Network Assets**			
107		**Routine expenditure**		
108		*Project or programme**	**($000)**	**($000)**
109				
110				
111				
112				
113				
114		** include additional rows if needed*		
115		All other projects or programmes - routine expenditure	6,230	
116		**Routine expenditure**		6,230
117		**Atypical expenditure**		
118		*Project or programme**	**($000)**	**($000)**
119				
120				
121				
122				
123				
124		** include additional rows if needed*		
125		All other projects or programmes - atypical expenditure	6,252	
126		**Atypical expenditure**		6,252
127				
128		**Expenditure on non-network assets**		12,482

Company Name	**Vector**
For Year Ended	**31 March 2017**

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	9,386	
9	Vegetation management	5,210	
10	Routine and corrective maintenance and inspection	11,505	
11	Asset replacement and renewal	10,813	
12	**Network opex**		36,914
13	System operations and network support	36,627	
14	Business support	34,322	
15	**Non-network opex**		70,949
16			
17	**Operational expenditure**		107,863
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		2,508
23	** Direct billing expenditure by suppliers that directly bill the majority of their consumers*		

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 7: COMPARISON OF FORECASTS TO ACTUAL EXPENDITURE

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

sch ref

		Target ($000) [1]	Actual ($000)	% variance
7	**7(i): Revenue**			
8	Line charge revenue	618,068	615,950	(0%)
		Forecast ($000) [2]	**Actual ($000)**	**% variance**
9	**7(ii): Expenditure on Assets**			
10	Consumer connection	40,292	55,863	39%
11	System growth	46,490	30,876	(34%)
12	Asset replacement and renewal	73,887	82,199	11%
13	Asset relocations	18,609	17,938	(4%)
14	Reliability, safety and environment:			
15	Quality of supply	–	1,374	–
16	Legislative and regulatory	82	815	894%
17	Other reliability, safety and environment	1,457	388	(73%)
18	**Total reliability, safety and environment**	1,539	2,577	67%
19	**Expenditure on network assets**	180,817	189,453	5%
20	Expenditure on non-network assets	11,356	12,482	10%
21	Expenditure on assets	192,173	201,935	5%
22	**7(iii): Operational Expenditure**			
23	Service interruptions and emergencies	9,387	9,386	(0%)
24	Vegetation management	4,426	5,210	18%
25	Routine and corrective maintenance and inspection	11,951	11,505	(4%)
26	Asset replacement and renewal	13,529	10,813	(20%)
27	**Network opex**	39,294	36,914	(6%)
28	System operations and network support	42,469	36,627	(14%)
29	Business support	29,109	34,322	18%
30	**Non-network opex**	71,578	70,949	(1%)
31	**Operational expenditure**	110,872	107,863	(3%)
32	**7(iv): Subcomponents of Expenditure on Assets (where known)**			
33	Energy efficiency and demand side management, reduction of energy losses	–	–	–
34	Overhead to underground conversion	3,537	1,765	(50%)
35	Research and development	5,485	373	(93%)
36				
37	**7(v): Subcomponents of Operational Expenditure (where known)**			
38	Energy efficiency and demand side management, reduction of energy losses	–	–	–
39	Direct billing	–	–	–
40	Research and development	–	–	–
41	Insurance	2,496	2,508	0%
42				

43 *1 From the nominal dollar target revenue for the disclosure year disclosed under clause 2.4.3(3) of this determination*

44 *2 From the CY+1 nominal dollar expenditure forecasts disclosed in accordance with clause 2.6.6 for the forecast period starting at the beginning of the disclosure year (the second to last disclosure of Schedules 11a and 11b)*

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	kWh	CAPY	DAMD	DEXA	PWRF
						Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
												Add extra columns for additional billed quantities by price component as necessary
	ARCL	residential	Standard	128,492	667,850		46,886,595	667,850,035	–	–	–	–
	ARCS	residential	Standard	91,507	863,058		33,415,963	863,057,632	–	–	–	–
	ARUL	residential	Standard	26,824	103,825		9,830,986	103,825,420	–	–	–	–
	ARUS	residential	Standard	15,492	117,050		5,673,343	117,049,544	–	–	–	–
	ARHL	residential	Standard	7	33		2,587	33,339	–	–	–	–
	ARHS	residential	Standard	4	55		1,210	55,227	–	–	–	–
	ARGL	residential	Standard	15,604	71,847		5,638,992	71,847,184	–	–	–	–
	ARGS	residential	Standard	9,634	88,689		3,492,355	88,688,644	–	–	–	–
	ABSN	business	Standard	35,949	757,895		13,114,812	757,894,919	–	–	–	–
	ABSU	business	Standard	1,862	37,607		24,878,118	37,607,191	–	–	–	–
	ABSH	business	Standard	46	7,514		16,765	7,513,789	–	–	–	–
	ALVN	low voltage	Standard	2,087	223,349		761,858	223,349,198	112,746,375	–	–	485,293
	ALVT	low voltage	Standard	1,446	564,182		–	564,181,836	129,898,029	48,265,585	–	5,221,397
	ATXN	transformer	Standard	164	22,115		59,298	22,114,689	13,546,309	–	–	42,845
	ATXT	transformer	Standard	887	1,127,231		–	1,127,230,790	226,616,682	89,273,121	–	5,637,308
	AHVN	high voltage	Standard	8	1,138		2,830	1,138,015	752,250	–	–	38,426
	AHVT	high voltage	Standard	131	443,995		–	443,995,001	56,457,660	33,928,469	57,972	1,851,375
	WRCL	residential	Standard	87,660	467,595		32,005,355	467,595,310	–	–	–	–
	WRCS	residential	Standard	73,959	706,367		27,009,854	706,367,087	–	–	–	–
	WRUL	residential	Standard	11,288	57,250		4,123,709	57,249,560	–	–	–	–
	WRUS	residential	Standard	13,224	106,677		4,837,813	106,677,435	–	–	–	–
	WRHL	residential	Standard	3	15		1,032	15,314	–	–	–	–
	WRHS	residential	Standard	7	50		2,323	50,039	–	–	–	–
	WRGL	residential	Standard	6,512	30,126		2,344,721	30,125,592	–	–	–	–
	WRGS	residential	Standard	4,948	41,231		1,793,810	41,231,039	–	–	–	–
	WBSN	business	Standard	22,059	385,739		8,046,320	385,739,120	–	–	–	–
	WBSU	business	Standard	426	20,952		14,349,988	20,952,297	–	–	–	–
	WBSH	business	Standard	18	2,828		6,350	2,828,182	–	–	–	–
	WLVN	low voltage	Standard	806	126,001		294,289	126,000,608	43,036,389	–	–	450,258
	WLVH	low voltage	Standard	215	113,974		78,732	113,973,689	18,599,777	8,495,097	–	679,722
	WTXN	transformer	Standard	141	39,291		50,807	39,290,646	12,612,579	–	–	225,153
	WTXH	transformer	Standard	269	363,096		98,046	363,095,729	74,570,885	28,646,649	–	1,599,558
	WHVN	high voltage	Standard	–	–		–	–	–	–	–	–
	WHVH	high voltage	Standard	19	118,327		6,935	118,326,940	12,555,350	7,912,832	652	222,464
	NS	non-standard	Non-standard	30	625,422		1,490	–	–	–	–	24,081
	Add extra rows for additional consumer groups or price category codes as necessary											
			Standard consumer totals	551,698	7,676,952		238,825,796	7,676,951,040	701,392,285	216,521,753	58,624	16,453,799
			Non-standard consumer totals	30	625,422		1,490	–	–	–	–	24,081
			Total for all consumers	551,728	8,302,374		238,827,286	7,676,951,040	701,392,285	216,521,753	58,624	16,477,880

Company Name	**Vector**
For Year Ended	**31 March 2017**
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						*Add extra columns for additional line charge revenues by price component as necessary*
							Price component	FIXD	kWh	CAPY	DAMD	DEXA	PWRF	
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day	
ARCL	residential	Standard	$69,799		$45,906	$23,893		$7,045	$62,754	–	–	–	–	
ARCS	residential	Standard	$81,123		$53,354	$27,769		$33,140	$47,983	–	–	–	–	
ARUL	residential	Standard	$12,065		$7,935	$4,130		$1,477	$10,588	–	–	–	–	
ARUS	residential	Standard	$13,072		$8,597	$4,475		$5,626	$7,446	–	–	–	–	
ARHL	residential	Standard	$3		$2	$1		–	$3	–	–	–	–	
ARHS	residential	Standard	$4		$3	$1		$1	$3	–	–	–	–	
ARGL	residential	Standard	$7,598		$4,997	$2,601		$847	$6,751	–	–	–	–	
ARGS	residential	Standard	$8,394		$5,521	$2,873		$3,463	$4,931	–	–	–	–	
ABSN	business	Standard	$61,216		$40,261	$20,955		$13,006	$48,210	–	–	–	–	
ABSU	business	Standard	$6,375		$4,193	$2,182		$3,738	$2,637	–	–	–	–	
ABSH	business	Standard	$392		$258	$134		$17	$375	–	–	–	–	
ALVN	low voltage	Standard	$19,638		$12,916	$6,722		$1,206	$14,163	$4,129	–	–	$140	
ALVT	low voltage	Standard	$30,565		$20,102	$10,463		–	$9,382	$4,814	$14,843	–	$1,526	
ATXN	transformer	Standard	$1,963		$1,291	$672		$91	$1,374	$486	–	–	$12	
ATXT	transformer	Standard	$55,162		$36,280	$18,882		–	$18,406	$8,209	$26,900	–	$1,647	
AHVN	high voltage	Standard	$110		$72	$38		$4	$69	$26	–	–	$11	
AHVT	high voltage	Standard	$19,512		$12,833	$6,679		–	$7,027	$1,985	$9,914	$45	$541	
WRCL	residential	Standard	$48,649		$31,996	$16,653		$4,800	$43,849	–	–	–	–	
WRCS	residential	Standard	$65,927		$43,360	$22,567		$26,733	$39,194	–	–	–	–	
WRUL	residential	Standard	$6,445		$4,239	$2,206		$618	$5,827	–	–	–	–	
WRUS	residential	Standard	$11,560		$7,603	$3,957		$4,788	$6,772	–	–	–	–	
WRHL	residential	Standard	$1		–	$1		–	$1	–	–	–	–	
WRHS	residential	Standard	$5		$3	$2		$2	$3	–	–	–	–	
WRGL	residential	Standard	$3,177		$2,090	$1,087		$352	$2,825	–	–	–	–	
WRGS	residential	Standard	$4,063		$2,672	$1,391		$1,775	$2,288	–	–	–	–	
WBSN	business	Standard	$32,452		$21,343	$11,109		$7,964	$24,488	–	–	–	–	
WBSU	business	Standard	$3,618		$2,379	$1,239		$2,152	$1,466	–	–	–	–	
WBSH	business	Standard	$147		$96	$51		$6	$141	–	–	–	–	
WLVN	low voltage	Standard	$8,576		$5,640	$2,936		$1,618	$5,555	$1,272	–	–	$131	
WLVH	low voltage	Standard	$4,611		$3,032	$1,579		$817	$649	$554	$2,393	–	$198	
WTXN	transformer	Standard	$2,242		$1,474	$768		$251	$1,559	$366	–	–	$66	
WTXH	transformer	Standard	$13,505		$8,882	$4,623		$916	$2,033	$2,177	$7,913	–	$466	
WHVN	high voltage	Standard	–		–	–		–	–	–	–	–	–	
WHVH	high voltage	Standard	$3,242		$2,132	$1,110		$63	$639	$355	$2,120	–	$65	
NS	non-standard	Non-standard	$20,739		$10,946	$9,793		$20,652	–	–	–	–	$87	
Add extra rows for additional consumer groups or price category codes as necessary														
		Standard consumer totals	$595,211	–	$391,462	$203,749		$122,516	$379,391	$24,373	$64,083	$45	$4,803	
		Non-standard consumer totals	$20,739	–	$10,946	$9,793		$20,652	–	–	–	–	$87	
		Total for all consumers	$615,950	–	$402,408	$213,542		$143,168	$379,391	$24,373	$64,083	$45	$4,890	

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	42	**Check**	**OK**

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	kWh	CAPY	DAMD	DEXA	PWRF
						Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
	ARCL	residential	Standard	128,492	667,850		46,886,595	667,850,035	–	–	–	–
	ARCS	residential	Standard	91,507	863,058		33,415,963	863,057,632	–	–	–	–
	ARUL	residential	Standard	26,824	103,825		9,830,986	103,825,420	–	–	–	–
	ARUS	residential	Standard	15,492	117,050		5,673,343	117,049,544	–	–	–	–
	ARHL	residential	Standard	7	33		2,587	33,339	–	–	–	–
	ARHS	residential	Standard	4	55		1,210	55,227	–	–	–	–
	ARGL	residential	Standard	15,604	71,847		5,638,992	71,847,184	–	–	–	–
	ARGS	residential	Standard	9,634	88,689		3,492,355	88,688,644	–	–	–	–
	ABSN	business	Standard	35,949	757,895		13,114,812	757,894,919	–	–	–	–
	ABSU	business	Standard	1,862	37,607		24,878,118	37,607,191	–	–	–	–
	ABSH	business	Standard	46	7,514		16,765	7,513,789	–	–	–	–
	ALVN	low voltage	Standard	2,087	223,349		761,858	223,349,198	112,746,375	–	–	485,293
	ALVT	low voltage	Standard	1,446	564,182		–	564,181,836	129,898,029	48,265,585	–	5,221,397
	ATXN	transformer	Standard	164	22,115		59,298	22,114,689	13,546,309	–	–	42,845
	ATXT	transformer	Standard	887	1,127,231		–	1,127,230,790	226,616,682	89,273,121	–	5,637,308
	AHVN	high voltage	Standard	8	1,138		2,830	1,138,015	752,250	–	–	38,426
	AHVT	high voltage	Standard	131	443,995		–	443,995,001	56,457,660	33,928,469	57,972	1,851,375
	NS	non-standard	Non-standard	26	513,314		9,642	–	–	–	–	310,317
	Add extra rows for additional consumer groups or price category codes as necessary											
			Standard consumer totals	330,144	5,097,433		143,775,712	5,097,432,453	540,017,305	171,467,175	57,972	13,276,644
			Non-standard consumer totals	26	513,314		9,642	–	–	–	–	310,317
			Total for all consumers	330,170	5,610,747		143,785,354	5,097,432,453	540,017,305	171,467,175	57,972	13,586,961

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

Company Name	**Vector**
For Year Ended	**31 March 2017**
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						*Add extra columns for additional line charge revenues by price component as necessary*
							Price component	FIXD	kWh	CAPY	DAMD	DEXA	PWRF	
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day	
ARCL	residential	Standard	$69,799		$45,906	$23,893		$7,045	$62,754	–	–	–	–	
ARCS	residential	Standard	$81,123		$53,354	$27,769		$33,140	$47,983	–	–	–	–	
ARUL	residential	Standard	$12,065		$7,935	$4,130		$1,477	$10,588	–	–	–	–	
ARUS	residential	Standard	$13,072		$8,597	$4,475		$5,626	$7,446	–	–	–	–	
ARHL	residential	Standard	$3		$2	$1		–	$3	–	–	–	–	
ARHS	residential	Standard	$4		$3	$1		$1	$3	–	–	–	–	
ARGL	residential	Standard	$7,598		$4,997	$2,601		$847	$6,751	–	–	–	–	
ARGS	residential	Standard	$8,394		$5,521	$2,873		$3,463	$4,931	–	–	–	–	
ABSN	business	Standard	$61,216		$40,261	$20,955		$13,006	$48,210	–	–	–	–	
ABSU	business	Standard	$6,375		$4,193	$2,182		$3,738	$2,637	–	–	–	–	
ABSH	business	Standard	$392		$258	$134		$17	$375	–	–	–	–	
ALVN	low voltage	Standard	$19,638		$12,916	$6,722		$1,206	$14,163	$4,129	–	–	$140	
ALVT	low voltage	Standard	$30,565		$20,102	$10,463		–	$9,382	$4,814	$14,843	–	$1,526	
ATXN	transformer	Standard	$1,963		$1,291	$672		$91	$1,374	$486	–	–	$12	
ATXT	transformer	Standard	$55,162		$36,280	$18,882		–	$18,406	$8,209	$26,900	–	$1,647	
AHVN	high voltage	Standard	$110		$72	$38		$4	$69	$26	–	–	$11	
AHVT	high voltage	Standard	$19,512		$12,833	$6,679		–	$7,027	$1,985	$9,914	$45	$541	
NS	non-standard	Non-standard	$17,942		$9,112	$8,830		$17,862	–	–	–	–	$80	
Add extra rows for additional consumer groups or price category codes as necessary														
		Standard consumer totals	$386,991	–	$254,521	$132,470		$69,661	$242,102	$19,649	$51,657	$45	$3,877	
		Non-standard consumer totals	$17,942	–	$9,112	$8,830		$17,862	–	–	–	–	$80	
		Total for all consumers	$404,933	–	$263,633	$141,300		$87,523	$242,102	$19,649	$51,657	$45	$3,957	

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	35	**Check**	**OK**

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	kWh	CAPY	DAMD	DEXA	PWRF
					Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
WRCL	residential	Standard	87,660	467,595		32,005,355	467,595,310	–	–	–	–
WRCS	residential	Standard	73,959	706,367		27,009,854	706,367,087	–	–	–	–
WRUL	residential	Standard	11,288	57,250		4,123,709	57,249,560	–	–	–	–
WRUS	residential	Standard	13,224	106,677		4,837,813	106,677,435	–	–	–	–
WRHL	residential	Standard	3	15		1,032	15,314	–	–	–	–
WRHS	residential	Standard	7	50		2,323	50,039	–	–	–	–
WRGL	residential	Standard	6,512	30,126		2,344,721	30,125,592	–	–	–	–
WRGS	residential	Standard	4,948	41,231		1,793,810	41,231,039	–	–	–	–
WBSN	business	Standard	22,059	385,739		8,046,320	385,739,120	–	–	–	–
WBSU	business	Standard	426	20,952		14,349,988	20,952,297	–	–	–	–
WBSH	business	Standard	18	2,828		6,350	2,828,182	–	–	–	–
WLVN	low voltage	Standard	806	126,001		294,289	126,000,608	43,036,389	–	–	450,258
WLVH	low voltage	Standard	215	113,974		78,732	113,973,689	18,599,777	8,495,097	–	679,722
WTXN	transformer	Standard	141	39,291		50,807	39,290,646	12,612,579	–	–	225,153
WTXH	transformer	Standard	269	363,096		98,046	363,095,729	74,570,885	28,646,649	–	1,599,558
WHVN	high voltage	Standard	–	–		–	–	–	–	–	–
WHVH	high voltage	Standard	19	118,327		6,935	118,326,940	12,555,350	7,912,832	652	222,464
NS	non-standard	Non-standard	4	112,108		1,490	–	–	–	–	24,081
Add extra rows for additional consumer groups or price category codes as necessary											
		Standard consumer totals	221,554	2,579,519		95,050,084	2,579,518,587	161,374,980	45,054,578	652	3,177,155
		Non-standard consumer totals	4	112,108		1,490	–	–	–	–	24,081
		Total for all consumers	221,558	2,691,627		95,051,574	2,579,518,587	161,374,980	45,054,578	652	3,201,236

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

Company Name	**Vector**
For Year Ended	**31 March 2017**
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						*Add extra columns for additional line charge revenues by price component as necessary*
							Price component	FIXD	kWh	CAPY	DAMD	DEXA	PWRF
							Rate (eg, $ per day, $ per kWh, etc.)	Day	kWh	kVA/Day	kVA/Day	kVA/Day	kVAr/Day
WRCL	residential	Standard	$48,649		$31,996	$16,653		$4,800	$43,849	–	–	–	–
WRCS	residential	Standard	$65,927		$43,360	$22,567		$26,733	$39,194	–	–	–	–
WRUL	residential	Standard	$6,445		$4,239	$2,206		$618	$5,827	–	–	–	–
WRUS	residential	Standard	$11,560		$7,603	$3,957		$4,788	$6,772	–	–	–	–
WRHL	residential	Standard	$1		–	$1		–	$1	–	–	–	–
WRHS	residential	Standard	$5		$3	$2		$2	$3	–	–	–	–
WRGL	residential	Standard	$3,177		$2,090	$1,087		$352	$2,825	–	–	–	–
WRGS	residential	Standard	$4,063		$2,672	$1,391		$1,775	$2,288	–	–	–	–
WBSN	business	Standard	$32,452		$21,343	$11,109		$7,964	$24,488	–	–	–	–
WBSU	business	Standard	$3,618		$2,379	$1,239		$2,152	$1,466	–	–	–	–
WBSH	business	Standard	$147		$96	$51		$6	$141	–	–	–	–
WLVN	low voltage	Standard	$8,576		$5,640	$2,936		$1,618	$5,555	$1,272	–	–	$131
WLVH	low voltage	Standard	$4,611		$3,032	$1,579		$817	$649	$554	$2,393	–	$198
WTXN	transformer	Standard	$2,242		$1,474	$768		$251	$1,559	$366	–	–	$66
WTXH	transformer	Standard	$13,505		$8,882	$4,623		$916	$2,033	$2,177	$7,913	–	$466
WHVN	high voltage	Standard	–		–	–		–	–	–	–	–	–
WHVH	high voltage	Standard	$3,242		$2,132	$1,110		$63	$639	$355	$2,120	–	$65
NS	non-standard	Non-standard	$2,797		$1,834	$963		$2,790	–	–	–	–	$7
Add extra rows for additional consumer groups or price category codes as necessary													
		Standard consumer totals	$208,220	–	$136,941	$71,279		$52,855	$137,289	$4,724	$12,426	–	$926
		Non-standard consumer totals	$2,797	–	$1,834	$963		$2,790	–	–	–	–	$7
		Total for all consumers	$211,017	–	$138,775	$72,242		$55,645	$137,289	$4,724	$12,426	–	$933

8(iii): Number of ICPs directly billed

Number of directly billed ICPs at year end	7	**Check**	**OK**

Company Name	**Vector**
For Year Ended	**31 March 2017**
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.

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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.	110,221	112,148	1,927	3
10	All	Overhead Line	Wood poles	No.	7,164	7,023	(141)	2
11	All	Overhead Line	Other pole types	No.	143	412	269	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	369	372	3	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	335	345	10	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	5	5	(0)	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	51	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	–	–	–	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	0	0	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	12	12	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	101	101	–	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	7	6	(1)	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	–	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	–	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	204	201	(3)	4
29	HV	Zone substation switchgear	33kV RMU	No.	14	14	–	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	251	252	1	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	166	163	(3)	4
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	1,365	1,345	(20)	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	214	216	2	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	3,803	3,794	(9)	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	N/A
37	HV	Distribution Line	SWER conductor	km	–	–	–	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,295	1,374	79	4
39	HV	Distribution Cable	Distribution UG PILC	km	2,251	2,220	(31)	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.	253	252	(1)	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	224	163	(61)	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	9,405	9,877	472	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	3,594	3,442	(152)	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	5,865	6,014	149	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	7,643	7,651	8	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	13,800	13,980	180	4
48	HV	Distribution Transformer	Voltage regulators	No.	12	12	–	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	12,453	12,533	80	3
50	LV	LV Line	LV OH Conductor	km	4,146	4,158	12	3
51	LV	LV Cable	LV UG Cable	km	5,771	5,897	125	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	421	437	16	3
53	LV	Connections	OH/UG consumer service connections	No.	548,280	553,806	5,526	3
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	3,613	3,683	70	2
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	269	296	27	2
56	All	Capacitor Banks	Capacitors including controls	No	100	97	(3)	4
57	All	Load Control	Centralised plant	Lot	33	33	–	3
58	All	Load Control	Relays	No	–	–	–	N/A
59	All	Civils	Cable Tunnels	km	10	10	(0)	3

Company Name	**Vector**
For Year Ended	**31 March 2017**
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.	46,812	47,901	1,089	3
10	All	Overhead Line	Wood poles	No.	4,636	4,466	(170)	2
11	All	Overhead Line	Other pole types	No.	34	240	206	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	–	–	–	N/A
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	198	205	7	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	143	143	(0)	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	5	5	(0)	4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	50	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	–	–	–	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	0	0	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	11	11	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	51	51	–	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	5	5	–	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	–	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	N/A
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	N/A
29	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	N/A
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	153	150	(3)	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	898	867	(31)	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	130	129	(1)	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	896	895	(1)	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	N/A
37	HV	Distribution Line	SWER conductor	km	–	–	–	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	565	606	42	4
39	HV	Distribution Cable	Distribution UG PILC	km	1,611	1,590	(22)	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.	56	56	–	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	154	118	(36)	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	2,084	2,313	229	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	2,780	2,689	(91)	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4,459	4,520	61	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	2,026	2,011	(15)	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	6,633	6,729	96	4
48	HV	Distribution Transformer	Voltage regulators	No.	5	5	–	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,043	6,008	(35)	3
50	LV	LV Line	LV OH Conductor	km	1,975	1,972	(4)	3
51	LV	LV Cable	LV UG Cable	km	3,576	3,625	49	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	243	250	7	3
53	LV	Connections	OH/UG consumer service connections	No.	328,435	330,648	2,213	3
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,062	2,088	26	2
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	156	162	6	2
56	All	Capacitor Banks	Capacitors including controls	No	26	25	(1)	4
57	All	Load Control	Centralised plant	Lot	22	22	–	3
58	All	Load Control	Relays	No	–	–	–	N/A
59	All	Civils	Cable Tunnels	km	10	10	(0)	3

Company Name	**Vector**
For Year Ended	**31 March 2017**
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.	63,409	64,247	838	3
10	All	Overhead Line	Wood poles	No.	2,528	2,557	29	2
11	All	Overhead Line	Other pole types	No.	109	172	63	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	318	321	3	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	137	140	3	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	–	–	–	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	–	–	–	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	1	1	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	50	50	–	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	2	1	(1)	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	–	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	204	201	(3)	4
29	HV	Zone substation switchgear	33kV RMU	No.	14	14	–	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	98	102	4	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	166	163	(3)	4
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	467	478	11	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	84	87	3	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	2,907	2,899	(8)	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	N/A
37	HV	Distribution Line	SWER conductor	km	–	–	–	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	731	768	37	4
39	HV	Distribution Cable	Distribution UG PILC	km	639	630	(9)	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.	197	196	(1)	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	70	45	(25)	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	7,321	7,564	243	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	814	753	(61)	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,406	1,494	88	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	5,617	5,640	23	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	7,167	7,251	84	4
48	HV	Distribution Transformer	Voltage regulators	No.	7	7	–	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,410	6,525	115	3
50	LV	LV Line	LV OH Conductor	km	2,170	2,186	16	3
51	LV	LV Cable	LV UG Cable	km	2,196	2,271	76	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	177	187	10	3
53	LV	Connections	OH/UG consumer service connections	No.	219,845	223,158	3,313	3
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,551	1,595	44	2
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	113	134	21	2
56	All	Capacitor Banks	Capacitors including controls	No	74	72	(2)	4
57	All	Load Control	Centralised plant	Lot	11	11	–	3
58	All	Load Control	Relays	No	–	–	–	N/A
59	All	Civils	Cable Tunnels	km	–	–	–	N/A

Company Name	**Vector**
For Year Ended	**31 March 2017**
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 2017																													
					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**	**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.	13	330	5,626	17,179	17,536	16,296	10,407	553	784	976	831	399	1,350	2,109	2,128	1,863	1,980	1,702	1,232	1,454	2,008	1,824	2,107	4,747	1,873	14,841	112,148		3
11	All	Overhead Line	Wood poles	No.	4	14	189	593	606	702	1,017	202	57	78	90	49	104	158	127	69	59	133	15	30	37	26	20	8	8	2,628	7,023		2
12	All	Overhead Line	Other pole types	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	2	16	33	37	170	151	–	412		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	2	2	24	73	161	74	2	–	–	3	1	–	1	4	2	0	13	1	7	–	0	0	2	1	0	0	372		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	7	12	–	–	–	–	–	–	–	–	–	7	–	–	–	–	0	–	–	–	0	–	–	27		4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	0	–	19	11	57	56	1	22	6	1	4	8	32	8	25	21	4	10	8	5	16	16	13	0	345		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	41	74	24	4	–	0	0	–	0	0	1	0	–	0	0	–	–	0	–	–	–	–	–	145		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	5	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5		4
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	7	3	17	16	3	2	1	0	–	–	–	–	0	0	–	1	–	–	–	–	–	0	0	–	–	0	50		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	–	–	–	8	–	–	18	–	–	1	–	–	0	–	–	2	–	0	–	–	–	–	–	30		4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	11	–	5	0	0	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	17		4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	–	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0		N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	0	–	11	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	–	1	4	23	26	18	9	3	1	–	2	–	–	1	1	3	1	3	2	–	–	1	–	1	1	–	101		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	1	4	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	–	–	–	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–	20		4
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		4
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	42	91	53	8	–	–	–	–	–	–	–	–	–	5	2	–	–	–	–	–	–	–	–	–	201		4
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	5	1	–	5	3	–	–	–	–	–	–	–	–	–	–	–	14		4
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	17	20	24	–	10	–	4	–	9	–	7	32	2	–	–	6	–	35	29	52	5	–	252		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	5	39	34	27	6	–	5	–	1	–	2	1	1	9	21	4	4	–	1	–	–	2	1	–	163		4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	9	190	209	261	105	15	6	2	7	–	17	15	45	89	44	40	34	25	47	30	38	65	52	–	1,345		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	5	41	49	35	28	4	1	2	1	1	–	1	2	3	6	5	8	6	1	4	8	4	1	–	216		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	1	4	146	550	1,021	1,392	296	96	11	5	11	6	22	36	62	21	22	10	8	8	6	8	9	5	8	30	3,794		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
38	HV	Distribution Line	SWER conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	0	0	0	0	17	35	179	37	41	31	23	19	99	137	101	60	108	54	70	40	49	69	64	66	69	6	1,374		4
40	HV	Distribution Cable	Distribution UG PILC	km	13	3	27	200	632	713	517	35	13	4	1	2	12	7	19	5	6	2	1	0	0	0	1	1	0	6	2,220		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	6	0	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	8		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	–	–	–	–	21	6	5	1	2	–	3	12	37	76	43	5	2	11	15	2	3	4	4	–	252		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	–	1	24	16	21	9	1	–	–	–	5	1	6	13	2	10	1	3	8	4	7	13	10	8	163		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	12	253	1,137	1,892	1,529	257	184	159	158	66	235	310	267	262	280	162	119	177	276	336	432	565	614	195	9,877		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	7	–	2	395	1,078	685	419	67	66	60	50	60	80	78	48	33	43	39	41	47	23	10	5	5	–	101	3,442		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	3	–	2	285	1,054	1,317	753	116	87	108	165	158	172	120	103	69	58	99	125	128	186	171	206	331	191	7	6,014		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	14	35	148	285	697	1,418	1,345	284	125	186	149	41	240	279	332	207	258	225	128	214	170	206	219	349	95	2	7,651		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	6	40	158	832	2,069	2,453	2,403	289	289	256	227	85	604	435	502	307	312	296	326	261	340	407	387	514	180	2	13,980		4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	–	–	–	–	–	–	–	1	–	–	5	–	–	–	–	3	2	1	–	–	–	–	12		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	11	62	181	1,298	3,040	3,455	2,089	188	239	126	141	200	125	120	86	70	61	49	53	56	103	157	205	147	148	123	12,533		3
51	LV	LV Line	LV OH Conductor	km	0	4	117	559	1,081	1,830	157	109	6	7	12	4	17	27	48	12	14	9	12	13	10	9	10	9	17	63	4,158		3
52	LV	LV Cable	LV UG Cable	km	5	21	46	435	1,076	1,066	1,271	116	98	56	50	48	213	262	161	81	114	72	74	46	69	100	126	134	148	9	5,896.532		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3	1	10	24	47	53	86	8	7	4	3	3	15	16	15	11	17	9	17	8	8	17	12	21	18	4	437		3
54	LV	Connections	OH/UG consumer service connections	No.	–	–	–	169	34,531	180,705	129,177	24,776	9,236	7,942	12,032	15,340	19,187	20,101	14,713	10,612	7,226	7,001	6,875	6,307	7,101	8,150	8,599	9,625	13,328	1,073	553,806		3
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	4	211	496	367	296	43	30	17	15	44	46	82	41	142	325	216	166	103	226	117	83	146	148	319	3,683		2
56	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	–	–	–	–	–	–	3	–	–	–	–	5	3	5	26	13	12	14	9	19	25	3	14	50	18	77	296		2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	–	21	53	–	–	1	–	1	2	1	–	–	1	–	1	11	–	–	5	–	–	97		4
58	All	Load Control	Centralised plant	Lot	–	–	–	8	1	7	12	–	–	–	–	–	1	–	1	3	–	–	–	–	–	–	–	–	–	–	33		2
59	All	Load Control	Relays	No	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	9	–	–	–	–	0	–	–	–	–	–	–	0	–	–	–	–	–	1	10		3

Company Name	**Vector**
For Year Ended	**31 March 2017**
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 2017																													
					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**	**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.	5	–	177	5,214	972	2,913	4,333	249	511	717	576	210	964	1,597	1,743	1,474	1,272	1,221	903	1,050	1,261	1,071	1,011	2,861	868	14,728	47,901		3
11	All	Overhead Line	Wood poles	No.	–	–	–	329	139	123	566	183	42	28	64	34	54	94	66	46	18	36	13	9	18	5	2	–	3	2,594	4,466		2
12	All	Overhead Line	Other pole types	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	3	17	115	103	–	240		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	–	–	–	–	34	–	–	–	–	3	1	–	–	–	–	–	5	–	6	–	–	0	2	–	–	0	51		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	–	–	0	2	33	48	1	21	5	0	1	1	15	1	3	19	0	9	5	4	15	13	9	0	205		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	40	73	24	4	–	0	0	–	0	0	1	0	–	0	0	0	–	–	0	–	–	–	–	–	143		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	5	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5		4
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	7	3	17	16	3	2	0	0	–	–	–	–	0	0	–	1	–	–	–	–	–	0	–	–	–	0	49		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	–	–	–	8	–	–	18	–	–	1	–	–	0	–	–	2	–	0	–	–	–	–	–	30		4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	11	–	5	0	0	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	17		4
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	–	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0		N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	–	–	11	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	–	1	2	11	15	7	5	3	–	–	1	–	–	1	1	–	–	2	1	–	–	–	–	1	–	–	51		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	1	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	–	–	–	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11	–	–	–	20		4
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	17	20	24	–	10	–	–	–	–	–	1	8	–	–	–	6	–	6	17	39	2	–	150		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	2	164	126	196	65	15	–	–	–	–	1	9	45	41	17	14	27	16	25	13	18	38	35	–	867		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	3	23	33	17	20	4	–	1	1	–	–	1	–	3	–	5	5	5	–	2	3	3	–	–	129		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	0	–	–	0	66	618	35	88	2	2	9	1	5	6	10	10	4	4	3	4	2	3	1	1	2	20	895		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
38	HV	Distribution Line	SWER conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	0	–	–	0	11	11	27	8	18	14	14	5	66	55	59	31	35	25	39	22	25	43	27	34	32	5	606		4
40	HV	Distribution Cable	Distribution UG PILC	km	13	3	26	183	512	444	320	26	11	3	1	0	11	5	16	4	4	2	1	0	0	0	0	0	0	4	1,590		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	–	–	–	–	1	–	–	–	1	–	–	10	16	14	2	2	1	3	4	1	–	–	1	–	56		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	–	1	20	14	21	9	1	–	–	–	5	1	4	4	1	8	–	2	2	2	2	11	3	7	118		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	–	4	46	513	189	94	59	44	53	–	93	54	95	87	44	40	41	67	123	143	105	123	135	161	2,313		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	7	–	1	387	1,059	585	236	36	45	23	27	37	41	41	23	17	21	16	25	30	10	4	3	3	–	12	2,689		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	3	–	2	269	1,011	1,131	500	65	60	62	107	96	121	86	68	44	40	44	88	74	140	111	115	180	97	6	4,520		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	–	–	2	46	166	293	300	126	34	88	68	1	55	52	93	85	92	76	41	73	61	80	76	80	21	2	2,011		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	–	–	2	88	1,075	1,535	1,425	129	159	116	112	16	170	176	279	144	121	93	118	125	191	202	177	196	78	2	6,729		4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	1	–	–	–	–	–	–	5		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	–	1	2	170	1,439	2,158	1,136	84	106	57	60	71	60	52	58	39	40	15	29	30	56	74	71	51	27	122	6,008		3
51	LV	LV Line	LV OH Conductor	km	0	–	–	3	248	1,397	90	106	5	5	11	2	7	4	7	5	5	3	5	7	5	4	3	3	3	44	1,972		3
52	LV	LV Cable	LV UG Cable	km	4	17	36	233	671	788	778	56	67	34	35	18	151	119	107	50	62	45	45	26	39	53	56	67	62	6	3,625		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	3	0	8	15	27	34	51	3	5	3	2	1	13	12	11	9	9	4	6	4	4	5	4	8	8	2	250		3
54	LV	Connections	OH/UG consumer service connections	No.	–	–	–	101	6,647	135,821	40,860	19,255	5,180	4,362	7,731	10,721	14,980	16,724	11,572	7,407	5,014	4,567	4,684	4,236	4,780	5,333	5,362	5,728	8,942	641	330,648		3
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	–	175	289	189	197	43	26	12	7	4	1	70	20	83	210	120	86	65	69	67	36	118	74	127	2,088		2
56	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	–	–	–	–	–	–	1	–	–	–	–	5	–	5	11	7	11	7	6	10	14	3	9	30	9	34	162		2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	–	21	2	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	–	25		4
58	All	Load Control	Centralised plant	Lot	–	–	–	–	–	5	12	–	–	–	–	–	1	–	1	3	–	–	–	–	–	–	–	–	–	–	22		2
59	All	Load Control	Relays	No	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	9	–	–	–	–	0	–	–	–	–	–	–	0	–	–	–	–	–	1	10		3

Company Name	Vector
For Year Ended	31 March 2017
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 2017		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	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.	8	330	5,449	11,965	16,564	13,383	6,074	304	273	259	255	189	386	512	385	389	708	481	329	404	747	753	1,096	1,886	1,005	113	64,247		3
11	All	Overhead Line	Wood poles	No.	4	14	189	264	467	579	451	19	15	50	26	15	50	64	61	23	41	97	2	21	19	21	18	8	5	34	2,557		2
12	All	Overhead Line	Other pole types	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2	15	30	20	55	48	–	172		4
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	2	2	24	73	126	74	2	–	–	–	0	–	1	4	2	0	8	1	2	–	0	–	–	1	0	0	321		4
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	–	–	–	7	12	–	–	–	–	–	–	–	–	–	7	–	–	–	–	0	–	–	–	0	–	–	27		4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	–	–	0	–	19	10	24	8	0	1	1	1	3	7	17	7	22	2	4	1	3	1	2	3	4	0	140		4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	–	–	–	1	1	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–	–	–	–	2		4
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	–	–	–	–	1	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	1		4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	–	–	–	0	–	0	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		4
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	–	–	2	12	11	11	4	–	1	–	1	–	–	–	–	3	1	1	1	–	–	1	–	–	1	–	50		4
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1		4
26	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
27	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2		4
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	–	–	42	91	53	8	–	–	–	–	–	–	–	–	–	5	2	–	–	–	–	–	–	–	–	–	201		4
30	HV	Zone substation switchgear	33kV RMU	No.	–	–	–	–	–	–	–	–	–	–	5	1	–	5	3	–	–	–	–	–	–	–	–	–	–	–	14		4
31	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	–	–	–	–	–	–	–	–	–	–	4	–	9	–	6	24	2	–	–	–	–	29	12	13	3	–	102		4
32	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	–	–	5	39	34	27	6	–	5	–	1	–	2	1	1	9	21	4	4	–	1	–	–	2	1	–	163		4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	–	–	7	26	83	65	40	–	6	2	7	–	16	6	–	48	27	26	7	9	22	17	20	27	17	–	478		4
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
35	HV	Zone Substation Transformer	Zone Substation Transformers	No.	–	–	2	18	16	18	8	–	1	1	–	1	–	–	2	–	6	–	3	1	1	2	5	1	1	–	87		4
36	HV	Distribution Line	Distribution OH Open Wire Conductor	km	0	4	146	549	955	773	261	8	9	3	2	5	17	31	53	12	18	7	5	3	4	5	8	4	6	10	2,899		3
37	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
38	HV	Distribution Line	SWER conductor	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
39	HV	Distribution Cable	Distribution UG XLPE or PVC	km	–	0	0	0	6	23	153	29	23	17	9	14	34	82	41	30	73	29	31	18	24	26	37	32	37	1	768		4
40	HV	Distribution Cable	Distribution UG PILC	km	–	0	1	17	120	269	198	8	2	1	0	2	1	2	2	1	2	0	0	0	0	0	1	0	–	2	630		4
41	HV	Distribution Cable	Distribution Submarine Cable	km	–	–	6	0	–	–	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	7		4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	–	–	–	–	–	–	20	6	5	1	1	–	3	2	21	62	41	3	1	8	11	1	3	4	3	–	196		4
43	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	–	–	–	–	4	2	–	–	–	–	–	–	–	–	2	9	1	2	1	1	6	2	5	2	7	1	45		3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	–	–	12	249	1,091	1,379	1,340	163	125	115	105	66	142	256	172	175	236	122	78	110	153	193	327	442	479	34	7,564		3
45	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	–	–	1	8	19	100	183	31	21	37	23	23	39	37	25	16	22	23	16	17	13	6	2	2	–	89	753		3
46	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	–	–	–	16	43	186	253	51	27	46	58	62	51	34	35	25	18	55	37	54	46	60	91	151	94	1	1,494		4
47	HV	Distribution Transformer	Pole Mounted Transformer	No.	14	35	146	239	531	1,125	1,045	158	91	98	81	40	185	227	239	122	166	149	87	141	109	126	143	269	74	–	5,640		4
48	HV	Distribution Transformer	Ground Mounted Transformer	No.	6	40	156	744	994	918	978	160	130	140	115	69	434	259	223	163	191	203	208	136	149	205	210	318	102	–	7,251		4
49	HV	Distribution Transformer	Voltage regulators	No.	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	2	2	1	–	–	–	–	7		4
50	HV	Distribution Substations	Ground Mounted Substation Housing	No.	11	61	179	1,128	1,601	1,297	953	104	133	69	81	129	65	68	28	31	21	34	24	26	47	83	134	96	121	1	6,525		3
51	LV	LV Line	LV OH Conductor	km	–	4	117	556	834	432	67	3	2	1	0	2	10	23	41	8	9	6	7	6	5	6	7	7	14	19	2,186		3
52	LV	LV Cable	LV UG Cable	km	1	4	9	202	404	279	493	60	31	21	15	30	61	142	55	31	52	27	28	20	31	47	69	67	86	3	2,271		4
53	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	–	1	1	9	19	20	36	5	2	1	1	2	3	4	3	2	8	5	11	4	4	13	8	13	10	2	187		3
54	LV	Connections	OH/UG consumer service connections	No.	–	–	–	68	27,884	44,884	88,317	5,521	4,056	3,580	4,301	4,619	4,207	3,377	3,141	3,205	2,212	2,434	2,191	2,071	2,321	2,817	3,237	3,897	4,386	432	223,158		3
55	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	–	–	4	36	207	178	99	–	4	5	8	40	45	12	21	59	115	96	80	38	157	50	47	28	74	192	1,595		2
56	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	–	–	–	–	–	–	2	–	–	–	–	–	3	–	15	6	1	7	3	9	11	–	5	20	9	43	134		2
57	All	Capacitor Banks	Capacitors including controls	No	–	–	–	–	–	–	–	51	–	–	1	–	1	2	1	–	–	1	–	–	11	–	–	4	–	–	72		4
58	All	Load Control	Centralised plant	Lot	–	–	–	8	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	11		2
59	All	Load Control	Relays	No	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A
60	All	Civils	Cable Tunnels	km	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–		N/A

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	369	418	787
14	SWER (all SWER voltages)	–	–	–
15	22kV (other than SWER)	3	179	182
16	6.6kV to 11kV (inclusive—other than SWER)	3,795	3,570	7,366
17	Low voltage (< 1kV)	4,161	5,886	10,047
18	**Total circuit length (for supply)**	8,354	10,101	18,455
19				
20	Dedicated street lighting circuit length (km)	17	420	437
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			3,990
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	4,268	51%	
25	Rural	4,086	49%	
26	Remote only		–	
27	Rugged only		–	
28	Remote and rugged		–	
29	Unallocated overhead lines		–	
30	**Total overhead length**	8,354	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	18,401	99.70%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	8,354	100.00%	

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	179	182
16	6.6kV to 11kV (inclusive—other than SWER)	896	2,162	3,058
17	Low voltage (< 1kV)	1,972	3,616	5,589
18	**Total circuit length (for supply)**	2,919	6,277	9,196
19				
20	Dedicated street lighting circuit length (km)	5	245	250
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			2,280
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	2,309	79%	
25	Rural	610	21%	
26	Remote only		–	
27	Rugged only		–	
28	Remote and rugged		–	
29	Unallocated overhead lines		–	
30	**Total overhead length**	2,919	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,196	100.00%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	2,919	100.00%	

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	321	145	466
14	SWER (all SWER voltages)	–	–	–
15	22kV (other than SWER)	–	0	0
16	6.6kV to 11kV (inclusive—other than SWER)	2,899	1,409	4,308
17	Low voltage (< 1kV)	2,188	2,270	4,458
18	**Total circuit length (for supply)**	5,436	3,823	9,259
19				
20	Dedicated street lighting circuit length (km)	12	175	187
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			1,710
22				
23	**Overhead circuit length by terrain (at year end)**	**Circuit length (km)**	**(% of total overhead length)**	
24	Urban	1,959	36%	
25	Rural	3,476	64%	
26	Remote only		–	
27	Rugged only		–	
28	Remote and rugged		–	
29	Unallocated overhead lines		–	
30	**Total overhead length**	5,436	100%	
31				
32		**Circuit length (km)**	**(% of total circuit length)**	
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,204	99.41%	
34		**Circuit length (km)**	**(% of total overhead length)**	
35	Overhead circuit requiring vegetation management	5,436	100.00%	

Company Name	**Vector**
For Year Ended	**31 March 2017**

SCHEDULE 9d: REPORT ON EMBEDDED NETWORKS

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

sch ref	Location *	Number of ICPs served	Line charge revenue ($000)
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

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

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	4,454
Commercial	4,722
Connections total	9,176

** include additional rows if needed*

Distributed generation

Number of connections made in year	794	**connections**
Capacity of distributed generation installed in year	3.33	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
	Maximum coincident system demand		
	GXP demand	1,684	
plus	Distributed generation output at HV and above	13	
	Maximum coincident system demand	1,698	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	1,698	

		Energy (GWh)	
	Electricity volumes carried		
	Electricity supplied from GXPs	8,510	
less	Electricity exports to GXPs	–	
plus	Electricity supplied from distributed generation	114	
less	Net electricity supplied to (from) other EDBs	–	
	Electricity entering system for supply to consumers' connection points	8,624	
less	Total energy delivered to ICPs	8,302	
	Electricity losses (loss ratio)	322	3.7%
	Load factor	0.58	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	4,300
Distribution transformer capacity (Non-EDB owned, estimated)	452
Total distribution transformer capacity	4,753
Zone substation transformer capacity	4,468

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	2,690
Commercial	2,009

** include additional rows if needed*

Connections total	4,699

Distributed generation

Number of connections made in year	389	**connections**
Capacity of distributed generation installed in year	1.70	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
	Maximum coincident system demand		
	GXP demand	1,182	
plus	Distributed generation output at HV and above	0	
	Maximum coincident system demand	1,182	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	1,182	

		Energy (GWh)	
	Electricity volumes carried		
	Electricity supplied from GXPs	5,768	
less	Electricity exports to GXPs	–	
plus	Electricity supplied from distributed generation	35	
less	Net electricity supplied to (from) other EDBs	–	
	Electricity entering system for supply to consumers' connection points	5,802	
less	Total energy delivered to ICPs	5,611	
	Electricity losses (loss ratio)	191	3.3%
	Load factor	0.56	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	2,712
Distribution transformer capacity (Non-EDB owned, estimated)	350
Total distribution transformer capacity	3,062
Zone substation transformer capacity	2,969

Company Name	**Vector**
For Year Ended	**31 March 2017**
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	1,764
Commercial	2,713

** include additional rows if needed*

Connections total	4,477

Distributed generation

Number of connections made in year	405	**connections**
Capacity of distributed generation installed in year	1.63	**MVA**

9e(ii): System Demand

		Demand at time of maximum coincident demand (MW)	
	Maximum coincident system demand		
	GXP demand	647	
plus	Distributed generation output at HV and above	9	
	Maximum coincident system demand	656	
less	Net transfers to (from) other EDBs at HV and above		
	Demand on system for supply to consumers' connection points	656	

		Energy (GWh)	
	Electricity volumes carried		
	Electricity supplied from GXPs	2,742	
less	Electricity exports to GXPs	–	
plus	Electricity supplied from distributed generation	80	
less	Net electricity supplied to (from) other EDBs	–	
	Electricity entering system for supply to consumers' connection points	2,822	
less	Total energy delivered to ICPs	2,692	
	Electricity losses (loss ratio)	130	4.6%
	Load factor	0.49	

9e(iii): Transformer Capacity

	(MVA)
Distribution transformer capacity (EDB owned)	1,588
Distribution transformer capacity (Non-EDB owned, estimated)	103
Total distribution transformer capacity	1,691
Zone substation transformer capacity	1,499

Company Name	**Vector**
For Year Ended	**31 March 2017**
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)	6
11	Class B (planned interruptions on the network)	1,301
12	Class C (unplanned interruptions on the network)	1,735
13	Class D (unplanned interruptions by Transpower)	
14	Class E (unplanned interruptions of EDB owned generation)	
15	Class F (unplanned interruptions of generation owned by others)	
16	Class G (unplanned interruptions caused by another disclosing entity)	
17	Class H (planned interruptions caused by another disclosing entity)	
18	Class I (interruptions caused by parties not included above)	
19	**Total**	3,042

	Interruption restoration	≤3Hrs	>3hrs
22	Class C interruptions restored within	983	752

	SAIFI and SAIDI by class	SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.00	0.3
26	Class B (planned interruptions on the network)	0.35	71.4
27	Class C (unplanned interruptions on the network)	1.74	176.7
28	Class D (unplanned interruptions by Transpower)		
29	Class E (unplanned interruptions of EDB owned generation)		
30	Class F (unplanned interruptions of generation owned by others)		
31	Class G (unplanned interruptions caused by another disclosing entity)		
32	Class H (planned interruptions caused by another disclosing entity)		
33	Class I (interruptions caused by parties not included above)		
34	**Total**	2.10	248.5

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network) (under the ID Determination 2012)	2.10	223.0
38	Classes B & C (interruptions on the network) (under the 2015 DPP)	1.85	173.6

	Quality path normalised reliability limit	SAIFI reliability limit	SAIDI reliability limit
40	SAIFI and SAIDI limits applicable to disclosure year* (under the ID Determination 2012)	1.86	127.3
41	SAIFI and SAIDI limits applicable to disclosure year* (under the 2015 DPP)	1.40	104.2

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

	Cause	SAIFI	SAIDI
45	Lightning	0.02	2.1
46	Vegetation	0.22	46.3
47	Adverse weather	0.02	8.1
48	Adverse environment	0.01	1.3
49	Third party interference	0.21	23.8
50	Wildlife	0.05	4.7
51	Human error	0.11	2.8
52	Defective equipment	0.95	71.7
53	Cause unknown	0.16	15.9

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

	Main equipment involved	SAIFI	SAIDI
58	Subtransmission lines	0.00	0.2
59	Subtransmission cables		
60	Subtransmission other	0.00	0.4
61	Distribution lines (excluding LV)	0.11	26.4
62	Distribution cables (excluding LV)	0.02	2.0
63	Distribution other (excluding LV)	0.22	42.4

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

	Main equipment involved	SAIFI	SAIDI
67	Subtransmission lines	0.08	4.6
68	Subtransmission cables		
69	Subtransmission other	0.17	4.7
70	Distribution lines (excluding LV)	0.97	111.0
71	Distribution cables (excluding LV)	0.15	18.0
72	Distribution other (excluding LV)	0.38	38.5

10(v): Fault Rate

	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
75	Subtransmission lines	19	400	4.75
76	Subtransmission cables		607	–
77	Subtransmission other	15		
78	Distribution lines (excluding LV)	996	3,794	26.26
79	Distribution cables (excluding LV)	196	3,603	5.44
80	Distribution other (excluding LV)	509		
81	**Total**	1,735		

Company Name	**Vector**
For Year Ended	**31 March 2017**
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
	Class A (planned interruptions by Transpower)	
	Class B (planned interruptions on the network)	601
	Class C (unplanned interruptions on the network)	607
	Class D (unplanned interruptions by Transpower)	
	Class E (unplanned interruptions of EDB owned generation)	
	Class F (unplanned interruptions of generation owned by others)	
	Class G (unplanned interruptions caused by another disclosing entity)	
	Class H (planned interruptions caused by another disclosing entity)	
	Class I (interruptions caused by parties not included above)	
	Total	1,208

	Interruption restoration	≤3Hrs	>3hrs
	Class C interruptions restored within	344	263

	SAIFI and SAIDI by class	SAIFI	SAIDI
	Class A (planned interruptions by Transpower)		
	Class B (planned interruptions on the network)	0.33	61.5
	Class C (unplanned interruptions on the network)	1.37	156.1
	Class D (unplanned interruptions by Transpower)		
	Class E (unplanned interruptions of EDB owned generation)		
	Class F (unplanned interruptions of generation owned by others)		
	Class G (unplanned interruptions caused by another disclosing entity)		
	Class H (planned interruptions caused by another disclosing entity)		
	Class I (interruptions caused by parties not included above)		
	Total	1.70	217.6

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
	Classes B & C (interruptions on the network) (under the ID Determination 2012)	1.70	182.7
	Classes B & C (interruptions on the network) (under the 2015 DPP)	1.50	139.2

	Quality path normalised reliability limit	SAIFI reliability limit	SAIDI reliability limit
	SAIFI and SAIDI limits applicable to disclosure year*	N/A	N/A

** not applicable to exempt EDBs*

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

	Cause	SAIFI	SAIDI
	Lightning	0.00	0.0
	Vegetation	0.15	46.6
	Adverse weather	0.01	6.0
	Adverse environment	0.00	0.3
	Third party interference	0.23	27.5
	Wildlife	0.03	3.3
	Human error	0.02	0.9
	Defective equipment	0.85	62.6
	Cause unknown	0.06	8.9

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

	Main equipment involved	SAIFI	SAIDI
	Subtransmission lines		
	Subtransmission cables		
	Subtransmission other		
	Distribution lines (excluding LV)	0.10	19.5
	Distribution cables (excluding LV)	0.02	2.2
	Distribution other (excluding LV)	0.20	39.7

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

	Main equipment involved	SAIFI	SAIDI
	Subtransmission lines	0.00	1.6
	Subtransmission cables	–	–
	Subtransmission other	0.01	0.9
	Distribution lines (excluding LV)	0.84	99.2
	Distribution cables (excluding LV)	0.16	17.1
	Distribution other (excluding LV)	0.36	37.2

10(v): Fault Rate

	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
	Subtransmission lines	1	51	1.97
	Subtransmission cables		460	–
	Subtransmission other	2		
	Distribution lines (excluding LV)	315	895	35.21
	Distribution cables (excluding LV)	103	2,198	4.69
	Distribution other (excluding LV)	186		
	Total	607		

Company Name	**Vector**
For Year Ended	**31 March 2017**
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.

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10(i): Interruptions

	Interruptions by class	Number of interruptions
10	Class A (planned interruptions by Transpower)	6
11	Class B (planned interruptions on the network)	700
12	Class C (unplanned interruptions on the network)	1,128
13	Class D (unplanned interruptions by Transpower)	
14	Class E (unplanned interruptions of EDB owned generation)	
15	Class F (unplanned interruptions of generation owned by others)	
16	Class G (unplanned interruptions caused by another disclosing entity)	
17	Class H (planned interruptions caused by another disclosing entity)	
18	Class I (interruptions caused by parties not included above)	
19	**Total**	1,834

	Interruption restoration	≤3Hrs	>3hrs
22	Class C interruptions restored within	639	489

	SAIFI and SAIDI by class	SAIFI	SAIDI
25	Class A (planned interruptions by Transpower)	0.00	0.8
26	Class B (planned interruptions on the network)	0.40	87.3
27	Class C (unplanned interruptions on the network)	2.33	209.8
28	Class D (unplanned interruptions by Transpower)		
29	Class E (unplanned interruptions of EDB owned generation)		
30	Class F (unplanned interruptions of generation owned by others)		
31	Class G (unplanned interruptions caused by another disclosing entity)		
32	Class H (planned interruptions caused by another disclosing entity)		
33	Class I (interruptions caused by parties not included above)		
34	**Total**	2.73	298.0

	Normalised SAIFI and SAIDI	Normalised SAIFI	Normalised SAIDI
37	Classes B & C (interruptions on the network) (under the ID Determination 2012)	2.71	277.2
38	Classes B & C (interruptions on the network) (under the 2015 DPP)	2.30	218.1

	Quality path normalised reliability limit	SAIFI reliability limit	SAIDI reliability limit
40	SAIFI and SAIDI limits applicable to disclosure year*	N/A	N/A

** not applicable to exempt EDBs*

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

	Cause	SAIFI	SAIDI
45	Lightning	0.04	5.2
46	Vegetation	0.33	46.4
47	Adverse weather	0.04	11.5
48	Adverse environment	0.02	2.9
49	Third party interference	0.17	18.4
50	Wildlife	0.09	6.9
51	Human error	0.23	5.6
52	Defective equipment	1.10	86.4
53	Cause unknown	0.32	26.5

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

	Main equipment involved	SAIFI	SAIDI
58	Subtransmission lines	0.00	0.5
59	Subtransmission cables		
60	Subtransmission other	0.00	0.9
61	Distribution lines (excluding LV)	0.13	37.0
62	Distribution cables (excluding LV)	0.01	1.9
63	Distribution other (excluding LV)	0.25	47.0

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

	Main equipment involved	SAIFI	SAIDI
67	Subtransmission lines	0.18	9.2
68	Subtransmission cables	–	–
69	Subtransmission other	0.41	10.4
70	Distribution lines (excluding LV)	1.17	130.0
71	Distribution cables (excluding LV)	0.13	19.4
72	Distribution other (excluding LV)	0.43	40.8

10(v): Fault Rate

	Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
75	Subtransmission lines	18	349	5.16
76	Subtransmission cables		147	–
77	Subtransmission other	13		
78	Distribution lines (excluding LV)	681	2,899	23.49
79	Distribution cables (excluding LV)	93	1,405	6.62
80	Distribution other (excluding LV)	323		
81	**Total**	1,128		